

SCH# 2003112038

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**FINAL EIR**

**COUNTY OF CONTRA COSTA  
COMMUNITY DEVELOPMENT DEPARTMENT**

**BUENA VISTA  
WIND ENERGY PROJECT  
LP# 022005**

April 2005

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## BUENA VISTA WIND ENERGY PROJECT FINAL EIR

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## INTRODUCTION

This Final Environmental Impact Report (Final EIR) Response to Comments Document has been prepared to respond to comments received by Contra Costa County on the Draft Environmental Impact Report (Draft EIR) for the Buena Vista Wind Energy Project (Project). After completion of the Draft EIR in December 2004, Contra County (County) is required to consult with, and obtain comments from, public agencies with jurisdiction by law on proposed actions of the proposed Project, and to provide the general public with opportunity to review and comment on the Draft EIR. The County is also required to provide responses to comments raised during the public review period related to significant environmental impacts of the Project (California Environmental Quality Act [CEQA] Guidelines Sections 15087 and 15088).

A Draft EIR was distributed for public review and comment in December 2004.

This document includes a revised summary of impacts and mitigation measures (Table 2-1 from the Draft EIR); the comments received on the Draft EIR; responses to individual comments; and a chapter that contains revisions to the Draft EIR text and graphics as appropriate. This Responses to Comments Document, together with the December 2004 Draft EIR and technical appendices, constitutes the Final EIR. This Final EIR contains the following elements:

- The Draft EIR dated December 2004 (bound separately)
- Letters from public agencies, organizations, and persons commenting on the Draft EIR, including a transcript of the Zoning Administrator's public hearing held on January 3, 2005. There was no public testimony provided at this hearing.
- A chapter containing a revised summary of impacts and mitigation measures (Table 2-1 from the Draft EIR).
- Responses to comments
- A chapter containing revised text and graphics prepared to clarify or correct the text of the Draft EIR.

This Final EIR does not contain the proposed environmental impact findings and mitigation monitoring program to be adopted by the County as part of the certification of the Final EIR before the Project may be approved (Public Resources Code Section 21081.6 and CEQA Guidelines 15091[a][1]).

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## REVISED SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 2-1 from the Draft EIR has been modified based on the comments received and is included herein. Text deletions are identified in ~~strikeout~~; text additions are identified in underlined text.

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**Table 2-1: Summary of Potentially Significant Impacts and Recommended Mitigation Measures**

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<b>Land Use</b>		
<p><b>4.1 Dividing an Established Community.</b> The Project would have <i>no impact</i> on dividing an established community.</p>	None needed	No impact
<p><b>4.2 Consistency with Land Use Plan.</b> The Project conforms to the County's General Plan land use designation and policies regarding the appropriateness of wind farm development within the APWRA.</p>	None needed	No impact
<p><b>4.3 Consistency with Zoning.</b> The Project applicant is requesting a variance from the safety setback of the WECS Ordinance for a total of seven (7) proposed turbines on the southern property edge adjacent to the Elworthy property line. One of these turbines would generate noise that would exceed the property line zoning standard of 65 dBA at the lot line. The Elworthy property to the south of the Project site already has windfarms developed on the property, and there are no residences on this adjacent parcel. The environmental impacts of this proposed variance (particularly in regard to noise impacts) are further evaluated in Chapter 6: Noise, of this EIR. With the exception of the requested setback variances, the Project would be <i>consistent with the requirements of the County zoning ordinance</i> pertaining to relevant fees, submittal of final plans, conformance to electromagnetic and tower access restrictions, noise, aesthetics, and reclamation standards.</p>	<p>None needed.</p> <p>However, prior to final approval of the development plan for the site, evidence should be submitted by the developer to the Community Development Department demonstrating compliance with the WECS setback requirement of three times the total turbine height from exterior property boundaries, except where a variance from this setback requirement may be granted. In particular, this requirement applies to the property lines near Vasco Road and CCWD property in the northwestern portion of the site.</p>	LTS

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>4.4. Conflict with Conservation Plan.</b> There are no conservation plans either currently in force or proposed for application for the subject property. Therefore, the Project would have <i>no impact</i> on conservation plans. The entire APWRA is subject to the Biological Resources Management Plan (BRMP) as included in the Repowering Program. The Project is consistent with the BRMP, as more fully described in Chapter 3: Project Description and Chapter 8: Biological Resources, of this EIR.</p>	<p>None needed</p>	<p>No impact</p>
<p><b>4.5. Compatibility with Adjacent Land Uses.</b> The removal of old turbines and installation of new turbines under the Buena Vista Project would be compatible with existing wind farms. The siting of new turbines under the Buena Vista Project is not expected to pose any significant environmental impact to this existing land use.</p>	<p>None needed</p>	<p>LTS</p>
<p><b>4.6. Land Use Compatibility During Construction.</b></p> <p><b>Impact 4-6:</b> Removal of old turbines and foundations, construction of new turbine foundations, installation of new turbines and collection lines, and other ancillary construction activities could temporarily affect adjacent uses by generating dust, noise, traffic, and visual disruption of the landscape, or by damaging privately owned access roads. This is a <i>potentially significant</i> impact.</p>	<p><b>MM 4-6a: Construction Plan.</b> The applicant shall provide to the County a construction schedule, routing plan, and estimated vehicle trips for evaluation prior to permit approval. The schedule should comply with the hours of operation established by the County.</p> <p><b>MM 4-6b: Construction Traffic Controls.</b> Warning signage and flag-person controls, as well as pilot cars / escorts for large loads shall be provided to ensure that construction equipment access to the site would be a less-than-significant impact on traffic within and nearby the Project Area.</p> <p><b>MM 4-6c: Staging Areas.</b> The applicant shall use staging areas which are visually protected, either by the terrain or another form of screening, from local residential areas, local roads, and recreation areas where feasible.</p> <p><b>MM 4-6d: Private Road Repairs.</b> Any damage to private roads, particularly including Howden Road and Armstrong Road that occur as a result of Project construction and/or maintenance shall be repaired by the applicant.</p>	<p>LTS</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<b>Public Safety</b>		
<p><b>5.1.Fire Hazards</b></p> <p><b>Impact 5-1:</b> The Project would contribute to potential cumulative fire hazards, including the potential to hinder wildland fire suppression due to the lack of a mapping and address plan, construction activity increasing the risk of wildland fires, and increasing the need for Confined Space/Rescue equipment and training for first responders.</p>	<p><b>MM 5-1a: Fees for Mapping and Address Plan.</b> As stated in the Altamont Pass Windfarm Fire Requirements, fees to cover the cost of developing the mapping and address plan of the APWRA shall be provided by the Project applicant to the agency incurring the costs. The Project applicant shall pay the fee and/or provide the following information related to this plan:</p> <ul style="list-style-type: none"> <li>a) <b>Roads.</b> A road identification and mapping plan shall be developed to show all gates, main entrances, through roads, intersecting roads, road junctions, Y's, and T's. Roads shall be identified with approved signage. Minor spur roads may not need to be identified.</li> <li>b) <b>Buildings and utilities.</b> Mapping shall include water supply locations, buildings and other major features.</li> <li>c) <b>Addresses.</b> All buildings or building groups shall be identified with addressing in accordance with the county address sequence. Such address shall be clearly posted on the buildings, entrance gates, and next to roadway entrances so as to be clearly visible from both directions of travel along the roadway.</li> </ul> <p><b>MM 5-1b: Fees for Monitoring.</b> Extra monitoring by the fire agencies may be appropriate when new construction takes place, especially during the summer months. The Project applicant shall pay fees to be made available for this purpose if determined to be needed by the applicable fire agency.</p> <p><b>MM 5-1c: Fees for Equipment and Training.</b> The Buena Vista Project applicant shall pay fees to cover the cost of Confined Space/Rescue equipment and training for first responders, if determined to be necessary by the CDF and the East Diablo Fire Protection District.</p> <p><b>MM 5-1d: Altamont Pass Windfarm Fire Requirements.</b> The Buena Vista Project shall comply with all Altamont Pass Windfarm Fire Requirements, including but not limited to the following:</p> <ul style="list-style-type: none"> <li>a) vegetation clearances,</li> <li>b) restrictions on machine and power tool usage,</li> <li>c) restriction of hazardous operations like welding, grinding, cutting and mowing during periods of high or very high fire danger,</li> </ul>	<p>LTS</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>5.2. Aviation Safety.</b> The Project is not anticipated to result in any hazard to air navigation.</p>	<p>d) fire watch during unrestricted hazardous operations,                      e) general fire safety measures relating to vehicle use, smoking, fire tools, and                      f) preparation of a fire plan for the Project.</p>	LTS
<p><b>5.3 Electromagnetic Interference</b>  <b>Impact 5-3:</b> Electromagnetic Interference. Although the likelihood of EMI caused by the Project to affect residential radio or television reception is small, there is a potential for this impact to occur.</p>	<p>Where turbine heights exceed 200 feet or where turbines are located in protected airspace Contra Costa County imposes a standard condition of approval requiring all applicants to submit a letter from the F.A.A describing the F.A.A mitigation requirements for the specific project in question.  <b>MM 5-2: FAA Requirements.</b> The Project applicant shall submit a letter from the FAA to the County describing the FAA mitigation requirements for the current Project, and shall comply with all such requirements.  <b>MM 5-3: Electromagnetic Interference.</b> The Project applicant shall design, install and operate wind turbines so that no disrupting electromagnetic interference is created. If it is demonstrated to the zoning administrator that a wind turbine is causing disruptive interference, the operator shall promptly mitigate the disruptive interference, which may include discontinued operation of one or more of the wind turbines, or alternatively, bypass the local communication system affected.</p>	LTS
<b>Noise</b>		
<p><b>1.1 Noise Impacts from Wind Turbine Generator Operations.</b> Sensitive receptors in the vicinity of the Project will not experience noise levels in excess of the 60 dBA CNEL standard. The increase in noise levels with the Project would be less than 1 dBA at each of the nearby receptor locations. At one point along the property line the steady noise level requirement is predicted exceed the 65dBA standard at the lot line. The area where the 65 dBA standard would be exceeded is relatively small in extent, extending approximately 150 feet along the lot line and protruding approximately 70 feet into the adjacent property. Because there are no noise sensitive uses in the</p>	<p>None needed.                      Under the County zoning regulation, a variance from the noise standard may be requested where other nearby wind energy conversion systems (WECS) are also in operation and residences will not be affected. A variance from the property line noise standard has been requested and may be granted where there is an adjacent wind power project and no residences will be adversely affected (see Title 8, Chapter 88-3, section 88-3.612). Such a variance may be warranted along the property line at the southern boundary of the Buena Vista Project, where other wind power projects have been developed and no residences exist.</p>	LTS

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p>vicinity, the area where the noise standard would be limited to a relatively small area, and the area already contains an existing wind farm operation, exceeding the County noise standard at this point along the property boundary is not considered a significant environmental impact.</p>		
<p><b>6.2 Temporary Noise</b></p> <p><b>Impact 6-2: Construction Noise.</b> Although construction noise is considered a temporary and therefore insignificant impact, construction activity would take place over a period of three to six months with varying levels and types of activity during that period.</p>	<p><b>MM 6-2a: Construction Notice.</b> At least one week prior to commencement of grading, the applicant shall post the site and mail to the owners of property within 300 feet of the exterior boundary of the Project site notice that construction work will commence.</p> <p>a) The notice shall include a list of contact persons with name, title, phone number and area of responsibility. The person responsible for maintaining the list shall be included. The list shall be kept current at all times and shall consist of persons with authority to indicate and implement corrective action in their area of responsibility. The names of individuals responsible for noise and litter control, construction traffic and vehicles, erosion control, and the 24-hour emergency number, shall be expressly identified in the notice.</p> <p>b) The notice shall be reissued with each phase of major grading and construction activity. A copy of the notice shall be concurrently transmitted to the Community Development Department.</p> <p>c) The notice shall be accompanied by a list of the names and addresses of the property owners noticed, and a map identifying the area noticed.</p> <p><b>MM 6-2b: Construction Noise Monitoring.</b> The Contra Costa County standard conditions of approval also include a requirement that Project developers post a cash deposit of \$3,000 for the purpose of investigating and evaluating any apparently valid complaint of excess noise or a permit violation. This bond could potentially be used for construction noise, as well as for operational noise.</p> <p><b>MM 6-2c: Construction Access Plan.</b> Construction noise is also addressed in standard conditions of approval related to construction access plans and hours of activity:</p> <p>a) Prior to the start of construction activities the applicant shall submit for review and approval of the County Zoning Administrator a construction schedule, routing plan and estimated number of vehicle trips. The plan shall take into consideration alternative routes that minimize traffic past residences and passive recreation areas.</p> <p>b) All construction activities shall be limited to the hours of 7:30 A.M. to 5:30 P.M., Monday through Friday, and shall be prohibited on state and federal holidays, except as may</p>	<p>LTS</p>

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Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>be specifically allowed by the Zoning Administrator based on a showing of no impact to sensitive receptors.</p> <p>c) The Project sponsor shall require contractors and subcontractors to fit all internal combustion engines with mufflers which are in good condition and shall locate stationary noise-generating equipment such as air compressors and concrete pumps as far away from existing residences as possible.</p>	
<b>Visual Resources</b>		
<p><b>7.1 Scenic Vistas.</b> The Project site is not considered a “scenic vista” from any viewpoints. The nearest General Plan designated scenic ridges are located along Morgan Territory Road (approximately 3 miles west of the Project). The impact of the Project on the visual quality of the landscape would be a less than significant impact.</p>	<p>None needed</p> <p>For residential viewers, the changes proposed at the site would reduce the number of turbines visible in the foreground because it would result in the removal of all of the existing turbines along the Project’s eastern and northern boundary. The new turbines would be located at the middle and western end of the site, and would be seen as replacements of existing turbines. Overall, the new turbines would be taller and have larger rotor diameters, but would also be more widely spaced and would rotate more slowly, so the visual density of turbines would be reduced in those locations.</p>	LTS
<p><b>7.2 Scenic Routes.</b> The September 1996 policy interpretation by the Contra Costa County Board of Supervisors enables new wind turbines to be installed along the Vasco Road scenic corridor without conflicting with policies regarding protection of scenic corridors in the County General Plan, provided that the establishment of any new turbines is done in areas where turbines are currently sited or approved. Therefore, impacts to the Vasco Road scenic route would be less than significant.</p>	<p>None needed.</p> <p>The Project provides for the establishment of new turbines generally in areas where turbines are currently sited or approved. The Project also incorporates site restoration as part of the repowering program including removal of unneeded equipment, re-grading of unused roads and disturbed slopes, and re-vegetation with suitable grasses.</p>	LTS
<p><b>7.3 Visual Character.</b> The visual quality of the landscape the public experiences would not be adversely affected to a significant degree.</p>	<p>None needed.</p> <p>The resulting effect of the Project on the existing visual character of the Project Area would be that, in most views, the numbers of turbines would be considerably reduced and the apparent density of turbines would be greatly reduced. All overhead collection wires would be removed. Although the visual prominence of the new turbines would be greater, the</p>	LTS

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>7.4 Light and Glare.</b> There would not be any significant increase in light or glare associated with the Project.</p>	<p>smaller number of turbines present and their greater spacing would mitigate this effect. Compliance with the visual screening criteria for staging areas would also reduce the inherent visual impact of the construction process. Existing staging areas near Vasco Road are screened from view, and would remain so after repowering.</p> <p>None needed.</p> <p>The new turbines and the roads providing access to them would not be lit, the O&amp;M building would not be modified, and the aviation warning lights as recommended by the FAA would be the minimum necessary for aviation safety using medium intensity or red lights.</p>	LTS
<p><b>Biological Resources</b></p>		
<p><b>8.1 Alkali Meadow Habitat.</b></p> <p><b>Impact 8-1:</b> Increased construction traffic on access roads could disturb adjacent alkali meadow habitat (referred to as a <i>Biologically Unique Habitat</i> in the BRMP). Disturbance of alkali meadow habitat would be considered a potentially significant impact.</p>	<p><b>MM 8-1a: Avoidance.</b> Ground disturbance shall be avoided within 200 feet of alkali meadow habitat, unless no other feasible alternative exists. <u>In the event of potential unavoidable impacts to alkali meadow habitat, the applicant shall restore/replace and equal area of such habitat as compensation for habitat disturbed.</u></p> <p><b>MM 8-1b: Erosion Control Measures.</b> Silt fences or similar erosion control measures shall be installed along road edges near alkali meadows to control potential impacts to the habitat, and traffic on these roads shall be minimized to the extent practicable.</p> <p><b>MM 8-1c: Agricultural Land Reclamation.</b> If the roadway near the central alkali meadow is to be reclaimed to grassland, the work shall be limited to the immediate roadway, and erosion control measures shall be implemented.</p> <p><b>MM 8-1d: Mitigation Monitoring.</b> Monitoring shall be conducted by qualified personnel to ensure the success of the above measures, and the Project will be modified to address any site-specific constraints identified by the monitor.</p>	LTS
<p><b>8.2 Special-Status Plants.</b> Detailed surveys for special-status plants were conducted in the Project area during the flowering season, March and May 2004. Although sixteen (16) special-status plant species have the potential to occur in the Project Area, no special-status plants were located during these surveys. Based on these detailed surveys, the Project's potential impacts on special status plant species are <i>less than significant</i>.</p>	<p>None needed.</p>	LTS

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>8.3 Stock Ponds and Seasonal and Perennial Drainages</b></p> <p><b>Impact 8-3</b> Construction of the Project could affect adjacent stock ponds and perennial drainages, which are home to several special-status species. Disturbing these areas is considered a <i>potentially significant</i> impact.</p>	<p><b>MM 8-3a: Avoidance.</b> No construction of new roads or turbine pads or other ground disturbance such as staging areas and roadway widening shall occur within 200 feet of stock ponds on the site. Construction traffic on existing roads within this setback will be limited to occasional light trucks consistent with existing agricultural/windfarm operations.</p> <p><b>MM 8-3b: Additional Seasonal Avoidance.</b> No construction of new roads or turbine pads or other ground disturbance such as staging areas and roadway widening shall occur <del>within 600 feet of stock ponds and perennial/seasonal drainages on the site</del> during February and March, the breeding season for California Tiger Salamander.</p> <p><b>MM8-3c: Protection and Monitoring.</b> If construction, such as improved access roads, is required within 200 feet setback of perennial/seasonal drainages, then the following additional mitigation measures will be implemented.</p> <ul style="list-style-type: none"> <li>a) Silt fences or similar erosion control measures will be installed along these road edges to control potential impacts to the habitat, and traffic on these roads will be minimized to the extent practicable.</li> <li>b) Construction work shall be scheduled in the non-breeding season (see MM 8-2b above).</li> <li>c) Construction-period monitoring shall be conducted to determine whether impacts may occur, and to determine appropriate mitigation actions.</li> <li>d) Construction shall not occur during rainy days,</li> </ul> <p><b>MM 8-3d: Wetlands Delineation.</b> A wetland delineation shall be prepared for identified potential wetland areas within 200 feet of any Project features. The delineation will provide guidance to the designers and builders of the Project in order to ensure avoidance of these features, and should be submitted to the US Army Corps of Engineers for verification.</p> <ul style="list-style-type: none"> <li>a) If avoidance of fill in jurisdictional wetlands is not possible, impacts shall be mitigated according to a Section 404 permit, which will include consultation with the U.S. Fish and Wildlife Service and certification by the Regional Water Quality Control Board.</li> <li>b) Fill in other waters (non-jurisdictional wetlands) shall also be subject to regulation by the Regional Water Quality Control Board.</li> <li>c) Any such measures will be implemented with the concurrence of the appropriate regulatory agency.</li> </ul>	<p>LTS</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>8.4 San Joaquin Kit Fox</b></p> <p><b>Impact 8-4:</b> Based on surveys, potential burrows are located in the Project Area. Ground disturbance associated with but not limited to construction of roadways, turbine tower pads, staging areas, power line trenches, and demolition/construction sites in grassland areas have the potential to disturb San Joaquin kit fox dens and potential dens. Disturbing San Joaquin kit fox dens is considered a <i>potentially significant</i> impact.</p>	<p><b>MM 8-4a: Preconstruction Surveys.</b> Pre-construction kit fox surveys are required for all ground-disturbing activities. Pre-construction surveys are conducted to classify and map the presence of all kit fox dens and potential dens that could be affected by Project activities. The survey area will include the perimeter of the disturbance area and a 200-foot buffer surrounding the perimeter. Surveys must be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance activities.</p> <p>a) A qualified wildlife biologist, as defined in the BRMP, will systematically search all suitable habitat within the survey area for kit fox dens by walking survey transects. Transect width will be from 30 to 100 feet wide depending on ground cover, such that 100% visual coverage of the Project Area is achieved.</p> <p>b) Surveys will identify kit fox habitat features on the Project site and evaluate use by kit fox. The status of dens will be determined and mapped. When a den is found, biologists will measure the size; evaluate the shape of the den entrances; and note tracks, scat, prey remains, recent excavation at the site, and whether the site is associated with a ground squirrel colony. Ground squirrel colonies will also be mapped (centroids of burrowing systems) as an indication of prey availability within 300 feet of the new turbine strings.</p> <p>c) Dens will be classified in one of two den status categories. A den will be classified as a “potential” kit fox den if the hole is greater than 4 inches high and 3 inches wide for its entire visible length; a collapsed den will not be considered a potential den site. A potential den is defined as any subterranean hole, including burrows of other species such as coyote, badger, red fox, or ground squirrel; or man-made holes such as culverts and pipes.</p> <p>d) A den will be classified as an “active” den if any of the following conditions are observed: 1) the hole size is within the specified range and the hole shows signs of recent activity that might indicate recent kit fox use, such as fresh scat, tracks, prey remains, or recent excavations; or 2) a kit fox is observed at the den site; or 3) recent kit fox use of the den has been confirmed through other incidental observations. Fresh excavation alone will not be considered adequate sign to classify a den as “active” because excavation made by a kit fox is often not distinct from excavation made by another species.</p> <p>e) Results of preconstruction surveys must be received by the USFWS in writing within 5 days after their completion and prior to the start of ground disturbance. If a natal den is discovered within the Project Area, the USFWS must be notified immediately.</p> <p><b>MM 8-4b: Exclusion Zones.</b> To avoid disturbance to active or potential dens, exclusion zones will be established.</p>	<p>LTS</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>8.5 Annual Grassland/Potential San Joaquin Kit Fox Habitat</b></p> <p><b>Impact 8-5</b> Construction-period disturbance and the permanent installation of new turbines and access roads will disturb annual grassland, potential habitat for sensitive species including San Joaquin kit fox.</p>	<p>a) The configuration of exclusion zones around dens will be circular, with a radius measured outward from the entrance or cluster of entrances as follows: 1) potential dens – 50 feet, 2) active dens – 100 feet, and 3) natal den – contact Service.</p> <p>b) No ground-disturbing activities will occur within exclusion zones of active dens. No ground-disturbing activities will be allowed within exclusion zones of potential dens until the following monitoring protocol is conducted and a determination that the site is unoccupied by kit fox is made.</p> <p><b>MM 8-4c: Monitoring.</b> All potential and active kit fox dens will be monitored for 3 consecutive days and nights to determine or confirm occupancy. Dens should be monitored by placing a tracking medium (gypsum) at the den entrance and checking the medium for tracks daily. Sufficient gypsum will be placed around and just inside the den entrance to provide a suitable tracking medium. Additional gypsum will be placed at the den daily as needed.</p> <p>a) A den will be determined to be active (occupied) if kit fox tracks are found in the tracking medium or if the species is seen entering or exiting the den.</p> <p>b) If a den is determined to be occupied, the exclusion zones will remain in effect until the site is determined to be unoccupied. Additional monitoring would be required to determine if the site is unoccupied.</p> <p>c) If a potential den is determined to be unoccupied after 3 days and nights of monitoring, then work can proceed within the exclusion zone.</p> <p><b>MM 8-5: <del>Reduced Lease Agreements.</del> The Project applicant shall relinquish their lease arrangement with Stewart and Lopez, and shall revise the lease arrangements with the remaining primary underlying property owner (Souza) to reduce the overall extent of leased property. The new leases should cover only a band of property of approximately 200 feet on either side of each turbine string. The remaining property not underlying these new lease arrangements would then be lease-free to the underlying property owner. <b>Construction Area Reclamation.</b> All areas proposed for grading activities under the Project shall be subject to implementation of a detailed reclamation and re-vegetation plan. This plan shall accompany all final Site Plans, grading plans and building permit applications, and shall be approved by the County. The reclamation plan shall demonstrate how these disturbed areas will be re-graded to natural contours, re-seeded and reclaimed to native vegetation once the construction period is complete.</b></p>	<p>LTS</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>8.6 Burrowing Owl</b></p> <p><b>Impact 8-6</b> Based on surveys, burrowing owls are located in the Project Area. Ground disturbance associated with but not limited to construction of roadways, turbine pads, staging areas, power line trenches, and demolition/construction sites in grassland areas has the potential to disturb breeding or wintering burrowing owls. Disturbing burrowing owls is considered a <i>potentially significant</i> impact.</p>	<p><b>MM 8-6a: Pre-construction Surveys.</b> Project proponents shall hire a qualified wildlife biologist to conduct a preconstruction survey to locate any breeding or wintering Burrowing owls no more than 30 days prior to the start of construction. The survey shall conform to the Department of Fish and Game 1995 Staff Report protocol.</p> <p><b>MM 8-6b: Breeding Season Controls.</b> If no Burrowing owls are detected, then no further mitigation is necessary. If Burrowing owls are detected, then no ground-disturbing activities, including road construction or installation of turbines or ancillary facilities, will be permitted within 250 feet of an active burrow during the breeding season (February 1 through August 31).</p> <p><b>MM 8-6c: Non-breeding Season Controls.</b> During the winter months (September through January), ground-disturbing work can proceed no closer than 160 feet from active burrows as long as the site is not directly graded. If active winter burrows are found that would be destroyed by ground-disturbing activities, then owls can be displaced from winter burrows by a qualified wildlife biologist, in consultation with the Department of Fish and Game. This would involve installing one-way doors at the entrance to the active burrow and other potentially active burrows within 150 feet of the active burrow. Forty-eight hours after installation of the one-way doors, the doors can be removed and ground-disturbing activities can proceed. Habitat preservation shall also be provided as part of any relocation of nesting burrowing owls, according to the DFG protocol and in consultation with the DFG.</p>	<p>LTS</p>
<p><b>8.7 Avian Collision Impacts</b></p> <p><b>Impact 8-7</b> Implementation of the Project could lead to avian mortality from collision with turbines, which would be a <i>significant impact</i>. Operation of the Project is expected to result in mortality of birds due to collision with wind turbines. There would be no impact to raptors from powerline collisions, since all electrical lines will be underground.</p>	<p><b>Best Management Practices</b></p> <p>The Project developer will conduct activities that can be described as best management practices. These best management activities will have a measurable positive effect on wildlife habitat, especially for avian species, over existing conditions. Best management practices included as part of the Project include:</p> <ul style="list-style-type: none"> <li>● All existing turbines will be removed and all man-made debris on the ground around the turbines will be removed from the wind turbine area. All of the sites where turbines are removed will be reclaimed to native vegetation by removing all above-ground construction and covering any remaining foundations and other systems with soil to a depth suitable for agricultural use and spread with native vegetation seed, and the ground below these turbines retained; This BMP will eliminate 179 perching structures in the Project Area, and decrease the footprint of the Project</li> <li>● Electrical lines will be located underground eliminating electrocutions and collisions with overhead powerlines.</li> </ul>	<p>Significant and Unavoidable.</p>

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p><b>MM 8-7a: Cease Rodent Control Program:</b> The Project developer shall not participate in the rodent control programs on leased lands and will discourage landowners from using poisoning for rodent control in the vicinity of the project. Recent studies suggest moderate levels (intermittent) of rodent control may increase raptor fatalities, and secondary impacts to terrestrial wildlife from rodent control are a concern. The landowner with the largest number of turbines (Sousa) has agreed not to use poisoning as a means of rodent control.</p> <p><b>MM 8-7b: Rock Piles.</b> Rocks created during the excavation process will be used during construction of foundations, and not left in piles near turbines.</p> <p><b>MM 8-7c: Gravel Turbine Base.</b> Discourage small mammals from burrowing under or near turbine bases. Place gravel at least 5 feet around each tower foundation to discourage small mammals from burrowing near turbine bases.</p> <p><b>MM 8-7d: Increase Ground to Rotor Clearance.</b> Turbine tower heights should be at least 55 meters in height at sites where the FAA will allow that height, and 65 meters at the two higher risk turbines at the north end of the "C" String. The taller tower heights would increase the ground to rotor clearance and likely reduce raptor mortality, especially for Red-tailed hawks, Golden eagles, American kestrels, and Burrowing owls.</p> <p><b>MM 8-7e: Ridge Crest Sites.</b> Wherever feasible, turbines should not be sited on or immediately adjacent to upwind side of ridge crest. Raptor use has been shown in general to be higher on the prevailing upwind side of ridges at the Foote Creek Rim Wind Project in Wyoming (Strickland 2001), and turbines sited away from the rim edge may have contributed to low raptor fatality rates. This recommendation has not been specifically tested in the APWRA, but has been used in micro-siting turbines at the other sites, including the StateLine Wind Project in Oregon and Washington.</p> <p><b>MM 8-7f: Un-Guyed Permanent Meteorological Towers.</b> Studies at the Foote Creek Rim Wind Project concluded that guyed meteorological towers may kill more passerines per structure than turbines. Two new diagonal lattice or monopole structures will be constructed on site for monitoring meteorological data and guy wires shall not support these structures.</p> <p><b>MM 8-7g: Minimize Vertical and Lateral Edge.</b> Turbine construction shall minimize cutting into hill slopes in an attempt to achieve smooth rounded terrain rather than sudden berm or cuts to potentially reduce prey abundance.</p> <p><b>MM 8-7h: Review of Final Site Plans prior to Grading and Building Permits.</b> Prior to issuance of <del>obtaining</del> a grading or building permit, the Project applicant shall <del>sheath</del></p>	

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>submit a final site plan for review and approval by the County Zoning Administrator that generally demonstrates consistency with the Project as shown on Figure 3-14 of this EIR, and compliance with the mitigation measures as recommended and made conditions of approval of this Project. <del>standards described in this document.</del></p> <p><b>MM 8-7i: Monitoring Program.</b> A scientifically defensible monitoring program shall be implemented to estimate the avian fatality rates from the new turbines, and important covariates such as prey base and avian use (see Draft Monitoring Program, Appendix E).</p> <ul style="list-style-type: none"> <li>a) Standardized fatality monitoring and avian use and behavior studies shall be conducted for a minimum of three years.</li> <li>b) A technical advisory committee should be <u>utilized to provide the professional expertise on avian mortality, formed to oversee the program</u>, and to recommend, as necessary, <u>propose additional already identified adaptive management strategies or measures mitigation and/or additional monitoring</u> depending on the results of the monitoring program.</li> <li>e) <del>Should additional mitigation be necessary, potential measures may include off-site mitigation.</del></li> </ul> <p><b>MM 8-7j: Adaptive Management.</b> If the Project is unable to achieve a reduction in mortalities per year of certain selected raptor species as compared to the base case (as may be adjusted based on new, supplementary monitoring data), the County shall require implementation of some or all of the following additional adaptive management strategies or conservation measures. The County's application of these additional measures may be informed by the recommendations of the TAC:</p> <ul style="list-style-type: none"> <li>a) <del>restrictions on grazing management.</del></li> <li>b) <del>placement of end-of-row pylons as bird flight diverters, to be installed beyond the ends of all turbine strings that include end turbines rated less than "2" for level of threat to raptors under the Smallwood and Thelander 2004 methodology.</del></li> <li>c) <del>experimental blade painting, on a 1-time basis, on 25% of the new turbines comprised of every other turbine on one-half of the turbine strings.</del></li> <li>d) <del>winter season shutdown (i.e., November 15 through February 28) of a particular turbine or turbines that may be found to be contributing a disproportionate amount to avian fatalities, up to a maximum of 10% of installed capacity.</del></li> </ul>	

Chapter 2: Summary of Impacts and Mitigation Measures

Potentially Significant Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>8.8 Indirect Avian Impacts</b></p> <p><b>Impact 8-8</b> The presence of wind turbines may alter the landscape so that wildlife habitat use patterns are altered, thereby displacing wildlife from the Project Area. This could be a potentially significant impact.</p>	<p>The Project will result in implementation by the Project developer of activities that can be described as best management practices, as well as mitigation measures to reduce avian collisions to the extent possible. These best management activities and mitigation measures as described above for Impact 8-7 will have a measurable positive effect on wildlife habitat, especially for avian species, over existing conditions. With the above best management practices and mitigation measures, the indirect impacts to birds from construction and operation of the project are considered <i>less than significant</i>.</p>	<p>LTS</p>
<p><b>8.9 Bat Collision Mortality</b></p> <p><b>Impact 8-9:</b> Operation of the Project could lead to bat mortality from collision with turbines, and depending on the levels of mortality, could be considered a potentially <i>significant impact</i>.</p>	<p><b>MM 8-9a: Monitoring Program.</b> A scientifically defensible monitoring program shall be implemented to estimate the bat fatality rates from the new turbines.</p> <p><b>MM 8-9b: Technical Advisory Committee.</b> A Technical Advisory Committee should be established as recommended in the Repowering Program: utilized to provide the professional expertise on avian and bat mortality. This TAC shall evaluate monitoring results and if bat mortality is determined to be significant, the TAC could recommend additional focused bat monitoring, or recommend additional mitigation such as contributions for the conservation of bats (e.g., Bat Conservation International).</p>	<p>LTS</p>
<p><b>8.10 Wetlands.</b> Alkali meadow, stock ponds, and creeks/drainages would likely qualify as waters of the United States under Section 404 of the CWA. No other potential waters of the United States were identified in the Project Area. Based on the Project description and current design, no waters of the United States or other waters are proposed to be disturbed or filled as part of the proposed project, and a Section 404 permit will not be required.</p>	<p>None needed</p>	<p>LTS</p>

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## COMMENTS AND RESPONSES

This chapter contains a list of public agencies, organizations, and persons commenting on the Draft EIR. This list is followed by copies of written comments and a transcript of the Zoning Administrator's public hearing on the Draft EIR held on January 3, 2005. For each letter, substantive comments are identified by number. Each comment letter is followed by responses to the numerically identified comment. Responses that state that a change to the Draft EIR has been made are immediately followed by the appropriate text. Chapter 4 also contains a compilation of text revisions to the Draft EIR. Text deletions are indicated in ~~strikeout~~; text additions are identified in **bold underlined** text.

Many of the comments on the Draft EIR have expressed similar concerns, issues or recommendations. In order to avoid duplication and to provide a comprehensive response to these similar comments, this Response to Comments chapter begins with General Responses to Frequent Comments/Issues. Following these general responses are each of the letters and specific responses. When a specific comment is responded to in one of the "General Responses", the response to that comment will direct the reader to the general response heading.

### LIST OF PUBLIC AGENCIES, ORGANIZATIONS AND PERSONS COMMENTING ON THE DRAFT EIR

<u>Letter No.</u>	<u>Date</u>	<u>Source</u>
<b>Federal and State Agencies</b>		
1	01/27/05	California Governor's Office of Planning and Research
2	01/28/05	U.S. Department of the Interior, Fish and Wildlife Service
3	01/14/05	U.S. Department of the Army, Corps of Engineers
4	12/14/04	U.S. Department of Homeland Security, Federal Emergency Management Administration
5	02/01/05	California Department of Fish and Game
6	01/28/05	California Energy Commission
7	01/20/05	California Department of Water Resources

**Regional and Local Agencies**

8                      01/25/05      East Bay Regional Park District

**Private Organizations and Individuals**

9                      01/31/05      Center for Biological Diversity

10                     01/26/05      Mt. Diablo Audubon Society

11                     01/28/05      Sierra Club, San Francisco Bay

12                     01/31/05      Julie Jones, Bingham McCutchen

13                     01/31/05      Golden Gate Audubon Society

14                     12/22/03      Duane Rasmussen, TMA Inc.

15                     01/03/05      Zoning Administrator's Public Hearing on Draft EIR

## RESPONSES TO FREQUENT COMMENTS/ISSUES

### RESPONSE TO COMMENTS ON PROPOSED TURBINE HEIGHTS

Smallwood and Thelander (2004) recommended that wind turbine towers be tall enough to maintain a clearance of at least 29 meters between the ground and the lowest reach of the blades. This recommendation was based on both the flight height distributions of raptors in the APWRA, and the height of the tallest tower anticipated under the 1998 Repowering Program (Alameda County 1998). For the Buena Vista Project, the proposed turbine heights are as follows:

Two (2) turbines are proposed on 65-meter towers. These taller tower heights were recommended to the applicant by Shawn Smallwood, PhD and by WEST, Inc. because these turbines are in or adjacent to a canyon location and close to Brushy Creek. The blades of these two turbines will be 35.5 meters above ground, well above the 29 meters as recommended by Smallwood and Thelander (2004).

A total of 27 turbines are proposed on 55-meter towers, resulting in a distance of 25.5 meters between the lowest reach of the blades and the ground. Although this tower height does not achieve the 29-meter separation recommended by Smallwood and Thelander (2004), this distance still greatly reduces the encounter frequency between flying raptors and moving turbine blades as compared to the existing turbines or even shorter, more standard 50-meter towers. According to Shawn Smallwood PhD, he: “. . . was comfortable giving up 3.5 meters of clearance [the difference between 29 meters and 25.5 meters as proposed] because these turbines are located in relatively safe areas based on the results of Smallwood and Thelander (2004, 2005) and Smallwood and Neber (2005).”<sup>1</sup> Almost all of these turbines will be sited on the prevailing leeward sides of ridges and hills, and none of them will be in canyons.

A total of nine (9) turbines are proposed to be placed on 45-meter towers, resulting in a distance of only 15.5 meters between the lowest reach of the blades and the ground. These turbines are located on the “P” String in the south-central portion of the Project site. The topography of the ridgeline underlying the “P” String has the highest base elevation of any of the proposed turbine pads, generally at elevations from approximately 800 to 900-feet. This is compared to base elevations for turbines in the “C” String of from 500 to 700 feet, and base elevations for turbines in the “A” String of from 600 to 800 feet. Given the Project site’s relative proximity to the Byron Airport and the closer proximity of the “P” String than other turbines on the site, the shorter, 45-meter towers are proposed only in this particular area to maintain a lower projection of the turbines into the air space. However, these sites are the most favorable locations for the lower turbines, according to Shawn Smallwood, PhD: *“these turbines are proposed in locations on the Project site that are identified as relatively low-risk avian mortality locations.”*<sup>2</sup>

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<sup>1</sup> Smallwood, Shawn, PhD. E-mail correspondence with Lamphier-Gregory regarding responses to comments on the Buena Vista Wind Power Draft EIR. February 2005.

<sup>2</sup> Smallwood, February 2005

## RESPONSE TO COMMENTS ON HABITAT COMPENSATION

To the extent feasible the Project has been designed to avoid, minimize, rectify and/or reduce impacts to annual grassland habitat, alkali meadow habitat, stock ponds and perennial/seasonal drainages that provide habitat for birds as well as terrestrial species of plants and animals. Avoiding, minimizing, rectifying and/or reducing impacts are the most effective courses of action to achieve the conservation objectives of the various regulatory standards and prescriptions found in mitigation guidelines offered by the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS). Additionally, these strategies comply with the CEQA Guidelines (Section 15370) for defining mitigation, as discussed below.

### Avoid

*CEQA Guidelines, section 15370 a): Avoiding the impact by not taking an action or parts of an action;*

Taking no action on the Project would result in the continued operation of the existing wind turbines, which are now known to collectively represent a hazard to birds. It would also maintain the current wind leases on the underlying properties. With the current wind leases still in place, the underlying property owners would be encumbered in their ability to enter into negotiations with others regarding the potential purchase of land and/or conservation easements for permanent protection of habitats of San Joaquin kit fox, California tiger salamander and California red-legged frog. In the case of the Buena Vista Project, taking no action is not the best conservation measure, nor does it truly avoid impacts to annual grassland habitat.

However, other avoidance measures are incorporated into the Project as feasible. For example, the construction access plan is specifically designed to avoid use of a portion of the existing road that connects the eastern and western portions of the Project site because this portion of the road alignment is immediately adjacent to an existing stock pond and alkali meadow. The proposed access plan and all other components of the Project avoid impacts to these biological resources and habitats, and comply with the Repowering Program requirements for establishing a 200-foot setback from such natural features/habitats.

### Minimize and Reduce

*CEQA Guidelines, Section 15370 b): Minimizing the impact by limiting the degree or magnitude of the action and its implementation.*

Impact reduction is an underlying strategy inherent in the Repowering Program. The Buena Vista Repowering Project proposes to remove 179 existing turbines and replace them with 38 new turbines. This reduction in the number of turbines will consolidate the overall area of turbine operation (including on-going operations and maintenance) down from 179 turbines spread throughout the approximately 2,500-acre site, to 38 turbines operating on approximately 400 acres, or approximately an 84% reduction in the project “footprint” on the site.

The Project has also been designed to minimize impacts to annual grassland, alkali meadow and potential wetland habitat throughout the Project area. The proposed Project would not result in the construction of any new features (i.e., new roads, turbine pads or other ground disturbance such as staging areas and roadway widening) within 200 feet of an identified alkali meadow (consistent with requirements of the Repowering Program BRMP). Additionally, where feasible, no Project features are located within 200 feet of a stock pond or drainage way. If this 200-foot buffer is not feasible then additional mitigation measures have been recommended to control potential impacts to the habitat and to minimize impacts to the extent practicable, such as:

- installation of silt fences or similar erosion control measures (MM 8-3c:a)
- scheduling construction work during the non-breeding season of wetland-dependent species (MM 8-3c:b)
- conducting on-site monitoring and inspection throughout the construction period (MM 8-1d; MM8-3c:c; MM 8-4c)
- prohibiting construction activity in the vicinity of these habitat types during rainy days (MM 8-3c:d)
- establishing exclusion zones around any identified active or potentially active San Joaquin kit fox dens (MM 8-4b),
- establishing appropriate buffers from active burrowing owl burrows, within which no ground-disturbing activities including road construction or installation of turbines or ancillary facilities will be permitted (MM 8-6b and c).

#### Restore

*CEQA Guidelines, Section 15370 c): Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*

New construction associated with the Project would include installation of 38 new wind turbines atop new concrete foundation pads. Additionally, approximately 1.25 miles of new 20-foot wide permanent roads will also be constructed. Combined, these new permanent features would impact approximately 4.4 acres of current grassland habitat. The Project proposes to remove all of the existing 179 turbines, to cover the underlying foundations with soil and restore to native vegetation, and to restore approximately 2.4 miles of existing roadways that are no longer needed, to native vegetation. This restoration activity would result in a net increase of annual grassland habitat of approximately 12.3 acres. Under permanent conditions, the Project would result in a net increase in annual grassland habitat of approximately eight (8) acres as a result of these restoration efforts, as shown in Table 8-3 of the Draft EIR and re-printed below.

**Table 8-3 (from Draft EIR):  
Annual Grassland Habitat Developed/Disturbed**

	Existing	Project - Reclaimed	Project - Construction	Project - Net	Resulting Total
<u>Permanent</u>					
Turbine pads	179 pads, 6.6 acres	179 pads, - 6.6 acres	38 pads, 1.4 acres	- 5.2 acres	1.4 acres
Roads	12.6 miles, 30.5 acres	2.4 miles, - 5.7 acres	1.25 miles new, 3.0 acres	-2.7 acre	27.8 acres
<b>total</b>	<b>37.1 acres</b>	<b>- 12.3 acres</b>	<b>4.4 acres</b>	<b>- 7.9 acres</b>	<b>29.2 acres</b>
<u>Temporary</u>					
Crane pads and contour grade			38 pads, 38 acres		
Road shoulders, 5' on each side			7.2 miles total, 8.7 acres		
<b>total</b>			<b>46.7 acres</b>		

During the construction period, additional grading operations will be required, amounting to approximately 46.7 acres as described in the Draft EIR. This temporarily disturbed area, including construction crane pads, temporary road widening and contour grading will be re-seeded and fully restored to native vegetation once the construction period is complete.

Buena Vista recently quitclaimed the first 78 acres of former wind lease area back to the underlying property owner (Souza Realty) to facilitate Souza's establishment of a permanent conservation easement on these properties. The reduced footprint of land impacts that will result from the proposed repowering of the Project site could enable the underlying landowners to establish similar conservation easements elsewhere throughout the Project site. Although the applicant is not proposing to purchase these easements, the applicant's facilitation of permanent open space preservation through early relinquishment of lease agreements provides some measure of mitigation to off-set the temporary impacts to terrestrial species' annual grassland habit resulting from Project construction activities.

Compensation

*CEQA Guidelines, Section 15370 e:)      Compensating for the impact by replacing or providing substitute resources or environments*

The CEQA list of mitigation actions is likely ordered in priority of effectiveness, with impact avoidance being most beneficial to the environment and compensation being least beneficial. Typically, compensatory mitigation is required only when other mitigation strategies such as avoidance, reduction and minimization, restoration and preservation are unable to reduce impacts to levels of less than significant. In the case of this Project, and aside from the issue of avian mortality, there are no impacts related to habitat loss that are not fully mitigated to levels of less than significant through Project design or through implementation of additional mitigation measures as recommended in the Draft EIR. In fact, the Project would result in a net increase in annual grassland habitat as a result of its proposed restoration efforts. Therefore, additional compensation in the form of fees, off-site property acquisitions or other types of substitute mitigation is not the most effective mitigation for habitat loss.

Avoidance, reduction and minimization measures proposed as part of the Project, and as further required under additional mitigation measures, will likely contribute much more to conserve birds and bird species than would off-site compensatory mitigation. However, impacts to avian species cannot be considered to be fully mitigated through these preferred mitigations (see further discussion under General Response to Comments on Off-Site Mitigation Fees for Avian Impacts).

## **RESPONSE TO COMMENTS ON THE TECHNICAL ADVISORY COMMITTEE (TAC)**

### **Formation of the TAC**

There were several comments on the Draft EIR document in regards to the formation of a Technical Advisory Committee (TAC). Comments that were received suggested the following:

- a) The TAC should be given authorization to implement adaptive management strategies (e.g., relocate problem turbines, implement season shutdowns, etc.) based on the results of a monitoring program.

Response: Comment noted. As specified on Mitigation MM8-7i, the TAC is to recommend additional measures depending on the results of the monitoring program. Mitigation MM8-7j states that the TAC is to recommend additional adaptive management measures if the Project is unable to achieve a reduction per year of certain selected raptor species as compared to the base case.

- b) There should be one multi-county (Contra Costa County and Alameda County) TAC for the Altamont Pass Wind Resource Area (APWRA).

Response: Comment noted. Contra Costa County envisions the participation of the County of Alameda in the TAC for this Project.

- c) The TAC should meet more frequently than once per year.

## CHAPTER 3: RESPONSE TO COMMENTS

Response: Comment noted. The frequency in which the TAC should meet is a procedural matter and not a CEQA matter. The County will ensure that the TAC meets as often as necessary to obtain the necessary professional expertise of the TAC members.

- d) Include public members from the conservation community in the membership of the TAC, and make the findings of TAC available to the public.

Response: Comment noted. All the data available from the required monitoring plan, in addition to all documentation of the land use permit application for this project will be made available for public review upon request.

- e) The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) should determine if mitigations are effectively reducing impacts on avian mortality prior to County dissolving the TAC.

Response: Comment noted. The County envisions that the USFWS and CDFG will be part of the TAC. As described on the previous comment, the TAC will recommend additional measures as necessary upon conclusion of the monitoring program. The TAC will be utilized as long as necessary.

### Formation of the TAC as suggested by the Avian and Bat Mitigation Monitoring Plan

The Avian and Bat Mitigation and Monitoring Plan (Appendix E) of the Draft EIR also makes some suggestions on the formation and responsibility of the TAC. This monitoring plan suggested specifics on how often the TAC should meet and what the TAC responsibilities are.

### Recommended Mitigations in the Draft EIR on the Formation/Responsibility of the TAC

The Draft EIR recommends the creation of a Technical Advisory Committee (TAC). Mitigation MM8-7i and MM8-9b of the Biological Resources chapter of the Draft EIR have been revised, and MM8-7j has been added to better clarify the formation and responsibility of the TAC. Those changes are included in Chapter 4, Revision to the Draft EIR. The following is intended to further clarify the expectations, roles, and responsibilities of the TAC.

### Participation and Responsibilities:

- Should the Project be approved, a TAC will be utilized to provide additional expertise during the avian monitoring of the project. It is expected that the TAC will include representatives of the CDFG, USFWS and other groups that may have an expertise in avian mortality. The involvement of the landowners, the project operator and County staff would also be important.
- The monitoring data required under the Avian and Bat Monitoring Program will be completed on an annual basis, and the monitoring data collected pursuant to the Monitoring Plan will be available to the other members of the TAC so that it can be reviewed by the experts involved in the TAC. The monitoring plan will also be available for the public upon request.

## RESPONSE TO COMMENTS ON ADAPTIVE MANAGEMENT

The Draft EIR (MM 8-7i) recommends implementation of a scientifically defensible monitoring program to collect data on the effectiveness of the proposed repowering Project to reduce avian fatality rates. The monitoring program is designed to enable comparison of the results of these data with other important co-variants in the Project area to better understand relationships of wind turbines and avian fatalities in the APWRA. This mitigation measure recommends a minimum three (3) year monitoring period. Depending upon the results of the monitoring program, the Project's repowering efforts and other measures recommended in the Draft EIR may prove to be insufficient to achieve a reduction in avian fatalities as compared to existing conditions, or to achieve a higher threshold for avian fatality reductions. The final element of MM 8-7i indicates that the monitoring program should form the basis for determining whether additional conservation measures, beyond those included in the Project and its other mitigation requirements, may be needed (i.e., additional adaptive management strategies) to achieve satisfactory results.

Both the County and the Project applicant have further considered the issue of adaptive management as a means for identifying potential additional measures for reducing or mitigating impacts related to avian fatalities. To further clarify the intent and purpose of MM 8-7i, the issue of adaptive management has been divided into two categories:

1. those adaptive management strategies to be required of the Project if the Project is found to be unable to reduce avian fatalities as compared to current "base case" conditions, and
2. those adaptive management strategies that the Project applicant has volunteered to undertake if, after three (3) years of monitoring, the Project is found to be unable to achieve a higher standard of avian fatality reductions than the base case, as more fully described below.

### County-Required Adaptive Management Strategy

#### Establishment of a Base Case

As defined in CEQA Guidelines, Section 15126.2(a) the County as lead agency "should normally limit its examination [of significant environmental impacts] to changes in the existing physical conditions in the effected area as they exist at the time the notice of preparation is published . . ." There has been no scientifically based data of avian mortalities available that is specific to the Project site (either before or after the issuance of the NOP for this Project) by which to establish an existing physical condition as it pertains to avian fatalities. In the absence of a known existing physical condition, the Draft EIR relied on an average APWRA-wide focal raptor mortality estimate of 2.24 fatalities per MW per year, as indicated in Smallwood and Thelander (2004). This estimate was applied to an assumed 38-MW "base case" condition for purposes of the Draft EIR analysis. According to this methodology, the "base case" condition for a 38 MW wind power project could be expected to yield mortality estimates of approximately 80 raptors per year as indicated in the Draft EIR as shown in Table 8-3, reprinted in this document below.

**Table 8-6 (from the Draft EIR)**

**Annual Mortality Projections of Selected (Focal) Raptor Species for a 38-MW Wind Turbine Project**

Species	Mortality projection unadjusted for new rotor plane heights	Adjusted for flight height distributions relative to proposed new rotor heights		Percentage mortality reduction without considering any other factors
		<u>Factor</u>	<u>Estimate</u>	
Golden eagle	5 to 8	0.50	2.5 to 4	50%
Red-tailed hawk	14.4 to 20.7	0.37	5.3 to 7.7	63%
American kestrel	5 to 23	0.14	0.7 to 3.2	86%
Burrowing owl	6.8 to 26.2	0.00 <sup>a</sup>	0	100%
	31 to approx. 80 raptor mortalities per year		9 to 15 raptor mortalities per year	

<sup>a</sup> Although flight height data for Burrowing owls are insufficient to conclude with high confidence that Burrowing owls will not fly as high as the rotor planes of the new turbines, the prospect is unlikely.

In theory, the per-MW estimate of 2.24 focal raptor mortalities per year could also have been applied to the current nameplate capacity for the Project area (41.6 MW) to arrive at a base case condition of approximately 93 raptor mortalities per year. Under the 1998 Repowering Program the Project site was identified as having a total installed capacity of 41.6 MW. The 41.6 MW of nameplate capacity was the maximum allowed capacity had all of the existing 179 turbines on the site been operational.

Alternatively, the per-MW estimate could also have been applied to the 74 currently operating turbines (11.8 MW). Approximately 105 of the 179 older Windmaster turbines that have not been retrofitted have been shut down by the operator and are not currently in production. According to the operator, these turbines have been shut down because of the inefficiency and poor operating history of these turbines. However, this existing condition could change if the applicant decided to re-energize these turbines and bring them back on-line via retrofitting, as was done for the other 74 WindMaster turbines. Such retrofitting could be done at any time under their existing land use permit.

However, for purposes of assessing mitigation requirements the County has determined that a 38 MW “base case” condition is a more accurate reflection of the proposed Project.

Base Case Verification

In order to help verify the estimated “base case” raptor mortality estimate, the applicant shall be required to obtain, to the extent reasonably available, all new data of raptor mortality throughout the APWRA as will become available over the next 3-year period. This new data shall be used to supplement, or provide additional input into the predictive assumptions used in the Smallwood and Thelander 2004 methodology (This supplemental data may need to be adjusted to reflect non-restricted turbine operations to the extent that the new data is derived from turbine operations that are being operated under seasonal shutdown or other adaptive management programs that are being implemented as part of new conditional use permits). This adjusted Smallwood and Thelander 2004 methodology may help provide an even more accurate assumption of annual focal raptor mortality on a per MW basis.

If the base case for avian mortality that is arrived at using this additional, supplemental data is found to be greater than 80 focal raptor mortalities per year, then the base case shall remain at 80. However, if this supplemental data as gathered over the 3-year period indicates that the base case of focal raptor mortalities is less than 80 (i.e., less than the per-MW estimate of 2.24 focal raptor mortalities per year), then this lower, more accurate indicator shall be used to provide a new “base case”. The new base case shall then be used by the County to determine whether the County’s additional adaptive management mitigation measure (new MM 8-7j, see below) shall be implemented.

Use of the Base Case for Determining Additional Adaptive Management Requirements

The base case (currently estimated to be 80 focal raptor fatalities per year) will be used as the condition by which to measure the effectiveness of the proposed Project, including its repowering program and the mitigation measures as recommended in this EIR, to achieve a reduction in avian fatalities. If the Project is able to achieve a reduction in selected-species avian mortalities per year as compared to the base case, then no additional mitigation measures shall be required. However, if the Project is unable to achieve a reduction (currently estimated to be less than 80 mortalities per year of these selected species), then the County shall require further mitigation as described in new Mitigation Measure 8-7j below:

**MM 8-7j: Adaptive Management.** If the Project is unable to achieve a reduction in mortalities per year of certain selected raptor species as compared to the base case (as may be adjusted based on new, supplementary monitoring data), the applicant shall be required to implement some or all of the following additional adaptive management strategies or conservation measures, to be determined at the County’s discretion. The County’s application of these additional measures may be informed by the recommendations of the TAC:

- a) restrictions on grazing management,
- b) placement of end-of-row pylons as bird flight diverters to be installed beyond the ends of all turbine strings that include end turbines rated less than “2” for

level of threat to raptors under the Smallwood and Thelander 2004 methodology.

- c) experimental blade painting, on a 1-time basis, on 25% of the new turbines comprised of every other turbine on one-half of the turbine strings.
- d) winter-season (i.e., November 15 through February 28) shutdown of a particular turbine or turbines that may be found to be contributing a disproportionate amount to avian fatalities, up to a maximum of 10% of installed capacity.

### Seasonal Shutdown of Turbines

Smallwood and Spiegel (2005),<sup>3</sup> recommended seasonal shutdowns of existing wind turbines continuing to operate in the APWRA, after considering bird mortality and power output data. According to Shawn Smallwood, PhD; *“This recommendation was not intended to extend to new wind turbines sited in a repowering project such as the proposed Buena Vista Project. The Buena Vista Repowering Project is consistent with the foremost recommendation in Smallwood and Thelander (2004), and other measures being taken are consistent with recommendations made in Smallwood and Thelander (2004) and Smallwood and Neher (2004).”*<sup>4</sup> Substantial reductions in avian impacts are expected without implementing a winter-time shutdown.

Smallwood and Spiegel (2005) also were aware that the newer model turbines will generate more power during the winter than do the existing turbines, and so the winter-time energy generation may not be proportionately less than the winter-time mortality relative to the annual totals. Currently, 29% to 47% of raptor species are being killed in the APWRA during the winter months, while only 16% of the annual energy is generated. These percentages will not apply to re-powered wind turbine fields, especially those planned to include the mitigation measures to be implemented by the Buena Vista Project. According to Shawn Smallwood, PhD: *“Although I do not recommend winter-time shut-downs at this time, I do believe that this strategy should be reserved as a possible future contingency measure should the three-year monitoring data warrant it..”*

### **Project Applicant’s Proposed Adaptive Management Program**

Implementation of the Project’s repowering program and the mitigation measures identified in this EIR are anticipated to reduce avian mortality below base case conditions. The new mitigation measure recommended above (MM 8-7j) would be required by the County under CEQA if such a

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<sup>3</sup> Smallwood, K. S. and L. Spiegel. 2005. Assessment To Support An Adaptive Management Plan For The APWRA. Unpublished CEC staff report. 19 pp.

<sup>4</sup> Smallwood, K. S., and L. Neher. 2004. Repowering the APWRA: Forecasting and minimizing avian mortality without significant loss of power generation. California Energy Commission, PIER Energy-Related Environmental Research. CEC-500-2005-005. 21 pp

reduction is not achieved. However, higher goals for the Project have been set by the Project's biologists and by the applicant, and higher goals are expected by most of the regulatory agencies and interested parties. The U.S. Fish and Wildlife Service stated its goal for the APWRA as "a substantial reduction in bird mortality, and a demonstrated declining trajectory of bird mortality through time."<sup>5</sup> The California Energy Commission suggests that a 50% reduction based on the mortality levels reported in Smallwood and Thelander (2004, Table 3-10) should be achieved throughout the APWRA. Therefore, the Project applicant has voluntarily proposed the following adaptive management program be established for this Project:

1. If the Project is able to achieve a 50% reduction in focal raptor mortality as compared to the current base case of 80 focal raptors (i.e., a mortality of 40 focal raptors or less per year) as determined by the 3-year on-site monitoring program, then no additional conservation strategies shall be implemented.
2. If the Project is only able to achieve a 38% to 49% reduction in focal raptor mortality as compared to the current base case of 80 focal raptors (i.e., mortality of 41 to 50 focal raptors per year) as determined by the 3-year monitoring program, then the applicant shall implement additional restrictions on grazing management.
3. If the Project is only able to achieve a 25% to 37% reduction in focal raptor mortality as compared to the current base case of 80 focal raptors (i.e., a mortality of 51 to 60 focal raptors per year) as determined by the 3-year monitoring program, then the applicant shall implement additional restrictions on grazing management as well as placing end-of-row pylons as bird flight diverters.
4. If the Project is only able to achieve a 13% to 24% reduction in focal raptor mortality as compared to the current base case of 80 focal raptors (i.e., a mortality of 61 to 70 focal raptors per year) as determined by the 3-year monitoring program, then the applicant shall implement additional restrictions on grazing management, place end-of-row pylons as bird flight diverters, and implement experimental blade painting.
5. If the Project is only able to achieve a minor, less than 13% reduction in focal raptor mortality as compared to the current base case of 80 focal raptors (i.e., a mortality of 71 to 80 focal raptors per year) as determined by the 3-year monitoring program, then the applicant shall implement additional restrictions on grazing management, place end-of-row pylons as bird flight diverters, implement experimental blade painting, and conduct winter season (11/15 through 2/28) shutdowns of particular turbine or turbines that may be found to be contributing a disproportionate amount to avian fatalities up to a maximum of up to 10% of installed capacity.

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<sup>5</sup> Smallwood and Spiegel, January 2005

If, after three (3) years of monitoring, the combined focal raptor mortality estimates are greater than the base case condition (i.e., greater than 80 focal raptor mortalities per year or greater than a reduced baseline), then the County shall impose any and all of the above adaptive management strategies as mitigation (see new MM 8-7j above). Independently, the applicant has also volunteered to pay an increased yearly conservation fee (see discussion below regarding Off-Site Mitigation Fees) should this base case condition be exceeded.

Establishment of a future County-wide (or potentially an APWRA-wide) adaptive management program is a policy matter for consideration by the County, with appropriate consultation and coordination with other regulatory agencies. The applicant's proposed voluntary adaptive management program should not necessarily be considered as precedent-setting for the regulatory agencies or the industry. This proposal by the applicant is unique to this Project and may be considered by the County only as it pertains to the individual merits of this Project.

## **RESPONSE TO COMMENTS ON OFF-SITE MITIGATION FEES FOR AVIAN FATALITIES**

The most consistently made comment on the Draft EIR was that there should be an off-site mitigation fee paid by the Project to compensate for the significant and unavoidable impacts to avian species. Currently, there is no established mitigation fee under any adopted County, state or federal program or policy. However, the applicant has voluntarily proposed to setup and contribute to an avian conservation fund to be used for conservation efforts towards the bird species potentially affected by the Buena Vista Project. These issues are more fully described below.

The potential for the County to require off-site mitigation, possibly through establishment of a future fee-based program was briefly addressed in the Draft EIR in MM 8-7i:c, which indicated that "Should additional mitigation be necessary, potential measures may include off-site mitigation." The rationale for inclusion of this mitigation measure in the Draft EIR is as follows:

- The Buena Vista Repowering Project has been designed to be consistent with the recommendations for avian protection from Smallwood and Thelander (2004) and Smallwood and Neher (2004). These recommendations indicate that repowering is likely the foremost means to reduce bird collisions throughout the APWRA. Substantial reductions in avian impacts as compared to the base case condition are expected as a result of the Buena Vista Project.
- To the extent feasible the Project has also been designed and/or conditioned to incorporate additional mitigation measures intended to avoid, minimize and/or reduce avian fatality impacts. These additional mitigation measures, found in MM 8-7a through 8-7g, represent the most proven and effective means for further reductions in avian mortality for this Project, as recommended by experts in this field (Shawn Smallwood PhD, and Wally Erickson, M.S. of WEST, Inc.).
- Although the weight of evidence indicates that implementation of the Project's repowering program and the mitigation measures identified in this EIR should help avoid and reduce this

impact, these measures will certainly not be able to eliminate all avian mortality. Only until further substantiated by additional monitoring and research will it be possible to quantify the precise impacts on bird populations. Therefore, the Project's impacts pertaining to avian fatalities were found to be significant and unavoidable, as well as cumulatively considerable.

- The Draft EIR also recommended (MM 8-7i) implementation of a scientifically defensible monitoring program to collect data on the effectiveness of the proposed repowering project to reduce avian fatalities. After obtaining three full years of avian fatality monitoring results, MM 8-7i recommends that a Technical Advisory Committee convene to review these data. The results from the monitoring program should be used to determine if the repowering efforts and other measures recommended in the Draft EIR have proven to be sufficient to achieve the predicted reductions in avian fatalities, or whether additional conservation measures such as off-site compensation should be implemented. If off-site compensation through a fee program is to be considered in the future, the results of the monitoring program for the Project are likely to provide important information that may be used to support and potentially justify such a program.

However, the Draft EIR did not recommend compensation for impacts to avian species via payment of a specific fee amount as a condition for approval of the Project.

#### CEQA Basis for Fee-Based Mitigation

Until 1998, the CEQA Guidelines were silent on the question of whether payment of fees is a legitimate, valid form of mitigation. As amended in 1998, fees may be used as mitigation for a project's otherwise "cumulatively considerable" incremental contribution to significant cumulative impacts.

*"A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable." (CEQA Guidelines section 15130(a)[3]).*

*"A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographical area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency." (CEQA Guidelines section 15064(i)[3]).*

When a mitigation fee is set by ordinance or regulation, the administering agency is generally required to complete a "nexus study" or other similar means to establish the basis for the fee, and the relationship between the fee and the resulting mitigation. Such a relationship is also assumed to be established if the fee will be contributed for an ongoing mitigation program. In this case, there is

no currently approved plan or mitigation program that has been specified in law, or that has been adopted by the County, the state or other federal agencies with jurisdiction over the affected resources. Nor has there been any public review process to implement, interpret, or make specific any law enforced or administered by a public agency through a fee-based process.

Whether to adopt such a mitigation fee program is a policy matter for consideration by the appropriate agencies with jurisdiction, including the County. Adoption of such a program should be considered through a full, public process that examines such issues as:

- completion of a nexus study to establish the basis for a fee; the relationship between a fee and the anticipated resulting mitigation;
- consideration of how to allocate the burden of a fee on a “fair share” basis among various projects and operators; and
- an analysis of how the fee program would be administered and how fees would be utilized, including determinations concerning the anticipated effectiveness of the mitigation program and comparison with other, adopted programs.

In the absence of an existing mitigation program funded by mitigation fees, the EIR must identify mitigation measures that can be “fully enforceable through permit conditions, agreements or other legally-binding instruments”; that can establish an “essential nexus (i.e., a connection) between the measure and a legitimate government interest”; and that are also “roughly proportional to the impact of the project” (CEQA Guidelines, section 15126.4).

Currently there is no evidence to indicate: 1) that payment of money through a fee has any direct relationship to reducing avian fatalities; 2) such fees would or could be used to acquire habitat or to accomplish some other interest that has an essential nexus to the impact; 3) how much money might be necessary to acquire habitat or to accomplish some other public interest; and 4) how much the dollar value of the fee should be, such that it would be roughly proportional to either the predicted or actual loss of avian species. Without such evidence, it is difficult for the County to determine that any ad hoc fee (or exaction) that might be imposed by the County as a condition of approving the Project could reasonably be expected to reduce adverse impacts.

#### On-Going Efforts toward a Fee-Based Mitigation Program

A working group that includes representatives of wind plant operators in the Altamont Pass and a number of Alameda County, state, and federal agencies including the U.S. Fish and Wildlife Service and the California Department of Fish and Game has been discussing a variety of measures aimed at reducing raptor collisions as specifically related to the renewal of permits for wind farms in Alameda County. Although the topic of fee-based compensatory mitigation has been discussed amongst this group, no off-site fee program has been established.

Additionally, the California Energy Commission (Smallwood and Spiegel, 2005) has reviewed a number of potential mitigation alternatives that have been posed by the turbine operators for

consideration by the counties, regulatory agencies, the wind power industry, species experts and other stakeholders. As part of their review, the CEC authors “provide a recommendation for off-site mitigation to compensate for the level of bird loss that cannot be mitigated, while providing incentive to the operators to continue their efforts to reduce bird losses and maintain mitigation commensurate with the actual loss of bird lives.”<sup>6</sup> However, the authors acknowledge that “these recommended alternatives [including the suggested amount and basis of the fee] are in need of refining, and that actual fees will need to be based and periodically adjusted to account for real estate values, but believe they [the suggestions] serve as a starting point for further negotiation.”<sup>7</sup>

### **Project Applicant’s Proposal**

This EIR concludes that avian mortality will be a significant and unavoidable environmental effect of the proposed Project. CEQA Guidelines, Section 15093 requires the County to balance the economic, social, technological or other benefits of the Project against this unavoidable environmental risk when determining whether to approve the Project. Should the County determine that other benefits outweigh this unavoidable effect, the unavoidable avian fatalities may be considered ‘acceptable’ and subject to a statement of overriding considerations. However, before the County can consider approval of the Project with this unavoidable environmental effect, the County decision-makers must adopt written findings, including a statement of overriding considerations, to support their actions, and these reasons must be supported by substantial evidence.

The weight of evidence presented in this EIR indicates that implementation of the Project’s repowering program and the mitigation measures identified in this EIR should help avoid and reduce, but not eliminate all, avian mortality. Project-specific mitigation measures have been developed using relevant and appropriate information from the Repowering Program as well as the most up-to-date information from more recent research and monitoring studies in the APWRA and elsewhere. Additionally, an adaptive management strategy is recommended in the EIR that would authorize implementation of additional conservation measures and/or additional monitoring depending on the results of future evidence derived from the monitoring program (see Response to Comments on Adaptive Management, above). However, it is not possible to quantify the benefits of these efforts until further substantiated by additional monitoring and research, a process that may take several years.

Therefore, the applicant has voluntarily proposed to setup and contribute to an avian conservation fund to be used by the County for conservation efforts such as raptor breeding programs or other conservation programs to benefit the bird species potentially affected by the Buena Vista Project, if the Project is approved. This voluntary fund would consist of the following:

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<sup>6</sup> Smallwood and Spiegel, 2005. pg 2

<sup>7</sup> Smallwood and Spiegel, 2005. pg 13

## CHAPTER 3: RESPONSE TO COMMENTS

1. The Applicant has voluntarily proposed to contribute \$500 per MW of installed nameplate capacity, up to a maximum of \$20,750 per year to a conservation fund (41.5 MW of current nameplate capacity x \$500 per MW = \$20,750.00).
2. If, after three (3) years of monitoring, the focal raptor mortality estimates are greater than 80 focal raptor mortalities per year (i.e., greater than the base case), then the applicant has proposed to increase the annual conservation payment up to a maximum of \$1,000 per MW of installed capacity, or double the initial amount for each year the base case is exceeded.
3. The Technical Advisory Committee (TAC) may make suggestions to the County regarding the use of these funds for conservation programs to benefit the bird species potentially affected by the Buena Vista Project.
4. Under the 1998 Repowering Program and the mitigation measures of this EIR, the applicant would be required to pay for the first three years of monitoring and research at the Project site. The costs associated with implementation of the first 3 years of monitoring are not included in (i.e., are separate from and in addition to) this proposed conservation fund.

As to whether the applicant's proposal for establishing a conservation fund has any bearing in a CEQA context, County decision-makers may consider the following:

- First, there is no other currently approved plan or mitigation fee program specified in law or adopted by the County, the state or other federal agency to which the applicant can pay.
- Secondly, in the absence of any other cumulative mitigation program the applicant's proposal does represent some form of compensation for avian fatalities, and that compensation can be fully enforceable through permit conditions or other legally binding agreements.
- Third, there is no evidence upon which to determine whether this voluntary contribution has any essential nexus or whether the value of this proposal is roughly proportional to the Project's impact. However, the proposed voluntary conservation fund could be considered as indicating an attempt to balance the economic, technological or other benefits of the Project against its unavoidable environmental effects.

The potential for future adoption of a County-wide (or potentially an APWRA-wide) mitigation fee program is a policy matter for consideration by the County or counties, with appropriate consultation and coordination with other regulatory agencies. The applicant's proposed conservation fund does not preclude this public policy-making process from occurring, nor should it be considered as precedent-setting for the regulatory agencies or the industry. This funding proposal by the applicant is unique to this Project and may be considered by the County only as it pertains to the individual merits of this Project.



Arnold  
Schwarzenegger  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Jan Boel  
Acting Director

January 27, 2005

LETTER 1

David Brockbank  
Contra Costa County Community Development  
651 Pine Street  
2nd Floor, North Wing  
Martinez, CA 94553

Subject: Buena Vista Wind Energy Project  
SCH#: 2003112038

Dear David Brockbank:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on January 26, 2005, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2003112038  
**Project Title** Buena Vista Wind Energy Project  
**Lead Agency** Contra Costa County Community Development

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**Type** EIR Draft EIR  
**Description** Modified wind power plant located in the Byron Hills area of southeastern Contra Costa County. Project includes removal of all existing 179 wind turbines and overhead electrical connection lines; to be replaced (repowered) with up to 38 new, larger and more efficient turbines and underground electrical connection lines. All of the sites where existing turbines are removed will be reclaimed to agricultural use by removing all above-ground construction and covering any remaining foundations and other systems with soil suitable for agricultural use.

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**Lead Agency Contact**

**Name** David Brockbank  
**Agency** Contra Costa County Community Development  
**Phone** 925 335 1237 **Fax** 925 335-1222  
**email**  
**Address** 651 Pine Street  
2nd Floor, North Wing  
**City** Martinez **State** CA **Zip** 94553

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**Project Location**

**County** Contra Costa  
**City** Byron  
**Region**  
**Cross Streets** Vasco Road, Byron Hot Springs Road, Armstrong Road  
**Parcel No.** Various - 001-021-001 - 020, etc.  
**Township** 1S **Range** 3E **Section** 27,29 **Base** MtDiablo

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**Proximity to:**

**Highways** I-580  
**Airports** Byron Airport  
**Railways** UPRR  
**Waterways** Brushy Creek, California Aqueduct, Clifton Court Forebay  
**Schools**  
**Land Use** Agricultural plus existing wind power facilities. Zoned A-2 , A-3, A-4. Designated Agricultural land.

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**Project Issues** Aesthetic/Visual; Agricultural Land; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects

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**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Parks and Recreation; Department of Fish and Game, Region 3; Department of Water Resources; Caltrans, Division of Aeronautics; Caltrans, District 4; California Highway Patrol; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; California Energy Commission; Regional Water Quality Control Board, Region 2; Air Resources Board, Major Industrial Projects

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**Date Received** 12/13/2004 **Start of Review** 12/13/2004 **End of Review** 01/26/2005

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**LETTER #1 RESPONSE:**

**California Governor's Office of Planning and Research**

Terry Roberts, Director of State Clearinghouse

January 27, 2005

- 1-1 This letter acknowledges that copies of the Draft EIR were distributed to selected state agencies for review. The letter further acknowledges that the Lead Agency has complied with the State Clearinghouse review requirements for environmental documents, pursuant to the California Environmental Quality Act. No further response required.

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# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

California/Nevada Operations Office  
2800 Cottage Way, Room W-2606  
Sacramento, California 95825-1846

In reply refer to:  
1-1-05-TA-0561

JAN 28 2005

David Brockbank  
Community Development Department  
Contra Costa County  
651 Pine Street, Fourth Floor, North Wing  
Martinez, CA 94553

LETTER 2

Dear Mr. Brockbank:

Subject: Review of Draft Environmental Impact Report for the Proposed Buena Vista Wind Energy Project, Contra Costa County, California

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) dated November 2004 for the proposed Buena Vista Wind Energy Project (LP# 022005) in the Altamont Pass Wind Resource Area, Contra Costa County, California. At issue are the potential adverse effects on the endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the threatened California brown pelican (*Pelecanus occidentalis californicus*), the threatened California red-legged frog (*Rana aurora draytonii*), and the threatened California tiger salamander (*Ambystoma californiense*). This response is provided pursuant to section 10(B) of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*) (Act).

Section 9 of the Act and its implementing regulations prohibit the *take* of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal. Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

2-1

Take incidental to an otherwise lawful activity may be authorized by one of two procedures: If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a *formal consultation* with the Service. Such consultation would result in a *biological opinion* addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an *incidental take permit*. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project. The DEIR indicates that several federally listed species occur in the

2-2

Mr. David Brockbank

2

area and are likely to be affected by the proposed project, and we recommend that you work with this office and the California Department of Fish and Game to develop a plan that mitigates for the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the mitigation plan in any environmental documents you file.

2-2  
cont

We appreciate the opportunity to comment on the proposed Buena Vista Wind Energy Project DEIR. If you have any questions regarding these comments, please contact Larry Butcher or Susan Jones of my staff at (916) 414-6600.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth Sanchez". The signature is written in a cursive, flowing style.

Kenneth Sanchez  
Assistant Field Supervisor

**LETTER #2 RESPONSE:**

**U.S. Department of the Interior, Fish and Wildlife Service**

Kenneth Sanchez, Assistant Field Supervisor

January 28, 2005

- 2-1 There are no federal agencies involved with the permitting, funding or carrying out of the proposed Buena Vista Wind Energy Repowering Project. Any formal consultation with the Service by another federal agency pursuant to this Project is therefore not applicable.
- 2-2 To the extent feasible the Project has been designed to avoid, minimize, rectify and/or reduce impacts to annual grassland habitat, alkali meadow habitat, stock ponds and perennial/seasonal drainages. These habitat types provide habitat for a variety of species of birds, plants and terrestrial animals including the federally endangered San Joaquin kit fox, the threatened California tiger salamander and threatened California red-legged frog. Mitigation measures have been recommended in the EIR to further reduce and minimize impacts to these habitats, and to the species that are dependent upon these habitats. The Project design elements and additional mitigation measures are capable of reducing Project impacts to these habitat types such that the Project will not substantially reduce the number or restrict the range of an endangered, rare or threatened species.

The Draft EIR (MM 8-7i) also recommends that state and federal regulatory agencies be invited to become members of a Technical Advisory Committee (TAC) for the Project. The USFWS, as members of the TAC would have a direct opportunity to participate in the establishment of any additional conservation measures as may be necessary and applicable pursuant to their respective jurisdiction and permit processes.

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REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO, CALIFORNIA 95814-2922

CONTRA COSTA

05 JAN 19 PM 2:35

January 14, 2005

COMMUNITY  
DEVELOPMENT DEPT

Regulatory Branch (200500051)

LETTER 3

David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, California 94553

Dear Mr. Brockbank:

I am responding to the Draft EIR for the Buena Vista wind energy project. Your identification numbers are SCH# 2003112038, LP022005.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

3-1

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the enclosed minimum standards for wetland delineations, and submit it to this office for verification.

The range of alternatives considered in any project design should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

3-2

Please refer to identification number 200500051 in any correspondence concerning this project. If you have any questions, please contact William Guthrie at our Delta Office, 1325 J Street, Room 1480, Sacramento, California 95814-2922, email [William.H.Guthrie@usace.army.mil](mailto:William.H.Guthrie@usace.army.mil), or telephone 916-557-5269. You may also use our website: [www.spk.usace.army.mil/regulatory.html](http://www.spk.usace.army.mil/regulatory.html).

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Finan', with a stylized flourish at the end.

Michael Finan  
Chief, Delta Office

Enclosure(s)

**LETTER #3 RESPONSE:****U.S. Department of the Army, Corps of Engineers**

Michael Finan, Chief, Delta Office

January 14, 2005

- 3-1 Comment noted. The requirements for Corps of Engineers authorization for any discharge of dredged or fill materials into waters of the US is recognized in the “Applicable Laws and Ordinances” portion of the DEIR Biology chapter, page 8-3.

As noted on page 8-39 of the Draft EIR, “Based on the current Project description and design, it appears that stock ponds and drainages [wetlands] will be avoided as part of the Project. No Project features are located within 200 feet of a stock pond or drainage way within the site. However, existing access roads pass near drainages in the central portion of the site.” Mitigation Measure 8-3d requires the applicant to prepare wetland delineations for identified potential wetland areas within 200 feet of any Project features. The potential Project-related impacts that may occur within 200 feet of a potential wetland (stock pond or seasonal/perennial drainages) include the following:

- The ultimate grading necessary for the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> most northerly new turbines in the “C” String. Although these turbines have been sited more than 200 feet from the stock pond and drainages, the final grading plan will need to be reviewed to determine if grading limits maintain the 200 foot setback.
- Two (2) drainages cross the existing Project access road from Byron Hot Springs Road. To the extent that this existing access road may need temporary widening to accommodate construction vehicles, there may be potential site-specific impacts at these two crossings.

Based on the County’s review of the Project’s subsequent grading plans, if any Project features (including grading activity) are located within 200 feet of the stock pond or seasonal/perennial drainage, then the County will require implementation of MM 8-3d including submittal of a wetland delineation to the US Army Corps of Engineers for verification, consistent with this comment.

- 3-2 The Project has been designed to specifically avoid potential impacts to wetlands at the existing stock pond and alkali meadow. The roadway proposed for construction and maintenance traffic specifically avoids use of a portion of the existing road that connects the eastern and western portions of the Project site. This existing portion of the road alignment is immediately adjacent to the stock pond and alkali meadow. The Project’s proposed access plan avoids impacts to these biological resources and complies with the Repowering Program requirements for establishing a 200-foot setback from such natural features by

### CHAPTER 3: RESPONSE TO COMMENTS

relying on other, less direct roads to access various points within the site. No improvements to the existing road are proposed within 200 feet from the stock pond.

As noted in MM 8-3d, if avoidance of fill in jurisdictional wetlands is not possible, the County shall require the applicant to obtain a permit from the US Army Corps of Engineers and to follow all applicable protocols and procedures pursuant to such a permit, potentially including providing additional mitigation to compensate for the loss of such wetlands.

CONTRA COSTA

05 JAN -3 PM 3: 26

COMMUNITY  
DEVELOPMENT DEPT

U.S. Department of Homeland Security  
FEMA Region IX  
1111 Broadway, Suite 1200  
Oakland, CA. 94607-4052



FEMA

December 29, 2004

Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, CA, 94553  
Attention: David Brockbank

LETTER 4

Dear Mr Brockbank:

This is in response to your Buena Vista Wind Energy Project EIR

Please review the current effective Flood Insurance Rate Maps (FIRMs) for the County of Alameda, California, dated between April 15, 1981 and February 9, 2000. Please note that the County of Alameda, California, is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in the Code of Federal Regulations #44, Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.
- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any *development* must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.
- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above

the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with CFR44, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at [http://www.fema.gov/mit/tsd/dl\\_mt-2.htm](http://www.fema.gov/mit/tsd/dl_mt-2.htm)

**Please Note:**

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in CFR #44. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The County of Alameda, California, floodplain manager can be reached by calling Department of Public Works, 510-748-4552.

If you have any questions or concerns, please do not hesitate to call David Weinstock, PE, of my staff at 510-627-7207.

Sincerely,

*David Weinstock, PE,*

*for*

Michael Shore  
Branch Chief  
Community Mitigation Programs

cc:

Ray Lee, California Department of Water Resources  
Carmelia Henderson, FEMA Mitigation Division  
Allesandro Amaglio, FEMA

**LETTER #4 RESPONSE:**

**U.S. Department of Homeland Security, Federal Emergency Management Administration**

Michael Shore, Branch Chief, Community Mitigations Programs

December 29, 2004

- 4-1 There are no elements of the proposed Project that are located within a riverine floodplain, a regulatory floodway or a coastal high hazard area, nor are any changes anticipated to the Special Flood hazard Area as a result of the proposed Project. All of the proposed new turbines are to be located atop ridgelines and hillsides and out of the low-lying floodplain areas. As noted in the Initial Study, “the Project does not propose to build any new structures or roads within the flood hazard area [of Brushy Creek] or in any other area prone to flooding.”

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DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

POST OFFICE BOX 47  
YOUNTVILLE, CALIFORNIA 94599  
(707) 944-5500

CONTRA COSTA

05 FEB -2 PM 2:56



February 1, 2005

LETTER 5

Mr. David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, CA 94553  
Via fax (925) 335-1222

Dear Mr. Brockbank:

Buena Vista Wind Energy Project  
Draft Environmental Impact Report  
Contra Costa County  
SCH 2003112038

Department of Fish and Game (DFG) personnel have reviewed the "Buena Vista Wind Energy Project Draft Environmental Impact Report" (DEIR), dated November 2004, Contra Costa County. The DEIR discusses the modification of a currently operating wind farm operation and includes the removal of 170 existing towers and wind turbines, and replacement with 38 new, larger, and more energy efficient turbines.

The project site is approximately 2,500 acres in size and is located in the Byron Hills area of southeastern Contra Costa County within the Altamont Pass Wind Resource Area, immediately west of Byron Hot Springs Road and immediately north of the Alameda/Contra Costa County line. Armstrong Road terminates just north of the project site and Vasco Road passes through the northwest corner of the property. Assessor's Parcel numbers are 001-021-001, 002, 007, 008, 009, 011, 012, 013, 017, 020, and 005-160-005, 005-170-009, and 005-180-002.

The site is characterized by relatively flat terrain near Byron Road to gently sloping land in the eastern and central portions of the site to relatively steep hillsides on the west. The primary use of the project site is cattle grazing. The site

*Conserving California's Wildlife Since 1870*



is predominantly annual grasslands with few trees or shrubs and supports sensitive habitat types including alkali meadow/wetland, several ephemeral drainages, stock ponds and Brushy Creek.

The project has been modified from the April 2004 proposal in response to guidance from the project consultant and the California Energy Commission (CEC). Turbines have been relocated and configured to reduce avian mortality. These new larger turbines will be mounted on the tallest practicable towers also in an attempt to reduce avian mortality. Four new turbines planned for the area northeast of Vasco Road have been eliminated and portions of the current lease option cancelled early at the request of the landowner.

There will be approximately 4.4 acres of new permanent impact and 46.7 acres of new temporary impact. Approximately 12.3 acres of currently disturbed annual grassland will be reclaimed to natural grassland under the proposed project through removal of 179 turbines and footings and 2.4 miles of existing roads.

The EIR does a good job of recognizing the large number of native species and habitats which may be adversely affected by the project. The applicant has proposed some effective minimization measures, but this is only the first step in reducing project impacts to a level of less-than-significant. Avoidance and minimization measures need to be followed by mitigation for the remaining unavoidable impacts. The measures as proposed are inadequate because they lack provisions for permanent conservation and management and, when appropriate, enhancement of similar habitat. Also, as a condition of approval, there needs to be clear language stating that the resource agencies and the County can require project changes in response to future studies of the biological impacts. These measures will be required to reduce the project's unavoidable impacts to a level of less-than-significant.

5-1

5-2

#### 8.1 Alkali Meadow Habitat:

The EIR states that impacts to this sensitive habitat will be avoided "unless no feasible alternative exists."

5-3

A conservation preservation and enhancement requirement should be added for any unavoidable impacts.

5-3  
cont

### 8.3 Stock Ponds, Seasonal and Perennial Drainages:

These areas provide breeding and foraging habitat and dispersal opportunities for California tiger salamanders (CTS) and red-legged frogs as well as a number of other water-dependent species. The EIR states that direct impacts will be avoided including a buffer of 200 feet with the exception of access roads on the central portion of the site. It also discusses the upland buffer area extending 600 feet from the water to provide sufficient terrestrial habitat for estivating CTS. As described, the mitigation measures identified to avoid impacts to CTS and red-legged frog are inadequate and ineffective.

5-4

All areas of permanent or temporary grading or ground disturbance within one mile of suitable breeding habitat for CTS or red-legged frog should be considered impacted. All impacted areas should be mitigated through permanent conservation and, when appropriate, enhancement of similar habitat at ratios approved by the resource agencies.

Avoidance: Prohibiting construction of new roads, turbine pads, staging areas and roadway widening within 200 feet of stock ponds is a minimization measure but does not accomplish avoidance.

Seasonal Avoidance: The 600-foot buffer has been misinterpreted to be an area of avoidance of take of estivating and dispersing CTS and red-legged frog. It is well known and documented that these animals travel long distances, one mile or more, over upland areas and seek refuge in burrows and other subterranean features of the landscape. Moreover, CTS can remain underground for long periods of time. Working outside of the breeding season does not avoid impacts to estivating animals or their habitat.

5-5

Protection and Monitoring: Scheduling work during the non-breeding season will not avoid impacts to estivating animals or their habitat. It could minimize direct take of dispersing individuals.

The plan for installation of silt fences should be developed in close coordination with the resource agencies to avoid blocking overland movement and to avoid entrapment.

5-6

Wetland Delineation: DFG has jurisdiction over certain waters of the State including lakes and streams, which often differ from waters of the United States. A Streambed Alteration Agreement (Section 1600 of the Fish and Game Code) will be required for impacts to these features.

5-7

San Joaquin Kit Fox:

The project will result in impacts to grassland habitat for San Joaquin kit fox. The EIR estimates, under permanent conditions, a net increase in annual grasslands of approximately 7.9 acres as a result of reclamation efforts. It is acknowledged that there will be temporary disturbance to 46.7 acres which will be recontoured and reseeded at the end of the project.

There is no proposal to permanently conserve the 6.6 acres "reclaimed" after turbine removal. In addition, these areas will leave the existing concrete foundation pads in place to be covered with top soil. The remaining buried concrete reduces the suitability of these areas for fossorial animals, therefore reducing their benefit to closely associated species including San Joaquin kit fox, western burrowing owl, CTS, and red-legged frog. The conservation value attributed to any "reclaimed" areas proposed for permanent conservation will therefore be reduced. In addition other "reclaimed" areas, including staging, crane pads and roads proposed for permanent conservation which have a final soil compaction rate that precludes use by fossorial animals, will have the conservation value reduced accordingly.

5-8

Reduced Lease Agreements: The applicant proposes to relinquish their leases on much of the Souza-owned part of the 2500-acre project area restricting the lease areas to a band of property 200 feet on either side of each turbine string, an area of approximately 225 acres. The leases on the entire 175-acre Martinez and Pugh parcels would continue.

5-9

Leases typically grant the operator rights to use only a percentage of the total acreage. In any case, relinquishment of the leases does not ensure permanent conservation of the Souza property. DFG does not consider "potential permanent open space preservation" to be effective mitigation for defined project impacts. This action as proposed would not be considered mitigation by DFG.

5-9  
cont

To reduce impacts to a level of less-than-significant, DFG recommends that after incorporation of all avoidance measures, all the areas of temporary and permanent disturbance be mitigated through the permanent conservation and, when appropriate, enhancement of suitable habitat at ratios acceptable to the resource agencies. Areas of temporary disturbance may be mitigated at a reduced ratio as determined by DFG.

Based on the proposed project estimates to grassland of 4.4 acres of new permanent impact and 46.7 acres of new temporary impact, the applicant should permanently preserve, manage and enhance where appropriate approximately 60 acres of grassland habitat suitable for kit fox. This area, if suitable, can also serve to mitigate the impacts to the other special status species affected by the project.

5-10

In all instances of conservation of property for mitigation, DFG, its designee or successor, shall hold easements or title to and protect all mitigation lands conveyed in fee title solely for the purposes of conservation, protection, restoration, and enhancement of the species of concern and/or its habitats. This covenant shall remain in effect with the land and no use of such land shall be permitted by DFG or any subsequent titleholder or assignee that is in conflict with the conservation purposes. Initial improvements shall be the responsibility of the applicant and a management and monitoring plan, approved by DFG, shall be funded by the applicant through a non-wasting endowment directed by DFG.

#### 8.6 Burrowing Owls:

Non-breeding Season Controls: As stated in the EIR, habitat preservation is only required as part of any relocation of nesting burrowing owls. To reduce impacts to a level of

5-11

less-than-significant, mitigation as recommended in the DFG Staff Report should be provided for all displaced owls on the project site.

5-11  
cont

#### 8.7 Avian Collision Impacts:

The applicant has incorporated results from the most recent studies to site, relocate, or eliminate what are predicted to be the most problematic turbine locations. The applicant has also incorporated a number of additional minimization measures into the project description to reduce rodent prey base without poisoning and to eliminate guy wires and electrical lines. Follow up studies are also proposed to confirm the effectiveness of these actions in reducing avian mortality.

5-12

Since it is the implementation of actions based on the follow-up studies and other relevant data which result in minimization of and mitigation for project impacts, there needs to be a provision which allows the resource agencies to determine the threshold at which additional action will be required and clear language that empowers resource agencies to require changes to the project based on the results of the monitoring program.

Selective seasonal shut-downs should be explored as an effective strategy to substantially reduce avian mortality. Unavoidable mortality could be addressed through off-site land acquisition and management. Acquisition, conservation, and management of off-site suitable habitat should be required for avian mortality which continues after implementation of all other avoidance and reduction measures. This could be accomplished through a fee collection program based on a variety of factors including actual kill rates, amount of energy produced, number of turbines or rotor swept area or a number of other possibilities.

5-13

5-14

#### 8.8 Bat Collision Mortality

As stated in the EIR, bat mortality has been observed at the new larger turbines at the High Winds Site in Solano County. Bats had the highest number of fatalities per species with 43 percent more Hoary bats killed than the next most frequently killed species, the American kestrel. Another study conducted through the Iowa State University on an 89-turbine windfarm in

5-15

David Brockbank  
February 1, 2005  
Page 7

north Iowa which uses the larger turbines similar to those proposed for the Buena Vista site, had a disproportionately large number of bat fatalities versus bird kills. The taller, larger turbines may result in increased bat mortality.

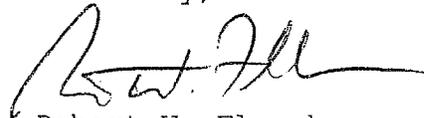
Follow-up studies are proposed to estimate the bat fatality rates from the new turbines. A technical advisory committee could then recommend additional focused monitoring or recommend additional mitigation such as contributions for bat conservation.

5-15  
cont

Since it is the implementation of actions based on the follow-up studies and other relevant data which result in minimization of and mitigation for project impacts, there needs to be a provision which allows the resource agencies to determine the threshold at which additional action will be required and clear language that empowers resource agencies to require changes in the project based on the results of the monitoring program.

We appreciate your consideration of our comments. DFG personnel are available to discuss our concerns. If you have any questions regarding our comments, please call Janice Gan, Environmental Scientist, at (209) 835-6910; or Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,



Robert W. Floerke  
Regional Manager  
Central Coast Region

cc: See Next Page

David Brockbank  
February 1, 2005  
Page 8

cc: Mr. Larry Butcher  
U. S. Fish and Wildlife Service  
2800 Cottage Way, W2605  
Sacramento, CA 95825

Mr. Brad Olson  
East Bay Regional Parks District  
2950 Peralta Oaks Court  
Oakland, CA 94605-0381

Linda Spiegel  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

Mr. John Kopchik  
Contra Costa County  
Community Development Department  
651 Pine Street, 2<sup>nd</sup> Floor, North Wing  
Martinez, CA 94553

State Clearinghouse  
Post Office Box 3044  
Sacramento, CA 95812-3044

**LETTER #5 RESPONSE:**

**California Department of Fish and Game**

Richard Sanchez, Chief

February 1, 2005

- 5-1 Please see Response to Comments on Habitat Compensation.
- 5-2 Please see Response to Comments on the Technical Advisory Committee and response to Comments on Adaptive Management Strategies.
- 5-3 Comment noted. Mitigation Measure 8-1a is hereby revised and amended as follows to address the issue of unavoidable impacts to alkali meadow habitat:

**MM 8-1a: Avoidance.** Ground disturbance shall be avoided within 200 feet of alkali meadow habitat, unless no other feasible alternative exists. In the event of potential unavoidable impacts to alkali meadow habitat, the applicant shall restore/replace an equal area of such habitat as compensation for habitat disturbed.

- 5-4 Please see Response to Comments on Habitat Compensation.
- 5-5 Grading activities throughout the Project area may adversely affect individual California tiger salamander(s). The mitigation measures recommended in the Draft EIR provide for minimizing impacts to the breeding habitat (stock ponds and perennial/seasonal drainages) for this species (MM 8-3a). Under the current Project assumptions, all the on-site construction activity will be completed by the end of October. In order to further minimize impacts to California tiger salamander and its habitat, Mitigation Measure 8-3b is hereby revised and amended as follows.

**MM 8-3b: Additional Seasonal Avoidance.** No construction of new roads or turbine pads or other ground disturbance such as staging areas and roadway widening shall occur ~~within 600 feet of stock ponds and perennial/seasonal drainages on the site~~ during February and March, the breeding season for California tiger salamander.

These mitigation measures are intended to minimize impacts to the habitat and breeding habitat ponds, as well as to avoid harm to individual tiger salamanders traveling to and from breeding ponds to the extent feasible.

- 5-6 Coordination with all agencies having jurisdiction will be conducted should any construction activities ultimately be proposed within 200 feet of a perennial/seasonal drainage and where wetland features may be delineated. Such consultation will address the placement of silt fences or any other mitigation requirements.

### CHAPTER 3: RESPONSE TO COMMENTS

- 5-7 The applicant would be required to apply for a Streambed Alteration Agreement to the extent that it may be determined that the Project would have an impact on streams or lakes within the jurisdiction of the CDFG. However, the Project does not include any proposal to interfere with the natural flow of, or substantially alter the channel, bed or bank of a lake, river or stream.
- 5-8 According to the professional judgment of Shawn Smallwood, PhD; “*Fossorial mammals routinely seek out and burrow under concrete pads due to the cover that these pads provide and due to the vertical and lateral edge conditions associated with them.*”<sup>8</sup> Smallwood and Thelander (2004) advocated habitat management of turbine pads under operational wind turbines for this very reason.<sup>9</sup> In the case of the Project, the pads underlying the turbines to be removed will be buried, and many will be located a considerable distance from the new, operating turbines. The professional judgment of Shawn Smallwood, PhD, is that “*any attraction that these older, reclaimed turbine pads may have on fossorial mammals would be of benefit where their existence and their draw of raptorial birds will reduce the threat of collision posed by the new turbines.*”<sup>10</sup> This sort of management of fossorial mammals on the larger landscape is consistent with the recommendations of Smallwood and Thelander (2004).
- 5-9 Please see Response to Comments on Habitat Compensation.
- 5-10 Please see Response to Comments on Habitat Compensation. The County knows of no other proposed or potential land uses in the Project area that would render the acreage proposed to be reclaimed under the Project as “not permanent”. Additionally, it is assumed that this comment was intended to suggest that the applicant provide up to 50 acres of permanent grassland habitat at a ratio equal to habitat disturbed (4.4 permanent plus 46.7 temporary), not 60 acres.
- 5-11 The Draft EIR (MM 8-6a, b and c) states that any and all surveys, habitat preservation and relocation of nesting burrowing owls be done according to the DFG protocol and in consultation with the DFG.
- 5-12 Please see Response to Comments on the Technical Advisory Committee and on Adaptive Management Strategies.
- 5-13 Please see Response to Comments on Adaptive Management

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<sup>8</sup> Smallwood, K.S., M.L. Morrison, and J. Beyea. 1998. Animal burrowing attributes affecting hazardous waste management. *Environmental Management* 22: 831-847.

<sup>9</sup> Smallwood, K. S. and C. Thelander. 2004. Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. 500-01-019. Sacramento, California. 531 pp.

<sup>10</sup> Smallwood, 2005.

- 5-14 Please see Response to Comments on Off-Site Mitigation Fee for Avian Impacts.
- 5-15 During the National Renewable Energy Laboratory (NREL) and California Energy Commission (CEC) studies, only 4 bat fatalities were found under wind turbines. However, as indicated in the DEIR (Impact 8-9) larger turbines mounted on taller towers may lead to increased levels of bat mortality. Bats tend to fly at altitudes that may overlap with the height of the proposed rotor planes of the new turbines. The EIR (MM8-9a and b) requires the monitoring of bat fatalities during the first three years of turbine operations, and recommends that the TAC assess the impacts to bats over time (see also Response to Comments on Off-Site Mitigation Fee for Avian Impacts).

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CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512



CONTRA COSTA

05 JAN 31 PM 2:41

January 28, 2005

COMMUNITY  
DEVELOPMENT DEPT

Mr. David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, CA 94553

LETTER 6

**RE: Buena Vista Wind Energy Project Draft EIR**

Dear Mr. Brockbank:

We have reviewed the Draft Environmental Impact Report (DEIR) for the Buena Vista Wind Energy Project (BVWEP) and have several comments.

In Section 8.3 (pp. 8-38-40) there is a discussion of stock ponds and seasonal and perennial drainages in the construction area that provide breeding habitat for the California red-legged frog and the California tiger salamander. Although in the section it states that a breeding site includes terrestrial habitat extending out to 600 feet from the water, a discussion about California tiger salamander aestivating habitat is not included. According to the U.S. Fish and Wildlife Service Interim Guidelines (2003) California tiger salamander can aestivate up to 2 km from known breeding ponds. Energy Commission staff recommends the mitigation measures on page 8-39 be updated in the Final Environmental Impact Report (FEIR) to include the following:

6-1

- Construction should not occur on rainy days (MM8-3c,d), or during the California tiger salamander breeding season in areas that are known California tiger salamander habitat (dry season construction only);
- A qualified biologist shall monitor during construction activities in California tiger salamander and California red-legged frog habitat to minimize the potential for those activities to harm individuals using the area; and
- Habitat compensation for the loss of California tiger salamander aestivating habitat should be provided. The annual grassland habitat (which is also potential aestivating habitat) permanently impacted by the project is 29.2 acres (Table 8-3). Habitat compensation should be provided in a ratio acceptable to the U.S. Fish and Wildlife Service.

6-2

6-3

The Energy Commission would like to commend you for basing many of the mitigation measures, to reduce avian collisions, on current research and information. Most of the mitigation measures to reduce avian impacts included in

the most recent report for the Altamont Pass (Smallwood 2004)<sup>1</sup> are listed as mitigation measures in Chapter 8 of the DEIR (pages 8-54 and 8-55). There are two additional avian collision mitigation measures from that report that should be included in the FEIR:

- The potential for blade painting should at least be addressed and included as a future mitigation measure for the technical advisory group to consider if blade painting is found, through further studies, to be effective in reducing bird kills. 6-4
- An off-site compensation plan to mitigate for avian mortalities should be included. This plan should include an annual fee based on bird fatalities or other measure that is used to purchase "in kind" habitat compensation (conservation easement or fee title) lands. 6-5

The following measure was not included in the Altamont Pass (Smallwood 2004) report, but it should also be discussed as a mitigation measure to reduce avian collisions.

- Seasonal shutdown of specific turbines should be considered during the winter months (Oct.-Feb.) when bird fatalities may be at their highest, and when wind turbines operate the least due to low wind speeds. Candidate turbines for potential shut down would be identified through the ongoing monitoring program and agreed to through the technical advisory committee. 6-6

The avian and bat monitoring proposal is located in Appendix E of the DEIR. The monitoring proposal includes a discussion regarding the survey protocol, dispersal of the data, and forming a technical advisory committee. A couple of changes should be made to the technical advisory committee section (pp. 4-5):

- The technical advisory committee should be set up with the authority to act on the information gathered in the monitoring effort to reduce future impacts. There should be a contingency (or adaptive management) plan that includes, but is not limited to, moving the turbines that kill the most birds, seasonal shutdowns, or implementing additional measures in the future to reduce bird fatalities. 6-7
- It is stated that the technical advisory committee can be dissolved by Contra Costa County if avian and bat impacts are minimal and adequately mitigated. The U.S. Fish and Wildlife Service and California Department of Fish and Game should approve of the action, prior to dissolving the technical advisory committee, and determine whether mitigation efforts by the project owner reduce impacts enough for the project to be in compliance with state and federal laws. 6-8

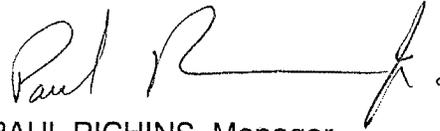
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<sup>1</sup> Smallwood, K.S. and C.G. Thelander. 2004. Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area. Final Report by BioResource Consultants to the California Energy Commission, Public Interest Energy Research-Environmental Area, Contract No. 500-01-019: L. Spiegel, Program Manager. 363 pp. +appendices.

Mr. David Brockbank  
January 28, 2005  
Page 3

Thank you for the opportunity to consult on this project. If you have questions or comments regarding this letter, please contact Melinda Dorin, staff biologist, at (916) 654-4024 or e-mail her at [mdorin@energy.state.ca.us](mailto:mdorin@energy.state.ca.us). We look forward to receiving a copy of the Final EIR.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Richins". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

PAUL RICHINS, Manager  
Environmental Office

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**LETTER #6 RESPONSE:**

**California Energy Commission**

Paul Richins, Manager, Environmental Office

January 28, 2005

6-1 In order to provide greater avoidance of California tiger salamander, Mitigation Measure 8-3b is hereby revised and amended as follows. Under the current Project assumptions, all the on-site construction activity will be completed by the end of October. Rain during October will not significantly affect tiger salamander movements beyond 200 feet of the stock pond or perennial/seasonal drainages because they rarely if ever move until the rains of February.

**MM 8-3b: Additional Seasonal Avoidance.** No construction of new roads or turbine pads or other ground disturbance such as staging areas and roadway widening shall occur ~~within 600 feet of stock ponds and perennial/seasonal drainages on the site~~ during February and March, the breeding season for California Tiger Salamander.

6-2 A monitor will be onsite during construction, as specified in Mitigation Measure 8-3c,c).

6-3 Please see General Response to Comments on Habitat Compensation.

6-4 Please see General Response to Comments on Adaptive Management.

6-5 Please see General Response to Comments on Off-Site Mitigation Fee for Avian Fatalities.

6-6 Please see General Response to Comments on Adaptive Management, Seasonal Shutdowns of Turbines

6-7 Please see General Response to Comments on Adaptive Management.

6-8 Please see General Response to Comments on the Technical Advisory Committee.

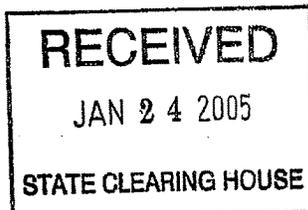
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**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
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(916) 653-5791



January 20, 2005



Clear  
1-26-05  
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Mr. David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, California 94553

LETTER 7

Notice of Public Hearing for a Draft Environmental Impact Report for the Buena Vista Wind Energy Project, California Aqueduct, Near Milepost 3.02, Delta Field Division, Contra Costa County, SCH 2003112038

Dear Mr. Brockbank:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for Buena Vista Wind Energy Project. The report identifies the replacement of 179 existing towers and turbines with 38 new, larger, and more efficient turbines, located immediately west of Byron Hot Springs Road and immediately north of the Alameda County/Contra Costa County border in the county of Contra Costa.

The area proposed for this replacement project encompasses portions of the Department of Water Resources (DWR) right of way. Any new location of turbines that involve DWR right of way will require an Encroachment Permit.

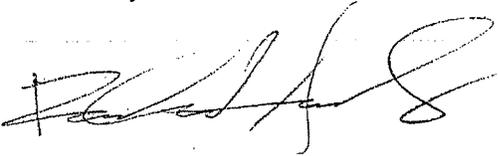
Please include the DWR on all future correspondence related to this proposed development. All correspondence should be submitted to:

Department of Water Resources  
Division of Operations and Maintenance  
1416 Ninth Street, Room 649-2  
Sacramento, California 95814  
Attn: Elena Behnam

Mr. David Brockbank  
January 20, 2005  
Page 2

If you have any questions, please contact Elena Behnam, Chief of the Maintenance Engineering Section, at (916) 653-0344 or Leroy Ellinghouse at (916) 653-7168.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Sanchez", written in a cursive style.

Richard Sanchez, Chief  
State Water Project Operations Support Office  
Division of Operations and Maintenance

cc: State Clearinghouse  
Office of Planning and Research  
1400 Tenth Street, Room 121  
Sacramento, California 95814

**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
SACRAMENTO, CA 94236-0001  
(916) 653-5791

CONTRA COSTA



JAN 20 2005

05 JAN 24 AM 9:14

DEPARTMENT DEPT

Mr. David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor  
Martinez, California 94553

Draft EIR for the Buena Vista Wind Energy Project, Near Milepost 3.04, Delta Field Division, Contra Costa County, SCH 2003112038

Dear Mr. Brockbank:

Thank you for the opportunity to review and comment on the Draft EIR for the Buena Vista Wind Energy Project. The proposed project is for the development of a modified wind power plant, whereby 179 existing turbines will be removed and replaced with 38 larger and more efficient turbines. The proposed project area is in Contra Costa County, bounded by Byron Hot Springs Road on the east, the Alameda County/Contra Costa County border on the south, with Vasco Road passing through the northeast corner.

The southeast boundary of the Buena Vista Wind Energy Project is near the California Aqueduct. The Department of Water Resources (DWR) is concerned that, based on information provided in the Draft EIR, areas of State-owned right of way may be encroached upon during the demolition phase and/or construction phase of your proposed project. For more information on encroachment permits and requirements, please contact DWR's Encroachment Permit Section at (916) 653-5361.

Please be aware this is DWR's third comment letter on the proposed project; therefore, it would be greatly appreciated if our comments are addressed in the Final EIR. Please provide DWR with a copy of the Final EIR when it becomes available for public review.

If you have any questions, please contact Elena Behnam, Chief of the Maintenance Engineering Section, at (916) 653-0344 or Maria Chin at (916) 653-8029.

Sincerely,

Richard Sanchez, Chief  
SWP Operations Support Office  
Division of Operations and Maintenance

cc: State Clearinghouse  
Office of Planning and Research  
1400 Tenth Street, Room 121  
Sacramento, California 95814



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**LETTER #7 RESPONSE:**

**California Department of Water Resources**

Richard Sanchez, Chief

January 20, 2005

- 7-1 A portion of the California Aqueduct located between Clifton Court Forebay and the Bethany Reservoir is in close proximity to, but not within the Buena Vista Project boundary. The Aqueduct is located about 600 feet to the southeast of the Project site, and the State of California owns a parcel of land in this vicinity (APN 001-021-016). The Project does not propose to construct any new turbines in the southeast portion of the site, and no construction activity is proposed in this area. There are several existing wind turbines located in the general vicinity (on APNs 001-21-17, 001-21-19 and 001-21-10). It does not appear that these turbines are located on DWR right-of-way. However, should any demolition or reclamation activities in this vicinity encroach into State-owned right-of-way, the County shall require that the applicant contact DWR regarding encroachment permits and requirements.

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05 JAN 27 PM 2: 27

COMMUNITY  
DEVELOPMENT DEPT

January 25, 2005

LETTER 8

Mr. David Brockbank  
 Contra Costa County Community Development Department  
 651 Pine Street, Fourth Floor, North Wing  
 Martinez, CA 94553

Subject: Comments on Nov. 2004 DEIR for Buena Vista Wind Energy Project

Dear Mr. Brockbank:

Thank you for providing the East Bay Regional Park District ("District") with a copy of the November 2004 Draft Environmental Impact Report (DEIR) for the Buena Vista Wind Energy Project in southeast Contra Costa County. We also reviewed and commented on an earlier Mitigated Negative Declaration and an April 2004 DEIR for this project.

Since our comments in April 2004, the District has acquired 617-acres of property from the Souza family in December 2004. This property abuts the northern boundary of Vasco Caves Regional Preserve. *See attached map labeled Exhibit A.* This acquisition consists of parcels 005-160-005, 005-170-007 and 005-170-008.

We have three areas of concern with the revised project and in light of our recent acquisition. We are providing written comments on: 1.) visual impacts, 2.) avian mortality, and 3.) maintenance. Each of these is discussed separately below.

### Visual Impacts

The former Souza property has three wind turbine leases, including a lease to Buena Vista who currently owns four inoperative turbines at the eastern end of the property. *See attached Exhibit B.* We previously requested that these four turbines be removed as visual impact mitigation for the earlier project. Since we have now acquired this property, we have already requested Buena Vista to remove these four turbines. Removal should include the turbines, transmission facilities and access road(s) to this location. The discussion on page 7-15 of the DEIR should make it clear that removing these four turbines does not mitigate the visual impact of the proposed repowering project; they help to reduce the existing visual impacts of the current wind turbine facilities to Vasco Caves.

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 General Manager

8-1



It appears that because Buena Vista can no longer place new wind turbines on the former Souza property that Buena Vista has instead proposed to construct five additional new turbines on private property, just east of Vasco Road and the eastern boundary of Vasco Caves Regional Preserve. This includes two new turbines designated as "String V". See attached Figure 2-3 of the DEIR, labeled as Exhibit C. These new turbines will result in new significant visual impacts to Vasco Caves that are not addressed or mitigated in the subject DEIR or in the earlier April 2005 DEIR. The two Visual simulations of views looking northeast from Vasco Caves were prepared for the earlier April 2004 DEIR and do not include the proposed String V turbines just east of Vasco Caves. See Figure 7-1 of the subject DEIR.

8-2

The proposed String V turbines would likely not be visible in the two visual simulation points shown of Figure 7-1 of the subject DEIR; however, they would be quite prominent from the lower rock outcrop area of the "Stone House Trail" and from the high point on the "Eagle Roost Loop Trail" at Vasco Caves. See attached Exhibit D. We request that the County or the applicant prepare a visual impact simulation of the proposed String V turbines in order to demonstrate the relative significance of the visual impact to Vasco Caves. Absent such information, the DEIR can draw no conclusion about the relative significance of this new visual impact or the effectiveness of measures proposed to mitigate this visual impact. We prepared a visual simulation of the two new proposed turbines based upon the assumption that they would measure approximately 240 feet tall to the tip of the blade. See attached Exhibit E. As you can see from the simulation, the two proposed String V turbines would be visually disruptive to Vasco Caves at potentially several locations.

8-3

#### Avian Mortality

We hope that the proposed repowering project will substantially reduce impacts to birds, especially golden eagles and burrowing owls; however, the DEIR provides insufficient scientific information to support such a conclusion. There are ways to reduce impacts to birds that have not been adequately considered in the DEIR. These are through 1.) a required monitoring program that mandates in the field changes to wind turbine operations, 2.) closure of individual turbines or installations for unavoidable significant impacts, and 3.) collection of an avian impact fee for repowering projects that is used to acquire and protect habitats in the Altamont Hills area. Such a fee could be used to mitigate both the impacts of new and on-going operations, and could also serve to mitigate for the cumulative avian mortality over the past twenty years since the Altamont Wind Resource Area was established.

8-4

The DEIR provides no scientific evidence that demonstrates that the newer generation of wind turbines will actually reduce the incidence of avian mortality and injury in the Altamont Hills. The DEIR provides a discussion of impacts based on the assumption that fewer larger turbines are better, yet there is no

8-5

scientific evidence from the Altamont Hills to support this claim, only speculation based upon results elsewhere where bird kill and bird abundance are at considerably lower rates. There is also the equally real possibility that mortality rates may actually increase, or the impacts to one species of bird may be reduced at the expense of another bird species that experiences increased mortality or injury. In the absence of conclusive information about the actual impacts of these new turbines in the Altamont Hills, the DEIR should take a more conservative approach and err on the side of protecting birds and other impacted wildlife. Collection of an avian impact fee for repowering projects is a key way to provide such an assurance in the absence of real impact information.

8-5  
cont

Golden eagles are particularly vulnerable to being injured or killed by wind turbines. They are a top predator and they have a low reproductive rate that may not be able to withstand the current annual loss of about 75 to 116 individuals (See DEIR at page 8-23). The Altamont Hills (in particular) contain high concentrations of golden eagles and as result, a large number of these birds have been injured or killed by wind turbine facilities. The other major wind power installations in North American have nowhere near the number of golden eagle impacts because there are considerably fewer golden eagles using those areas. There is a simple correlation between the density of eagles and the number of eagles injured or killed.

8-6

It is also important to note that golden eagles are protected under a number of State and federal laws and regulations. These include the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act at a Federal level. Under California law, golden eagle is designated as a fully protected species, and as such, "take" of this species cannot be permitted. Accordingly, the threshold for determining the significance of impacts to this bird would be the injury or death of one bird. There is no acceptable or permissible level of take for a "no take" species. Such an impact should result in a mandatory finding of significance under CEQA. This significant and unavoidable impact does not appear to have been adequately addressed or mitigated in the DEIR.

The District is currently considering developing its own monitoring program on the recently acquired Souza property in order to gather additional data on the effects of turbines on birds, including burrows owl and golden eagles. Such information would be used in considering which of the remaining leases could be renewed in ten years when they expire. Other wind turbine operators should similarly be required to fund and conduct research on the actual effects of the new wind turbines in an effort to identify and implement (at their cost) effective measures to reduce or avoid impacts from wind turbine facilities in the Altamont Hills. This may include closure of some turbines or facilities where significant effects cannot be avoided. It should be noted that research, design and operational improvements will not reduce avian impacts to a less-than-significant level, nor will they mitigate the cumulative effects of wind turbines on birds over the past two decades. Therefore, we strongly recommend that the County

8-7

impose and collect an "avian impact fee" on wind turbine operators seeking authorization to repower. Such a fee would be used to acquire and protect habitat for species impacted by wind turbines, including golden eagle and burrowing owls. Such funds could be dispersed at the direction of the Technical Advisory Committee described in the DEIR.

8-8

Maintenance

A number of the access roadways in the area surrounding Vasco Caves have ongoing erosion problems that are impacting water quality and depositing sediments in drainages and ponds where they may impact special-status amphibians, including red-legged frog and tiger salamanders. Some of the roads were improperly constructed or maintained, such that they hold water during storm events, creating gullies on the upslope side of the road or causing sections of roadways to fail. Many culverts were improperly installed so that the culvert outfalls have scoured deep holes in the hillsides below roadways. The DEIR should discuss these specific impacts and set forth mitigation measures to correct these problems.

8-9

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

Sincerely,



Brad Olson  
Environmental Programs Manager

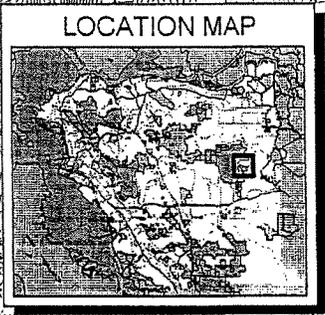
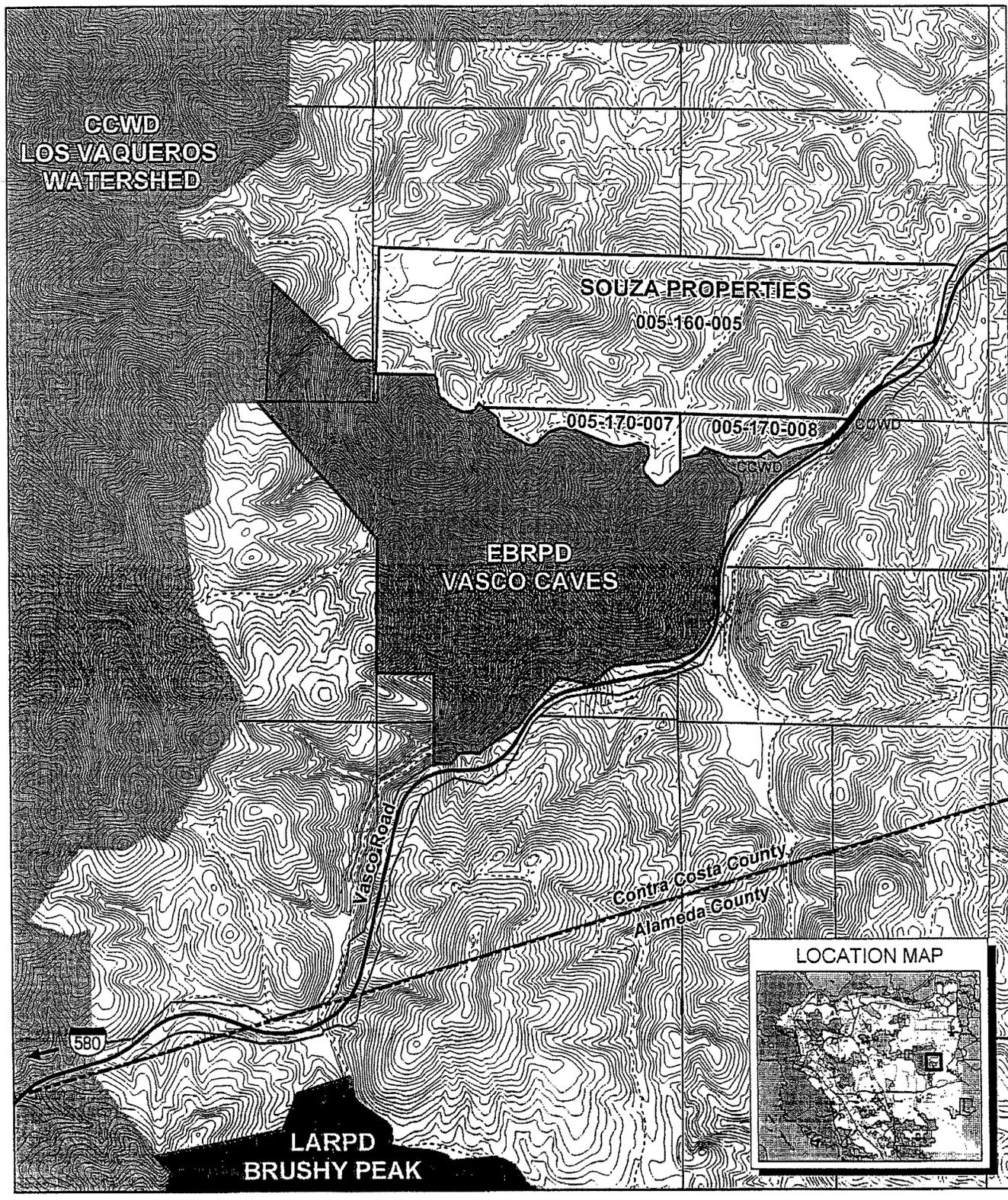
attachments (Exhibits A through E)

cc. Janice Gan, DFG  
Shiela Larsen, FWS  
Chris Bazar, Alameda County Planning  
Jeff Miller, Alameda Creek Alliance  
Seth Adams, Save Mt. Diablo  
Mt. Diablo Audubon Society

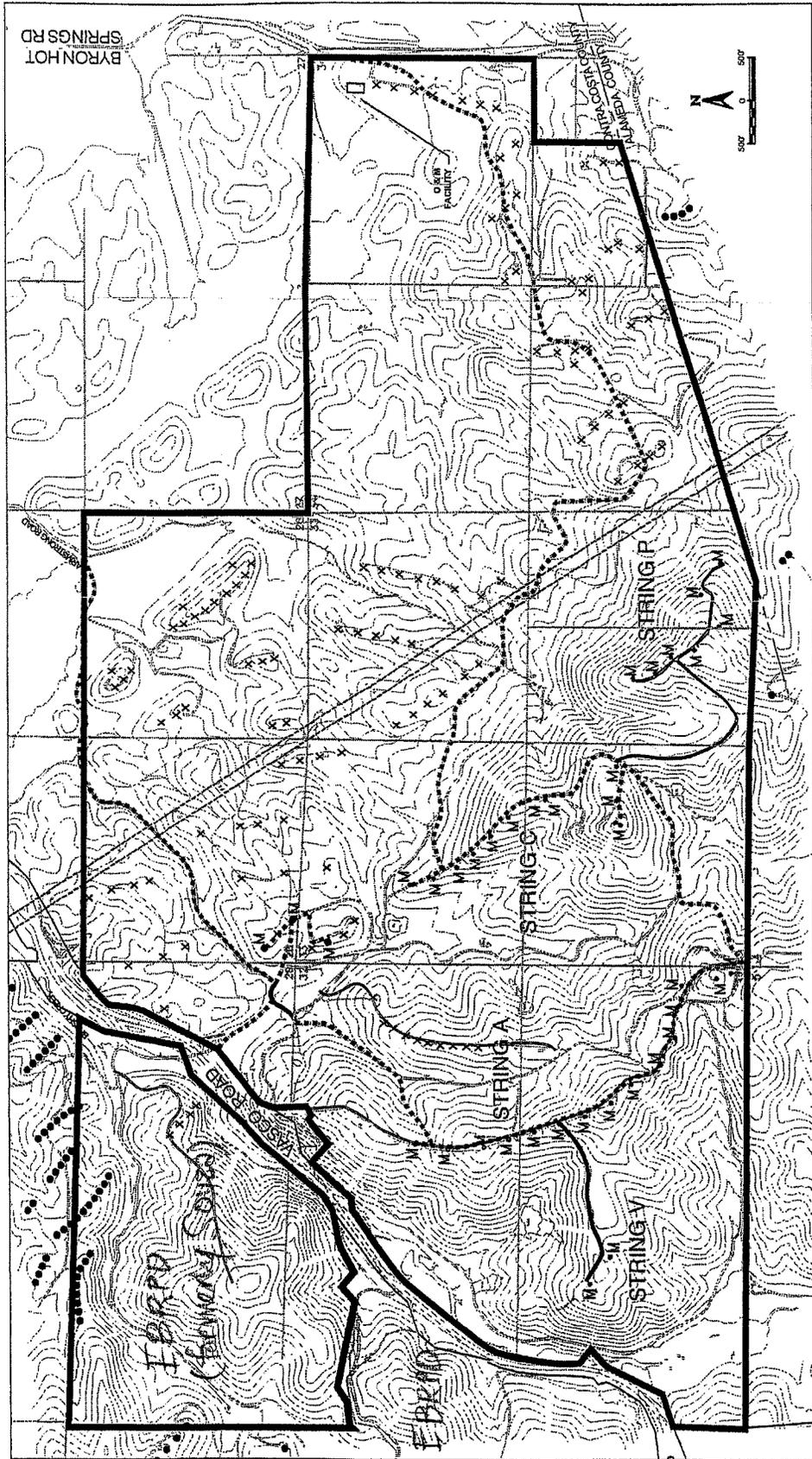


# VASCO CAVES REGIONAL PRESERVE SOUZA PROPERTIES

Environmental Review &  
GIS Applications  
November 18, 2004  
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landacq/vc\_souza.mxd  
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Source: Nov. 2004 DEIR  
Exhibit B



NOTE: Existing turbines in locations where new turbines are proposed are not shown

SOURCE: Buena Vista Energy, LLC

Figure 2-3  
Buena Vista Repowering Project

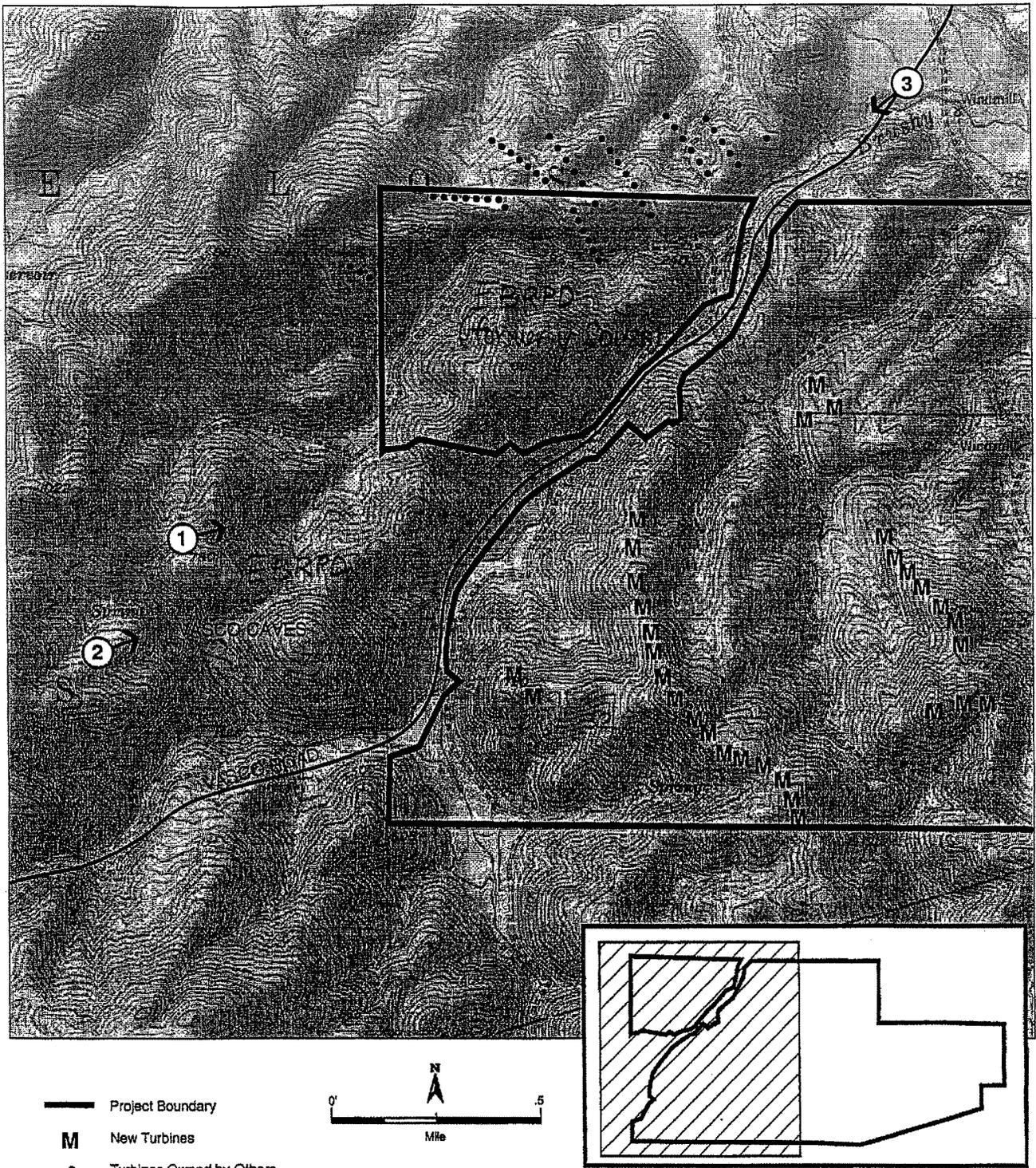
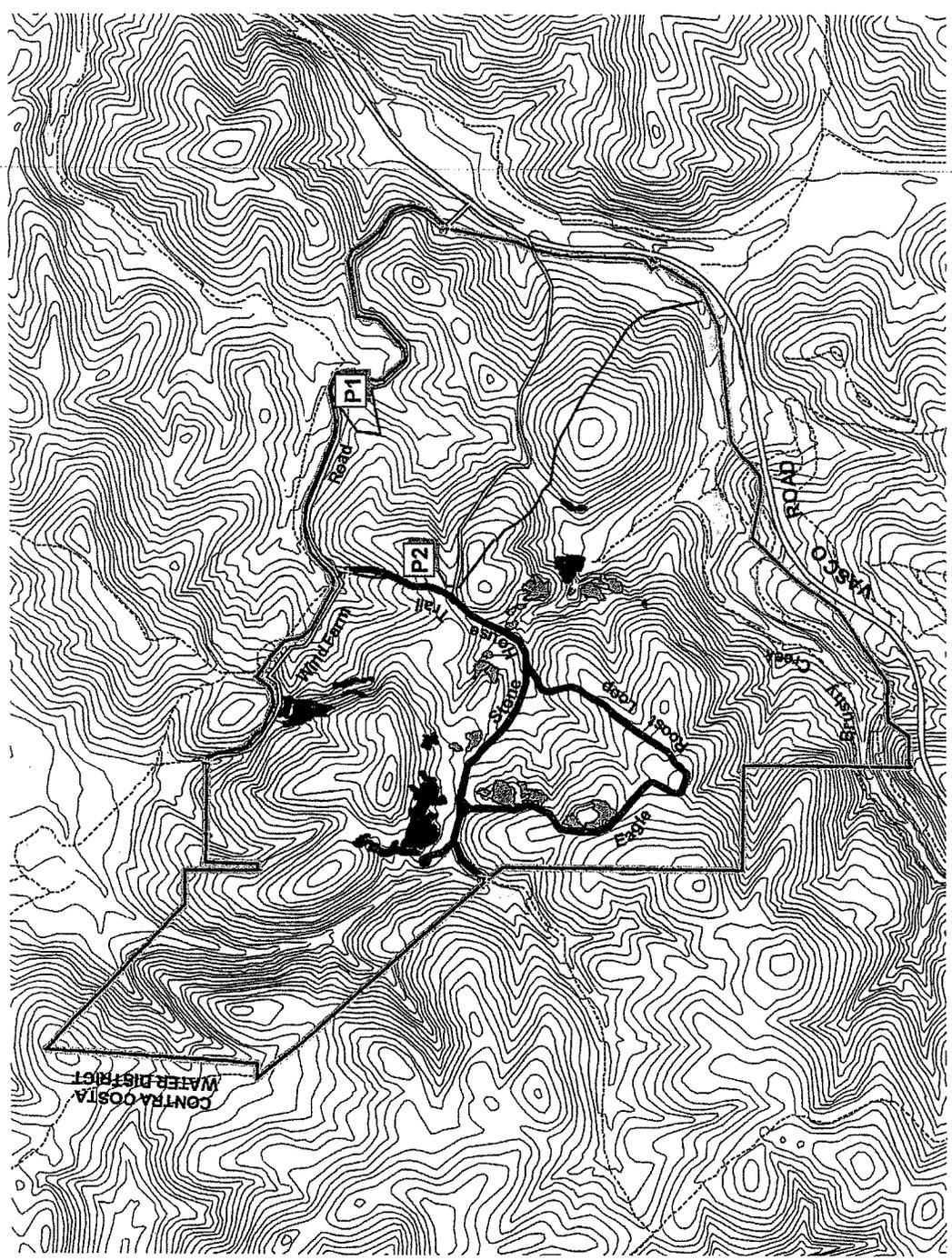


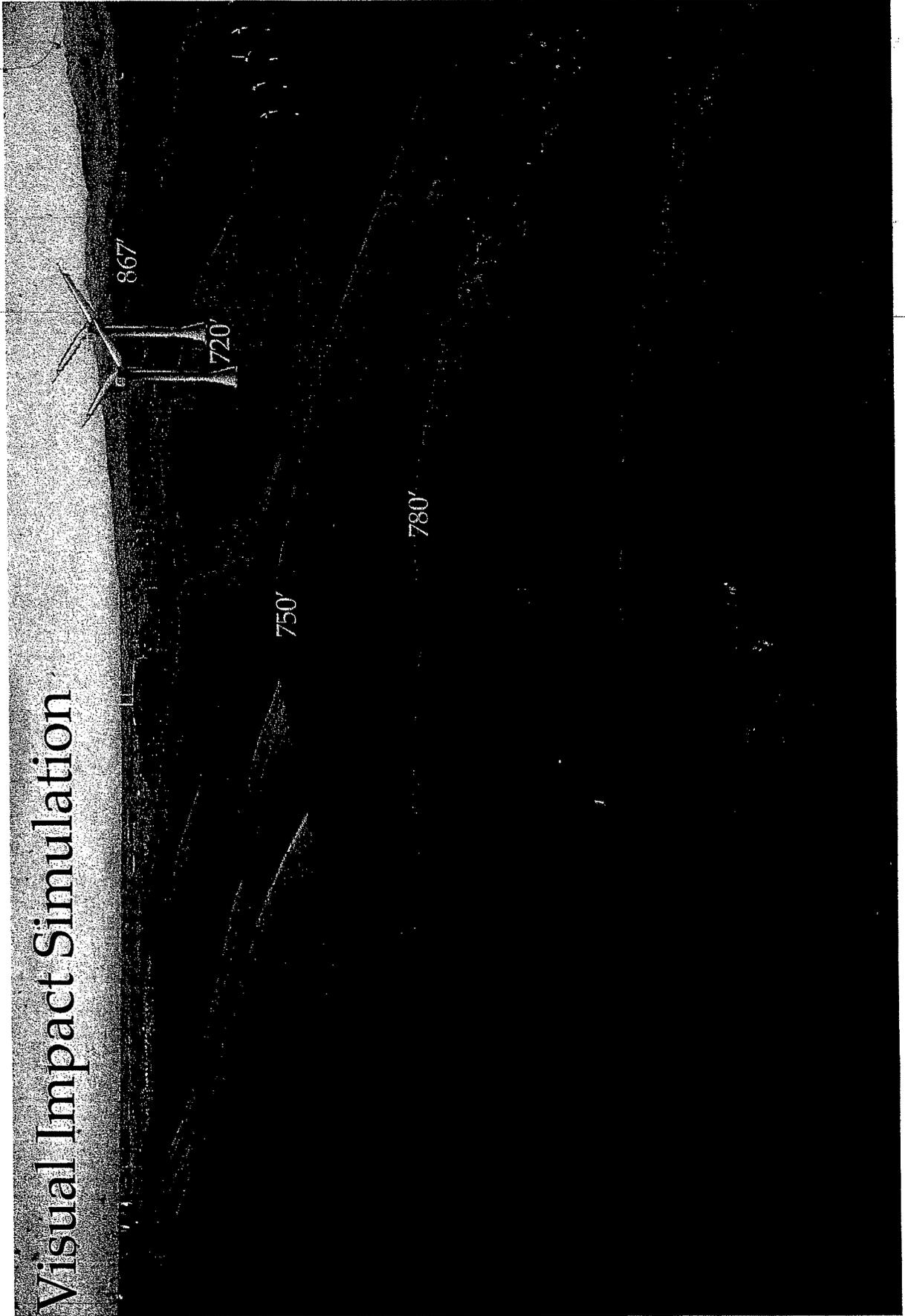
Figure 7-1  
Simulation Viewpoint Map



SOURCE: Environmental Vision



# Visual Impact Simulation



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**LETTER #8 RESPONSE:****East Bay Regional Park District**

Brad Olson, Environmental Programs Manager

January 25, 2005

- 8-1 As part of the Buena Vista Project described in the Draft EIR, the applicant does propose to remove the four existing wind turbines from the eastern end of the former Souza property, north of Vasco Road. As noted on page 3-41 of the DEIR, demolition and reclamation efforts include removing existing turbines, covering any remaining foundations with soil, removing existing electrical collection lines and reclaiming existing access roads. These efforts are part of the proposed Project, and are not recommended as additional mitigation measures. Their removal is part of the overall change in the visual character of the area that would occur under the proposed repowering project. The statements on page 7-15 of the DEIR regarding these turbines remain accurate.
- 8-2 The DEIR does address the potential visual impacts of the proposed String V turbines. On page 7-15 of the DEIR it states the following, *“There is one portion of the site directly visible from Vasco Road that does not currently have wind turbines, and that is proposed to contain two new turbines in the future under the Project. These two new turbines (String V) would be located atop a ridgeline and that ridgeline drops directly down to Vasco Road. These two turbines would be immediately visible in the foreground to motorists traveling north on Vasco Road as they approach the Project site.”* The DEIR continues to identify that, *“the Project would reduce the number of turbines visible from Vasco Caves, Vasco Road, and local residences, although the new turbines to be located closest to Vasco Caves and Vasco Road would be larger than the turbines that currently exist.”* However, no simulated views to demonstrate the visibility of the “V” string turbines were prepared in the Draft EIR.
- 8-3 The comment is correct that the two proposed String V turbines would not be visible in the specific views as simulated in Figures 7-2 and 7-3 of the DEIR. Nor would they be visible from numerous other vantage points within the Vasco Caves Regional Preserve where they would be obstructed by intervening topography. However, these proposed new turbines would be quite prominent from the vantage point shown in EBRPD’s Exhibit E (which appears to be a viewpoint high above the Stone Horse Trail at the top of the ridge at elevation of approximately 1,022 feet), from Vasco Road and from many other locations. New, large wind turbines located along any ridgeline in the western portion of the Buena Vista Project site (including those proposed on String V) would likely be visible from many portions of the Stone House Trail and/or the Eagle Roost Loop Trail. However, the DEIR did not find this visual prominence to be a significant environmental effect for the following reasons, as also described in the Draft EIR.
- The removal of existing wind turbines and installation of fewer, larger turbines would lead to increased visibility and visual prominence of the newer and larger turbines on the landscape (particularly the two String “V” turbines), while other portions of the

viewshed would be enhanced by removing existing turbines. However, the overall character of the landscape would not be significantly altered.

- Existing turbine strings within the Project Area and on adjacent wind farm projects are currently visible from portions of the Vasco Caves Regional Preserve. These publicly accessible viewing areas are already affected by existing turbines that are prominent in the immediate area. Adding new, albeit larger turbines would not introduce a new element into the landscape that is not already in abundance throughout the APWRA.
- Reducing the total number of turbines throughout the site would reduce the visual clutter currently visible from the Vasco Caves area. The turbine density at the site as viewed from Vasco Caves would be reduced due to the relative size and spacing required to develop the larger turbines.

Under the parameters of the 1998 Repowering Program, the Buena Vista Project may repower up to a maximum of 41.6 MW of “nameplate capacity”. The applicant proposes to achieve nearly that full amount through construction of 38 new wind turbines rated at approximately 1 MW each (or 38 MW of nameplate capacity). Therefore, a maximum of 38 new wind turbine sites must be located within the Project site in order to achieve the basic Project objectives. There are a number of site constraints throughout the Buena Vista Project site that limit the potential for installing new wind turbines. These constraints include steep slopes, canyons and draws that are particularly sensitive for avian species, potentially sensitive habitats such as the alkali meadow and perennial/seasonal drainages, and adjacency of other wind farm operations. Additionally, the Project applicant has represented to the County that there are additional limitations on where new turbines can be placed based on variations in wind, wind speed and wind direction, and that a feasible re-powering project can only be constructed on certain, limited portions of the site. In an attempt to balance and satisfy other site constraints while still placing up to 38 new turbines in locations where the wind’s characteristics are suitable for wind power generation, a very limited selection of potential wind turbine sites have been found. The two turbines sited in the “V” String will be more visible from more vantage points (including from the Vasco Caves Preserve) than other portions of the Project site. However, the implications of moving these two proposed turbines to other locations on the site would either result in additional impacts related to other site constraints, or would not be capable of meeting the applicant’s needed wind power-generating characteristics.

In regard to EBRPD’s Exhibit E, from this viewpoint virtually all of the existing turbines and/or virtually all of the proposed new turbines, not just the two “V” String turbines would be visible.

- 8-4 In the professional judgment of Shawn Smallwood, PhD; *“I believe that the Draft EIR does provide sufficient information to support the conclusion that the proposed repowering Project will substantially reduce avian impacts. Not only did the DEIR present relevant discussion of the reasons for this conclusion, but it also cites the most comprehensive research effort into the bird collision problem ever performed in the*

*Altamont Pass, or anywhere in the world.*” The EIR relies on the conclusions of Smallwood and Thelander (2004a and b), Smallwood and Neher (2004), and especially on the foremost recommendation of Smallwood and Thelander (2004a and b) to repower the APWRA as a means to reduce bird collisions.

A monitoring program has been designed and is included in the Draft EIR. Whether individual turbines should be shut down will be dependent upon the success of the Project to reduce focal raptor mortality as compared to the base case, as determined upon three years of monitoring data.

See also General Response to Comments on Adaptive Management and Off-Site mitigation Fee for Avian Impacts.

- 8-5 In the professional judgment of Shawn Smallwood, PhD; *“I believe that the Draft EIR does provide scientific evidence that the newer generation turbines will reduce the incidence of avian mortality in the APWRA, and that the changes in impacts due to the replacement of older turbines with newer, larger turbines is more than speculation”*. The Draft EIR’s conclusions rely on the findings of Smallwood and Thelander (2004a, b) and on Smallwood and Neher (2004) in predicting the frequencies of bird collisions by species. The DEIR predictions of mortality are based on real data, especially flight height data of specific bird species in the APWRA. Therefore, these predictions are empirically based, as well as scientifically defensible. As also according to Shawn Smallwood, PhD: *“I do not claim, however, that these predictions will be 100% accurate, and so contingency measures have been developed, linked to a fatality monitoring program lasting three years and tied to the TAC, which will make assessments and recommendations based on real data collected post-construction of the project. While I do agree that erring on the side of caution is the most scientifically defensible thing to do, the repowering Project itself is a cautious action. In this case, the applicant has decided to accept and the County shall require through certification of this EIR, adoption of the foremost recommendation of Smallwood and Thelander (2004a,b) which is repowering.”* Along with repowering, the applicant has agreed to implement nearly all the recommended best management practices from Smallwood and Thelander (2004a,b) as well as additional recommendations now available in Smallwood and Neher (2004).”
- 8-6 Substantial adverse effects on special-status species (the definition of which includes golden eagles) is identified as a significant impact (see the first threshold bullet, page 8-37 of the Draft EIR). Impacts to avian species, which clearly and specifically references golden eagles, are identified as significant and unavoidable under the discussion of Impact 8-7 in the Draft EIR. Please also see General Response to Comments on Off-Site Mitigation Fee for Avian Fatalities.
- 8-7 The Buena Vista Project cannot force other wind turbine owners to perform fatality monitoring of their wind turbines, but it will be required to monitor its own turbines. A scientific monitoring plan appears in Appendix E of the EIR. The monitoring plan and turbine operations likely will not reduce impacts to less than significant levels, and the mitigation measures that have been recommended cannot eliminate the cumulative effects of

### CHAPTER 3: RESPONSE TO COMMENTS

wind turbines on birds over the past two decades. However, this Project will reduce the impacts considerably based on the findings of Smallwood and Thelander (2004a, b), Smallwood and Neher (2004) and other research reports.

- 8-8 Please see General Response to Comments on Off-Site Mitigation Fee for Avian Fatalities.
- 8-9 The County Public Works Department will review subsequent grading and building plans to be submitted by the applicant, and this review will require the submittal of detailed designs for proposed new road construction. Public Works standards for adequate drainage, culvert design and erosion control will be required to be adhered to in the design and construction of these new roads. To the extent that other existing roads throughout the Project site provide access to the old turbines proposed to be removed, those roads will be re-graded and reclaimed under the Project's proposal for repowering. These re-grading and reclamation efforts will be designed to correct existing erosion problems that may have occurred. However, other roads throughout the properties now owned by the EBRPD which may have erosion or other maintenance issues but that are not used by the Project nor proposed to be reclaimed under the repowering program have no relationship to the Project and are not the subject of this EIR or its mitigation requirements.



*Protecting endangered species and wild places through science, policy, education, and environmental law.*

Sent via fax to (925) 335-1222 and e-mail to [dbroc@cd.cccounty.us](mailto:dbroc@cd.cccounty.us) on 1-31-05

January 31, 2005

TO: David Brockbank  
 Contra Costa County  
 Community Development Department  
 651 Pine Street, 4<sup>th</sup> Floor, North Wing  
 Martinez, CA 94553

LETTER 9

RE: Comments on Draft Environmental Impact Report for Buena Vista Wind Energy Project

These comments are submitted on behalf of the Center for Biological Diversity (CBD) on the Draft Environmental Impact Report (DEIR) for the Buena Vista Wind Energy Project. The CBD is a non-profit organization that seeks to protect and restore the endangered species and wild places of North America and the Pacific through science, policy, education, citizen activism, and environmental law. The CBD has been actively involved in attempts to reduce and mitigate for severe avian impacts from wind turbines at the Altamont Pass Wind Resource Area.

Mitigation Measures in the DEIR:

The mitigation measures on pages 8-54 and 8-55 should be mandatory, not "recommended," and should be explicit conditions in the Land Use Permits.

9-1

Mitigation measure 8-7d, Increase Ground to Rotor Clearance. This requirement should not be stated in terms of total turbine tower height but instead should be stated directly as a required minimum ground clearance of 29 meters, per the California Energy Commission (CEC) August 2004 report, *Developing Methods to Reduce Bird Mortality In the Altamont Pass Wind Resource Area*.

9-2

Mitigation measure 8-7h, Review of Final Site Plan, provides for submission and review of the final site plan *after* the Land Use Permits have issued. The final site plan should be submitted before the Land Use Permits are issued as part of the application for the

9-3

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 PHONE: (510) 625-0136 • FAX: (510) 663-0272  
[www.biologicaldiversity.org](http://www.biologicaldiversity.org)

Land Use Permits, and should be subject to public review and approval as part of the Land Use Permit hearing and approval process. The Technical Advisory Committee should also review and approve the final turbine siting before the Land Use Permits are issued. Siting should take into account the December 2004 CEC report, *Repowering the APWRA: Forecasting and Minimizing Avian Mortality Without Significant Loss of Power Generation*.

9-3  
cont.

The permits should also include a provision for periodic review and imposition of additional mitigation measures in the future, including relocation or shutdown of any turbines that are found to be killing disproportionate numbers of birds.

9-4

Additional Mitigation Measures:

The Buena Vista re-powering project and the concurrent Elworthy re-powering project in Alameda County will be crucial to assessing the ability of re-powering to substantially reduce the killing of raptors and other birds by Altamont Pass wind turbines. Approval of any future large-scale re-powering will depend on the success of these two re-powering projects. Accordingly, in addition to the mitigation measures listed in the EIR, two additional mitigation measures recommended by the CEC August 2004 report should also be implemented on an experimental basis for some of the turbines to test their effectiveness: The first measure is excluding cattle from the area around the base of the turbines; the second measure is turbine blade painting with the Hodos scheme.

9-5/9-6

The Monitoring Program and the Technical Advisory Committee:

The monitoring program should be funded by the project sponsor but should independently controlled, managed, and designed by the County in consultation with the Technical Advisory Committee. It should be peer-reviewed before implementation and all data should be publicly available.

9-7

It is also crucial that the monitoring program's methodologies be designed to produce data that is compatible with the CEC August 2004 report and with the data that will be generated from the monitoring program for the Elworthy re-powering project in Alameda County.

9-8

Ideally, there should be a single, multi-county Technical Advisory Committee for both the Buena Vista re-powering project and the Elworthy re-powering project in Alameda County.

The Technical Advisory Committee should meet much more frequently than once a year, especially in the first year.

1998 EIR Biological Resources Management Plan (BRMP):

The DEIR mentions the 1998 EIR BRMP in passing but never discusses whether the project is in compliance with the BRMP or whether it is varying from the BRMP. The

9-9

DEIR should go through each element of the BRMP and explain whether the project is in compliance with that element. In particular, it appears that without explanation the project is not being required to conduct two years of preconstruction avian behavior monitoring, as the BRMP contemplates (1998 EIR App. E, BRMP at I(B)(3)(b)(1)).

9-9  
cont.

Offsite Mitigation Payments For Continuing Avian Mortality:

There should be provision requiring future offsite mitigation payments for continuing avian mortality, which is certain to continue at some level. The CEC's January 2005 assessment of the APWRA adaptive management plan recommends an offsite mitigation fee for re-powered projects. A copy of the 2005 CEC assessment is attached.

9-10

Other Issues:

The list on pages 8-1 and 8-2 of federal and state wildlife protection laws to which the Altamont Pass wind turbines are subject is incomplete. A complete list is attached.

9-11

Sincerely,



Jeff Miller  
Bay Area Wildlands Coordinator  
Center for Biological Diversity

**California Fish and Game Code Section 3800(a):** Section 3800(a) of the Fish and Game Code protects nongame birds from taking: "All birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds are nongame birds. It is unlawful to take any nongame bird except as provided in this code or in accordance with regulations of the commission . . . ." Section 472 of title 14 of the California Code of Regulations also prohibits the taking of nongame birds. Hawks, falcons, and owls are nongame birds. See Cal. Fish & Game Code §§ 3500 (defining game birds), 3800(a) (defining nongame birds). By killing thousands of hawks, falcons, and owls, the wind turbine operators are violating the prohibitions of section 3800(a) and 14 Cal. Code Regs. § 472 against the taking of nongame birds.

Fish and Game Code § 12002 provides for a fine of up to \$5,000 and imprisonment for up to six months for each violation of Fish and Game Code § 3800.

Fish and Game Code § 2583(a) provides for a separate penalty of up to \$10,000 for each bird taken in violation of the Fish and Game Code.

Fish and Game Code § 2014 authorizes compensation for the destruction of any bird protected by law in the amount of "all the detriment proximately caused by the destruction of the birds."

Fish and Game Code § 12157 provides for "forfeiture of any device or apparatus . . . capable of being[] used to take birds" that was used to commit a violation of the Fish and Game Code.

<p align="center"><b>Criminal Violations By The Wind Turbine Operators At The Altamont Pass Wind Resource Area</b></p>	<p align="center"><b>Penalties</b></p>
<p><b>Federal Bald and Golden Eagle Protection Act.</b> The federal Bald and Golden Eagle Protection Act (BGEPA), 16 U.S.C. § 668, contains criminal and civil prohibitions against the killing of Golden Eagles. Subdivision (a) makes it a criminal offense to "knowingly, or with wanton disregard for the consequences of his act take . . . in any manner . . . any golden eagle . . ." 16 U.S.C. § 668(a). Subdivision (b) makes it a civil offense to "take . . . in any manner . . . any golden eagle." 16 U.S.C. § 668(b). Under the BGEPA, " 'take' includes also . . . kill, . . . molest or disturb." 16 U.S.C. § 668c. By killing hundreds of Golden Eagles, the wind turbine operators have violated the BGEPA.</p>	<p>Corporations, partnerships, and other organizations that violate the Bald and Golden Eagle Protection Act are subject to a fine of up to \$200,000 for the first eagle killed and \$500,000 for each eagle killed thereafter, and to a sentence of probation. 16 U.S.C. § 668(a); 18 U.S.C. §§ 3551(c); 3559(a); 3571 subd. (c)(3), (c)(5).</p> <p>Individuals who violate, or aid and abet an organization's violation of, the BGEPA are subject to a fine of up to \$100,000 for the first eagle killed and \$250,000 for each eagle killed thereafter, and to imprisonment for up to one year for the first eagle killed, and up to two years for each eagle killed thereafter. 16 U.S.C. § 668(a); 18 U.S.C. §§ 2; 3559(a); 3571 subd. (b)(3), (b)(5).</p> <p>The BGEPA also provides that "equipment . . . used to aid in the taking . . . of any bird . . . in violation of this Act . . . shall be subject to forfeiture." 16 U.S.C. § 668b(b). Thus, the wind turbines themselves are subject to forfeiture.</p>

**California Fish and Game Code Section 3511.** Section 3511 provides special protection to "fully protected" birds like Golden Eagles: "(a) (1) Except as provided in Section 2081.7, fully protected birds or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected bird, and no permits or licenses heretofore issued shall have any force or effect for that purpose. . . . [¶] (b) The following are fully protected birds: . . . (7) Golden eagle . . . ." By killing hundreds of Golden Eagles, the wind turbine operators have violated the absolute, no-exceptions prohibition of section 3511 against the taking of Golden Eagles.

Fish and Game Code § 12008 provides for a fine of up to \$5,000 and imprisonment for up to one year for each violation of § 3511.

Fish and Game Code § 12159.5 provides for the "forfeiture of any proceeds resulting from the taking of . . . [a] fully protected bird" like the Golden Eagle.

Fish and Game Code § 2583(a) provides for a separate penalty of up to \$10,000 for each bird taken in violation of the Fish and Game Code.

Fish and Game Code § 2014 authorizes compensation for the destruction of any bird protected by law in the amount of "all the detriment proximately caused by the destruction of the birds."

Fish and Game Code § 12157 provides for "forfeiture of any device or apparatus . . . capable of being[] used to take birds" that was used to commit a violation of the Fish and Game Code.

The punishment for each violation of the Migratory Bird Treaty Act is a fine of up to \$15,000 per bird killed, or twice the value of each bird killed, whichever is greater, and imprisonment for up to six months for each bird killed. 16 U.S.C. § 707; 18 U.S.C. §§ 3559; 3571, subd. (b)(1), (b)(2), (c)(1), (c)(2), (d).

**Federal Migratory Bird Treaty Act.** The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. § 703, prohibits the killing "by any means or in any manner" of any member of the bird species that it protects: "it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, [or] possess . . . any migratory bird, any part, nest, or eggs of any such bird . . ." The statutory term "take" is defined by regulation to include killing: "Take means to . . . wound, [or] kill" 50 C.F.R. § 10.12. The MBTA is a strict liability criminal statute, requiring no proof of intent. The bird species protected by the MBTA include all North American eagles, hawks, falcons, and owls, as well as many other species being killed by the Altamont Pass wind turbines. 50 C.F.R. § 10.13 (listing protected species). In addition, every violation of the California Fish & Game Code provisions protecting migratory birds is also a violation of the federal MBTA. 50 C.F.R. § 20.72; 16 U.S.C. § 707. The wind turbine operators have committed thousands of criminal violations of the MBTA by taking and killing thousands of eagles, hawks, falcons, owls and other protected birds.

**California Fish and Game Code Section 3513:** Section 3513 of the Fish and Game Code prohibits the killing of any nongame bird (including eagles, hawks, falcons, and owls) that is also protected under the federal Migratory Bird Treaty Act: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act." *See also* 14 Cal. Code Reg. § 509 (adopting as California law the federal regulations adopted under the MBTA).

Fish and Game Code § 12002 provides for a fine of up to \$5,000 and imprisonment for up to six months for each violation of Fish and Game Code § 3513.

Fish and Game Code § 2583(a) provides for a separate penalty of up to \$10,000 for each bird taken in violation of the Fish and Game Code.

Fish and Game Code § 2014 authorizes compensation for the destruction of any bird protected by law in the amount of "all the detriment proximately caused by the destruction of the birds."

Fish and Game Code § 12157 provides for "forfeiture of any device or apparatus . . . capable of being[] used to take birds" that was used to commit a violation of the Fish and Game Code.

**California Fish and Game Code Section 3503.5:** Section 3503.5 of the Fish and Game Code specifically prohibits the taking or destruction of eagles, hawks, falcons, and owls: "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes [i.e., eagles, hawks, and falcons] or Strigiformes [i.e., owls] (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Nothing in the Fish and Game Code or its regulations authorizes the wind turbine operators to "take" and "destroy" thousands of eagles, hawks, falcons, and owls.

Fish and Game Code §§ 12002, 12010 provide for a fine of up to \$5,000 and imprisonment for up to six months, or up to one year in the case of Golden Eagles, for each violation of Fish and Game Code § 3503.5.

Fish and Game Code § 2583(a) provides for a separate penalty of up to \$10,000 for each bird taken in violation of the Fish and Game Code.

Fish and Game Code § 2014 authorizes compensation for the destruction of any bird protected by law in the amount of "all the detriment proximately caused by the destruction of the birds."

Fish and Game Code § 12157 provides for "forfeiture of any device or apparatus . . . capable of being[] used to take birds" that was used to commit a violation of the Fish and Game Code.

**California Fish and Game Code Section 2000.** Section 2000 of the Fish and Game Code provides: "It is unlawful to take any bird, mammal, fish, reptile, or amphibian except as provided in this code or regulations made pursuant thereto." Under the Fish and Game Code, to "take" a creature means to "kill" it. Cal. Fish & Game Code § 86. Nothing in the Fish and Game Code or its regulations authorizes the wind turbine operators to kill thousands of eagles, hawks, falcons, owls, and other birds.

Fish and Game Code § 12002 provides for a fine of up to \$1,000 and imprisonment for up to six months for each violation of Fish and Game Code § 2000.

Fish and Game Code § 2583(a) provides for a separate penalty of up to \$10,000 for each bird taken in violation of the Fish and Game Code.

Fish and Game Code § 2014 authorizes compensation for the destruction of any bird protected by law in the amount of "all the detriment proximately caused by the destruction of the birds."

Fish and Game Code § 12157 provides for "forfeiture of any device or apparatus . . . capable of being[] used to take birds" that was used to commit a violation of the Fish and Game Code.

**LETTER #9 RESPONSE:****Center for Biological Diversity**

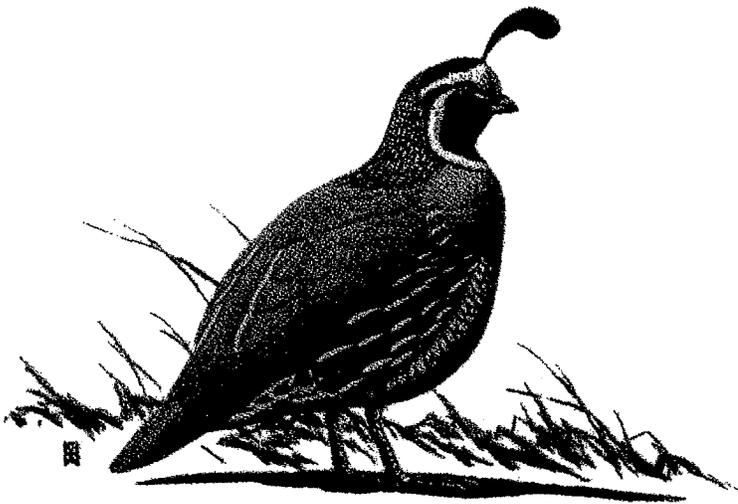
Jeff Miller, Bay Area Wildlands Coordinator

January 31, 2005

- 9-1 Compliance with all mitigation measures recommended in the EIR and approved by the County will be a required condition of any land use permit issued by the County for the Project, and implementation of the mitigation measure will be monitored pursuant to the Mitigation Monitoring Program adopted for the Project.
- 9-2 Please see General Response to Comments on Turbine Heights.
- 9-3 As noted on page 3-46 of the Draft EIR the Project applicant has already submitted to the County, as part of their land use permit request, proposed site plans maps at 1 inch = 200 feet scale and with 20-foot contour intervals. These currently submitted maps are available for public review at the County offices and specifically describe the currently proposed Project. Mitigation Measure 8-7h is hereby revised and amended as follows to provide greater clarity as to its intent:
- MM 8-7h: Review of Final Site Plans prior to Grading and Building Permits.** Prior to issuance of obtaining a grading or building permit, the Project applicant shall ~~should~~ submit a final site plan for review and approval by the County Zoning Administrator that ~~generally demonstrates~~ consistency compliance with the Project as shown on Figure 3-14 of this EIR, and compliance with the mitigation measures as recommended and made conditions of approval of this Project. ~~standards described in this document.~~
- 9-4 Please see General Response to Comments on Adaptive Management.
- 9-5 Please see General Response to Comments on Adaptive Management.
- 9-6 Please see General Response to Comments on Adaptive Management.
- 9-7 Please see General Response to Comments on Technical Advisory Committee.
- 9-8 The methodology presented in the proposed Monitoring Program will enable reliable comparison of results to the CEC reports. These methods as described in the proposed Monitoring Program (Appendix E of the Draft EIR) were co-authored by Shawn Smallwood, the senior author of the CEC reports and should ensure consistency and conformity of methodology. Please also see General Response to Comments on the Technical Advisory Committee (TAC).

### CHAPTER 3: RESPONSE TO COMMENTS

- 9-9 Project-specific design proposals and Draft EIR mitigation measures have been developed using relevant and appropriate information from the Repowering Program and its Biological Resource Management Element (BRMP) as well as more current information from recent research and monitoring studies conducted in the APWRA and elsewhere. The Buena Vista Project is seeking a permit to proceed without two years of pre-construction behavior data because it is relying on more than two years of behavior data from reference locations in the APWRA.
- 9-10 Please see General Response to Comments on Off-Site Mitigation Fee for Avian Fatalities.
- 9-11 The list of wildlife protection laws included in the letter is included herein as part of this EIR.



CONTRA **MT. DIABLO AUDUBON SOCIETY**

P. O. BOX 53

WALNUT CREEK, CALIFORNIA 94596

05 JAN 27 PM 2: 26

COMMUNITY  
DEVELOPMENT DEPT

January 26, 2005

David Brockbank  
Contra Costa County  
Community Development Department  
651 Pine Street  
Martinez, CA 94553-0095

LETTER 10

RE: Comments on DEIR for Buena Vista Wind Energy Project  
County File #LP022005

Dear Mr. Brockbank:

Thank you for the opportunity to comment on the draft Environmental Impact Report dated November 2004 for the Buena Vista Wind Energy Project in southeastern Contra Costa County.

First, on behalf of the Board of Directors and members of Mt. Diablo Audubon Society, I would like to acknowledge Contra Costa County's efforts to give adequate consideration to the full environmental impacts of the proposed project by requiring the applicant to complete an EIR. Further, the November 2004 draft gives serious attention to the important issue of avian mortality and proposes a number of mitigation measures which we support and have previously advocated, including cessation of rodent control programs and proper siting of towers.

10-1

However, more recent reports and studies have been released which provide additional data and recommend additional mitigation measures to reduce avian mortality. Of particular interest is the January 19, 2005 report "Assessment to Support an Adaptive Management Plan for the APWRA," authored by Shawn Smallwood and Linda Spiegel, two wildlife biologists with outstanding credentials who have studied this issue. They recommend the following measures:

1. Selective relocation/shutdown of operating turbines to reduce collision threat;
2. Seasonal shutdown;
3. Cease rodent control program;
4. Retrofit electric distribution poles;
5. Move rock piles away from turbines to reduce attraction factor for foraging raptors;
6. Retrofit tower pads to discourage mammals from burrowing;
7. Remove derelict wind turbines;
8. Remove superfluous meteorological towers
9. Implement off-site compensatory mitigation.
10. Institute a monitoring plan and manage adaptively.

10-2

David Brockbank  
Contra Costa County Community Development Department  
January 26, 2005  
Page 2

Each of the measures listed above would result in an incremental reduction in mortality—some quite substantial in nature—and we urge the County to use such state-of-the-art information in shaping the conditions of the repowering permit.

10-3

The DEIR asserts that larger wind turbines with greater ground-to-rotor clearance and slower rotor speed will reduce avian mortality. We hope this is so. However, little data is available to confirm such an assertion. What if it doesn't work? And, even if it does work, and even if all of the recommendations listed above are implemented, there will still be a "significant and unavoidable" impact to the raptor population in the Altamont.

10-4

Mt. Diablo Audubon continues to advocate for the creation of an off-site mitigation fund to be used to acquire and manage other grassland areas *without turbines* to benefit the impacted species. In a somewhat parallel situation, local landfills have been required to mitigate for impacts caused by their operations through "tippage fees" which are collected on a "per ton" basis and used to purchase and preserve open space. Similarly, wind turbine companies can be required to pay a fee collected on a simple per KW-hour basis and administered by a neutral party, such as the Contra Costa County Agricultural Trust. We do not support a refund of collected fees at some point in the future because heavy avian impacts have already occurred without mitigation for more than twenty years during which the wind companies have profited. Even with mitigation, deaths will continue to occur and will never be completely eliminated, as long as the turbines remain.

10-5

Sincerely,



Nancy H. Wenninger  
Conservation Committee  
Mt. Diablo Audubon Society

**LETTER #10 RESPONSE:**

**Mt. Diablo Audubon Society**

Nancy H. Wenninger, Conservation Committee

January 26, 2005

10-1 Comment noted. The County appreciates the Mt. Diablo Audubon Society's acknowledgement of efforts to adequately consider the impacts of the proposed Project.

10-2 The Smallwood and Spiegel (2005) assessment was directed at the continued operation of existing wind turbines, and not any of the repowering projects. However, some of the measures recommended by Smallwood and Spiegel are either incorporated into the Project or recommended as mitigation measures, or identified as contingency measures to follow the three-year monitoring program:

- MM 8-7a requires the Project applicant to cease (or not participate in) any rodent control programs on leased land, and to encourage the underlying landowners in the vicinity to stop using poison as a means of rodent control. As part of the Project, all existing electrical collection lines will be removed and new electrical lines will be located underground, eliminating avian electrocutions and collisions with overhead power lines.
- MM 8-7b requires the Project applicant to use rocks created during the excavation process in the construction of foundations, and not leave them in piles near turbines.
- As part of the Project, all of the existing 179 turbines will be removed and the ground below these turbines reclaimed. At new turbine pad locations, MM 8-7c requires the placement of gravel at least 5 feet around each tower foundation to discourage small mammals from burrowing near turbine bases.
- Meteorological towers are currently installed at three locations on the Project site. These towers are 50 meters tall, standing on 6-inch diameter pole towers with guy wires. Once the new turbines are installed, the Project will replace two of the three existing meteorological towers for long-term wind energy and production assessment monitoring; the third meteorological tower will be removed. The two meteorological towers that are replaced will not feature guy wires, which represent a collision risk for avian species.

An adaptive management plan is recommended as mitigation for the Project and is also voluntarily proposed by the Project applicant (please see General Response to Comments on Adaptive Management). The conservation planning that has already been conducted for this Project also qualifies as "adaptive management".

10-3 Please see General Response to Comments on the TAC.

### CHAPTER 3: RESPONSE TO COMMENTS

- 10-4 This EIR has carefully and diligently disclosed to the public and to County decision makers that there is not enough empirical data at this time to predict with certainty and/or accuracy the extent to which the efforts recommended to reduce avian mortality may or may not be successful. The recommendations made in the EIR are based on the best sources of information available at the time. Given this uncertainty, the EIR can only conclude that implementation of the recommended mitigation measures should help to avoid and reduce, but not eliminate all avian mortality. The impact of avian mortality is identified as significant and unavoidable.
- 10-5 Please see General Response to Comments on Off-Site Mitigation Fee for Avian Fatalities



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**San Francisco Bay Chapter**

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January 28, 2005

LETTER 11

David Brockbank  
Contra Costa County Planning Development  
651 Pine Street  
2<sup>nd</sup> Floor North Wing  
Martinez, CA 94533

FAX: (925) 335-1222

Subject: Buena Vista Wind Energy Project, Draft EIR

Dear Mr. Brockbank:

Thank you for retaining the expertise of Dr. Smallwood in the December revision of this document. The Sierra Club would like to submit the following comments:

- |  |      |
|--|------|
| 1. A specification sheet for the new turbines should be included.  | 11-1 |
| 2. The bat monitoring program, referred to as Appendix X in Section 8, is actually included in the Avian and Bat Monitoring Program in Appendix E. The mitigation tables in Section 2 should also be corrected to reflect this.  | 11-2 |
| 3. The 1998 re-powering EIR specifies that two years of pre-construction monitoring, or equivalent data, is required. The monitoring program in Appendix E does not describe how this criterion will be satisfied. It could be assumed that data from the 2004 CEC report by Thelander and Smallwood will be used, but the relevance of this data, both for birds and bats, should be described. This section should also describe which of the existing turbines were operational during the pre-construction monitoring. | 11-3 |
| 4. The turbine towers are generally not tall enough to comply with the CEC recommended 29 meter minimum tip height <sup>1</sup> . Two of the 38 turbines are greater than 29 meters above the ground, but they fail to meet criteria in comment 5 below. The remaining turbines are either 14.3 or 24.3 meters high. Dr. Smallwood's comments in Appendix D of the DEIR concludes <i>"raising the low reach of the wind turbine blades to at least 29 meters</i>   | 11-4 |

<sup>1</sup> 2004 CEC report, page 374 "We recommend that wind turbine designs used for re-powering have a rotor planes with the lowest reach no lower than 29 meters above the ground."

*above the ground should dramatically reduce wind turbine collisions by golden eagles, red-tailed hawks, American Kestrel, borrowing owl, and multiple other special status species".* The two lowest turbines are mounted on 45 meter towers for the sake of "aviation safety" yet the FAA requirements specified on Page 5-3 don't seem to warrant them.

11-4  
cont.

5. Page 3-46 of the DEIR describes two turbines which do not comply with the 1998 EIR siting criteria<sup>2</sup>. Relief from this criterion by the proposed use of 60 - 65 meter towers should be explicitly validated by the CEC or Dr. Smallwood. Otherwise, the turbines should be relocated.

11-5

6. Off-site mitigation for birds killed is included only as a contingency. We know birds will be killed by the new turbines and we know this violates federal laws. Off-site mitigation should be included in the final EIR.

11-6

As you know, this project will serve as a model for future re-powering in the APWRA. If this project proceeds with turbines mounted lower than 29 meters, and avian or bat deaths are higher than anticipated, it will be impossible to test the validity of the CEC height recommendation. This could seriously retard the repowering efforts in both Contra Costa and Alameda County.

11-7

Thank you for your consideration,



Tom Roberts, Co-Chair  
Energy Committee  
Sierra Club San Francisco Bay Chapter

<sup>2</sup> 1998 repowering EIR, No turbines in dips or notches if they converge with a draw or canyon.

**LETTER #11 RESPONSE:****Sierra Club, San Francisco Bay Chapter**

Tom Roberts, Co-Chair Energy Committee

January 28, 2005

11-1 As noted on page 9-10 of the Draft EIR, there are a number of wind turbine manufacturing companies that provide wind turbines to wind farm operators, and different manufacturers provide wind turbines at different specifications. The 1MW turbine type assumed for the Project is an existing, state-of-the-art turbine type that is available in the commercial marketplace. Depending upon pricing, availability and other manufacturing considerations it is possible that an alternative turbine manufacturer with slightly different turbine specifications may be preferred by the applicant. For example, a turbine of very similar design to the turbine anticipated to be installed under the Project is available on the commercial market. That turbine has a specification rating of approximately 1.3 MW, rather than 1 MW as anticipated under the Project. The installation of a similar but alternative turbine type on the Project site would result in installation of fewer turbines, but not result in different conclusions regarding environmental impacts as analyzed for the Project, provided that:

- an alternative turbine type project still provides for the removal of all existing turbines;
- such an alternative does not include the installation of any more than 38 total new turbines of a similar design;
- the installation of new turbine would occur within the same turbine strings as indicated under the Project, even if these alternative turbine types are spaced slightly further apart; and
- the alternative turbines still meet all of the siting and design specifications as recommended in the Repowering Program and as modified/updated by more recent supplemental studies presented in this EIR.

11-2 Comment noted. The Draft EIR contains a minor typographical error indicating that the Avian and Bat Monitoring Program is Appendix X, rather than Appendix E. Thank you for pointing out this error.

11-3 Project-specific design proposals and Draft EIR mitigation measures have been developed using relevant and appropriate information from the Repowering Program and its Biological Resource Management Element (BRMP) as well as more current information from recent research and monitoring studies conducted in the APWRA and elsewhere. The Buena Vista Project is seeking a land use permit without providing two years of pre-construction

David Brockbank  
January 31, 2005  
Page 4

Bingham McCutchen LLP  
bingham.com

The Draft EIR also reiterates the suggestion that wind wake effects on downwind turbines are mere "economic effects" with which CEQA is not concerned. As Northwind has previously stated, case law and the CEQA Guidelines are to the contrary. See *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4<sup>th</sup> 1109 (1997); *Marin Mun. Water Dist. v. KG Land California Corp.*, Cal. App. 3d 1652, 1662 (1991); CEQA Guidelines sections 15131(b), 15064(e). In addition, Northwind's recent contacts with Riverside County planning officials confirm that wind wake analyses have become standard, required elements of CEQA analysis of wind power projects in that county.

12-11

Finally, it is unusual and, we submit, inappropriate for the County's EIR to characterize the applicant's inability to work with Northwind to resolve issues, as the Draft EIR does at page 10-12. For the record, the applicant—consistent with its pattern of noncommunication with many other stakeholders—has made no attempt to "work with" Northwind regarding the Proposed Project since early summer 2004. In November 2004, Buena Vista simply told Northwind that the project was being reconfigured to eliminate the upwind turbines. As stated above, Northwind appreciates that change.

12-12

Thank you for the opportunity to comment on the Draft EIR. Please keep Northwind and me on the County's list to receive copies of notices on the Buena Vista project. Should the wind turbine configuration be revised again, Northwind reserves the right to comment again and to reemphasize its previous objections to the project.

Sincerely yours,



Julie Jones

cc: Northwind Energy, Inc.

**LETTER #12 RESPONSE:****Bingham McCutchen, on behalf of Northwind Energy, Inc.**

Julie Jones

January 31, 2005

- 12-1 Although the Project description has undergone several iterations in the past, the current application for a land use permit under the County WECS ordinance is the Project as described in the Draft EIR.
- 12-2 Comment noted. Mitigation Measure 8-7h is hereby revised and amended as follows to provide greater clarity as to its intent:
- MM 8-7h: Review of Final Site Plans prior to Grading and Building Permits.** Prior to issuance of obtaining a grading or building permit, the Project applicant shall ~~should~~ submit a final site plan for review and approval by the County Zoning Administrator that ~~generally demonstrates consistency compliance~~ with the Project as shown on Figure 3-14 of this EIR, and compliance with the mitigation measures as recommended and made conditions of approval of this Project, standards described in this document.
- 12-3 The Project boundary as presented in the Draft EIR is comprised of all properties that have lease agreements associated with the previously approved Windmaster project. The Windmaster project (now known as Buena Vista) is the existing wind farm proposed to be re-powered under the Buena Vista Repowering Project. One of these properties is located northwest of Vasco Road and identified as Assessor's Parcel No. 005-160-005. This property was owned by Souza, but has recently been acquired by the East Bay Regional Park District (see Letter #8). This property has three wind turbine leases, including a lease to Buena Vista who owns four turbines at the eastern end of the property. Although other turbine operators have wind turbine leases on this same property, these other leases are not part of the Buena Vista Project and are not the subject of this EIR. Figure 3-5 is hereby amended to include the legend: "Project boundary based on parcel lines", and "turbines owned by others, not part of the Buena Vista Project".
- 12-4 Comment noted. Figure 5-2 of the Draft EIR incorrectly shows a symbol for "turbines recommended for lighting" on the former Souza (now EBRPD) property. No new turbines or new lighting are proposed under the Project for this area.
- 12-5 As indicated in the Introduction chapter of the Draft EIR (page 1-3), the project description has undergone several revisions since November of 2003 when it was originally proposed. References in the Draft EIR to the "current" Project Description are intended to clarify potential differences in the Project Description as compared to previous versions of the project as have been presented in the November 2003 Mitigated Negative Declaration, the

April 2004 Draft EIR or the May 2004 Notice of Preparation. No further changes to the Project are anticipated. The Project as proposed is the project that has been reviewed in this EIR. Consistent with CEQA Guidelines applicable to all projects, if the applicant were to propose changes to this Project in the future, then the County would need to consider at that time whether the analysis contained in this EIR adequately addressed such changes.

- 12-6 The Draft EIR identifies that there are potential wetland features within the Project area (including the stock pond and existing drainages); however, none of these potential wetland features have been delineated or verified by the US Army Corps of Engineers. Although the Project's proposed turbine sites have been located more than 200 feet away from the identified stock pond and drainages, this distance is not based on the boundary of a verified wetland delineation. Therefore, Mitigation Measure 8-3d requires the applicant to prepare wetland delineations for identified potential wetland areas within 200 feet of any Project feature (see also Response to Comment 3-1 for further detail and discussion).
- 12-7 Comment acknowledged. Alternative #2 was the original project as proposed by the applicant and, as such, seemed a viable alternative. Inclusion of this alternative may foster informed decision making. While Alternative #2 would not reduce any of the environmental impacts of the proposed Project, it would be environmentally superior to the No Project alternative.
- 12-8 These referenced sections could be deleted from the EIR since downwind wake effects are economic and not environmental effects. In addition, the Project as proposed does not include any new turbines on the property north of Vasco Road that had previously generated concern by Northwind regarding downwind wake loss effects. However, if this section is eliminated from the document it could lead to confusion to the reader.

The Draft EIR already recognizes that, "Based on information available to date, there is disagreement among experts as to the actual extent of this economic effect."

The County acknowledges that the language provided in the "Conclusions Regarding the Current Project" paragraph of the Draft EIR was not appropriately worded. The intent of that language was to express the fact that the applicant and Northwind had been unable to resolve discrepancies between the conclusions of their prior reports, not to assign any responsibility for the lack of resolution. For clarification, that section is revised as follows:

Conclusions Regarding the Current Project

~~The prior reports commissioned by the applicant indicated that the economic effects of those previously proposed projects (projects that that included 4 turbines in a position upwind of the Northwind turbines) would not cause an adverse effect on the existing Northwind project, with only an approximately 0.5% change from existing conditions. Therefore, no further analysis of this issue has been conducted for the currently proposed Project. Without any turbines being proposed on the property north of Vasco Road and immediately upwind of the Northwind project,~~

~~no adverse effects are anticipated. However, the applicant has been unable to work with Northwind to either resolve apparent inconsistencies between the conclusions of prior report, nor to resolve any potential remaining issues that Northwind may have with the currently proposed Project.~~

Without any turbines being proposed on the property north of Vasco Road and immediately upwind of the Northwind project, no adverse effects are anticipated.

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# Golden Gate Audubon Society

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Americans Committed to Conservation • A Chapter of the National Audubon Society

CONTRA COSTA

05 FEB -2 PM 2:55

COMMUNITY  
DEPARTMENT

January 31, 2005

Contra Costa County  
Community Development Department  
651 Pine Street, Fourth Floor, North Wing  
Martinez, CA 94553  
Attention: David Brockbank  
Fax: 925-335-1222

LETTER 13

RE: Draft EIR, County of Contra Costa Community Development Department; Buena Vista Wind Energy Project, LP#022005

Dear Mr. Brockbank:

Golden Gate Audubon submits the following comments on the above referenced Draft Environmental Impact Report (DEIR).

Page 8-54: All of the proposed mitigation measures, MM 8-7a through MM 8-7i, and any additional mitigation measures presented in the FEIR, should be mandatory. They should not be, as currently in the DEIR, only "recommended." Furthermore these mitigations should be incorporated into any Land Use permits that result from this process.

13-1

Page 8-54: "**Best Management Practices and Recommended Mitigation Measures**"; first bullet, "All existing turbines will be removed and *the ground below these turbines reclaimed...*"

We are not sure what is meant by the phrase, "...*the ground below these turbines reclaimed.*" The Smallwood and Thelander CEC Report, 2004 (Smallwood and Thelander) recommends that all mechanical debris surrounding all wind turbines should be removed from the site since this debris may attract rodents and other creatures which will then attract raptors. Such mechanical debris includes broken turbine blades, scaffolding, broken lattice parts, vehicle parts, etc.

13-2

We ask that the FEIR make it clear that all such debris must be removed. Possible language for the first bullet could be, "All existing turbines and all man-made debris on the ground around the turbines will be removed from the wind-turbine area."

Page 8-51. A very cogent argument is made in the DEIR for the danger to raptors from having cattle patties under wind turbines because they attract grasshoppers that, in turn,

13-3

attract raptors. However, no mitigation measure in the DEIR addresses this issue. The 2004 Smallwood and Thelander Report suggests fencing off areas under wind-turbines from cattle for this reason. We urge the County to require this mitigation as part of the permit and address this issue more fully in the FEIR

13-3  
cont.

MM 8-7d: The Smallwood and Thelander Report recommends that turbine blade height at its lowest elevation should be 29 meters above the ground. The DEIR bases its requirement for blade height on "Turbine tower heights". This latter phrase should be rephrased to reflect the conclusions of the Smallwood Thelander study and require that turbine heights should result in blade heights being 29 meters above the ground at their lowest elevation above the ground.

13-4

MM 8-7h: Final site plans should be identified as part of the Land Use permit process not just at the time of grading or building. The final site plans should comport with the recommendations of the December 2004 CEC report *Repowering The APWRA: Forecasting And Minimizing Avian Mortality Without Significant Loss Of Power Generation*. The land Use permits should have a mechanism for periodic review allowing the county to impose further mitigations if repowering does not reduce fatalities as anticipated.

13-5

MM 8-7i: The protocol for the monitoring program should be modeled on the CEC monitoring protocols that resulted in the Smallwood and Thelander Report. This will allow for the consistent use of new data with the existing four years of Smallwood and Thelander data. If new monitoring protocol is not consistent with the Smallwood and Thelander protocol, any statistical analysis of the effectiveness of the Buena Vista repowering project in reducing avian mortality will be subject to intense debate. The monitoring program should be developed by independent contractors in consultation with the CEC, and should be managed and implemented by independent contractors, not by industry consultants.

13-6

MM 8-7i(a): A yearly report should be prepared and published for public review at the end of each year.

13-7

MM8-7i(b): The proposed technical advisory committee should include public members including those from the conservation community. The committee should hold yearly meetings to review the yearly monitoring report and should make public the findings of the committee. More frequent meetings would be useful in the first year.

13-8

MM-8-7i(c)- Off-site mitigation should be considered at this time. There is no question that raptor and other avian species mortality will continue at the Buena Vista Wind Energy Project. Many of the fatalities will be birds of special concern or even more highly protected species. Off-site mitigation, either as a fee or as acres preserved in fee title or through conservation easements must be a part of the current mitigation requirements.

13-9

**LETTER #13 RESPONSE:****Golden Gate Audubon Society**

Arthur Feinstein, Director of Conservation

January 31, 2005

13-1 Compliance with all mitigation measures recommended in the EIR and approved by the County will be a condition of any land use permit issued by the County for the Project, and implementation of the mitigation measure will be monitored pursuant to the Mitigation Monitoring Program adopted for the Project.

13-2 Comment noted. The first bullet point on page 8-54 describing Best Management Practices is hereby revised and amended as follows to provide greater clarity as to its intent and to incorporate the recommendations expressed in this comment:

All existing turbines will be removed and all man-made debris on the ground around the turbines will be removed from the wind turbine area. All of the sites where turbines are removed will be reclaimed to native vegetation by removing all above-ground construction and covering any remaining foundations and other systems with soil to a depth suitable for agricultural use and spread with native vegetation seed. ~~and the ground below these turbines reclaimed.~~ This BMP will eliminate 179 perching structures in the Project Area, and decrease the footprint of the Project.

13-3 Smallwood and Thelander (2004) proposed experimental relaxation of grazing pressure in the APWRA, noting that the high uncertainty of the effect of relaxed grazing pressure justified a limited initial implementation of this measure. According to Shawn Smallwood's professional judgment; *"The Buena Vista Project is too small to justify an experimental relaxation of grazing pressure around wind turbines because the scale of the treatment needed would be too large relative to the number of study units (i.e., turbines) available, and would be unable to achieve an experimental design with the requisite replication and interspersion of treatments. Experimental relaxation of grazing would be appropriate if the Project included 50% or more of the Altamont Pass Wind Resources Area, but is inappropriate and untenable as only involving 38 turbines. However, I am confident that burrowing owl impacts will be reduced due to the other mitigation measures, including increased distances between the ground and the low reach of the blades, avoidance of the canyons, cessation of rodent control which should increase the number of ground squirrel burrows far from wind turbines, and discouragement of burrowing right next to turbines by laying down gravel around the tower bases."*

13-4 Please see General Response to Comments on Turbine Height.

13-5 As noted on page 3-46 of the Draft EIR the Project applicant has submitted to the County, as part of their land use permit request, proposed site plans maps at 1 inch = 200 feet scale and with 20-foot contour intervals. These currently submitted maps are available for public review at the County offices and specifically describe the currently proposed Project.

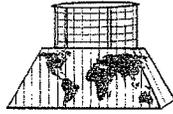
## CHAPTER 3: RESPONSE TO COMMENTS

Mitigation Measure 8-7h is hereby revised and amended as follows to provide greater clarity as to its intent:

**MM 8-7h: Review of Final Site Plans prior to Grading and Building Permits.** Prior to ~~issuance of obtaining~~ a grading or building permit, the Project applicant ~~shall should~~ submit a final site plan for review and approval by the County Zoning Administrator that ~~generally demonstrates consistency compliance~~ with the Project as shown on Figure 3-14 of this EIR, and compliance with the mitigation measures as recommended and made conditions of approval of this Project. ~~standards described in this document.~~

Please see General Response to Comments on the Technical Advisory Committee (TAC) and Adaptive Management.

- 13-6 The monitoring protocol presented in Appendix E of the Draft EIR was developed in collaboration with Dr. Shawn Smallwood, who also works for the CEC. In Dr. Shawn Smallwood's professional judgment; *"The Buena Vista monitoring protocol is superior to the monitoring protocol of Smallwood and Thelander (2004) in several important respects, and will produce comparable results. In fact, additional information will be gathered and which will help refine the results reported in Smallwood and Thelander (2004)."*
- 13-7 Please see Response to Comments on the Technical Advisory Committee, which includes a review of an annual report of the monitoring program.
- 13-8 Please see Response to Comments on the Technical Advisory Committee, which includes a recommended composition of the Technical Advisory Committee.
- 13-9 Please see Response to Comments on Off-Site Mitigation Fees for Avian Impacts.



Global Wind Energy Systems

TMA

January 31, 2005

David Brockbank  
Contra Costa County  
651 Pine Street  
Martinez, CA 94553-0095

RE: Buena Vista Wind Energy Project

LETTER 14

05 FEB -3 AM 10:25

CONTRA COSTA

Dear Mr. Brockbank,

This letter is intended to inform the Contra Costa County Board of Supervisors of available new avian friendly wind turbine technology. Although this letter is directed to my review of the Draft EIR prepared for the Buena Vista Wind Energy Project, it is also applicable to other projects in the re-powering process at the Altamont Wind Resource Area.

I am the President of TMA Inc. and my responsibilities include business development. TMA, Inc., a wind turbine company in Cheyenne, Wyoming, has developed a line of avian friendly, high efficiency wind turbines. We have presented our technology to several municipalities, county boards and corporations in the Bay Area over the past three years as well as presentations at Vandenberg AFB and Travis AFB.

The staff of TMA has spent the last five years perfecting our product and have successfully achieved the level of commercial viability. TMA is now ready to establish a presence in the wind turbine market in the United States and internationally. During these five years, TMA has had five different sizes of turbines operational for testing and in the hundreds of recorded staff visits to our testing site have observed no incidents of avian fatalities. TMA's opinion is that birds do not fly into non-reflective buildings (i.e. barns) and the TMA turbine configuration is that of a non-reflective building.

Mitigation of avian fatality is a primary concern of this EIR. Mitigation of avian mortality and power maximization can both be accomplished with installation of avian friendly technology in areas of high avian fatality risk, such as the ends of rows of turbines, or ridges where raptors tend to hover. We are not advocating a wholesale replacement of conventional technology, only replacement of high risk turbines with efficient wind turbines that do not kill birds, which results in a winning situation for environmental groups and developers alike.

Although the content of this letter may be taken as an attempt to market the TMA turbine to the wind farm developers in the re-powering process, this is not the case. Our company three years ago was not in a position to install TMA wind turbines in California and have that installation monitored to assist Altamont Pass developers in the mitigation process. The re-permitting is taking place now, and TMA will be able to demonstrate our technology in the next 90 days.

TMA is in the process of installing the company's latest model wind turbine on their testing site near Cheyenne, Wyoming. This model of the TMA turbine will be built according to the specifications and configuration obtained as a result of two years of wind tunnel and in the field testing performed by an independent wind engineering firm. The new turbine will be grid connected under a utility company interconnection and power purchase agreement already in place. TMA obtained FERC certification on a previous model turbine April 16, 1999. TMA will execute a two part contract with an independent firm to monitor the new turbine noise levels and the avian population.

The company is interested in partnering with a developer to install TMA turbines in the Altamont Wind Resource Area. These turbines would be maintained and operated by TMA and would be included in the independent monitoring process in an effort to assist in the mitigation of avian fatalities.

### **Key Features of the Repowering Program**

The main features of the Repowering Program include an interim limitation on development in the APWRA based upon the concept of repowering 583 megawatts (MW) of the presently productive wind project capacity before allowing any new wind development the APWRA. This limitation is intended to enable an assessment of the impact and presumed reduction in avian fatalities by the repowered projects based upon their design and siting standards included as part of the comprehensive Biological Resource Management Plan (BRMP) before allowing any new development.

### **Avian Impact Avoidance**

The Avian Impact Avoidance element established design, operational and siting standards intended to reduce avian mortality. These standards are to be applied to new windpower project development in the APWRA.

### **Federal Aviation Administration Standards**

The Federal Aviation Administration (FAA) has approved the installation of a TMA turbine on Francis E. Warren AFB in Cheyenne, Wyoming. TMA has a signed contract

with this Air Force Base and the installation of the TMA turbine is scheduled during 2005. This installation fell well within the guidelines as established by the FAA, according to the letter of approval received for the TMA wind turbine..

## **Alternatives**

**CEQA** requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Where a lead agency has determined that, even after adoption of all feasible mitigation measures, a project as proposed will still cause significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning CEQA.

## **Alternatives Comparison**

I am hereby requesting that the Contra Costa County Board of Supervisors consider establishing a requirement in the permit approval process which would require the developer of the Buena Vista Wind Energy Project to investigate alternative wind turbine designs, including the TMA turbine, and report their findings back to the Board of Supervisors for their review. Avian fatalities are at the core of the re-permitting issue and it is my opinion that the TMA technology will measurably assist in the process of mitigating avian fatalities.

Respectfully submitted,



Duane A. Rasmussen  
President  
TMA, Inc.

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**LETTER #14 RESPONSE:**

**TMA Inc.**

Duane Rasmussen, President

January 31, 2005

- 14-1 The County appreciates being appraised of all newly available, avian friendly wind turbine technology that may be applicable wind energy projects in the Altamont Wind Resource Area. A considerable amount of research has been conducted on turbine-related avian mortality specific to the APWRA. This research has involved several research institutions to determine the causes of avian mortality, to develop and design measures to protect birds, to implement these measures, and to test their effectiveness. The Smallwood and Thelander 2004 study commissioned by the California Energy Commission (CEC) is by far the most comprehensive monitoring report associated with wind turbines specific to the APWRA. Among the primary objectives of that study is the identification of possible relationships between bird mortality and wind turbine design and operations. The conclusions reached from that report suggest that replacing the numerous smaller turbines currently installed with fewer, larger turbines will result in lower bird mortality, especially if turbines are mounted on the tallest practicable towers. Also, this research has aided in the siting of new turbines, with a primary goal being to install new turbines in locations and in configurations that will result in fewer bird kills than in the past.

The County has relied to a considerable extent on the conclusions of this and similar studies commissioned by the CEC to develop its recommendations for the Project. If TMA Inc. believes that they have developed scientifically proven new technologies that may be capable of even further reducing avian fatalities, then the County recommends you provide such proof to the CEC and other institutions currently involved in studying possible relationships between bird mortality and wind turbine design and operations specifically within the APWRA. The County wishes TMA Inc. the best of luck in its development of technology that may measurably assist in the process of mitigating avian fatalities.

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**TRANSCRIPT FOR ZONING ADMINISTRATOR**

January 3, 2005

BUENA VISTA ENERGY LLC (Applicant) – THELMA SOUZA, SAMUEL STEWART, DENNIS LOPEZ, JOSEPH & ESTHER MARTINEZ, and JAMES & DONNA PUGH (Owners), County File LP022005: The applicant requests approval of a Land Use Permit to repower (that is, replace existing turbines with new ones) an existing wind power facility that will involve modifying the original Land Use Permits 2019-83, 2130-84, 2131-84, 2132-84, 2131-85 and 2081-86. The modification will consist of removing 179 existing towers and wind turbines currently on the site, and replacing them with 38 new, larger and more efficient turbines. There would be a net reduction of approximately 79% in the number of towers on the site, while retaining only a slight reduction in the overall rated capacity of the site (41.6 MW currently as compared to 38MW of rated capacity as proposed). The new turbines would be larger (1 MW each) than the existing turbines, and would consist of a three-blade upwind design mounted on tubular towers. The Project is located in the Byron Hills area of southeastern Contra Costa County, California within the Altamont Pass Wind Resource Area. The property address for the on-site office is 7601 Byron Hot Springs Road. The Project area is designated in the Contra Costa County General Plan as Agriculture Lands (AL), and consists of Zoning Districts A-2 (General Agriculture), A-3 (Heavy Agriculture), and A-4 (Agriculture Preserve), bearing Assessor's Parcel Numbers 001-021-001, 001-021-002, 001-021-007, 001-021-008, 001-021-009, 001-021-011, 001-021-012, 001-021-013, 001-021-017, 001-021-020, 005-160-005, 005-170-009, and 005-180-002.

D. Barry: This is an opportunity for anyone who would like to make a comment on the adequacy of the environmental impact report. This is not a hearing on the project. The hearing on the project will take place after all of the relevant comments that are submitted in writing and or orally are responded to in writing in response to comments document that response to comments document together with the draft environmental impact report with constitute the final environmental report for the project. I have no speaker cards at this time for the draft environmental impact report for the BUENA VISTA ENERGY project. Is there anyone in the audience that would like to address me in this matter? I see no one rising to speak on the adequacy on the environmental impact report. I will make a note for the record and for anyone in the audience that is interested that written comments will be accepted on the adequacy of the draft EIR through 5:00 p.m. on Friday January 31, 2005. I note that the posted document said January 31, 2004 but it was intended to state January 31, 2005.

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## REVISIONS TO THE DRAFT EIR

In accordance with Section 15132(e) of the CEQA Guidelines, this chapter summarizes revisions made to the Draft EIR resulting from the response to comments (see Chapter 3). The changes are presented by page number in each chapter that appears in the Draft EIR. The full text of the revised Table 2-1 of the Draft EIR, which summarizes impacts and mitigation measures, is included in Chapter 2 of this Final EIR. Revised or new appendix material is included at the end of this Chapter.

### CHAPTER 3: PROJECT DESCRIPTION

Page 3-46; first complete paragraph is hereby revised and amended as follows:

The Project applicant has submitted ~~turbine siting~~ proposed Site Plan maps to the County at a scale of 1 inch = 200 feet and with 20-foot contour intervals. These maps are available for public review at the County, and demonstrate the Projects compliance, to the extent practicable, with the siting criteria of the Impact Avoidance Element of the BRMP and subsequent avian studies of the APWRA.

### CHAPTER 4: LAND USE

Page 4-13; second paragraph is hereby revised and amended as follows:

Potential dust impacts are regulated by grading permits granted through the Contra Costa County ~~Public Works Department~~ Building Inspection Department, Grading Division. Typical mitigation measures required pursuant to a grading permit require the watering of onsite access roads when dry. Application of grading permit requirements, including the requirement for watering of onsite access roads during construction, would reduce this impact to a less than significant level.

### CHAPTER 8: BIOLOGICAL RESOURCES

Page 8-5; third bullet point under “Environmental Setting” is hereby revised and amended as follows:

- a survey of the California Department of Fish and Game’s (CDFG’s) Natural Diversity Database (NDDB),

Page 8-18, first paragraph under heading “Special Status Species” is hereby revised and amended as follows:

Lists of special-status wildlife and plants potentially occurring in the Project Area were developed based on a review of the Repowering EIR, CNDDDB records, recent comprehensive studies funded by the National Renewable Energy Laboratory (NREL) and the California Energy Commission (CEC), and Jones and Stokes’ experience in the region. The species lists in the EIR were used as a starting point and, because they are several years old and were prepared for a larger geographic area than this Project encompasses, were updated and refined to produce lists specifically for this project. The list includes all special-status species known to potentially occur in the Altamont Pass region, including any species observed as a fatality during recent studies.

Page 8-38; Mitigation Measure 8-1a is hereby revised and amended as follows:

**MM 8-1a: Avoidance.** Ground disturbance shall be avoided within 200 feet of alkali meadow habitat, unless no other feasible alternative exists. In the event of potential unavoidable impacts to alkali meadow habitat, the applicant shall restore/replace and equal area of such habitat as compensation for habitat disturbed.

Page 8-39; Mitigation Measure 8-3b is hereby revised and amended as follows:

**MM 8-3b: Additional Seasonal Avoidance.** No construction of new roads or turbine pads or other ground disturbance such as staging areas and roadway widening shall occur ~~within 600 feet of stock ponds and perennial/seasonal drainages on the site~~ during February and March, the breeding season for California Tiger Salamander.

Page 8-44: The text and mitigation measure addressing temporary construction-period impacts to annual grassland habitat is hereby revised and amended as follows:

### **~~Recommended Mitigation Measures~~**

~~The Project applicant currently leases the property within the existing wind farm project from the underlying property owners. These leases cover the entire roughly 2,500 acres (approximately 4 square miles) owned by Thelma Souza, Samuel Stewart, Dennis Lopez, Joseph and Esther Martinez, and James and Donna Pugh. These leases have approximately 10 years remaining under current contracts. The mitigation measure recommended for the Project to address temporary construction-period impacts to annual grassland/potential kit fox habitat is as follows:~~

**MM 8-5: ~~Reduced Lease Agreements.~~** ~~The Project applicant shall relinquish their lease arrangement with Stewart and Lopez, and shall revise the lease arrangements with the remaining primary underlying property owner (Souza) to reduce the overall extent of leased property. The new leases should cover only a~~

~~band of property of approximately 200 feet on either side of each turbine string. The remaining property not underlying these new lease arrangements would then be lease-free to the underlying property owner.~~

### **Resulting Level of Significance**

~~Under the recommended mitigation measure the new leases needed for the Project on Souza property will cover only a band of property to be under lease of approximately 225 acres. The lease from Martinez and Pugh would continue to be a full land lease covering approximately 175 acres. Thus, of the total 2,500-acre site approximately 400 acres (or about 16% of the total 2,500-acre site) would remain under lease for wind generation uses.~~

~~The remaining property not underlying these new lease arrangements (approximately 2,100 acres, or 84% of the site) would then be lease-free under the Project. The underlying property owners would then have the option of making these lease-free properties available for acquisition by others (either by title or easement) for permanent open space preservation. Such acquisitions could be made by park and open space districts, land trusts, or developers of other properties needing to find a mitigation bank for purchase of off-site mitigation “credits”. Such acquisitions would be negotiated solely at the discretion of the underlying property owners, but the Project applicant’s early relinquishment of lease agreements could facilitate such transactions earlier than otherwise available. The primary underlying property owner, Souza, has already advertised their property as being available for purchase of conservation easements or as a potential open space mitigation bank.~~

~~The Project would result in a net increase in long-term annual grassland habitat through the removal of existing facilities and reclamation of existing roads and sites. The facilitation of potential permanent open space preservation through early relinquishment of lease agreements would provide additional compensation to offset the temporary increase in annual grassland habitat impacts resulting from construction activities to a *less than significant level*.~~

The Project applicant currently leases the property within the existing wind farm project from the underlying property owners. These leases cover the entire roughly 2,500 acres (approximately 4 square miles) owned by Souza, Stewart, Lopez, Martinez, and Pugh. These leases have approximately 10 years remaining under current contracts. The applicant has proposed to relinquish their lease arrangement with Stewart and Lopez, and revise their lease arrangements with the remaining primary underlying property owner (Souza) to reduce the overall extent of leased property. As proposed, the new leases would cover only a band of property of approximately 200 feet on either side of each turbine string. The remaining property not underlying these new lease arrangements would then be lease-free to the underlying property owner.

The applicant's early relinquishment of lease agreements could facilitate potential permanent open space preservation on those properties, and could be considered as partial compensation to off-set the temporary increase in annual grassland habitat impacts resulting from construction activities. However, the Project does not include any proposal to purchase any such easements that may be made available. Construction activities would still result in a temporary disturbance to approximately 46.7 acres of annual grassland habitat.

### **Mitigation Measures**

The following mitigation measure is recommended to address this temporary impact:

**MM 8-5: Construction Area Reclamation.** All areas proposed for grading activities under the Project shall be subject to implementation of a detailed reclamation and re-vegetation plan. This plan shall accompany all final Site Plans, grading plans and building permit applications, and shall be approved by the County. The reclamation plan shall demonstrate how these disturbed areas will be re-graded to natural contours, re-seeded and reclaimed to native vegetation once the construction period is complete.

### **Resulting Level of Significance**

With implementation of the recommended mitigation measure, the Project-impacted grassland habitat would be restored and this impact reduced to a level of *less than significant*.

Page 8-54: The first bullet point on page 8-54 describing Best Management Practices is hereby revised and amended as follows;

All existing turbines will be removed and all man-made debris on the ground around the turbines will be removed from the wind turbine area. All of the sites where turbines are removed will be reclaimed to native vegetation by removing all above-ground construction and covering any remaining foundations and other systems with soil to a depth suitable for agricultural use and spread with native vegetation seed, and the ground below these turbines reclaimed; This BMP will eliminate 179 perching structures in the Project Area, and decrease the footprint of the Project.

Page 8-55, Mitigation Measure 8-7h is hereby revised and amended as follows to provide greater clarity as to its intent:

**MM 8-7h: Review of Final Site Plans prior to Grading and Building Permits.** Prior to issuance of obtaining a grading or building permit, the Project applicant shall ~~should~~ submit a final site plan for review and approval by the County Zoning Administrator that ~~generally demonstrates consistency compliance with the Project as shown on Figure 3-14 of this EIR, and compliance with the mitigation~~

measures as recommended and made conditions of approval of this Project. standards described in this document.

Page 8-55, Mitigation Measure 8-7i is hereby revised and amended, and Mitigation Measure 8-7j is hereby added to provide greater clarity as to the County's intent as more fully described in Chapter 3: Response to Frequent Comments section of this Final EIR:

**MM 8-7i: Monitoring Program.** A scientifically defensible monitoring program shall be implemented to estimate the avian fatality rates from the new turbines, and important covariates such as prey base and avian use (see Draft Monitoring Program, Appendix E).

- a) Standardized fatality monitoring and avian use and behavior studies shall be conducted for a minimum of three years.
- b) A technical advisory committee should be utilized to provide the professional expertise on avian mortality, formed to oversee the program, and to recommend, as necessary, propose additional already identified adaptive management strategies or measures mitigation and/or additional monitoring depending on the results of the monitoring program.
- e) ~~Should additional mitigation be necessary, potential measures may include off-site mitigation.~~

**MM 8-7j: Adaptive Management.** If the Project is unable to achieve a reduction in mortalities per year of certain selected raptor species as compared to the base case, (as may be adjusted based on new, supplementary monitoring data) the County shall require implementation of some or all of the following additional adaptive management strategies or conservation measures. The County's application of these additional measures may be informed by the recommendations of the TAC:

- a) restrictions on grazing management,
- b) placement of end-of-row pylons as bird flight diverters, to be installed beyond the ends of all turbine strings that include end turbines rated less than "2" for level of threat to raptors under the Smallwood and Thelander 2004 methodology.
- c) experimental blade painting, on a 1-time basis, on 25% of the new turbines comprised of every other turbine on one-half of the turbine strings.
- d) winter season (i.e., November 15 through February 28) shutdown of a particular turbine or turbines that may be found to be contributing a disproportionate amount to avian fatalities, up to a maximum of 10% of installed capacity.

**MM8-9b: Technical Advisory Committee:** A Technical Advisory Committee should be ~~established as recommended in the Repowering Program, utilized to provide the professional expertise on avian and bat mortality.~~ This TAC shall evaluate monitoring results and if bat mortality is determined to be significant, the TAC could recommend additional focused bat monitoring, or recommend additional mitigation such as contributions for the conservation of bats (e.g., Bat Conservation International).

## CHAPTER 10: OTHER CONSIDERATIONS

Page 10-2, last paragraph and 10-3, first paragraph is hereby revised and amended as follows:

The removal of old turbines and foundations, construction of new turbine foundations, installation of new turbines and collection lines, and other ancillary construction activities could temporarily affect adjacent uses by generating cumulatively significant levels of dust, noise, traffic, and visual disruption of the landscape. Potential dust impacts are regulated by grading permits granted through the Contra Costa County Building Inspection Department, Grading Division ~~Public Works Department~~. A typical mitigation would require the watering of onsite access roads when dry. Application of grading permit requirements, including the requirement for watering of onsite access roads during construction, would reduce this impact to a less than significant level.

Page 10-11, paragraph below heading “Prior Analysis by Northwind of Wake Loss Effect” is hereby revised and amended as follows:

In their previous comments on the November 3~~2~~003 project and the April 2~~2~~004 project, Northwind Energy provided an analysis of the potential wake loss effects that they believed would occur as a result of those proposed projects.

Page 10-12, paragraph below heading “Page 10-11, paragraph below heading “Conclusions Regarding the Current Project” is hereby revised and amended as follows:

### Conclusions Regarding the Current Project

~~The prior reports commissioned by the applicant indicated that the economic effects of those previously proposed projects (projects that that included 4 turbines in a position upwind of the Northwind turbines) would not cause an adverse effect on the existing Northwind project, with only an approximately 0.5% change from existing conditions. Therefore, no further analysis of this issue has been conducted for the currently proposed Project. Without any turbines being proposed on the property north of Vasco Road and immediately upwind of the Northwind project, no adverse effects are anticipated. However, the applicant has been unable to work with Northwind to either resolve apparent inconsistencies between the conclusions~~

~~of prior report, nor to resolve any potential remaining issues that Northwind may have with the currently proposed Project.~~

Without any turbines being proposed on the property north of Vasco Road and immediately upwind of the Northwind project, no adverse effects are anticipated.

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## REPORT PREPARERS AND ADDITIONAL BIBLIOGRAPHY

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## **ADDITIONAL BIBLIOGRAPHY**

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Smallwood, K. S., and L. Neher. 2004. Repowering the APWRA: Forecasting and minimizing avian mortality without significant loss of power generation. California Energy Commission, PIER Energy-Related Environmental Research, CEC-500-2005-005 21 pp

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