

# CHAPTER 3.1

## VISUAL RESOURCES

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This section presents an assessment of potential visual resource impacts of the Proposed Project and alternatives. *Section 3.1.1* provides a discussion of the affected environment for visual resources in the project area. The impact assessment methodology is discussed, and potential impacts of the Proposed Project and alternatives are identified in *Section 3.1.3*. In addition, visual simulations of proposed wind farm have been prepared by DUDEK in April 2006, and are incorporated in the impact analysis portion of this chapter. Incorporated for reference herein is the *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States* (FPEIS) prepared in June 2005 by the U.S. Department of Interior, Bureau of Land Management.

The following is a description of the existing visual resources in the project area as well as federal and local guidelines for wind farm development.

### 3.1.1 Affected Environment

Visual resources refer to all objects (man-made and natural, moving and stationary) and features (e.g., landforms and water bodies) that are visible on a landscape. These resources contribute to the scenic or visual quality of the landscape, that is, the visual appeal of the landscape. A visual impact is the creation of an intrusion or perceptible contrast that affects the scenic quality of a landscape. According to the FPEIS, a visual impact can be perceived by an individual or group as either positive or negative, depending on a variety of factors or conditions (e.g., personal experience, time of day, weather/seasonal conditions).

#### Visual Setting

##### Natural Features

The project area is located within the Upper Coachella Valley area, situated near the eastern end of the San Gorgonio Pass. The Upper Coachella Valley unit is an extensive outwash plain, ringed by rugged hills and mountains. The landmarks of Whitewater Hill and Windy Point and the gap between them mark an important transition from the confined views in the Pass unit to the panoramic long-distance views of the valley plain. The San Gorgonio Pass is a narrow (five miles wide) east-west pass which connects the coastal and San Bernardino plains with the Coachella Valley. Topographic relief ranges from the gently sloping desert floor which makes up the majority of the Pass area and Upper Coachella Valley, to steep mountain slopes in the northwestern and southwestern portions of the pass.

The project site affords panoramic views of the hills and mountain ranges which surround the Coachella Valley and views of a large portion of the valley itself. The site is located on the desert

floor within the Whitewater River floodplain. Shallow ravines and washes found on the desert floor define the visual environment in the vicinity of the project site. These are not dominant visual features in the way that the surrounding mountains are; however, they provide a measure of visual relief within the site vicinity. The washes provide visual diversity to the generally monotonous desert floor. The site has gently sloping topography to the southeast with total relief of approximately 160 feet, ranging from about 800 feet above sea level at the northwest corner to 640 feet at the southeast corner. The project area is surrounded by the Little San Bernardino Mountains to the north, the San Gorgonio Pass extending to the west, open valley desert to the east, and the San Jacinto Mountains to the southeast. In particular, Mt. San Jacinto, one of the highest escarpments in North America, forms a dramatic visual backdrop for the project site.

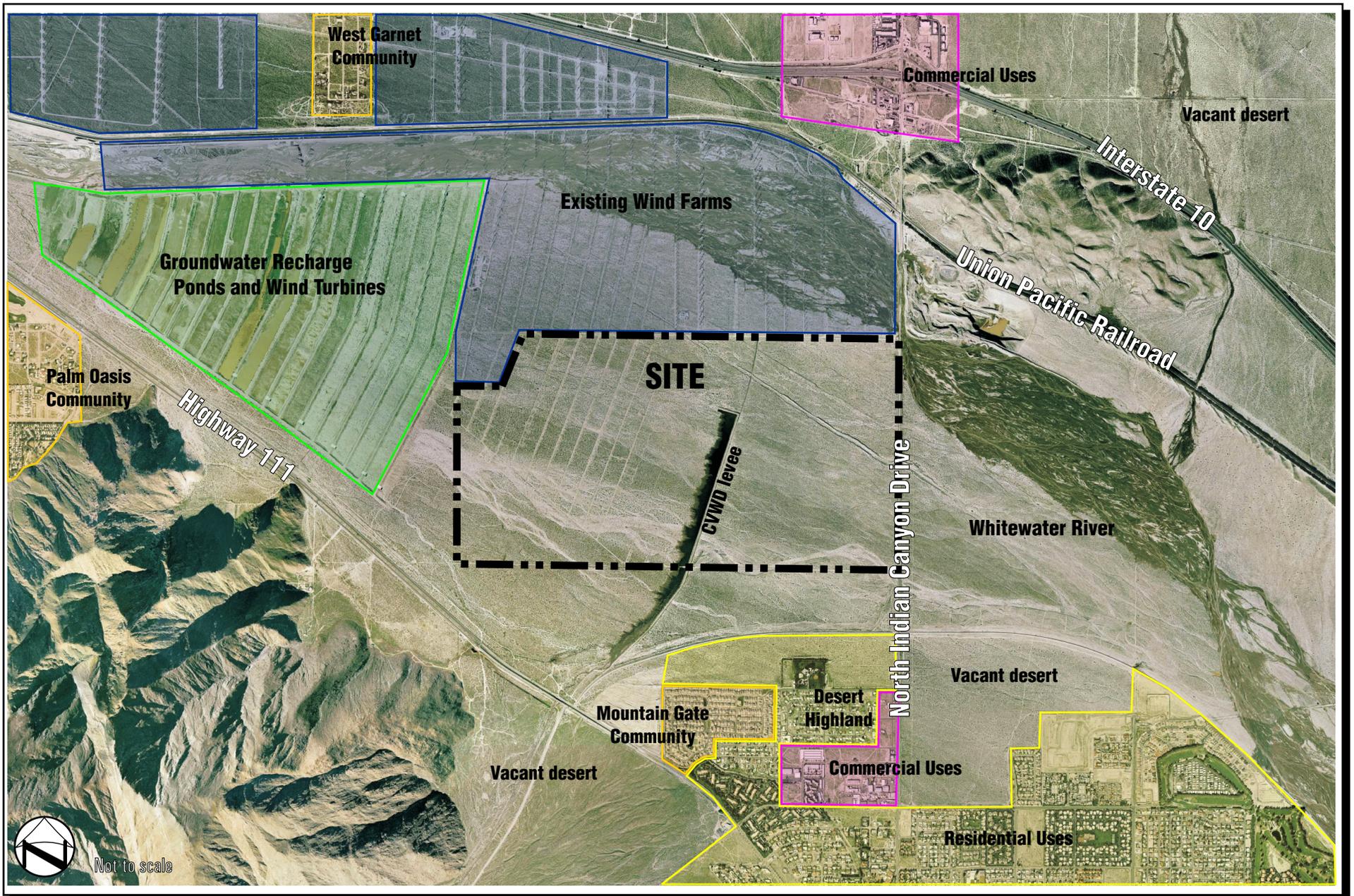
### Man-Made Features

The visual environment of the Upper Coachella Valley and San Gorgonio Pass includes man-made elements consisting of scattered residential communities, freeway and highway bridges, commercial buildings, overhead power lines, and approximately 3,500 existing wind turbine generators. These elements interact with the natural environment in ways that can enhance or diminish the viewer's aesthetic pleasure and sense of place. The majority of wind turbine arrays are located adjacent to one another on the flat valley floor between State Route 111 and Interstate 10. Aside from an existing CVWD berm that extends north-south across the eastern portion the site (within Section 27), six 199-foot tall meteorological masts, and seven existing buildings, the subject property is predominantly vacant, and located in close proximity to existing wind turbine arrays. The site is located south and east of more than 600 existing wind turbines located within the Whitewater flood plain area of the City of Palm Springs. Additional man-made features located in close proximity to the subject properties include: North Indian Canyon Drive located directly east of the site; the Union Pacific Railroad line and Interstate 10 freeway, both located north of the site; and State Highway 111 less than one mile southeast of the site. An existing residential community is located south of the project site (see *Figure 3.1-1 Existing Land Use*).

### Regional Visual Structure

In response to applications for wind farm projects on public and private lands in the early 1980's, Riverside County and the Bureau of Land Management (BLM) jointly sponsored an environmental document in 1982 entitled the "San Gorgonio Wind Energy Study Draft EIR/EIS #158." This document contained an evaluation of the entire San Gorgonio Pass, with regard to visual/aesthetic issues associated with wind farms. The following are key characterizations in relation to regional visual structure.

The site lies near the eastern edge of an area with especially low Visual Absorption Capacity (VAC) extending across the Whitewater Wash between Whitewater Hill (northwest of the project site) and



BASE MAP SOURCE: AirPhoto 2005

Mountain View IV Wind Energy Project EIS/EIR  
**Existing Land Uses**

**FIGURE  
 3.1-1**

Windy Point (also northwest of the project site). Its low VAC is related to its location along the periphery of a visual “portal” (important points of visual transition and access) between the San Gorgonio Pass and the Upper Coachella Valley area. The visual portal is a result of the narrowing effect created by Whitewater Hill and Windy Point and the presence of two scenic highways (Interstate 10 and State Route 62). However, the project site, including the valley floor of the San Gorgonio Pass, has been designated “Less Critical”, which is the third of four gradations of visual constraint (1=Very Critical, 2=Critical, 3=Less Critical, 4=More Suitable)<sup>1</sup>. The “Less Critical” designation indicates that the subject property could accommodate development without landscape degradation. The site vicinity has already incurred development of a similar nature, including wind turbines on County, BLM, and City of Palm Springs lands, electrical power lines along I-10, and the overpasses at Wall Road Bridge and SR-62.

### **3.1.2 Regulatory Environment**

#### **Federal Guidelines**

Section 102 (a)(8) of the Federal Land Policy and Management Act (FLPMA) of 1976 places an emphasis on the protection of the quality of scenic resources on public land. Section 101 (b) of NEPA requires that measures be taken to ensure that aesthetically pleasing surroundings be retained for all Americans. To meet its responsibility to maintain the scenic value of public lands, the BLM has developed the Visual Resource Management (VRM) system. The VRM system is implemented through the RMP and the Management Framework Plan (MFP) process. Visual resources are to be considered in all BLM planning and environmental assessment documents. The BLM contrast rating system was used to determine potential visual impacts of the Proposed Project and alternatives under consideration in this document, and is discussed in more detail below in *Section 3.1.3, BLM’s Visual Resource Management System*. The CDCA Plan Amendment for the Coachella Valley (BLM 2002b), establishes VRM objectives.

#### **City of Palm Springs Guidelines**

The Palm Springs General Plan contains policies regarding scenic setbacks in the Scenic Corridors Element of the Environmental Resources Section. Policy 5.24.9 of this element requires a 0.25 mile (1,320 foot) scenic setback from Interstate 10 in the vicinity of the Whitewater Grade (northwest of the project site) and 500 feet in other areas, 0.25 mile (1,320 foot) scenic setback from Indian Canyon Drive/North Indian Canyon, and a 2/3 mile scenic setback from Highway 111.

The Sphere Area district subsection of the Palm Springs General Plan states that Wind Energy Conversions Systems (WECS) and other utility facilities shall be designed to blend into the

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<sup>1</sup> San Gorgonio Wind Resource Study Draft EIR/EIS #158, Table III-5.

surrounding landscape as much as possible. Adequate setbacks for the WECS shall be provided to protect scenic highways and key viewpoints. No WECS shall be permitted on the south side of State Route 111 due to the significance of the San Jacinto Mountains as a scenic resource. The Indian Avenue/Gene Autry Trail district calls for supplemental landscaping to be provided along the Interstate 10 corridor to ease the visual impact of WECS development, and the Sphere Area and State Route 111 districts state that native plants shall be used to screen any distracting views of WECS developments.

State Route 111 is considered a scenic corridor by the Palm Springs General Plan Scenic Corridors Element. The General Plan's Sphere Area Community Plan also designates Interstate 10, State Route 62, Snow Creek Road and Whitewater Canyon Road as scenic corridors. The Open Space Element of the Palm Springs General Plan states that major streets within the City, including the Pass area, will be designed to take advantage of their scenic qualities through the use of such methods as use of greater setbacks from the street and by providing landscaping to enhance and/or protect views. The Scenic Corridors Element calls for the City to utilize its scenic corridors as scenic and recreation links wherever possible. Finally, the Freeway Corridor district states that open space shall be retained to protect the following long-range views: eastbound Interstate 10 at Whitewater Summit, which provides a view to the Salton Sea and the Coachella Valley, and southbound State Route 62 at the Interstate 10 interchange, which provides a view of the San Jacinto/Santa Rosa Mountains and the Upper Coachella Valley.

### **3.1.3 Environmental Consequences**

The following section describes the impacts to visual resources that are expected to occur as a result of project implementation.

#### **Methodology and Significance Criteria**

This section provides a discussion of the methodology and criteria used to assess impacts to visual resources that could occur as a result of construction and operation of the Proposed Project and alternatives. The area of analysis for visual resources considers areas in which project facilities would be located, including substation locations, along the Proposed Project and alternative transmission line routes. A qualitative approach was used to assess the temporary visual impacts associated with construction activities and the presence of construction equipment. The assessment of long-term impacts utilizes the BLM's Visual Resource Management System. In addition, State CEQA guidelines will be considered.

#### **BLM's Visual Resource Management System**

Methods have been developed to assist federal agencies responsible for visual resource planning and assessing visual resource impacts. The BLM conducts visual inventories and analyses within the

guidelines established in its VRM System. The BLM uses the procedures and methods to support decision making for planning activities and reviews of proposed developments on BLM-administered lands. Since 1980, the BLM has used the system to evaluate thousands of projects on public lands while minimizing their visual impacts (FPEIS, 2005).

The VRM system consists of three phases: (1) inventory of scenic values; (2) establishment of BLM VRM objectives (i.e., VRM Classes); and (3) design, mitigation, and evaluation of the project to meet established VRM classes. To arrive at a visual resource classification, the procedure for inventorying scenic values looks at the intrinsic scenic quality of a view, the level of public concern (sensitivity) to changes in that view, and the distance between viewers and the view. The final result of the inventory process is the assignment of a Visual Resource Class that portrays the relative value of visual resources and provides a tool for managing visual objectives. These Visual Resource Classes and the associated objectives are used to provide the basis for the consideration of visual resources in the BLM's resource management planning process (FPEIS, 2005).

Once visual resources are inventoried and visual management classes are delineated, then potential impacts of a proposed project can be evaluated relative to management objectives for the affected area. The vulnerability of visual resources to impact-producing visual contrasts then determines the need for adjustments or mitigation of the proposed wind energy development (FPEIS, 2005).

#### CEQA Significance Criteria

Appendix G of the State CEQA Guidelines (Cal. Code Regs. Title 14 §15000 et seq., 1998) states that the project would have a significant visual/aesthetic effect if it would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### **Project Impacts**

The BLM managed portion of the project site is classified as VRM Class IV (Figure 2.2, California Desert Conservation Area Plan Amendment Final EIS, October 2002). Lands in this classification include wind energy and sand/gravel mining sites. VRM Class IV is one of the least restrictive classifications, which allows any contrast to attract attention and be a dominant feature of the landscape in terms of scale, but requires it to repeat the form, line, color, and texture of the characteristic landscape (Coachella Valley California Desert Conservation Area Plan Amendment FEIS, 2002).

The assessment of visual impacts is based on identifying changes to existing landscape features which would occur as a result of construction and operation of the proposed project, and determining whether such changes are consistent with the visual resource management objectives. The assessment method utilized is the contrast rating system which rates the degree of contrast between the proposed activity and the existing landscape.

Contrast ratings measure the degree to which the Proposed Project features would conflict with the characteristic landscape, including the landforms, vegetation and soil patterns, water resources and cultural features. Contrast ratings also consider the degree (weak, moderate, or strong) of change in line, form, color and texture that the Proposed Project would cause. Of particular importance in comparing the visual contrast created by the Proposed Project with the major features of the existing landscape is the presence of numerous wind turbines within the project vicinity. These turbines comprise a dominant element of the existing landscape and must be considered in the contrast rating process. Given the dominance of the existing wind turbines in defining the characteristic landscape of the project vicinity and the project's design criteria to mimic adjacent developments, the overall contrast rating for the proposed project is considered weak (the element contrast can be seen but does not attract attention) and would not result in significant visual impacts.

The proposed project is a continuation of wind farm development in the San Gorgonio Pass, and continues the trend toward fewer, taller turbines. The visual character in the project vicinity is somewhat industrial in nature, containing more than 1500 wind turbines, including electrical transmission lines and large areas of vacant natural desert terrain. The turbines proposed for this project have been chosen to match the existing turbines in the vicinity. The proposed project would blend in with the existing surroundings and would not substantially degrade the existing visual character or quality of the site and its surroundings. The proposed turbines will be state-of-the-art with tubular steel towers supporting a three bladed rotor, designed to rotate clockwise, which is the dominant direction of blade rotation in the pass area. The three bladed turbine has the benefit of a more uniform/rhythmic motion with less of the "flashing" appearance common to two bladed turbine designs. The turbines will be finished in a very light gray off-white color, with a lusterless matte finish, chosen to blend with the sky and surrounding environment. This visual uniformity will aid in minimizing visual clutter and promote a more harmonious appearance.

The nearest turbines to any scenic roadway would be consistent with City of Palm Springs scenic setback criteria from adjacent scenic roadways, such as Highway 111, North Indian Canyon Drive and Interstate 10. There are no historic resources, rock outcroppings or other scenic resources onsite; therefore the project would not substantially damage scenic resources.

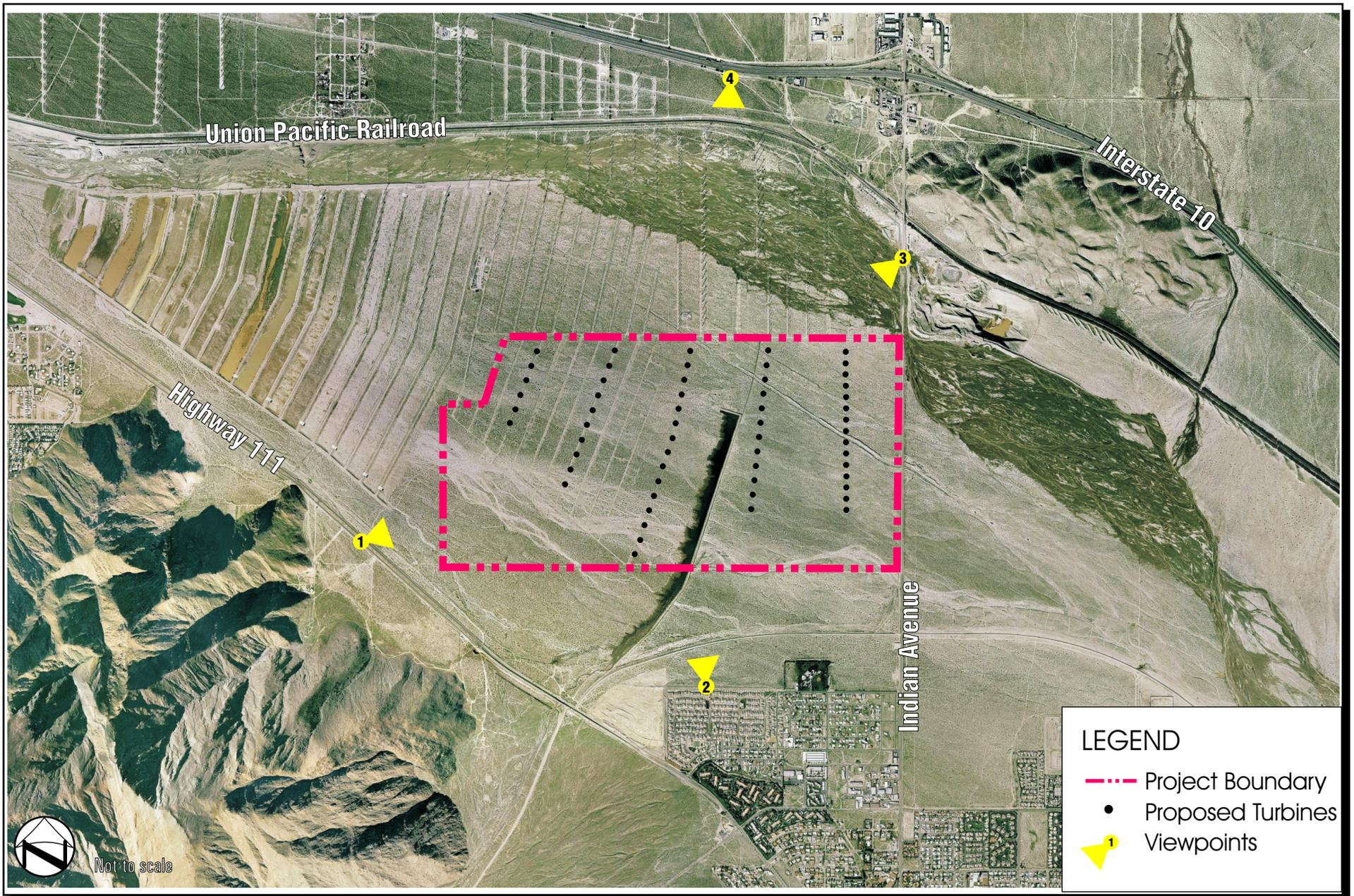
### Construction Impacts

Minor grading will be required in order to facilitate development. The proposed site plan would result in a maximum of 11.2 acres of permanent site disturbance within the 1,659 acre project site.

The project will include existing 16 foot wide gravel roads totaling 17,200 linear feet, and new 16 foot wide gravel roads totaling 16,065 linear feet on-site to connect to existing adjacent roads. Each of the wind turbines will have a 63' x 47' gravel area, with 4" to 6" of gravel over compacted native soil. No more than 2,000 total cubic yards of cut and 2,400 total cubic yards of fill, balanced on site, will be required. An existing off-site road in Section 21 crossing private land and an existing road along the southern boundary of Section 22 provide access to the site. There are another eight existing roads which would not be used by this project and would be allowed to return to their native state. By using a construction method of excavation and backfill, foundation construction will result in very little disturbance outside the immediate area of the turbine footprint. A 25' by 140' temporary construction staging area would be located next to each turbine footprint. The small amount of grading outside the turbine footprints and road bed would gradually blend with the surrounding area at the end of construction as native vegetation is re-established. Due to the flat site, minimal road widths (16 feet) and small foundations needed, no major cut or fill slopes will be created and therefore, none would be visible from offsite. Construction machinery to be used would include cranes which would create a visual impact for approximately 30 days; however, given the short term nature of the construction process, this would not be a significant impact. Consequently, visual impacts associated with construction would be less than significant.

#### Key Observation Points

Three-D visual simulation modeling for each project alternative was prepared using digital modeling and rendering and is incorporated in this document to illustrate worst-case visual impacts of the proposed project. A map showing the location of key observation points is shown in *Figure 3.1-2*. *Figure(s) 3.1-3* thru *3.1-6* represent the before and after condition from the four key observation points near the project vicinity



BASE MAP SOURCE: AirPhoto USA 2005

**Mountain View IV Wind Energy Project EIS/EIR  
Key Observation Point Reference Map**

**FIGURE  
3.1-2**

EXISTING



PROPOSED



Mountain View IV Wind Energy Project EIS/EIR  
Key Observation Point 1

FIGURE  
3.1-3

Existing



Proposed



Mountain View IV Wind Energy Project EIS/EIR  
Key Observation Point 2

FIGURE  
3.1-4



Mountain View IV Wind Energy Project EIS/EIR  
Key Observation Point 3

FIGURE  
3.1-5



Mountain View IV Wind Energy Project EIS/EIR  
Key Observation Point 4

FIGURE  
3.1-6

*Key Observation Point 1 (Highway 111, southwest of the site, facing northeast)*

This viewing location represents the perception of the site from motorists traveling along State Scenic Highway 111. The existing view shows existing wind farms to the north of the project which can be seen in background views. The proposed turbines would be present middleground views and would be a prominent element of the landscape. Turbines proposed by this project have been designed to be visually consistent in height, form, color, and spacing with the wind farms developed in the area since 1995. This conforms to BLM's VRM Class IV. There are a few turbines which would extend past the ridgeline of the mountains in the background; however, the existing utility poles and power lines already extend past the ridgeline. The project would not have a substantial adverse impact on a scenic vista since existing features already extend above ridgelines and turbine spacing is such that the vista would not be completely blocked. Since the turbine rotors are designed to rotate in the dominant direction of the rotors of existing wind turbines, the motion will be uniform with existing turbines and motion impacts will be less than significant.

*Key Observation Point 2 (Mountain Gate Community, south of the site, facing north)*

This viewing location represents an unobstructed view of the site from the recently developed residential community of Mountain Gate, from the north side of the community's minimum 6 foot masonry block perimeter wall. The existing view shows numerous existing wind farms in the background. The proposed turbines would be a prominent element of the landscape in the middleground view from this vantage point. Some turbines extend higher than the ridge line of the mountains in the background; however, the simulation from this observation point is a worst case unobstructed view from the community. As stated above, the community is bound by a 6 foot masonry block wall and is flanked with trees and shrubs in some areas. The wall and landscaping substantially restrict foreground and middle ground views of the Whitewater Wash to the north, where the proposed turbines would be located (see *Figure 3.1-7*). Only the tops of a few proposed turbines would be seen from the south side of the community's perimeter wall. As the perimeter wall restricts views of the mountains for the residents of this community, the visual effect of the project from Key Observation Point 2 would be considered less than significant. Also, adequate turbine spacing provides a less restrictive view of the mountains in the background than a solid building would; therefore, the project would not have a substantial adverse impact on a scenic vista. In addition, the proposed turbines would be designed to be consistent in height, form, color, and spacing with existing turbines. This would conform to the goals of BLM's Visual Resource Management Class IV.

*Key Observation Point 3 (North Indian Canyon Drive, northeast of the site, facing southwest)*

This viewing location represents the perception of the site from motorists traveling along North Indian Canyon Drive. The existing view shows turbines in the foreground, middleground and



SOURCE: Dudek

Mountain View IV Wind Energy Project EIS/EIR  
View from Nearest Residents of Mountain Gate Community

FIGURE  
3.1-7

background. The proposed turbines would be setback further than the first row of existing turbines and would not extend beyond the ridgelines of the mountains in the background. They would not block views of the San Jacinto Mountains in the background and would not create a substantial adverse impact on a scenic vista. The proposed turbines appear to blend in with the existing turbines in the background and appear as infill of the dominant visual pattern established by existing wind turbines surrounding the site. The proposed turbines would be consistent in form, line, and color with the existing turbines, which consistency satisfies the BLM's VRM Class IV goals.

*Key Observation Point 4 (Interstate 10, north of the site, facing south)*

This viewing location represents the perception of motorists traveling along Interstate 10 passing by the site. The existing view shows numerous turbines in the middle and background and several turbines extend beyond the ridgelines of the mountains in the background. The proposed turbines would appear as infill of the dominant visual pattern established by existing wind turbines surrounding the site. Consequently, the visual impact of the proposed project would be seen as a continuation of wind farms rather than as a separate, distinct visual entity. The proposed turbines follow the same pattern in line, color, form and spacing as existing turbines and would therefore conform to the objectives of the BLM's VRM Class IV. Turbines from this project are not extending above any ridge lines or blocking any scenic vista; therefore implementing the project would result in a less than significant visual impact from this location.

Lighting

The Mountain View IV project is recommended by the Federal Aviation Administration (FAA) to include navigational warning lights, pursuant to FAA lighting standards. No other outdoor lighting will be included at the project site during operation. The project proponent has filed a Form 7460-1 Notification of Proposed Construction or Alteration with the Federal Aviation Administration and received Determinations of No Hazard for all the proposed wind turbines. This determination found that the wind turbines would not present a hazard to air navigation or aircraft radar, provided that recommended night time flashing red lights are installed and synchronized to blink simultaneously. The FAA determined that no daytime lighting or marking is required, and 17 of the 49 wind turbines will need to be lit using standard FAA approved red lighting, designed to increase conspicuousness to aircraft in the general area.

Newer standards establishing the number of wind turbine lights per project have recently been developed by the FAA, and these standards recommend fewer lights (about 50% fewer) if they are synchronized to blink at the same time. In addition, the newer standards recommend low intensity red synchronized blinking lights during nighttime use only, in contrast to previous standards that required bright white daytime strobes and medium intensity white night time strobe lights that were not synchronized. This newer type of lighting does not produce substantial glare or light spillage, and is visible at night as a synchronized slowly blinking low intensity red light, designed to radiate

it's primary beam horizontally and upward. Since these red lights are of low intensity and are intermittent, they do not individually represent an obtrusive source of night lighting. Therefore, the project's use of 17 FAA warning lights would have a less than significant impact on homes and other land uses in the area. Although, taken in context with the surrounding existing WECS projects in the area (which employ similar lighting), the project's use of the FAA's required aircraft warning lights will incrementally contribute to an unavoidable cumulatively significant impact. However, the use of FAA lighting at the project site, and surrounding WECS projects, is not a discretionary decision for the applicant or County administrators. The project is required to comply with FAA Advisory Circular 70/7460-I Obstruction Lighting/Marking requirements to ensure the proposed wind turbines will not constitute a safety hazard with regard to aircraft navigation in the area. In this regard, the FAA's provision for safety overrides the unavoidable cumulative lighting impacts associated with providing FAA warning lights at the project and other WECS projects in the area.

Temporary lighting will be used at the project sites during the construction period. The associated lighting will be hooded and directed so as to prevent glare and spill light from shining directly upon adjoining properties and road right-of-ways, and therefore would have a less than significant impact on surrounding land uses.

### **3.1.4 Mitigation Measures**

No significant impacts have been identified; therefore, no mitigation measures are required.

### **3.1.5 Reduced Development Alternative**

Under the reduced development alternative, fewer turbines would be built and would be located only on Section 28. There would be less of a visual impact as there would be fewer turbine rows. Viewers from KOP 1 and 2 would see fewer turbines and the turbines would be seen only on the western side in middleground views. Viewers would have an unobstructed view of the mountains and foothills to the east. KOP 3 and 4 have existing turbines in foreground, middle, and background views. Viewers from KOP 3 would see fewer turbines in the fore and middleground views. Proposed turbines would blend into the background with existing turbines. Viewers from KOP 4 would see only existing turbines in the background to the east. Proposed turbines would blend into the background with existing turbines to the west. Night lighting from FAA lights would also be reduced proportionately.

### **3.1.6 No Action Alternative**

The No Action alternative assumes that the project site would not be developed with the currently proposed project and the project site would remain in its present undeveloped condition. Impacts to visual resources would be non-existent, since there would be no project developed onsite. Viewers from KOP 1 and 2 analyzed for the proposed project would have unobstructed foreground and

middleground views. Existing turbines would still be visible in background views. KOP 3 and 4 have existing turbines in foreground, middle, and background views. The project would not add turbines to these existing turbines under the no action alternative; therefore, these existing turbines would be the only turbines in the foreground, middle and background views. In addition, no FAA lights would be added to the area. The no action alternative would have no impact on visual resources.