

4.1 Aesthetics

The purpose of this Section is to identify existing aesthetic resources within the Project area, analyze potential impacts to aesthetic resources associated with the development of the proposed Project, and identify mitigation measures that would avoid or reduce the significance of any identified impacts. The aesthetics analysis identifies and evaluates key visual resources in the Project area and determines the degree of visual impacts that could occur from the proposed Project. The assessment is based on field observations of the proposed Project site, in addition to a review of topographic maps, Project drawings, and aerial and ground-level photographs of the Project area from representative viewing locations. Thresholds of significance for the impact analysis are derived from Appendix G of the 2011 *CEQA Guidelines*.

4.1.1 Environmental Setting

Regional Setting

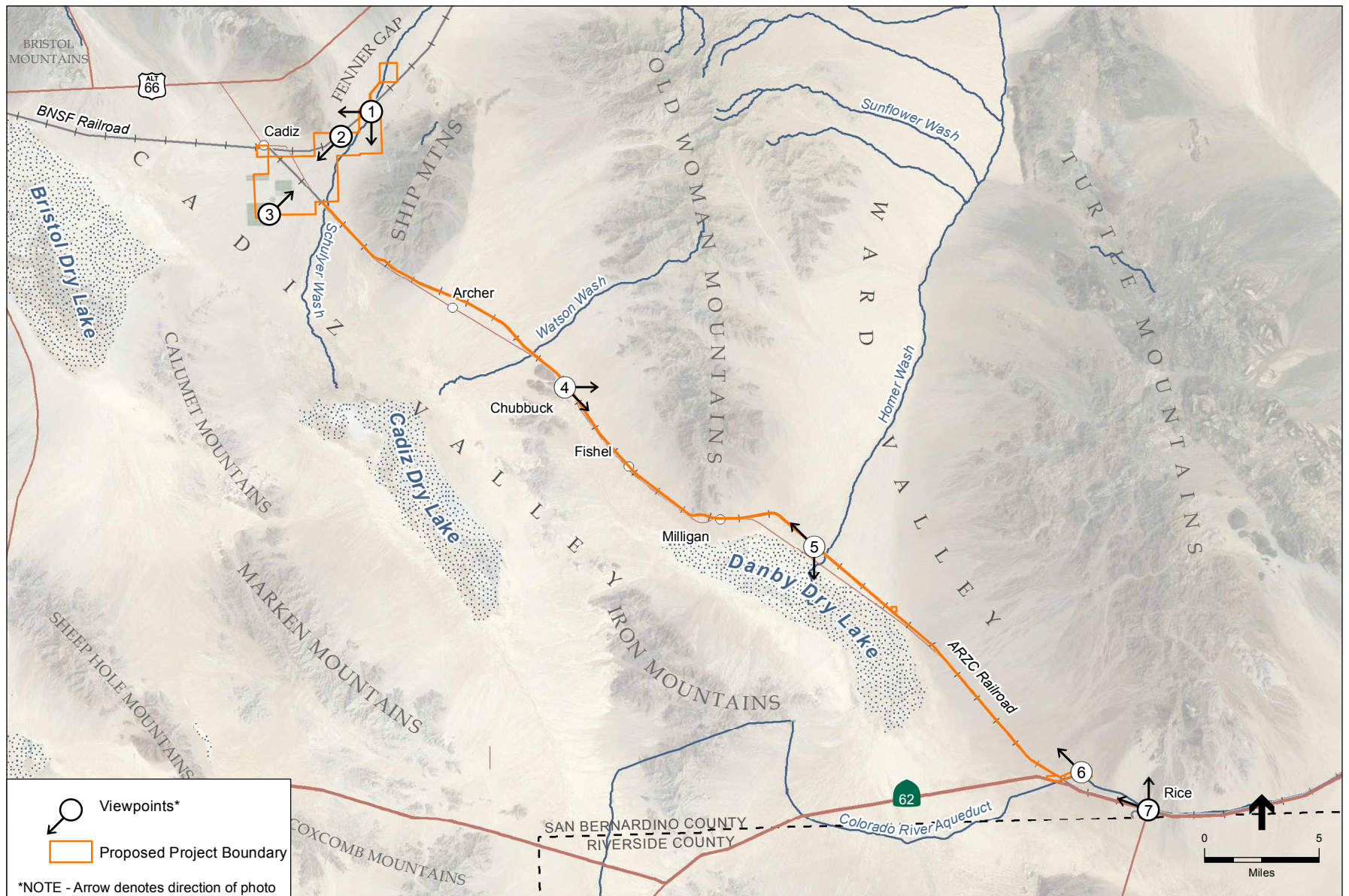
The Project is located in a generally undeveloped region of the Mojave Desert within San Bernardino County, California (**Figure 4.1-1**). The Project area is approximately 10 miles south of the Mojave National Preserve and surrounded by federal lands managed by the U.S. Bureau of Land Management (BLM) for open space values. The visual character of the region is shaped by an arid landscape consisting of sparsely vegetated mountain ranges and broad valleys with expansive bajadas¹ and scattered dry lakes.² Land in the Project vicinity consists of open space and undeveloped natural areas, with scattered, isolated development including existing salt mining operations on the Bristol and Cadiz Dry Lakes, agricultural operations on Cadiz Property, scattered structures near Amboy and Cadiz, railroad lines, major roadways, dirt roads, and utility corridors crossing large expanses of the desert.

Local Setting

The Cadiz Property is located in a broad desert valley surrounded on all sides by mountain ranges, salt pans, and geologic outcroppings. Views from the Cadiz Property are dominated by long-range vistas of expansive alluvial valleys supporting sparse desert scrub vegetation and surrounded by rugged mountain ranges. The Cadiz Property consists of several square miles of active agriculture including citrus orchards and vineyards, a small airstrip, an office (trailer) and other structures related to the agricultural operations. The green rows of citrus trees and grapevines at the Project area contrast sharply with the tan and muted tones of the native desert landscape. Two active railroads cross the Project area in east-west and north-south directions.

¹ A bajada is a broad, sloping depositional deposit caused by coalescing alluvial fans.

² County of San Bernardino, *San Bernardino County 2007 General Plan Program Final Program Environmental Impact Report*, February 2007, page IV-7.



SOURCE: Bing Maps, 2010; ESRI, 2010; DeLorme, 2010; Cadiz Inc., 2010; and ESA, 2010

Cadiz Valley Water Conservation, Recovery and Storage Project

Figure 4.1-1
Photo Viewpoints

Because this area is largely undeveloped, there are very few sources of night light and glare. Some reflection is generated from the windows of vehicles using the east-west highways and other unpaved roads in the Project vicinity. Infrequent vehicles using area roadways after dark are a temporary source of night light. However, traffic through the area is minimal. The Cadiz Inc. agricultural operation has few lights and is not the dominant source of nighttime light in the valley. Lights from several salt mining operations on the Bristol and Cadiz Dry Lakes are visible in the evening hours.

Aesthetic features surrounding the Project area are summarized below:

NORTH: A BNSF rail line travels east-west in the vicinity of the Project area and crosses the Cadiz Property north of the Project area at the Ship Mountains. The ARZC rail line originates in Cadiz just north of the Project site, where it branches off the BNSF rail line and proceeds southeastward toward Parker, Arizona (see Figure 4.1-1). SR66 also traverses the valley roughly parallel with the BNSF connecting Cadiz with points east and west.

SOUTH: Metropolitan's Iron Mountain Pumping Plant facilities are located near the southern end of the Project area. The CRA, also owned by Metropolitan, crosses the southern terminus of the Project site from east to west. SR62 also traverses east-west at the southern end of the Project near the CRA tie-in.

EAST/WEST: The majority of the remaining lands to the east and west of the Project area are managed by BLM. The Marine Corps Air Ground Combat Center at Twenty-nine Palms occupies an extensive area west of the Cadiz Valley and Bristol Dry Lake.

Bureau of Land Management Wilderness Areas

Wilderness Areas in the Project vicinity are defined in the CDCA, as amended by the Northern and Eastern Colorado Desert (NECO) Plan (see Figure 4.1-1). There are five Wilderness areas within an approximately 5 mile radius of the Project. The Trilobite Wilderness Area is located 3.5 miles north of the Project site. Views of and from the Trilobite Wilderness Area are shielded from the Project area by the Marble Mountains. The Old Woman Mountains Wilderness Area is located east of the ARZC ROW and is closest to the ROW at the segment between Chubbuck and Milligan.

The Cadiz Dunes Wilderness Area is located west of and adjacent to the proposed water conveyance pipeline along an approximately 5-mile-long portion of the ARZC ROW, between Archer and Chubbuck. At its closest point, the Cadiz Dunes Wilderness is 100 feet west of the ARZC ROW. The Sheephole Valley Wilderness Area is located approximately 5 miles west of the Project site, and the Turtle Mountains Wilderness Area is located approximately 4.2 miles to the east.

Viewpoint Photos

Photographs illustrating the existing environment were taken at various locations within and adjacent to the Project site in October 2010. Figure 4.1-1 depicts the viewpoint locations and the direction of representative views. **Figures 4.1-2 through 4.1-7**, beginning on page 4.1-7, include photographs taken of and from the Project site. Viewpoints and representative views depicted in Figures 4.1-2 through 4.1-7 are described in more detail below.

In general, public views of the proposed Project would be limited as access to the Cadiz Inc. Property to the north and Metropolitan lands and the CRA to the south are private property and are not accessible to the general public. Cadiz-Rice Road, which runs parallel to the ARZC ROW between SR 62 and SR 66 in Cadiz, California, is open to the public. However, the dirt road is not well maintained, and therefore traffic along the road is infrequent and generally limited to employees of the mining, railroad, and agricultural operations.

Photo 1 – Viewpoint 1, T5N, R15E, Section 8, looking south towards Ship Mountains.

Photo 1 depicts representative views from Fenner Gap and the northeastern extent of the proposed wellfield area in the vicinity of (south of) the proposed spreading basins (see Figure 4.1-2). Views to the south are dominated by the Ship Mountains in the background, with scattered, sparse, scrubby vegetation in the expansive and flat desert foreground. This location is not readily accessible to the public because it does not have any paved roads leading to the photo location and would require traveling along unmaintained dirt roads.

Photo 2 – Viewpoint 1, T5N, R15E, Section 8, looking west towards Bristol Mountains.

Photo 2 depicts representative views from Fenner Gap and the northeastern extent of the proposed wellfield area in the vicinity of (south of) the proposed spreading basins (see Figure 4.1-2). Views to the west are dominated by the foreground, which consists of open desert land crossed by several dirt access roads and overhead telephone power lines. The Bristol Mountains can be seen in the distant background. This location is not readily accessible to the public because it does not have any paved roads leading to the photo location and would require traveling along unmaintained dirt roads.

Photo 3 – Viewpoint 2, T5N, R15E, Section 18, looking southwest towards the proposed wellfield area.

Photo 3 depicts existing views of the proposed wellfield area (see Figure 4.1-3). Views are dominated by the foreground, which is generally flat, with sparse vegetation. A drill rig can be seen on the right side of the image, approximately 1 mile away. The Calumet Mountains can be seen in the distant background. This location is not readily accessible to the public because it does not have any paved roads leading to the photo location and would require traveling along unmaintained dirt roads.

Photo 4 – Viewpoint 3, T5N, R14E, Section 33, looking northeast towards the proposed wellfield area.

Photo 4 depicts representative views from the southeastern portion of the proposed wellfield area, looking northeast towards Cadiz agricultural operations (see Figure 4.1-3). Views are dominated by the foreground, which consists of desert land that has been used previously for farming. Fenner Gap can be seen in the distance, as well as the Ship Mountains to the right and Trilobite Mountains to the left. This location is not readily accessible to the public because it does not have any paved roads leading to the photo location and would require traveling along unmaintained dirt roads.

Photo 5 – Viewpoint 4, Chubbuck, looking east towards Old Woman Mountains.

Photo 5 depicts representative views from the Chubbuck railroad siding, looking east (see Figure 4.1-4). Views are dominated by the ARZC railroad tracks and the expanse of vacant, sparsely vegetated desert in the foreground. Old Woman Mountain Wilderness Area is in the background, approximately 3 miles away. This photo location is accessible from Cadiz-Rice Road, which runs parallel to the ARZC railroad tracks.

Photo 6 – Viewpoint 4, Chubbuck, looking southeast towards Iron Mountains.

Photo 6 depicts views from the Chubbuck railroad siding, looking southeast (see Figure 4.1-4). Views are dominated by Cadiz-Rice Road, which runs parallel to the ARZC railroad tracks. In the background, the southern tip of Old Woman Mountains Wilderness Area is to the left and the Iron Mountains are to the right. This photo location is accessible from Cadiz-Rice Road.

Photo 7 – Viewpoint 5, Cadiz Property parcel in Section 16 T2N R18E, looking south towards Danby Dry Lake.

Photo 7 depicts views from the ARZC ROW near Cadiz properties that intersect the ROW in Section 16, T2N, R18E (see Figure 4.1-5). These parcels may be used for staging during construction or for a substation that would link to aboveground or underground power transmission lines along the ARZC ROW. Views to the south are dominated by flat desert scrub in the foreground. Danby Dry Lake can be seen in the distant midground and the Iron Mountains in the background. This photo location is accessible from Cadiz-Rice Road.

Photo 8 – Viewpoint 5, Cadiz Property parcel in Section 16 T2N R18E, looking northwest towards Old Woman Mountains Wilderness Area.

Photo 8 depicts views from the ARZC ROW near Cadiz properties that intersect the ROW in Section 16, T2N, R18E (see Figure 4.1-5). These parcels may be used for staging during construction or for a substation that would link to aboveground or underground power transmission lines along the ARZC ROW. Views to the northwest are dominated by desert scrub habitat and Danby Dry Lake. The Old Woman Mountains Wilderness Area is in the distant background. This photo location is accessible from Cadiz-Rice Road.

Photo 9 – Viewpoint 6, Looking northwest at the CRA transition from canal to underground.

Photo 9 depicts views in the vicinity of the CRA at the point where the canal transitions underground, looking northwest (see Figure 4.1-6). Land in the vicinity of the CRA is flat, but the walls of the CRA are raised so that views of the canal are limited from public viewpoints. Access to the CRA is controlled, and Metropolitan posts signs at the entrance to their access roads prohibiting trespassing.

Photo 10 – Viewpoint 6, close up of CRA transition point and underground route looking northwest.

Photo 10 was taken from Metropolitan's private access road, looking north across Metropolitan-owned lands traversed by the CRA (see Figure 4.1-6). Views in this area are dominated by the flat, nearly barren desert. The point at which the CRA transitions underground from an aboveground canal can be seen to the right; a Metropolitan security gate surrounds the transition point. The Turtle Mountains Wilderness Area can be seen in the distance, to the right. Access to the CRA is controlled, and Metropolitan posts signs at the entrance to their access roads prohibiting trespassing.

Photo 11 - Viewpoint 7, views from the ARZC railroad tracks adjacent to SR 62 near Rice, looking northwest.

Photo 11 depicts public views of the CRA from the ARZC ROW that runs parallel to and north of SR 62, near Rice, California (see Figure 4.1-7). Views are dominated by the railroad and flat desert, and the raised walls of the CRA can be seen in the midground and fading into the background where the Turtle Mountains Wilderness Area can be seen in the distance. Access to the CRA is controlled, and Metropolitan posts signs at the entrance to their access roads prohibiting trespassing.

Photo 12 - Viewpoint 7, views from SR 62 near Rice, looking north towards the ARZC railroad tracks and CRA.

Photo 12 depicts typical views of the CRA from cars driving west along SR 62, looking north. Views are balanced by the nearly-barren desert in the foreground and the Turtle Mountains in the background. Less visible are the ARZC ROW and CRA in the midground. Access to the CRA is controlled, and Metropolitan posts signs at the entrance to their access roads prohibiting trespassing.



Photo 1, Viewpoint 1: T5N, R15E, Section 8, looking south towards Ship Mountains.



Photo 2, Viewpoint 1: T5N, R15E, Section 8, looking west towards Bristol Mountains.



Photo 3, Viewpoint 2: T5N, R15E, Section 18, facing southwest towards the proposed wellfield area.



Photo 4, Viewpoint 3: T5N, R14 E, Section 33, looking northeast towards the proposed wellfield area.

SOURCE: ESA, 2010.

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure 4.1-3
Viewpoints 2 and 3



Photo 5, Viewpoint 4: Chubbuck, looking east towards Old Woman Mountains.



Photo 6, Viewpoint 4: Chubbuck, looking southeast towards Iron Mountains.



Photo 7, Viewpoint 5: Cadiz Property parcel in Section 16 T2N R18E, looking south towards Danby Dry Lakes.



Photo 8, Viewpoint 5: Cadiz Property parcel in Section 16 T2N R18E, looking northwest towards Old Woman Mountains Wilderness Area.

SOURCE: ESA, 2010.

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure 4.1-5
Viewpoint 5



Photo 9, Viewpoint 6: Looking northwest at the CRA transition from canal to underground.



Photo 10, Viewpoint 6: Closeup of CRA transition point and underground route looking northwest.



Photo 11, Viewpoint 7: Views from the ARZC railroad adjacent to SR-62 near Rice, looking northwest.



Photo 12, Viewpoint 7: Views from SR-62 near Rice, looking north towards the ARZC and CRA.

SOURCE: ESA, 2010.

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure 4.1-7
Viewpoint 7

4.1.2 Regulatory Framework

Federal

BLM Visual Resource Management (VRM) Policy

BLM has developed visual resource management policies and procedures for determining visual resource values. The assessment method is used to develop land management actions on BLM land. The method does not limit management of neighboring non-BLM lands.

The primary means to establish visual resource values are to conduct a Visual Resource Inventory (VRI), as described in BLM handbook H-8410. Visual resource values are determined through a systematic process that documents the landscape's scenic quality, public sensitivity and visibility. Rating units for each of the three factors are mapped individually, evaluated, and then combined through an over-layering analysis. The three considerations are briefly described below.

Scenic Quality: Scenic Quality Rating Units (SQRUs) are delineated based on common characteristics of the landscape. There are seven criteria used for inventorying the landscape's scenic quality within each SQRU: landform, vegetation, water, color, influence of adjacent scenery, scarcity, and degree of cultural modification. Each factor is scored for its respective contribution to the scenic quality, the scores are summed, and the unit is given a rating of A (highest), B, or C (lowest) based on the final score.

Sensitivity Level: Sensitivity Level Rating Units (SLRU) are delineated and evaluated for public sensitivity to landscape change. Criteria used for determining level of sensitivity within each unit includes types of use, amount of use, public interest, adjacent land uses, special areas, and other factors. Each criterion is rank high, medium, or low and an overall sensitivity level rating then is assigned to the unit.

Distance Zones (visibility): The third factor is visibility of the landscape evaluated from where people commonly view the landscape. The distance zones are divided into foreground/middleground (three to five miles); background (five to 15 miles); and seldom seen (beyond 15 miles or topographically concealed areas within the closer range distance zones).

State

State Scenic Highway Program

The State Scenic Highway Program, created by the California Legislature in 1963, was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. There is only one designated State Scenic Highway in San Bernardino County; a portion of SR 38 near Big Bear City, which is not in the Project vicinity.

According to Caltrans, “a highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.” Caltrans defines a State Scenic Highway as any freeway, highway, road, or other public ROW that traverses an area of exceptional scenic quality, containing striking views, flora, geology, or other unique natural attributes. There are two “eligible” State Scenic Highways: Interstate 40 (I-40), which is located approximately 20 miles to the north of the proposed spreading basins, and SR 62, which is located approximately 1 mile south of the intersection of the ARZC ROW and the CRA. The entire portions of I-40 and SR 62 that are within San Bernardino County are designated as eligible State Scenic Highways.

To be designated as “eligible” for State Scenic Highway status, the highway needs to meet the following criteria:

- a) Consists of a scenic corridor that is comprised of a memorable landscape that showcases the natural scenic beauty or agriculture of California;
- b) Existing visual intrusions do not significantly impact the scenic corridor;
- c) Demonstration of strong local support for the proposed scenic highway designation; and
- d) The length of the proposed scenic highway is not less than a mile and is not segmented.

Local

San Bernardino County General Plan

The Open Space Element and Conservation Element of the San Bernardino County General Plan (2007) govern the natural resources and scenic vistas located within the County. Accordingly, the San Bernardino County General Plan identifies goals and policies related to protect aesthetic values of natural landscapes. The policies aim to retain the natural beauty of the desert areas through minimizing intrusive development, restoring construction areas, and employing building methods that minimize impacts to views. For discussion of the applicability of the County General Plan and Development Code policies to the Project, please see Section 4.10.3 (*Consistency with Land Use Plans*) of the Land Use and Planning Chapter.

4.1.3 Impact and Mitigation Analysis

Significance Criteria

Based on *CEQA Guidelines*, Appendix G, a project may be deemed to have a significant effect on the environment with respect to aesthetics 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; or
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The significance determination is based on several evaluation considerations, including the extent of project visibility from sensitive viewing areas such as designated scenic routes or public open space; the degree to which the various project elements would contrast with or be integrated into the existing landscape; the extent of change in the landscape's composition and character; and the number and sensitivity of viewers. For the purposes of this analysis, a scenic vista is defined as any long range view of substantially undisturbed natural landscape that includes flora, geology, or other unique natural or man-made attributes that contribute to an exceptional aesthetic quality or character of the area. For the proposed Project, this would include views in every direction including natural vegetation, day and nighttime sky-views, and BLM Wilderness Areas as the backdrop.

Methodology

Aesthetic resources are generally defined as both natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Aesthetic impacts are determined through a comparison to existing characteristics of an area. This Section addresses the visual condition of the Project site and its vicinity and the potential for the Project to adversely affect those conditions. The analysis focuses on the visual character of the Project site and selected views from the surrounding areas. The following analysis is based upon a field assessment by ESA staff on October 27, 2010, proximity of designated scenic highways, and site photo documentation.

The scenic quality of the wellfield area is relatively high due to the preponderance of natural vegetation and the limited development. The existing agricultural fields do not diminish the area's scenic quality greatly since they appear rural in nature. The visual sensitivity of the wellfield area is relatively low since it is not readily visible from a State Scenic Highway. The long range views that include the wellfield are dominated by undeveloped valleys bounded by rocky mountains with minimal vegetation. They are generally of high quality due to the limited development and surrounding Wilderness Areas. The pipeline alignment is generally within a high quality scenic area with low sensitivity since it abuts the existing railroad and is generally hidden from any readily attainable view points.

Groundwater Conservation and Recovery Component

Scenic Vistas

Significance Threshold

Would the proposed Project have a substantial adverse effect on a scenic vista?

Impact Analysis

Construction of Wellfield Facilities

There are no designated State Scenic Highways or county-designated scenic routes in the Project vicinity. The closest State Scenic Highway is I-10 in Riverside County and the closest county-designated scenic route is Amboy Road which is approximately 13 miles to the west of the proposed Project wellfield area. The Project may be visible from Amboy Road in isolated spots on the road as the topography allows. However, the construction activities associated with the wellfield facilities and pipeline would appear similar to other small disturbances in the overall expansive landscape and would not significantly affect the overall views from the roadway.

Construction of Conveyance Facilities

SR 62 and I-40 are considered eligible State Scenic Highways by Caltrans.³ The Project would not be visible from I-40, which is located approximately 16 miles north of the Project site. SR 62 is located less than 1 mile south of the ARZC ROW and CRA intersection and runs parallel to the segments of ARZC ROW and CRA located near Rice, California. Construction activities associated with southern portions of the water conveyance facilities, access road, power supply and distribution facilities, and construction of the CRA tie-in would be potentially visible from portions of SR 62. Other Project facilities including staging areas on the Danby Property, air relief valves, and pipeline installation footprint would not be visible from any Scenic Highway due to the distances and topography.

Photo 11 depicts typical public views of the CRA from cars driving along SR 62, looking north (see Figure 4.1-7). Views from SR 62 are dominated by the expanse of nearly-barren desert in the foreground and the Turtle Mountains in the background. The ARZC ROW and CRA facilities are visible in the midground, but do not obstruct the long-range views. Construction activities visible from SR 62 would not obscure or substantially alter long-range views.

Operation and Maintenance

Once constructed, the wellfield would consist of a series of cleared and fenced well pads connected by access roads with underground or overhead power and water pipelines. The individual wells would be equipped with emergency lighting, but would not require nighttime lighting for general operations. Project facilities on the valley floor would not be visible from Amboy Road. However, they would be visible from higher elevations in the surrounding mountain ranges. These mountain ranges are largely publicly owned lands managed by BLM, and are visited less frequently than the National Parks located to the north and southwest due to their remote and rugged location and the lack of services. The wellfield would appear as connected pads within a large undeveloped valley. If overhead powerlines are used instead of underground lines, impacts to the scenic quality of the area would be adversely affected. However, the 30-foot tall poles would blend into the long range views from local roads and surrounding areas and would not significantly affect the scenic vistas since the overhead lines would constitute a low

³ California Department of Transportation, *California State Scenic Highways, San Bernardino County*, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed October 2010.

intensity development in the desert area which is compatible with the long-range, generally uninterrupted views.

Cadiz owns over 25,000 acres of mostly undeveloped land in the wellfield area and the proposed Project would utilize approximately 150 acres, or less than one percent. The wellfield would be near the agricultural lands, mining operations, and transportation alignments, but would not significantly alter or obscure the long range views from these higher elevations.

The conveyance pipeline would be constructed underground and would not alter the local aesthetics once installed. Periodic air relief valves and blow off valves would be visible at close range near the railroad. These 6-foot tall structures would not substantially alter or reduce the quality of the scenic resources near the railroad.

To provide for fire suppression along the ARZC rail corridor, fire hydrants would be installed at several locations along the ARZC ROW, primarily at the trestle bridge locations. These fire hydrants would not substantially alter or reduce the quality of the scenic resources near the railroad.

Three alternative scenarios are being considered for the CRA tie-in. Each scenario would be constructed within a fenced area. The first scenario would construct a 10-foot-high pump-in facility adjacent to the CRA that would tie-in directly to the canal (see Figure 3-11). While the direct tie-in would be slightly taller than the existing berm around the CRA, views from SR 62 would not be substantially impacted because of the short-term nature of views from moving cars and because mid-ground features in the vicinity of the CRA do not dominate views from SR 62. Under this scenario, impacts would be less than significant.

The second scenario would construct a new forebay on approximately 25 acres of Metropolitan property, adjacent to and northeast of the intersection of the ARZC ROW and CRA. An approximately 6-foot berm would be constructed around the forebay as a visual screen, which would assist in blending the facility into the surrounding area to soften long range views and would be consistent with the existing berm that screens the CRA facilities (see Figure 4.1-7). Views from SR 62 would not be substantially impacted because of the short-term nature of views from moving cars and because views of the new forebay would be screened by a new berm. Impacts on views from SR 62 would therefore be less than significant.

The third scenario would construct a new forebay on approximately 25 acres of Cadiz Property located approximately 10 miles northwest of SR 62, adjacent to the ARZC ROW. The third scenario would not be visible from SR 62, and would therefore be less than significant.

In all three scenarios, impacts to scenic vistas associated with the operation of the Groundwater Conservation and Recovery Component are considered less than significant.

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

Scenic Resources

Significance Threshold

Would the proposed Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?

Impact Analysis

As discussed above, there are no designated State Scenic Highways in the Project vicinity. Impacts on scenic resources from eligible State Scenic Highways are discussed above under Scenic Vistas. The Project would have no impact on scenic resources within designated State Scenic Highways. Further discussions of historic resources can be found within Section 4.5, Cultural Resources.

Mitigation Measures

None required.

Significance Conclusion

No impact.

Visual Character

Significance Threshold

Would the proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?

Impact Analysis

The San Bernardino County General Plan encourages the preservation of unique environmental features and natural resources of the Desert Region, including native wildlife, water bodies, scenic vistas, and native vegetation, particularly Joshua trees, Mojave yuccas, and creosote rings. The visual character of the Project area is shaped by an arid landscape consisting of sparsely vegetated mountain ranges and broad valleys with expansive bajadas and scattered dry lakes. Views in the Project area tend to be dominated by the extensive foreground (lands located within 0.5 mile of the viewer) and, to a lesser extent, distant mountain ranges.

Several BLM Wilderness Areas are located in close proximity to the Project site, including the Cadiz Dunes, Old Woman Mountains, and Turtle Mountains Wilderness Areas. Because the Cadiz Dunes are low-lying features on the landscape, recreationists visiting the Cadiz Dunes area

would not have views of the Project. Views from vantage points in the Turtle Mountains and Old Woman Mountains consist of vast expanses of open desert land interspersed by scattered linear features that cross the landscape, including utility poles and lines, unpaved access roads, and railroad lines. Project facilities that could potentially be visible from the Old Woman Mountains and Turtle Mountains are discussed below.

Construction of Wellfield Facilities

Construction of the wellfield would be completed over an approximately 18-month period. Construction activities may be visible from Route 66 in the distance, but, as part of the expansive landscape of the Fenner Valley, they would not significantly affect the overall views from the roadway. The small disturbances seen from long range would not change the overall visual character of the open desert.

Construction of Conveyance Facilities

Most of the construction of the conveyance facilities would occur beyond the long range views from SR62 or SR 66. Local views of the construction activities would be temporary and would mix with those of the railroad. The visual character of the pipeline alignment is dominated by the proximity of the railroad. The construction would not adversely affect the visual character of the rail corridor. The construction zone would be returned to its pre-construction condition when complete.

Operation and Maintenance of Wellfield Facilities

The Project wellfield would introduce new facilities to the existing landscape. The proposed wellfield would be located in the north portion of the Project site in the vicinity of Fenner Gap (see Figure 4.1-3, Photo 3). A site plan for the wellfield is provided in Figure 3-6a and 3-6b. Each well site would typically be 80 feet by 130 feet enclosed by a 6-foot high chain-link-fence. Inside the fence, crushed gravel would surround the 35-foot by 75-foot concrete slab that supports the well equipment. Equipment would include pipe, various types of valves, gauges and meters, pump motor and starter equipment, a lighting panel, and a SCADA panel. The tallest equipment would be up to 12 feet high. The well sites would typically be at least 0.5 mile apart. Nighttime lighting at the well pads would be available but would only be used during nighttime maintenance visits.

Power to operate Project facilities would be provided by underground natural gas pipelines or overhead electric distribution lines. Project wellfield substations would be located in the Project wellfield. A typical substation would be 50 feet by 95 feet and enclosed with a 6-foot-high chain link fence. Equipment would include various batteries, a switcher separated from a transformer by a 10-foot-high concrete wall and connected by an overhead duct, two disconnect switches and an oil circuit breaker. A cable would connect the disconnect switch with underground power lines. The tallest elements on site would be the duct, at approximately 12 feet, and potentially the overhead power lines at approximately 30 feet.

There are existing extraction wells on the Project site, as well as large active mining operations on the nearby Dry Lakes that, when viewed from afar, are not dominant visual elements in the

landscape. Because the wellfield facilities would have a low profile (less than 12 feet high), and because views would be limited to distant mountain vistas, contrasting elements introduced into the landscape would be minimal. Cadiz Inc. owns over 25,000 acres of mostly undeveloped land in the wellfield area and the proposed Project would utilize approximately 150 acres, or less than one percent. The wellfield and substation facilities would have a less than significant impact on the existing visual character.

Operation and Maintenance of Conveyance Facilities

Most or all of the Project water conveyance and power distribution facilities would be installed underground, so aesthetic impacts along the ARZC ROW would be temporary in nature and limited to the construction period. The ARZC rail line is one of several linear features that are currently visible from distant mountain vistas; the 200-foot-wide ROW is kept clear for safety reasons, and Cadiz-Rice Road and multiple perpendicular railroad access roads cross the landscape. Project construction within the ARZC ROW would therefore not introduce a new linear feature to the visual environment. The water conveyance pipeline would require minor aboveground appurtenances such as air/vacuum relief valves (see Figure 3-9 for a rendering of a typical air relief valve structure), blow-off facilities, and access manholes, which would not be visible to casual observers viewing the facilities from a distance.

As mentioned above, three scenarios are being considered for the CRA tie-in facility. Each of these scenarios is discussed in detail above, under Scenic Vistas. In addition to views from SR 62, the CRA tie-in could be visible to drivers using Cadiz-Rice Road and recreationists using nearby BLM wilderness areas. However, based on photographs taken from nearby vantage points, from which foreground views are dominant, none of the proposed facilities would substantially degrade the existing visual character of the Project site. Impacts associated with construction of conveyance facilities for the Groundwater Conservation and Recovery Component are therefore considered less than significant.

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

Light and Glare

Significance Threshold

Would the proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impact Analysis

Construction of Wellfield Facilities

Night lighting would be required during construction of the proposed wellfield, which would, in some cases, occur 24 hours a day. The area surrounding the Project site consists of uninhabited open space and there are no designated campgrounds or residences located near the Project site. However, if a series of lights in the wellfield or pipeline were permanently on and visible from surrounding areas, the nighttime character of the valley would be affected, but implementation of Mitigation Measure **AES-1** would reduce the potential impact to a less than significant level.

Construction of Conveyance Facilities

Night lighting would be noticeable in the Project area because there are few light sources in this area. Night lighting would be required during construction of the proposed conveyance, which would, in some cases, occur 24 hours a day. Worker housing areas and nighttime security lighting within staging areas would increase light in the area during the construction period. The area surrounding the Project site consists of uninhabited open space and railroad tracks. There are no designated campgrounds or residences located near the Project site. Mitigation Measure **AES-1** would reduce potential nighttime construction light impacts to a less than significant level.

Sources of glare would be minimal because of the relatively small scale of the proposed facilities and because the proposed forebay would be surrounded by a 6-foot-high berm. Glare would not be noticeable from the valley floor and would not dominate vistas from elevated viewpoints in the Project vicinity. Glare-related impacts associated with the proposed Project are therefore considered less than significant.

Operations

Wellpads within the wellfield may be equipped with permanent lighting, but these would only be used during infrequent nighttime maintenance activities. Implementation of Mitigation Measure **AES-2** would reduce potential nighttime lighting impacts to a less than significant level.

Mitigation Measures

AES-1: Construction lighting shall be shielded or recessed so that light is directed downward and/or away from adjoining properties and public rights-of-way, and towards the construction site, with the goal of minimizing light trespass and glare on adjacent properties and containing light within the construction site to the maximum extent feasible.

AES-2: Outdoor lighting shall be minimized and installed for safety and security purposes only. Outdoor lighting of Project facilities and access roads shall be shielded or recessed so that light is directed downward and/or away from adjoining properties and public rights-of-way and towards the Project site, with the goal of minimizing light trespass and glare on adjacent properties and containing light within the Project site to the maximum extent feasible.

Significance Conclusion

Less than significant with mitigation.

Imported Water Storage Component

This component is analyzed on a programmatic basis.

Scenic Vistas

Significance Threshold

Would the proposed Project have a substantial adverse effect on a scenic vista?

Impact Analysis

As described above, there are no designated State Scenic Highways or county-designated scenic routes in the Project vicinity. SR 62 and I-40 are considered eligible State Scenic Highways by Caltrans.⁴ The Project would not be visible from I-40, which is located approximately 16 miles north of the Project site. SR 62 is located less than 1 mile south of the ARZC ROW and CRA intersection and runs parallel to the segments of ARZC ROW and CRA located near Rice, California.

The expanded wellfield would slightly increase the development in the desert beyond the Groundwater Conservation and Recovery Component. The spreading basins would be fenced with chain-link fence and shielded from surrounding views by a 4-foot earthen berm that would soften impacts to views from all sides. The Imported Water Storage Component would expand the footprint of the Groundwater Conservation and Recovery Component and would add spreading basins, but would not significantly alter scenic vistas. Impacts to scenic vistas would be less than significant.

The existing natural gas pipeline element would result in limited short-term impacts resulting from construction activities along the existing pipeline alignment. As the pipeline area is currently equipped with existing facilities, the upgrading and construction of new pump stations and air valves would not significantly alter scenic vistas. The construction of the pump stations would be designed to blend with the surrounding so as to lessen visual impacts. Furthermore, construction of the element would not be visible from I-40 or SR 62. Thus, impacts to scenic vistas would be less than significant.

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

⁴ California Department of Transportation, *California State Scenic Highways*, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed October 2010.

Scenic Resources

Significance Threshold

Would the proposed Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?

Impact Analysis

As discussed above, there are no designated State Scenic Highways in the Project vicinity. Impacts on scenic views from eligible State Scenic Highways are discussed above under Scenic Views. However, the Project would have no impact on scenic resources within designated State Scenic Highways.

In addition, as previously discussed, the existing natural gas pipeline construction area is already disturbed with existing facilities and is not located within designated State Scenic Highways. Thus, no impacts to scenic resources within designated State Scenic Highways would occur.

Mitigation Measures

None required.

Significance Conclusion

No impact.

Visual Character

Significance Threshold

Would the proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?

Impact Analysis

As discussed above under the Groundwater Conservation and Recovery Component, views in the Project area are dominated by the immediate foreground (lands located within 0.5 mile of the viewer) and enhanced by views of distant mountain ranges. Several BLM Wilderness Areas are located within the vicinity of the Project site including the Cadiz Dunes, Old Woman Mountains, and Turtle Mountains Wilderness Areas. The Cadiz Dunes are low-lying features on the landscape and viewers recreating in the Dunes area would not have views of the Project since foreground views would dominate. Currently, visitors to the Turtle Mountains and Old Woman Mountains Wilderness Areas experience views of vast expanses of open desert land interspersed by linear features including utility poles and lines, unpaved roads, and railroad tracks. In addition to the impacts described for Groundwater Conservation and Recovery Component facilities, under the Imported Water Storage Component the proposed spreading basins could be visible from the Old Woman Mountains and Turtle Mountains Wilderness Areas.

The Project spreading basins would be located on Cadiz Property northeast of the Fenner Gap. The spreading basins would encompass up to 390 acres, with about 330 acres of usable recharge area. Figure 4.1-1 shows the approximate location of the proposed spreading basins. When empty, the spreading basins would blend in with the surrounding landscape. The berms forming the sides of the basins have a maximum height of 4 to 5 feet and would be composed of native soils of similar texture and color to those of the adjacent landscape. The basins would be surrounded by chain-link fence. Removal of vegetation from up to 390 acres would be noticeable from nearby mountain vistas. However, views in the Project vicinity tend to be dominated by foreground components, and therefore the overall visual effect of the spreading basins, considered in a regional context, would be minimal. When filled with water, the spreading basins would contrast with the existing landscape when viewed from mountain vistas, but would not significantly alter the character of the valley or long range views that include sporadic developments and linear corridors. Impacts to visual character are therefore considered less than significant.

The existing natural gas pipeline is currently equipped with metering facilities, mainline valves, and pressure control valves located along intervals of the pipeline. The construction of the new air relief valves and pump stations would not introduce significant new obstructions to the visual resources of the area. The pump station facilities would be designed and built to match the existing landscape and area. As the pipeline area is already disturbed and currently equipped with existing facilities, the upgrading of the pipeline and construction of new pump stations and air valves would be less than significant.

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

Light and Glare

Significance Threshold

Would the proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impact Analysis

As discussed above under the Groundwater Conservation and Recovery Component, night lighting would be required for expansion of the Project wellfield under the Imported Water Storage Component of the proposed Project. The area surrounding the Project site consists of uninhabited open space and there are no designated campgrounds or residences located near the Project site. However, permanent night lighting could affect the character of the valley.

Implementation of Mitigation Measures **AES-1** and **AES-2** would reduce the potential impacts to a less than significant level.

Under the Imported Water Storage Component, some glare would be generated by water reflecting off of the proposed spreading basins, which would be constructed on up to 390 acres of land in the northern portion of the Project site (with about 330 acres of usable recharge area). However, the Project spreading basins would be filled on an intermittent basis. In some years, they may contain water for several weeks or months; at other times, the spreading basins may be dry for a year or more. The proposed spreading basins would not be noticeable from the valley floor and would not dominate vistas from elevated viewpoints in the Old Woman Mountains or Turtle Mountains. Nighttime security lighting would be kept off unless needed for maintenance. Glare-related impacts associated with the Imported Water Storage Component are therefore considered less than significant.

Construction activities at the existing natural gas pipeline would not create light and glare impacts since construction activities would likely not occur at night. During operation of the pipeline and pump stations, permanent lighting at the pump stations would be directed downwards to limit light spillover. Implementation of Mitigation Measures **AES-1** and **AES-2** would ensure that light and glare impacts remain at less than significant levels.

Mitigation Measures

Implement Mitigation Measures **AES-1** and **AES-2**.

Significance Conclusion

Less than significant with mitigation.

Mitigation Measure Summary Table

Table 4.1-1 on the following page presents the impacts and mitigation summary for Aesthetics.

**TABLE 4.1-1
IMPACTS AND MITIGATION SUMMARY**

Proposed Project Impact	Mitigation Measure	Significance
Groundwater Conservation and Recovery Component		
Scenic Vistas	None required	Less than significant
Scenic Resources	None required	No impact
Visual Character	None required	Less than significant
Light and Glare	AES-1 and AES-2	Less than significant with mitigation
Imported Water Storage Component		
Scenic Vistas	None required	Less than significant
Scenic Resources	None required	No impact
Visual Character	None required	Less than significant
Light and Glare	AES-1 and AES-2	Less than significant with mitigation