3 AESTHETICS

INTRODUCTION

This chapter examines existing viewsheds, existing visual character, and the visual quality of the site and surrounding area. It also examines if new sources of light and glare would affect day or nighttime views in the area. Finally, this chapter evaluates potential aesthetics impacts of the proposed project on the surrounding area.

ENVIRONMENTAL SETTING

VISUAL RESOURCE EVALUATION CONCEPTS AND TERMINOLOGY

Both natural and created features in a landscape contribute to its visual character. Landscape characteristics that influence the visual character include geologic, hydrologic, botanical, wildlife, recreation, and urban features. The basic elements that comprise the visual character of landscape features are form, line, color, and texture. The appearance of the landscape is described in terms of the dominance of each of these elements.

Several sets of criteria have been developed for defining and evaluating visual quality. The criteria developed by the Federal Highway Administration (FHWA) (FHA 1988) and the U.S. Forest Service (USFS) (USFS 1995), which are used in this analysis, include the concepts of vividness, intactness, and unity. According to these criteria, none of these is itself equivalent to visual quality; all three must be considered high to indicate high quality visual resources. These terms are defined as follows:

- "Vividness" is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns. Vividness is related to variety, as well as contrast, adding clearly defined visual interest and memorability.
- "Intactness" is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. Intactness is related to unity and also indicates wholeness—few or no missing parts in a landscape.
- "Unity" is the visual coherence and compositional harmony of the landscape considered as a whole. Unity in a landscape provides a sense of order that translates into a feeling of well-being.

Viewer sensitivity, also considered in relation to visual quality, depends on the number and type of viewers and the frequency and duration of views. Visual sensitivity is also affected by viewer activity, awareness, and expectations in combination with the number of viewers and the duration of the view. The viewer's distance from landscape elements plays an important role in the determination of an area's visual quality. Landscape elements are considered higher or lower in visual importance based on their proximity to the viewer. Generally, the closer a resource is to the viewer, the more dominant, and therefore visually important, it is to the viewer.

Existing Land Uses

The project site consists of approximately 2,704 acres total, of which 1,412 acres are within the proposed solar development area. The site is east of Grant Line Road, south of White Rock Road, and includes land on both the east and west sides of Scott Road. Most of the project site consists of rolling hills covered with grassland and oak trees, which has historically been used as grazing land for over 80 years associated with the Barton Ranch. The Barton Ranch Headquarters, which consists of 16 buildings and structures including the ranch house along with various barns, sheds, a tankhouse, and other outbuildings, are present on the southern portion of the project site on the west side of Scott Road. A modern Verizon cell phone tower is installed adjacent to the Ranch House Headquarters. The Barton Ranch water tower is present across from the Ranch Headquarters on the east side of Scott Road. (Details related to the Barton Ranch Headquarters are provided in DEIR Chapter 8, "Cultural and Paleontological Resources.")

The northern portion of the project site is adjacent to, and partially within, an easement over the southern end of the Prairie City State Vehicular Recreation Area (SVRA), which is owned and operated by California State Parks (State Parks) Off-Highway Motor Vehicle Division. The Prairie City SVRA encompasses approximately 1,115 acres and accommodates a variety of off-highway vehicle (OHV) activities including trail riding on a variety of terrain types; and tracks for motorcycles, all-terrain vehicles (ATVs), 4x4 vehicles, recreational OHVs, karts, and quarter midgets (State Parks 2016). The Prairie City SVRA also offers several day-use picnic areas, and overnight camping is planned in the future (State Parks 2016). The Prairie City Motocross Track is home to the Hangtown Motocross Classic, part of the Lucas Oil AMA Pro Motocross Championship Series; an event which draws over 26,000 visitors annually. Total yearly visitor attendance throughout the Prairie City SVRA in 2013 consisted of 65,004 recreational visitors and 76,697 special-event visitors, for a total of 141,701 yearly visitors (State Parks 2016). Some onsite activities at Prairie City SVRA are visible from Scott Road, including the Prairie City Motocross Track. The portion of Scott Road that is adjacent to the SVRA's Hangtown Motocross track is just north of the project site and views of the SVRA from Scott Road are interrupted by an intervening elevated berm. OHV recreation at the 4x4 trails area can also be seen from the segment of Scott Road that is approximately 0.5 mile north of the project site.

A Teichert aggregate gravel plant is located approximately 0.75 miles southwest of the proposed switchyard and the northwestern end of the project site. Land east of the project site consists of undeveloped rolling grazing land. The southwest corner of the project site is approximately 1,000 feet from the former Sacramento Boys Ranch, which closed in 2010. The former Boys Ranch property is owned by Sacramento County and is currently not in use for any purpose.

There is a large-lot rural residence with an associated horse barn and training facilities on an elevated knoll on Pleasant Hill Lane, approximately 0.75 mile west of the second southwestern corner of the project site. Pleasant Hill Lane is accessed via Glory Lane, from Grant Line Road. Glory Lane and Pleasant Hill Lane are private roadways.

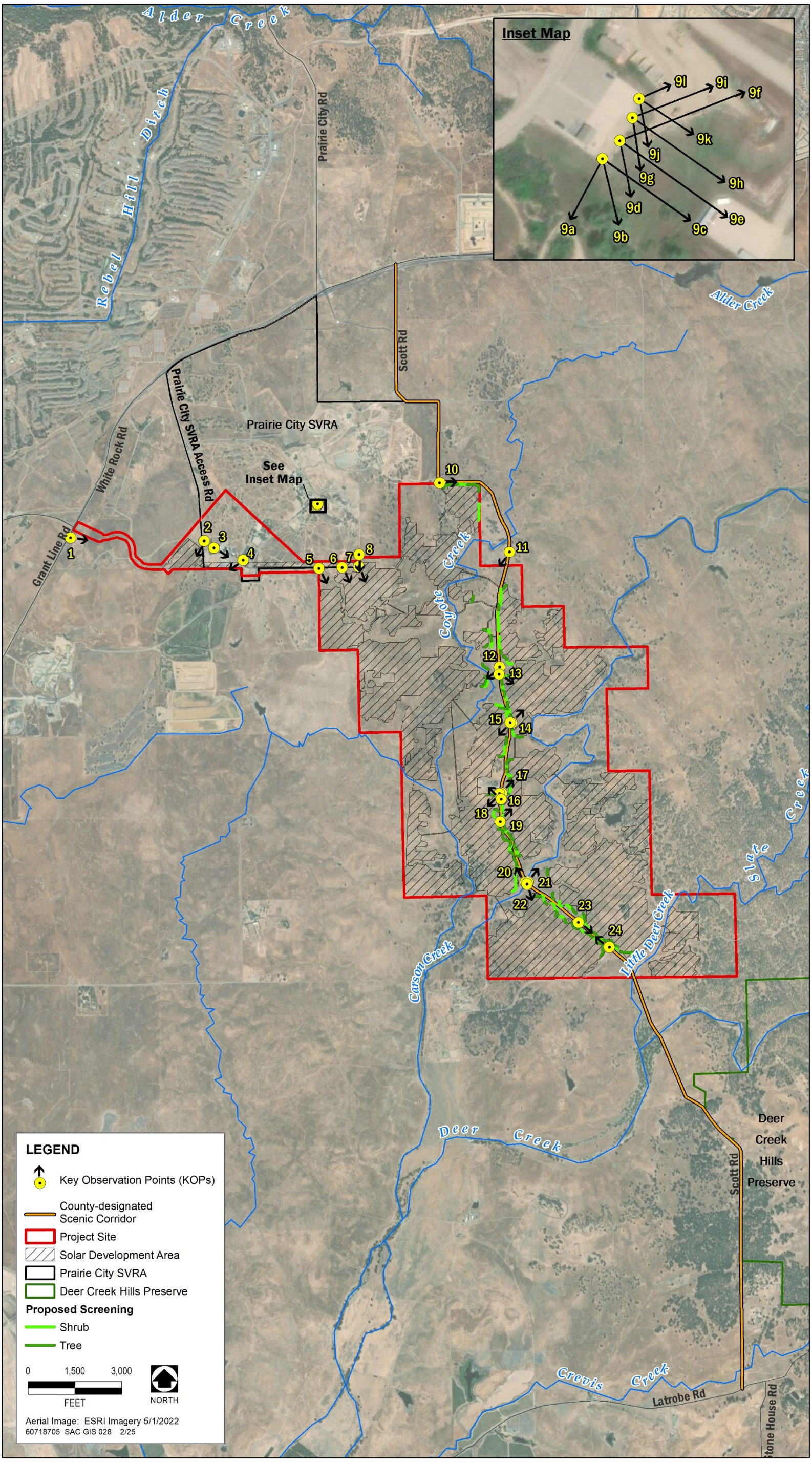
The Deer Creek Hills Nature Preserve is a 4,500-acre working cattle ranch southeast of the project site. The Preserve is only open to the public on Saturdays between 9 a.m. and 1 p.m. when staff or docents are present. Hiking and horseback riding are available on Saturdays on three trails north of Latrobe Road. Monday night mountain biking is available from July through

October on these trails. The three trails in the Preserve are approximately 1.5 miles southeast of the southern end of the project site.

Existing Visual Resources/Visual Character

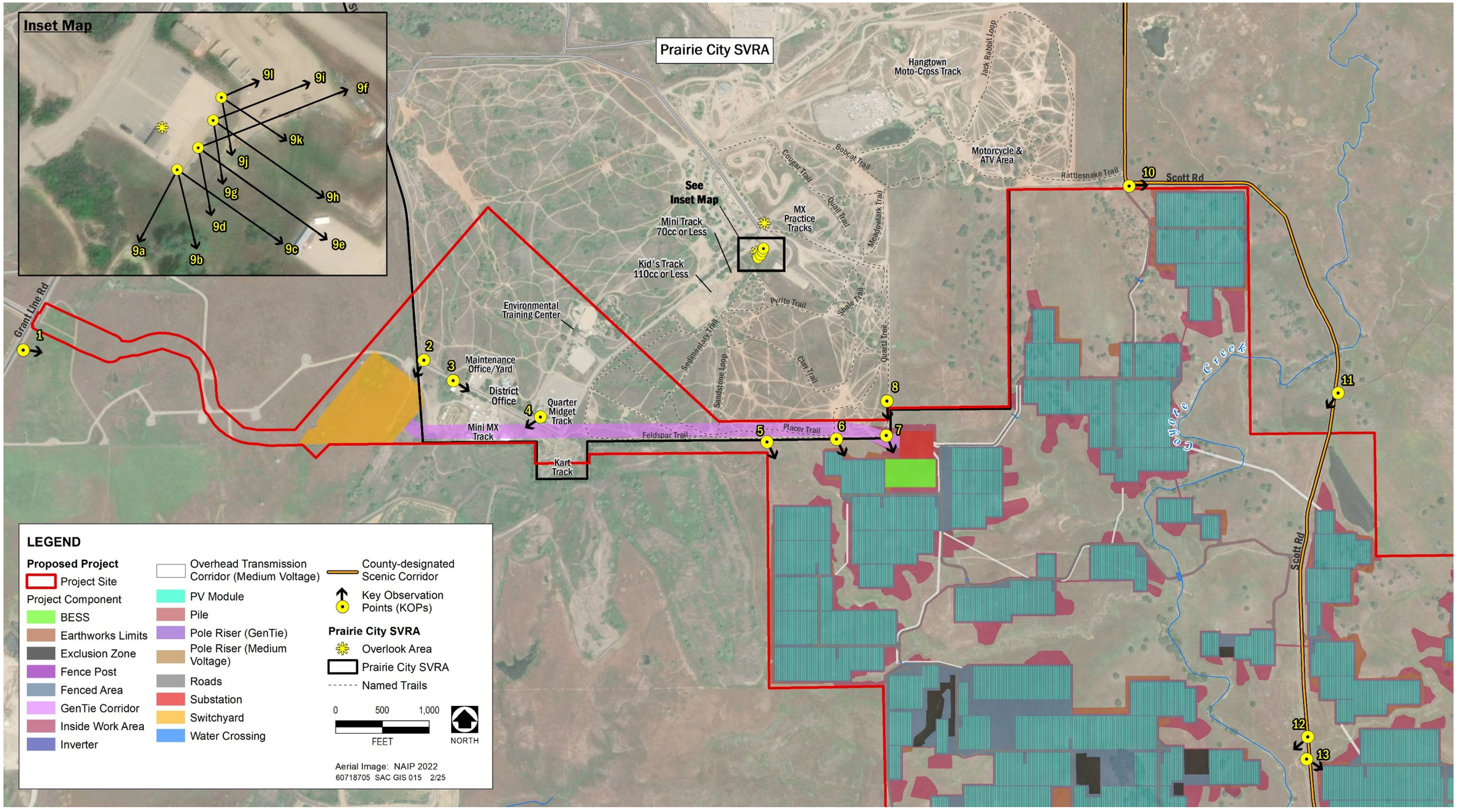
This environmental setting section provides a description of the visual character at the project site through a summary of the existing landscape characteristics. Next, the relevant key observation points (KOPs) are described in detail and photographs from each KOP, showing the existing conditions, are provided. Plate AE-1 provides an overview of the project site, the surrounding visually sensitive land uses, and the location of each of the KOPs. Plate AE-1 also shows the conceptual location of visual screening along Scott Road. Plate AE-2 is a detailed map focused on the northern half of the project site, the surrounding sensitive land uses, and the associated KOPs. Visual simulations showing the proposed condition at the project site as viewed from KOP 5 through KOP 24 are provided in the section below titled “Impacts and Analysis.”

Plate AE-1: Key Observation Points



Sources: AECOM 2024, Dudek 2021, Dudek 2024a

Plate AE-2: Key Observation Points Detail Map – Prairie City SVRA



Sources: AECOM 2024, State Parks 2024, Dudek 2021, Dudek 2024a

Visual Character and Quality

Key Observation Point 1

The northwest corner of the project site consists of open, undeveloped land east of Grant Line Road and south of White Rock Road. This area includes the northwestern end of the project's proposed access road, and the proposed switchyard site. The landform is composed of flat grassland; the distinguishing viewshed features are electrical transmission lines and a line of trees. The distinguishing distant viewshed features are the foothills of the Sierra Nevada. The viewshed illustrated in KOP 1 exhibits a moderate degree of intactness and unity, and a moderate degree of vividness; the visual quality is moderate. Viewer sensitivity in this area is high given that Grant Line Road and White Rock Road are major thoroughfares for commuters, residents, and recreationists.

Source: AECOM 2024

KOP 1. Looking East from the Grant Line Road and White Rock Road Intersection. Barbed wire fencing and grasses are visible in the foreground. Open grassland is present in the foreground and middleground. Trees along the Prairie City SVRA access road and metal towers (approximately 120 feet tall) carrying 230 kV overhead electrical lines are also visible in the middleground. The Sierra Nevada is relatively low but visible in the background.

KEY OBSERVATION POINT 2

Further to the east, near the line of trees in the background visible in KOP-1, is the site of the project's proposed switchyard and detention basin and the northwest end of the proposed gen-tie route. This area is adjacent to the Prairie City SVRA and to several groundwater treatment and monitoring wells owned and operated by Aerojet. The proposed switchyard site is approximately 300 feet southwest of the paved Prairie City SVRA access road shown in KOP 2. The area is flat, with adjacent low mounds to the southeast formed by historic dredger mine tailings. A few trees are also present. The grasses and dredge tailings have a rough textured appearance; the grass is green in the late winter and spring and brown in the summer, fall, and winter. The upright vertical lines formed by the trees, wood power poles, and the metal electrical towers that support 230 kV overhead electrical lines are the dominant visual pattern elements. The electrical towers are approximately 120 feet tall. The viewshed illustrated in KOP-2 exhibits a low degree of intactness and unity, and a low degree of vividness; the visual quality is low. Visual sensitivity is low for recreationists who use this road to access Prairie City SVRA facilities.

Source: AECOM 2024

KOP 2. Looking Southwest from the Prairie City SVRA Access Road. Fencing, wood power poles and overhead power lines, scattered trees, and grassland are visible in the foreground, along with pavement on the Prairie City SVRA access road. A small, fenced area associated with an Aerojet groundwater remediation well is visible in the middleground. Metal towers, approximately 120 feet tall, carrying 230 kV overhead electrical lines are visible in the middleground. Trees to the southwest are visible in the background.

KEY OBSERVATION POINT 3

A variety of facilities are present at the southern end of the Prairie City SVRA along both sides of the existing Prairie City SVRA access road, which would also be used for project site access and a portion of the proposed gen-tie route. The Prairie City SVRA road is paved, and there are one-story buildings, paved parking areas, and facilities such as the SVRA's Corporation Yard, water supply well and treatment plant, water storage tank, etc. on the north and south sides of the road (KOP 3). The south side of the road also includes several paved parking areas and one-story buildings associated with the Prairie City Kart Track, and the dirt Prairie City Flat Track. Paved parking and the paved American Quarter Midget Association track are on the northeast end of the paved access road in the project vicinity. The viewshed in this area consists primarily of diverse manmade elements of differing forms and textures, with a mixture of both horizontal and vertical elements. The viewshed illustrated in KOP 3 exhibits a low degree of intactness, unity, and vividness; the visual quality is low. Given the number and disparate nature of the existing visual elements in this viewshed, visual sensitivity is low for recreationists who use this road to access Prairie City SVRA facilities.

Source: AECOM 2024

KOP 3. Looking Southeast along the Prairie City SVRA Access Road and a Portion of the Proposed Gen-Tie Route. Pavement comprising the Prairie City SVRA access road, along with different kinds of fencing, wood power poles and overhead power lines, trees, a water storage tank, one-story metal buildings, and metal overhead light standards, are visible in the foreground and middleground.

KEY OBSERVATION POINT 4

As discussed in Chapter 2, “Project Description,” the Prairie City Kart Track would require modifications as part of the proposed project. The existing Kart Track and the adjacent area to the northwest are shown in KOP 4. (The track is in the same area as the facilities shown in KOP 3.) As shown in KOP 4, the track is located on flat land immediately adjacent to the SVRA’s paved access road. The track itself is paved and is surrounded on the outside by red and white barriers that help to protect drivers and keep the karts from going off the track if a crash were to occur. A portion of the bleachers, pit area, and track office are also visible in KOP 4. In addition to the Kart Track, this area also includes a variety of temporary storage buildings (with metal or cloth roofs), vehicle parking, and RV storage. Overhead high-mast lighting at the adjacent Mini MX Track (to the northwest) is also visible. The viewshed in the area of KOP 4 consists primarily of diverse manmade elements of differing forms and textures, with a mixture of both horizontal and vertical elements. Given the number and nature of disparate elements in the viewshed in KOP 4, it exhibits a low degree of vividness, intactness, and unity, and the visual quality is therefore low.

AECOM 2024

KOP 4. Looking Southwest at a Portion of the Prairie City Kart Track, from the Prairie City SVRA Access Road. Pavement along the Prairie City SVRA access road, fencing, signage, and the northern end of the Kart Track, along with its distinctive red and white barriers are visible in the foreground. Middleground views include a portion of the track’s metal bleacher seating, cloth-covered pavilions (both white and red), gray and white metal storage buildings, vehicles, RVs, and overhead high-mast light standards, along with a line of tall landscape trees.

KEY OBSERVATION POINTS 5 THROUGH 8

Approximately 2,100 feet east of KOP 4, the project site boundary turns south; KOP 5 provides a view from the Prairie City SVRA property on the Quartz and Placer OHV Trails from this location looking south. This area is frequently used by OHVs on dirt trails that traverse the rolling topography. The distance between OHV trails and the project site in this area ranges from immediately adjacent to the project site as shown in KOP 5, to approximately 1,700 feet north (see Plate AE-2). KOP 6 provides a view approximately 735 feet further east from KOP 5, also looking south, at the point where the proposed solar panels would be closest to the SVRA's Quartz and Placer Trails adjacent to the property boundary. KOP 7 is approximately 525 feet farther east, at the corner of the SVRA property boundary on the Quartz Trail, again looking south but towards the proposed substation (see Plate AE-2). KOP 8 is approximately 480 feet further north along the Prairie City SVRA eastern boundary (see Plate AE-2), showing the existing conditions view of the landform texture. The grassland is green in the early winter and spring, and brown in the summer, fall, and winter. The viewsheds exhibit a high degree of continuity. The viewsheds illustrated in KOP 5, KOP 6, and KOP 8 exhibit a high degree of intactness and unity, and a moderate degree of vividness; the visual quality is moderate. The KOP 7 viewshed exhibits a high degree of intactness, unity, and vividness; the visual quality is generally high. Viewer sensitivity for recreationists is high on the OHV trails in the areas shown in KOP 5 through KOP 8, as well as the OHV trails up to 1,700 feet to the northwest which are open and provide expansive views of these project areas for recreationists within the SVRA (see Plate AE-2).

Source: Dudek 2024a

KOP 5. Looking Southeast from the Prairie City SVRA Quartz and Placer Trails along the SVRA Southern Boundary. Fencing along the Prairie City SVRA boundary and the SVRA dirt (OHV) Quartz Trail is present in the foreground, along with grassland (on the other side of the fence) at the project site. Gently rolling hills covered with grassland, and scattered trees on the project site are visible in the middleground. The Sierra Nevada is visible in the background, along with metal towers (approximately 120 feet tall) supporting 230 kV overhead electrical lines.

Source: Dudek 2024a

KOP 6. Looking Southeast from the Prairie City SVRA Quartz and Placer Trails along the SVRA Southern Boundary. Gently rolling hills on the project site covered with grassland are visible in the foreground and middleground. The Sierra Nevada, along with some trees, are visible in the background.

Source: Dudek 2024a

KOP 7. Looking Southwest from the Prairie City SVRA Quartz Trail at the SVRA Southeast Boundary. Fencing along the Prairie City SVRA boundary and grassland are visible in the foreground. Gently rolling hills on the project site covered with grassland, grazing cows, and scattered trees are visible in the middleground and background. The Sierra Nevada is visible in the background, along with a prominent metal tower transmission line tower (approximately 120 feet tall) supporting 230 kV overhead electrical lines.

Source: Dudek 2024a

KOP 8. Looking South from the Prairie City SVRA Quartz Trail. Fencing along the Prairie City SVRA boundary, grassland, and the dirt (OHV) Quartz Trail are visible in the foreground. Gently rolling hills on the project site covered with grassland and scattered trees are visible in the middleground and background. A prominent metal transmission line tower (approximately 120 feet tall) supporting 230 kV overhead electrical lines is also visible in the background.

KEY OBSERVATION POINTS 9A THROUGH 9L

Continuing on the Prairie City SVRA paved access road for approximately 0.5 miles east from KOP 4, past the Environmental Training Center, a paved parking area with shaded picnic tables on a high plateau is available for SVRA recreationists. This recreational facility has been identified by State Parks as an overlook area (State Parks 2024). This overlook area provides expansive scenic views of the Sierra Nevada to the north and east, along with gently rolling grassland and trees to the south and southwest.

KOP 9a through KOP 9l are photos from different locations and in different directions from the overlook area. OHV trails in the SVRA are present traversing the viewshed through rolling topography that is vegetated with grassland and scattered trees. The tall late summer grasses and oak trees present a coarse textural appearance. The immediate foreground of some of the views from this overlook include the characteristic post and wire fencing that is prevalent throughout the SVRA, multiple heavy construction vehicles in a temporary staging/storage area, and an apparent basin feature (both the vehicle staging/storage area and the basin feature are within a SVRA closed area per the Prairie City SVRA Map). The viewsheds illustrated in KOP 9a through 9l exhibit a moderate degree of intactness, unity, and vividness; the visual quality is moderate. Viewer sensitivity for recreationists using this facility is also high.

Source: AECOM 2024

KOP 9a. Looking Southwest from the Prairie City SVRA Picnic Area/Overlook east of the Environmental Training Center. Grassland, shrubs, and scattered trees are visible in the foreground. Grassland, scattered trees, an unlined ditch, the SVRA Mini Track, and a parking area are visible in the background. Additional grassland, scattered trees, and utility poles are visible in the distant background.

Source: AECOM 2024

KOP 9b. Looking South from the Prairie City SVRA Picnic Area/Overlook. Trees and shrubs and unimproved roads and fencing associated with the Prairie City SVRA in the foreground. Rolling hills and grassland in the middleground and foothills in the background.

KOP 9c. Looking Southeast from the Prairie City SVRA Picnic Area/Overlook east of the Environmental Training Center. Trailers, power poles, concrete, and other improvements associated with the former shooting range are in the foreground. Oak woodlands and rolling grassland is in the middleground and the Sierra Nevada foothills and Sierra Nevada are visible in the background.

KOP 9d. Looking South/Southwest from the Prairie City SVRA Picnic Area/Overlook. Bushes, trees, and improvements associated with the former shooting range visible in the foreground, rolling grassland in the middleground, and oak woodlands, foothills, and the Sierra Nevada visible in the background.

KOP 9e. Looking Southeast from the Prairie City SVRA Picnic Area/Overlook. Prairie City SVRA signage and improvements associated with the former shooting range visible in the foreground; oak woodlands, rolling grassland, and utility poles in the middleground; and foothills and the Sierra Nevada visible in the background.

KOP 9f. Looking East/Northeast from the Prairie City SVRA Picnic Area/Overlook. Grassland, shrubs, and a wire fence are visible in the foreground. A construction staging yard containing heavy construction equipment, metal piping, and other miscellaneous objects is visible in the background. Additional grasslands, scattered trees, buildings, and the rolling hills of the Sierra Nevada are visible in the background.

KOP 9g. Looking South from the Prairie City SVRA Picnic Area/Overlook. Bushes, trees, and improvements associated with the former shooting range visible in the foreground, rolling grassland and trees in the middleground, and oak woodlands, foothills, and the Sierra Nevada visible in the background.

KOP 9h. Looking Southeast from the Prairie City SVRA Picnic Area/Overlook. Construction equipment and improvements associated with the former shooting range in the foreground; oak woodlands, trees, rolling grassland and utility poles in the middleground; and trees, foothills, and the Sierra Nevada visible in the background.

KOP 9i. Looking East/Northeast from the Prairie City SVRA Picnic Area/Overlook. A construction staging yard containing heavy construction equipment, metal piping and other miscellaneous objects is visible in the foreground and middleground. Grasslands, scattered trees, buildings, and the rolling hills of the Sierra Nevada are visible in the background.

KOP 9j. Looking South from the Prairie City SVRA Picnic Area/Overlook. Trees and improvements associated with the former shooting range in the foreground, rolling grassland and trees in the middleground, and oak woodlands, foothills, and the Sierra Nevada visible in the background.

KOP 9k. Looking Southeast from the Prairie City SVRA Picnic Area/Overlook. Construction equipment in the foreground and middleground. Grasslands, scattered trees, buildings, and the rolling hills of the Sierra Nevada are visible in the background.

KOP 9I. Looking East from the Prairie City SVRA Picnic Area/Overlook. Construction equipment and the Prairie City motocross track in the foreground and middleground. Grasslands, scattered trees, buildings, and the rolling hills of the Sierra Nevada are visible in the background.

KEY OBSERVATION POINTS 10 THROUGH 24

The southern portion of the project site consists of rolling hills covered with grassland, which is used for cattle grazing. The Barton Ranch Headquarters, which consists of 16 facilities including a white, two-story ranch house with associated outbuildings such as barns and sheds, are present on the project site adjacent to Scott Road. A Verizon cell tower is adjacent to the ranch house. The facilities associated with the Barton Ranch Headquarters and the Verizon cell tower are visible from Scott Road. Several creeks are present in the valleys that provide drainage for the southern portion of the project site, including Coyote Creek, Carson Creek, and Little Deer Creek, along with numerous small tributaries thereto. Most of the drainages only carry water during winter storm events. In wet years, Carson Creek contains water year-round, and the main stem of Coyote Creek contains water year-round in standing pools. Scattered oak trees and oak woodland are present throughout the southern portion of the project site, primarily along the drainages. Riparian woodland/forest communities, which include both shrubs and trees, are also present along some of the drainages. The only public viewpoints of the southern portion of the project site are from Scott Road. Solar panels and internal dirt/gravel access roads are proposed along an approximately 2.8-mile stretch of Scott Road, which bisects the project site from north to south. The General Plan establishes that the County will "[c]ontinue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road," and a portion of the segment of Scott Road where the County will continue to provide scenic corridor protection under Policy CI-58 is within the project site (Sacramento County 2022a: Circulation Element). KOP 10 through KOP 23 provide views of existing conditions in late summer along Scott Road through the project site, from north to south. The landforms in KOP 10 through KOP 23 are gently rolling. The vertical dark green elements of the oak trees provide a high degree of contrast with the horizontal brown grassland element. The viewsheds exhibit a coarse texture. The grasslands are green in the late winter and early spring, and brown in the summer, fall, and winter. The viewsheds illustrated in KOP 10 through KOP 24 exhibit a high degree of intactness, unity, and vividness; the visual quality is high. Viewer sensitivity for motorists traveling along Scott Road is also high.

Source: Dudek 2021

KOP 10. Looking East from Scott Road east of Prairie City SVRA. Pavement on Scott Road, signage, fencing, grassland, and oak trees on the project site are visible in the foreground. Grassland, and scattered trees off the project site are visible in the foreground and middleground to the north (on the left side of photograph). The Sierra Nevada foothills are visible in the background.

Source: Dudek 2021

KOP 11. Looking South from Scott Road. Pavement on Scott Road, signage, fencing, grassland, and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 12. Looking Southwest from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 13. Looking Southeast from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 14. Looking Northeast from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 15. Looking Southwest from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground.

Source: AECOM 2024

KOP 16. Looking Northwest from Scott Road. Metal fencing and gates, grassland, and asphalt pavement along Scott Road are visible in the foreground, along with a cell tower and buildings, white fencing, and landscape trees associated with the Barton Ranch Headquarters.

Source: Dudek 2021

KOP 17. Looking Northeast from Scott Road near the Barton Ranch Headquarters. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground. The Sierra Nevada foothills are visible in the background.

Source: Dudek 2021

KOP 18. Looking Southwest from Scott Road near the Barton Ranch Headquarters. Grassland on the project site is visible in the foreground and middleground and oak trees are visible in the middleground. Metal towers (approximately 120 feet tall) with 230 kV overhead electrical lines are visible in the background.

Source: Dudek 2021

KOP 19. Looking Northeast from Scott Road**.** Grassland, oak trees, and fencing on the project site are visible in the foreground and middleground, along with pavement and fencing along Scott Road.

Source: Dudek 2021

KOP 20. Looking Northeast from Scott Road. The Scott Road bridge overcrossing and the Carson Creek streambed (dry in this photograph) comprise all of the foreground and a portion of the middleground. Grassland and oak trees on the project site are visible in the middleground.

Source: Dudek 2021

KOP 21. Looking Southwest on the south side of Carson Creek from Scott Road. Pavement on Scott Road and the Carson Creek bridge overcrossing are visible in the foreground, along with a portion of the Carson Creek streambed (dry in this photograph) and bridge abutment. Wood power poles with overhead electrical lines are also visible in the foreground. Grassland and oak trees on the project site are visible in the middleground.

Source: Dudek 2021

KOP 22. Looking Northwest on the north side of Carson from Scott Road. Pavement on Scott Road and the Carson Creek bridge overcrossing are visible in the foreground, along with wood power poles with overhead electrical lines. Grassland and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 23. Looking from Scott Road. Pavement and fencing along Scott Road are visible in the foreground. Grassland and oak trees on the project site are visible in the foreground and middleground.

Source: Dudek 2021

KOP 24. Looking Northeast from Scott Road at Boys Ranch Road. Pavement and fencing along Scott Road are visible in the foreground. Grassland and oak trees on the project site are visible in the foreground and middleground.

Designated Scenic Roadways

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program and assists local communities seeking to officially designate state scenic highways. There are no designated or eligible state scenic highway adjacent to or in the vicinity of the project site. The nearest state-designated scenic highway is U.S. 50 near Placerville, approximately 20 miles northeast of the project site. The nearest state-eligible scenic highway is State Route 49, approximately 16 miles east of the project site (Caltrans 2019, 2024). Due to the intervening distance, topography, and vegetation, the project site is not visible from either of these roadways.

Sacramento County has designated certain roadway segments as scenic highways or scenic corridors as part of its General Plan. Local policies relevant to aesthetics are contained in the General Plan Circulation Element. General Plan Policy CI-58 establishes that the County will "[c]ontinue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road…" (Sacramento County 2022a, page 41).

As discussed above, the project site is located along Scott Road, generally south of the existing Prairie City SVRA. As shown in KOP 10 through KOP 24, approximately 2.8 miles of Scott Road bisect the southern portion of the project site from north to south. Scott Road is a two-lane asphalt paved road. The project site is also visible from portions of Scott Road further north and south of the project site due to the rolling topography. When traveling south on Scott Road from the north, when the project site becomes visible, also visible to the south and east is fencing and a sign for Gate 5 associated with the Prairie City SVRA. The existing viewshed along Scott Road is described above under the heading "Key Observation Points 10 through 24."

Scott Road first appeared on early survey maps of the area in 1855. It originated as a Gold Rush-era wagon road that facilitated traffic from the "Placerville and Sacramento Road" (today's White Rock Road) to mining camps near the Cosumnes River such as Live Oak and Michigan Bar. Newspaper reports from 1898 identify it as the "Folsom and Live Oak Road." The road later served eastern Sacramento County farmers and ranchers and became identified by its principal destination, Scott Ranch, a cattle ranch established by John P. Scott on the south side of Deer Creek. Scott Road was paved sometime after 1936 (ECORP Consulting, Inc. 2024).

Light and Glare

Nighttime lighting and glare can create issues for motorists when driving. In addition, nighttime lighting can create "skyglow," which results in an artificially bright nighttime sky from man-made lighting, which obscures views of the stars. Daytime glare can result in hazards for nearby motorists and for airplane pilots following low-level flight paths to nearby airports. Daytime glare can also result in hazards for nearby recreationists and residents. Information related to existing nearby airports is provided below for context related to the glare analysis.

The runways at the publicly-owned Sacramento Mather Airport are approximately 6.3 miles southwest of the proposed switchyard, and approximately 7.3 miles southwest of the proposed substation, at the project site. Mather Airport has a control tower, two asphalt/concrete runways that are approximately 11,300 and 3,500 feet long, respectively, along with two helipads. The runways and helipads are lighted. Mather Airport was formerly a military facility (Mather Air Force Base), which was decommissioned and is now a County-owned and operated public use airport. In 2018, there were 52 aircraft based at the field, and there were approximately 272 flights per

day averaged over the 12-month period. Mather Airport accommodates large transport planes and high-performance military jets (AirNav 2024a).

The privately-owned Rancho Murieta Airport is approximately 4.5 miles south of the project site. Rancho Murieta Airport is a privately owned, public use airport. It does not have a control tower, but airport staff are in attendance from 8 a.m. to 5 p.m. daily. Rancho Murieta Airport has two lighted asphalt runways that are approximately 3,800 feet and 1,150 feet long, respectively. In 2023, there were 22 aircraft based at the field, and there were approximately 22 flights per day averaged over the 12-month period (AirNav 2024b).

The project site is mostly undeveloped. Minor sources of existing light and glare consist of security lighting associated with the on-site ranch house in the southern portion of the project site, and security lighting associated with buildings along the Prairie City SVRA access road. However, the OHV tracks on both sides of the Prairie City SVRA access road through the project site are equipped with high-mast lighting for nighttime use, and there are overhead light standards along this portion of the SVRA access road.

Regulatory Setting

Federal

Federal Aviation Regulations, Part 77

Federal Aviation Regulations (FAR) (U.S. Code Title 14) Part 77, “Safe, Efficient Use, and Preservation of the Navigable Airspace” has been adopted as a means of monitoring and protecting the airspace required for safe operation of aircraft and airports. Part 77 recognizes that certain safety hazards to aircraft and airport operations may occur where a land use would, among other criteria, reflect light or generate electronic interference.

Part 77 establishes the following:

- the requirements to provide notice to the Federal Aviation Administration (FAA) of certain proposed construction activities, or the alteration of existing structures;
- the standards used to determine obstructions to air navigation, and navigational and communication facilities; and,
- the process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities, or equipment.

Federal Aviation Policy: Review of Solar Energy System Projects (Rule 86 FR 25801)

Although solar energy systems are designed to absorb solar energy to maximize electrical energy production or the heating of water, in certain situations the glass surfaces of the solar energy systems can reflect sunlight and produce glint (a momentary flash of bright light) and glare (a continuous source of bright light). In 2013, the FAA issued an interim policy that required federally-obligated airports to conduct an ocular analysis of potential glint and glare effects to

pilots on final approach and air traffic control tower (ATCT) cabs[1] before construction begins. The FAA subsequently concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare effects from on-airport solar energy systems on personnel working in ATCT cabs. Therefore, the FAA determined that the scope of agency policy should be focused on the impact of on-airport solar energy systems to federally-obligated towered airports, specifically the airport's ATCT cab. Thus, the FAA withdrew the previous interim guidance and issued Rule 86 FR 25801 in May of 2021, which requires no glare of any kind for ATCTs at cab height. Rule 86 FR 25801 only applies to proposed solar energy systems on federally obligated airport property and only those airports with control towers. The proposed project is not located on airport property. Although this rule does not apply to the proposed project, FAA Rule 86 FR 25801 encourages project proponents to consider ocular impacts for proposed systems in proximity to airports with ATCTs (FAA 2021), and therefore a glare analysis for both Sacramento Mather Airport and the Rancho Murietta Airport was conducted for the proposed project.

STATE

PUBLIC USE AIRPORTS AND AIRSPACE REGULATION

The state regulates airports under the authority of the Airport Land Use Commission (ALUC) Law, Section 21670 et seq. of the California Public Utilities Code (PUC). This law is implemented through individual ALUCs, which are required in every county with a public use airport or with an airport served by a scheduled airline. Under the provisions of the law, each ALUC has certain responsibilities conferred upon it and specific duties to perform. Among these are preparing an airport land use plan for each airport within its jurisdiction (PUC Sections 21674[c] and 21675[a]). State law gives the Caltrans Division of Aeronautics and local agencies the authority to enforce the FAA standards at public use airports.

LOCAL

SACRAMENTO COUNTY AIRPORT LAND USE COMMISSION

The Sacramento County ALUC has adopted FAR Part 77, "Safe, Efficient Use, and Preservation of the Navigable Airspace" (see the description of Federal airspace safety regulations, above) for protection of persons in the air and on the ground related to airport safety.

MATHER AIRPORT

The latest update to the Mather Airport Land Use Compatibility Plan (ALUCP) (ESA 2022) was adopted by the Sacramento County Association of Governments, which serves as the Sacramento ALUC, in 2022. The Airport Influence Area (AIA) represents the geographic extent of the ALUC's authority and the applicability of the ALUCP noise, safety, airspace protection, and overflight notification policies and compatibility criteria. The northwest corner of the project site is adjacent to, but just outside of, the Mather Airport AIA Review Area 2, which includes

[1] The "cab" is the clear glass area at the top of an air traffic control tower, which provides a visual observation area for air traffic controllers and houses their equipment.

airspace protection and overflight notification areas. Mather Airport ALUCP policy AP-6, "Other Flight Hazards," states as follows (ESA 2022:4-46):

> ***AP-6 OTHER FLIGHT HAZARDS***
>
> Land uses that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at each Airport shall be allowed within the AIA only if the uses are consistent with FAA rules and regulations.
>
> 1) Specific characteristics to be avoided include:
>
>   a) Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays);
>
>   b) Distracting lights that could be mistaken for airport lights;
>
>   c) Sources of dust, steam, or smoke that may impair pilot visibility;
>
>   d) Sources of electrical interference with aircraft communications or navigation; and
>
>   e) Any proposed use that creates an increased attraction for wildlife.

RANCHO MURIETA AIRPORT

Land use compatibility for the Rancho Murieta Airport is determined by the Sacramento ALUC's Airport Land Use Policy Plan (Sacramento ALUC 1992). The ALUC Airport Land Use Policy Plan for the Rancho Murieta Airport includes an "airport safety restriction area" composed of the clear zone, the approach-departure zone, and the overflight zone. Within the airport safety restriction area, the Airport Land Use Policy Plan indicates that where land uses would result in any of the following conditions, such land uses constitute hazards to air navigation: attraction of large concentrations of birds within approach–climbout areas, smoke production, flashing lights, light reflection, electronic interference, and use or storage of large quantities of flammable materials (Sacramento ALUC 1992:26).

The Rancho Murieta Airport Land Use Policy Plan, Policy 2(b)(2) further states that any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing is considered incompatible in both the Clear Zone and the Approach/Departure Zone (Sacramento ALUC 1992:27). The airport safety restriction area for Rancho Murrieta Airport extends in an arc approximately 5,000 feet from the runway. The project site is approximately 4 miles north of the airport's safety restriction area.

SACRAMENTO COUNTY GENERAL PLAN

The *Sacramento County General Plan of 2005–2030* (Sacramento County 2022a) includes the following policies related to aesthetics that apply to the proposed project.

LAND USE ELEMENT

Policy LU-31. Strive to achieve a natural nighttime environment and an uncompromised public view of the night sky by reducing light pollution.

PUBLIC FACILITIES ELEMENT

Policy PF-80. Locate solar facilities, and design and orient solar panels in a manner that addresses potential problems of glare consistent with optimum energy and capacity production.

CIRCULATION ELEMENT

Policy CI-52. Fully enforce all sign controls in the scenic corridors.

Policy CI-53. Roadway improvements along established scenic corridors shall be designed and constructed so as to minimize impacts to the scenic qualities of the corridor.

Policy CI-58. Continue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road, Michigan Bar Road, and Twin Cities Road from Highway 160 east to Highway 99.

Policy CI-60. Encourage maintenance of natural roadside vegetation and landscaping with native plants which usually provide the best habitats for native wildlife.

SACRAMENTO COUNTYWIDE DESIGN GUIDELINES

The *Sacramento Countywide Design Guidelines* (Sacramento County 2022b) were adopted to promote high quality, sustainable, and healthy community design. The objectives of the Guidelines, in conjunction with the County's Design Review Program, are to: achieve high standards for the quality of the built environment, advance sustainable development, and provide business and user-friendly practices. The guidelines also incorporate sustainability practices that include green building and construction which can facilitate sustainability by generating jobs; and increasing energy efficiency, water conservation, and air quality and waste reduction. Chapter 5 of the Guidelines presents office, business park, institutional, and industrial design guidelines that apply to the proposed project (i.e., a solar power generation project). As part of the project permitting and design review process, project applicants are required to complete and submit to the County a supplemental form related to the design concepts presented in the Guidelines. The project applicant must provide design information related to the following (Sacramento County 2022b):

- Site Context: How can site planning provide pedestrian and vehicular connections between buildings in and outside the project? What other safety elements should be included?
- Building Alignments: What are the building edge and spatial relationships among groups of buildings? What is the orientation of building lobbies and entries?
- Streetscape and Landscape Design: What type of landscaped setbacks and treatments exist along public streets? What landscaping needs replacement? How can the landscape plan be enhanced to attract pedestrians and promote walking? How can the landscape help to improve the environment?
- Roadway and Parking Lot Design: How can parking lots and driveways be designed to increase connectivity and safety for pedestrians, people with disabilities, and bicyclists in the business district or neighborhood? How can trees and cool, permeable pavements be used to reduce heat generated by parking lots?

- Architectural Context: What are the strongest architectural features in the business district or neighborhood and how can the project complement these themes or ideas?
- Signage Design: How can an overall signage concept contribute to the graphic identity of the project and the business district setting?

The Design Guidelines provides detailed objectives and guidelines related to the following:

- roadway design and streetscapes;
- parking and loading areas;
- building setbacks and alignments;
- integrated transit;
- landscaping/site elements;
- architectural design (including architectural elements, building massing, and landscaping);
- materials and colors;
- lighting;
- screen walls and security fences; and
- signage.

Sacramento County Zoning Code Sections 3.6, 6.3, and 7.3

Sacramento County Zoning Code Section 3.6.6.C, Solar Energy Facilities, sets forth the following standards for commercial solar facilities that apply to the proposed project. As stated in Section 3.6.6.C.3, when siting commercial solar facilities, the following factors shall be considered:

c. Location

(iii) Avoid locations in the viewscapes of scenic highways or in areas that would impact the views from historic places.

(v) Solar facilities shall not be allowed where it has been determined the facility will adversely impact airport flight operations, including military flight paths.

Security fencing for commercial solar facilities is required and must be either: (1) vinyl covered cyclone fence, using neutral colors, or (2) vinyl slats, using a neutral color compatible with the fence color, or (3) alternative fencing that may be considered by the approving body (Section 3.6.6.C.3.e).

Landscaping requirements pertaining to commercial solar facilities are contained in Section 3.6.6.C.3.f, as follows:

(i) The applicant shall submit a landscape plan to Planning and Environmental Review which shall include the location, description and timing of plantings, fences, sound walls as required by the Code, and berms. The description of fencing shall include color and materials, when appropriate. The landscaping plan shall be designed to be generally

compatible with the surrounding uses and existing landscaping patterns, to the satisfaction of the Landscape Architect, Planning and Environmental Review.

(ii) In rural areas, the following shall be considered when approving the landscape plan:

1) Maintenance of visual openness and the preservation of rural character through design that may include clustering of plant species;

2) Protection of watering systems and/or landscaping from theft; and

3) Availability of water source.

(iii) Landscaping shall be designed to bring immediate aesthetic relief upon planting by designating minimum sized plantings appropriate to the project and its surroundings.

(iv) Landscaped areas shall be kept free of trash and weeds.

Sacramento County Zoning Code Section 6.3, Design and Site Plan Review, sets forth the provisions of the County's Design Review Program, in which discretionary and non-discretionary projects are reviewed to determine a project's compliance with the Countywide Design Guidelines (Sacramento County 2022b). Most commercial, industrial, residential, mixed-use, institutional, or public works projects, regardless of zoning district, requiring discretionary entitlement(s) or approval(s) are subject to the Design Review Program, including solar energy facilities such as the proposed project. As stated in Section 6.3 of the Zoning Code Section, the purpose of the Design Review Program is to:

1. Create a sense of place in Sacramento County's new growth areas, mixed-use, commercial, business, multifamily, and single-family residential districts;
2. Create a mix of uses and activities that create a healthy, social, livable, sustainable and economic environment for the diverse communities and commercial corridors in Sacramento County;
3. Create mixed-use, commercial, business, multifamily, and single-family residential districts that are designed to promote the health, safety and convenience of the pedestrian and provide active design and transportation choices that include multiple modes (walking, bicycling and transit);
4. Support the goals of the General Plan;
5. Preserve and enhance environmental quality;
6. Promote high quality design and active communities; and
7. Promote compatibility and increased connectivity between new development and surrounding development.

For discretionary projects, the Design Review Advisory Committee (DRAC) conducts design reviews and makes findings and recommendations to the approving authority regarding compliance with the County-wide Design Guidelines. The DRAC does not have final authority over projects and serves in an advisory and technical guidance capacity to the approving authority (Zoning Code Section 6.3.2.E.2).

The appropriate approving authority is required to make one of the following findings (Zoning Code Section 6.3.2.F):

1. The project substantially complies with the County-wide Design Guidelines;
2. The project would substantially comply with the County-wide Design Guidelines if modified with recommended modifications; or
3. The project does not comply with the County-wide Design Guidelines and should, as consequence, not be approved.

Sacramento County Zoning Code Section 7.3 defines "scenic highway" as "A highway so designated by the State of California, pursuant to provisions of the California Streets and Highway Code."

Section 7.3 defines "scenic corridor" as:

> A strip of land on each side of a stream or roadway which is generally visible to the public traveling on such route. The scenic corridor for a freeway shall include a horizontal distance of 1,000 feet from the center of the freeway. The scenic corridor for a scenic highway or scenic country route shall include a horizontal distance of 500 feet on each side of the center line with a minimum distance of 300 feet beyond the right-of-way or the edge of the stream. A Scenic Corridor is the same as a Special Sign Corridor.

Section 7.3 defines "scenic county route" as:

> A County road, State highway, or navigable river which is part of a scenic travel system within Sacramento County and so designated by the Board of Supervisors.

IMPACTS AND ANALYSIS

SIGNIFICANCE CRITERIA

Based on Appendix G of the State California Environmental Quality Act (CEQA) Guidelines, the proposed project would have a significant impact related 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- or County-designated scenic highway;
- in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

IMPACT AE-1: HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA

DEER CREEK HILLS PRESERVE

The Deer Creek Hills Preserve provides scenic vistas of rolling grasslands, blue oak woodlands, creeks, and (from some locations) the Sierra Nevada. The trails available for public use at the Deer Creek Hills Preserve are approximately 1.5 miles southeast of the closest solar panels at the project site along Scott Road north of the Preserve and an approximately 1,000-foot-long segment of Payen Road north of the Preserve (see Plate AE-1). The topography at the Preserve primarily consists of gently rolling hills. Even at the highest elevation points on the designated public-use trails in the Preserve, there are intervening ridgelines which are substantially higher than the trails. Therefore, due to the intervening rolling topography and oak woodlands, proposed solar panels and other project components would not be visible to recreationists in the Preserve. Thus, there would be **no impact** on scenic vistas from the Preserve.

PRAIRIE CITY SVRA

As described in the Environmental Setting, State Parks has designated an existing picnic area on top of an elevated knoll within the Prairie City SVRA as an Overlook (State Parks 2024). As shown in KOP 9a through KOP 9e existing conditions photos, depending on the direction of view from the Overlook, existing views from the Prairie City SVRA Overlook towards the project site comprise rolling grassland in the foreground and middleground, and the Sierra Nevada in the background. Looking south, the view is of trees and other vegetation, fencing and other improvements associated with the SVRA. Looking southeast, the view is of trees between the SVRA property and the project site, and rolling grassland on and off the project site. Looking east, the foreground view is of a former shooting range on the SVRA property and trees and rolling grassland in the middleground, and tree-covered foothills and the Sierra Nevada in the background. Looking northeast, foreground views are of fencing, portions of tracks, and other improvements associated with the SVRA and, at the time of the viewshed photos, stored construction equipment, with middleground views comprising trees and rolling grasslands, and tree-covered foothills and the Sierra Nevada in the background. The viewshed from the Overlook exhibits a high degree of vividness, intactness, and unity, and therefore the existing visual quality is also high. For the recreationists visiting this portion of the Prairie City SVRA, the viewer sensitivity is high. As shown in Visual Simulation 1: KOP 9a, with project implementation the viewshed in the middleground would include solar panel development that would become visually prominent. The project substation would also be partially visible in the view to the south of the light green grouping of trees in the foreground. With project implementation, the intactness and unity in the viewshed of KOP-9a would change from high to low, and therefore the visual quality would also change from high to low.

Other scenic views of the project site are available from other locations on the OHV trails throughout the southern portion of the Prairie City SVRA (see Plate AE-2). For example, KOPs 5 through 8 provide views to the southwest and southeast from the Quartz and Placer Trails. The viewshed from these trails towards the project site exhibits a high degree of vividness, intactness, and unity, and therefore the existing visual quality is also high. Viewer sensitivity for recreationists using this facility is high.

As shown in Visual Simulations 2 and 3, although the background views of the Sierra Nevada would be preserved, with project implementation the middleground views would change such as although some rolling grassland would still be present, the solar panels would be visually

prominent. As shown in Visual Simulations 4 and 5, with project implementation the viewshed in the foreground and middleground would consist of the proposed substation, and the foreground and middleground views of undeveloped rolling hillsides would consist partially of substation and solar panels, and partially of grassland-covered low hillsides. Limited views of the Sierra Nevada in the background would be available through the substation facilities. With project implementation, the vividness, intactness, and unity in the viewsheds of KOPs 5 through 8 would change from high to low, and therefore the visual quality would also change from high to low.

Source: Dudek 2023

Visual Simulation 1: KOP 9a Looking Southeast from the Prairie City SVRA Access Road Near the Overlook, north of the Environmental Training Center. Rolling grassland and scattered trees on the Prairie City SVRA in the foreground and at the project site would continue to be visible in the foreground. Discontinuous blocks of proposed solar panels would be visible on select hillsides in the broad middleground landscape. New metal power poles with overhead power lines would also be visible at the back corner of the proposed substation (in the right side of the photo). Background views of the Sierra Nevada foothills would continue to be visible and would not be obstructed or substantially interrupted by visible project components.

Source Dudek 2024a

Visual Simulation 2: KOP 5: Looking Southeast from the Prairie City SVRA Quartz and Placer Trails along the SVRA Southern Boundary. Fencing along the Prairie City SVRA boundary and the SVRA dirt (OHV) Quartz Trail would continue to be present in the foreground, along with grassland (on the other side of the fence) at the project site. The middleground views of grass-covered hills would remain, and a portion of the middleground view would consist of solar panels. The Sierra Nevada would continue to be visible in the background, along with metal towers (approximately 120 feet tall, which appear very small at this distance) supporting 230 kV overhead electrical lines.

Source: Dudek 2024a

Visual Simulation 3: KOP 6: Looking Southeast from the Prairie City SVRA Quartz and Placer Trails along the SVRA Southern Boundary. Gently rolling hills on the project site covered with grassland and scattered trees would continue to be visible in the foreground. The nearest solar panels in the foreground, at a distance of 125 feet, would be blocked from this viewpoint by a short flat plateau followed by a decrease in topography between the Quartz/Placer Trails and the panels. Remaining views in the foreground and portions of the middleground views of undeveloped grassland would be altered by the introduction of solar panels. The Sierra Nevada would continue to be visible in the background.

Source: Dudek 2024a

Visual Simulation 4: KOP 7: Looking South from the Prairie City SVRA Quartz Trail at the SVRA Southeast Boundary. Following construction, the proposed substation and solar panels would be visible in the foreground and middleground. Some of the rolling hill topography would be detectable beyond the substation, but select hills would be covered with solar panels. The Sierra Nevada would continue to be visible in the background through the substation facilities.

Source: Dudek 2024a

Visual Simulation 5: KOP 8: Looking Southwest from the Prairie City SVRA Quartz Trail. Fencing along the Prairie City SVRA boundary, grassland, and the dirt (OHV) Quartz Trail would continue to be visible in the foreground. Foreground views of the project site would include the proposed substation, with grassland to the east and west. The existing 230kV metal transmission line tower (approximately 120 feet tall) would still be partially visible in the background behind the substation.

The changes in vividness, intactness, and unity from high to low in portions of these viewsheds, which are representative of some views across the project site available from the southwestern portion of the Prairie City SVRA (see Plate AE-2), would result in a change in visual quality from high to low. The changes in vividness, intactness, and unity from high to low in these viewsheds, which are representative of the views in portions of the southwestern portion of the Prairie City SVRA (see Plate AE-2), would result in a change in visual quality from high to low. Therefore, implementation of the proposed project would result in a substantial adverse effect on multiple scenic vistas from within the Prairie City SVRA, which has a high level of visual sensitivity for recreational visitors. This impact is **significant**.

Mitigation Measures

Based on the elevated position of the trails in the southern half of the SVRA as compared to the lower elevation of solar array and substation, mitigation measures such as landscape screening would not reduce views of solar infrastructure from the SVRA. The implementation of screening would also not successfully screen the project substation from view. Thus, it was determined that landscape screening would not substantially improve the user experience and no other feasible mitigation measures are available.

Significance after Mitigation

Because there are no feasible mitigation measures available to reduce the project's significant impact from substantial adverse effects on scenic vistas as viewed from the Prairie City SVRA, this impact is **significant and unavoidable**.

Impact AE-2: Substantially Damage Scenic Resources Within a State- or County-Designated Scenic Highway

Potential Damage to Historic Features

As described in the Environmental Setting and shown in KOP 16, the Barton Ranch Headquarters consists of 16 buildings and structures, 15 of which are on the west side of Scott Road; the Barton Ranch water tower is on the east side of Scott Road. An existing cell tower is directly adjacent to the ranch structures. The buildings and cell tower are plainly visible to motorists on Scott Road traveling in both north and south directions. A detailed analysis was performed by ECORP Consulting, Inc. (ECORP) in 2024 to evaluate the potential for listing of the Barton Ranch Headquarters on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). The Barton Ranch Headquarters (which was evaluated as both individual features and collectively as a district for historic resources purposes) was found to be not eligible for listing on either the NRHP or the CRHR (ECORP 2024). Because the Barton Ranch Headquarters provide historic evidence related to ranching in the project area, and the buildings are well maintained, it forms a part of the scenic viewshed along the Scott Road Scenic Corridor. Solar panels would partially obstruct the foreground view shown in KOP 16, and would be installed within 85 feet of the ranch buildings. However, the buildings would not be removed as part of the proposed project, and therefore would continue to be part of the viewshed from Scott Road.

ECORP (2024) also reviewed other potential historic resources in the project area. The Caltrans Local Bridge No. 24C0238 carries Scott Road over Carson Creek through the project site. It was

constructed in 1979 and was evaluated by Caltrans as a Category 5 bridge that is not eligible for the NRHP (ECORP 2024:21).

ECORP (2024) also performed an analysis of the segment of Scott Road that runs through the project site to determine its potential significance as a historical resource. Scott Road was found to be not eligible for listing on either the NRHP or the CRHR (ECORP 2024:70-71). Similarly, Payen Road—a dirt road that travels east from Scott Road at the southern end of the project site—was also found to be not eligible for listing on either the NRHP or the CRHR (ECORP 2024:72-73).

Therefore, the proposed project would not result in changes to existing historic features associated with the Scott Road Scenic Corridor, and thus there would be **no impact** from substantial damage to historic resources within a scenic corridor.

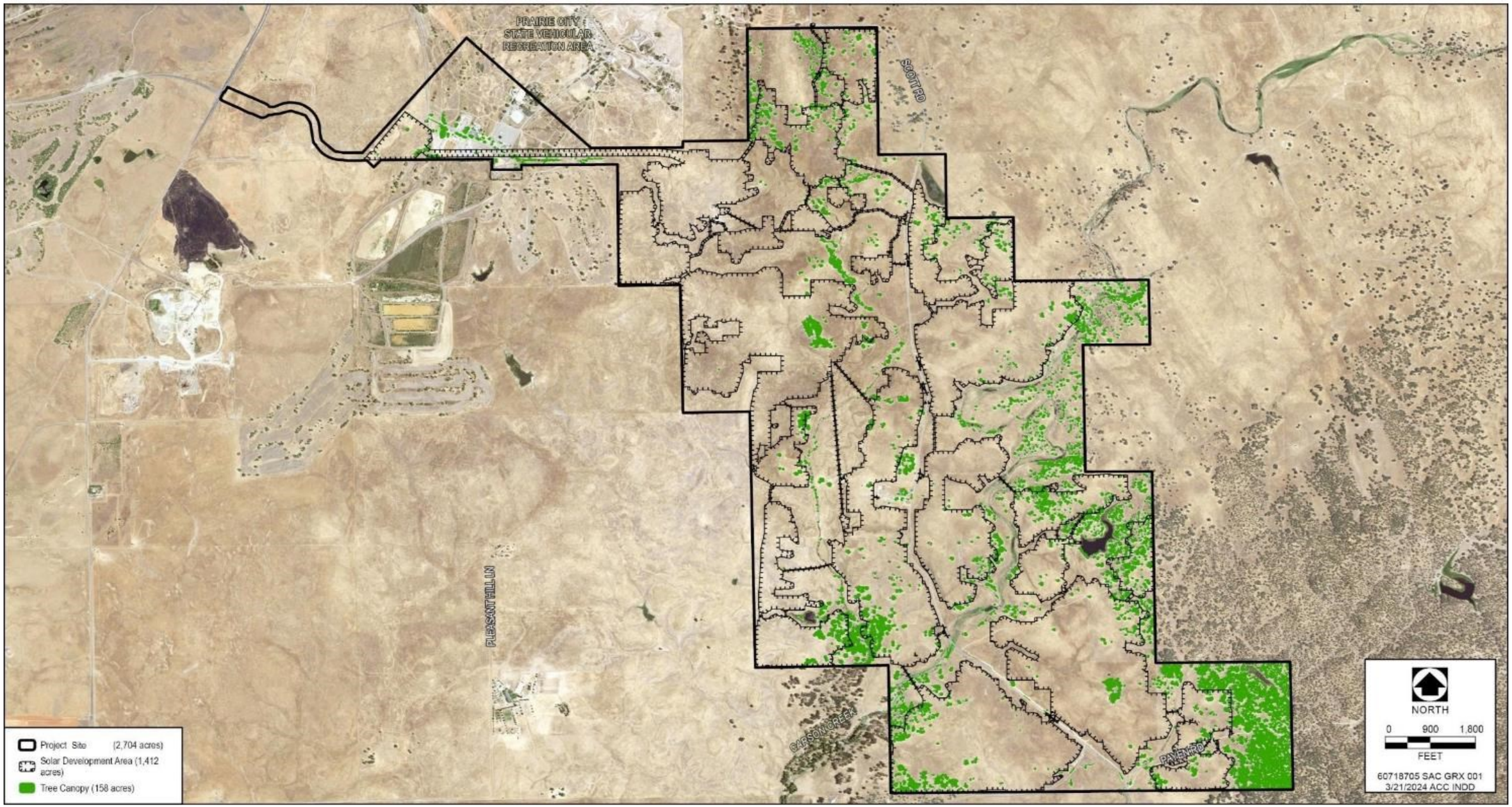
Potential Damage to Trees and Substantial Changes to the Existing Viewshed

During the project's construction and decommissioning phases, construction equipment, personnel, and materials storage would be visible in the foreground throughout the approximately 2.8-mile-long stretch of Scott Road that traverses the project site. However, those views would be short-term and temporary, and all construction equipment and materials storage would be removed at the end of the construction and decommissioning phases. The areas underneath the solar panels and areas that were cleared for construction laydown would be reseeded either with native vegetation or with grasses suitable for grazing.

As shown in KOP 10 through KOP 23, Scott Road traverses rolling hills and grassland along with stands of oak woodland and scattered individual oak trees. As described in the Biological Resources Technical Report (Dudek 2024b), 4,787 trees within the solar development area in the project site, some of which are visible from Scott Road, would be removed in order to implement the proposed project. The tree canopy that would be removed from the proposed solar development at the project site is shown on Plate AE-3 (i.e., everything within the "Solar Development Area"). Plate AE-3 also illustrates the relationship between the viewshed from Scott Road and the tree canopy that would be removed. As shown in Plate AE-3, select clusters of trees in the foreground and middleground views from Scott Road would be retained. It should be noted that existing trees would be retained along the Carson Creek and Coyote Creek channels, and along the southeastern edges of the project site where the largest concentration of trees is present. In addition, existing trees along Scott Road that are outside of the northern portion of solar development area would be retained.

Visual Simulations 6 through 19 show the changes in visual character and quality from various locations along Scott Road through the project site at full project buildout. The visual simulations include conceptual views of landscape screening (shown at maturity) that could be implemented by the project applicant.

Plate AE-3: Tree Canopy at the Project Site



Sources: Dudek 2024b, adapted by AECOM in 2024

Source: Dudek 2024a

Visual Simulation 6:KOP 10. Looking East towards from Scott Road east of Prairie City SVRA. Pavement on Scott Road, signage, fencing, and grassland would be visible in the foreground. Existing oak trees in the middleground would be removed and replaced with solar panels. The proposed solar panels would not be visible behind proposed landscape screening (at maturity), immediately adjacent to Scott Road at this location. The canopies of select oak trees outside of the solar development area would remain and would continue to be visible above proposed landscape screening The Sierra Nevada foothills would continue to be visible in the background to the northeast.

Source: Dudek 2024a

Visual Simulation 7: KOP 11. Looking South from Scott Road. Pavement on Scott Road, signage, fencing, and grassland on the project site would be visible in the foreground and middleground. Some trees in the lower elevation middleground would be removed and replaced with solar panels. Most of the existing trees in the view would be retained and solar panel development would primarily occur on the grassland-covered hillside in the middleground to the south.

Source: Dudek 2024a

Visual Simulation 8: KOP 12. Looking Southwest from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site would be visible in the foreground and middleground. Solar panels would be visible approximately 800 feet from Scott Road at this location, and would be partially screened by landscaping (at maturity). Most solar panels would be concentrated on lower elevation terrain in the middleground to the south; a few lines of solar panels would be installed on more distant hillsides to the southwest but would be mostly obscured by intervening topography and oak trees.

Source: Dudek 2024a

Visual Simulation 9: KOP 13. Looking Southeast from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site would continue to be visible in the foreground and middleground. Solar panels would be visible in the middleground on lower elevation terrain and hillsides (landscape screening would be implemented along the closest edge of the solar development area). In addition, transmission line power poles would also be visible in the middleground and background.

Source: Dudek 2024a

Visual Simulation 10: KOP 14. Looking Northeast from Scott Road. Fencing along Scott Road, and grassland on the project site are visible in the foreground and middleground. Canopies of two isolated oak trees that were visible above the local horizon line have been removed and replaced with solar panels that would be mostly blocked from view by proposed landscape screening (at maturity).

Source: Dudek 2024a

Visual Simulation 11: KOP 15. Looking Southwest from Scott Road. Fencing along Scott Road, and grassland and oak trees on the project site are visible in the foreground and middleground. Several large oak trees in the foreground on the low hill to the north adjacent to the road have been removed. Solar panels would be visible in the foreground and middleground, along with an internal access road, perimeter fencing, and partial landscape screening (at maturity).

Source: Dudek 2024a

Visual Simulation 12: KOP 17. Looking Northeast from Scott Road near the Barton Ranch Headquarters. Fencing along Scott Road, and grassland on the project site would be visible in the foreground. Views in the foreground in the middleground would consist of solar panels with landscape screening (at maturity). Prominent oak trees atop the low hill to the northeast would remain and views to the oak tree-clustered, rolling hill topography beyond the project site to the northeast would be mostly preserved.

Source: Dudek 2024a

Visual Simulation 13: KOP 18. Looking Southwest from Scott Road near the Barton Ranch Headquarters. Grassland and oak trees on the project site would continue to be visible in the background to the north. The foreground view would change from open grassland to solar panels with landscape screening (at maturity). The middleground view would also change from grassland to lines of solar panels.

Source: Dudek 2024a

Visual Simulation 14: KOP 19. Looking Northeast from Scott Road. Grassland in the foreground and middleground, along with scattered oak trees in the middleground, would be replaced with solar panels, fencing, and landscaping screening (at maturity). New transmission line poles would be visible in the background to the north.

Source: Dudek 2024a

Visual Simulation 15: KOP 20. Looking Northeast across Carson from Scott Road. The Scott Road bridge overcrossing and the Carson Creek streambed (dry in this photograph) would continue to be visible in the foreground, and the grassland and oak trees on the northwest side of Carson Creek would continue to be visible in the middleground. Proposed solar panels along Scott Road approximately 1,000 feet north would be visible in a relatively small portion the middleground landscape (on the left side of the photo).

Source: Dudek 2024a

Visual Simulation 16: KOP 21. Looking Southwest on the south side of Carson Creek from Scott Road. Pavement on Scott Road and the Carson Creek bridge overcrossing are visible in the foreground, along with a portion of the Carson Creek streambed (dry in this photograph) and bridge abutment. Wood power poles with overhead electrical lines are also visible in the foreground. Grassland and oak trees on the project site are visible in the middleground. Solar panels, project fencing, internal access roads, and landscape screening would be visible from this vantage point.

Source: Dudek 2024a

Visual Simulation 17: KOP 22. Looking Northwest on the north side of Carson Creek from Scott Road. Foreground views of grassland and the Scott Road bridge over Carson Creek would be similar to existing conditions. Existing middleground views of grassland and oak trees would be replaced by solar panels, along with landscape screening (at maturity).

Source: Dudek 2024a

Visual Simulation 18: KOP 23. Looking Southeast from Scott Road. Grassland and oak trees in the foreground and middleground on the project site would be replaced with solar panels, gravel access road, fencing, and landscape screening (at maturity).

Source: Dudek 2024a

Visual Simulation 19: KOP 24. Looking Northeast from Scott Road at Boys Ranch Road. Grassland on the project site in the foreground and middleground, and oak tree views in the middleground, would be replaced with solar panels, gravel roads at one of the new project site entries, fencing, and landscape screening (at maturity). The tree line on the hillside beyond the project site would remain visible above proposed solar panels.

As shown in KOP 10 through KOP 24, approximately 2.8 miles of Scott Road bisects the project site from north to south. Scott Road is a two-lane asphalt paved road. The project site is also visible from portions of Scott Road further north and south of the project site due to the rolling topography. The segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41) is within the project site.

As shown in Visual Simulations 6 through 19, proposed project facilities would have a varying degree of visibility from Scott Road. In certain locations such as from Scott Road at the north end of the project site, mostly full visual screening of solar panels from landscaping in the available south-facing view would occur (see Visual Simulation **6**6). Elsewhere, the installation of solar panels would be visible. However, due to the distance from Scott Road to solar panels, the location of solar panels on hillsides as opposed to ridgelines, and partial screening of solar panels by existing topography and oak trees (or by proposed landscaping), resulting visual effects to views would be softened (see Visual Simulations 7, 8, and 15). At all remaining assessed vantage points from Scott Road, proposed solar panels would be visually prominent and while landscaping would aid in the partial screening of solar panels and fencing available to Scott Road motorists, solar panels (which would generally be located to the east and west of Scott Road) would detract from existing views of the valley landscape. In these locations, the introduction of solar panels would attract the attention of passing motorists. As previously stated, an approximately 2.8-mile-long segment of Scott Road runs through the project site in a north-south direction and along this segment, and proposed solar panels would be visible in the landscape. However, proposed solar panels would generally be set back 100 feet or more from the road.

In select locations such as at KOP 11, the closest solar panels would be over 1,300 feet away and visual effects would be somewhat moderated by distance and by partial screening of solar panels by existing topography and oak tree vegetation that would be retained. At KOP 11, solar panels would be located to northwest, west, and south but the landscape to the east would not be developed (see Plate AE-2).

Further, at KOP 12, proposed solar panels would be set back approximately 800 feet from southbound Scott Road motorists, and therefore the resulting visual effects to the existing view would be moderate, and would, ultimately, be softened by the introduction of proposed landscaping. It should be noted that at KOP 12, southbound motorists would also be exposed to views of solar panels to the east of Scott Road and their introduction would substantially detract from the available view (see Visual Simulation 9 that approximates the east view for motorists at KOP 13). The visual character and quality of the scenic viewshed along the 2.8-mile-long segment of Scott Road through the project site would be degraded by implementation of the proposed project, as a result of the change in foreground and middleground views from grassland and oak trees to grassland and oak trees intermixed with solar panels, gravel roads, and fencing.

While project components would have a varying degree of visibility (and impact severity) from Scott Road, anticipated changes resulting from project operations within the viewshed of the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41), would generally be moderate to severe. Proposed landscaping would tend to soften the introduction of and partially screen project components from view of passing Scott Road motorists. While landscaping would

not completely block views of the solar panels along Scott Road from all possible vantage points, landscaping would be effective at screening portions of the surface of the solar facility site and shorter project components from view. Lastly, native oak trees visible from the Scott Road corridor would be removed, thereby adversely affecting some of the scenic resources within the existing viewshed. Due to the severity of visual change anticipated along the 2.8-mile-long segment of Scott Road including the loss of native blue oak trees, this impact concerning damage to scenic resources and the scenic Scott Road viewshed is **significant**.

Mitigation Measures

AE-2: Prepare and Implement a Landscape Screening and Irrigation Plan that Will be Monitored for Long-term Success.

The project applicant shall implement the County-approved landscape screening and irrigation plan (attached as Appendix AE-1), which shall include oak thickets comprised of evergreen interior live oaks (*Quercus wislizeni*) that will form a dense native tree with a low canopy that can live for many decades. Native shrubs shall also be planted, which shall be comprised of fast-growing drought-resistant locally native shrubs.

Supplemental watering shall be provided at a minimum for the first 5 years after planting, and shall be continued thereafter as long as necessary to ensure the survival of the plantings.

The landscape screening plan shall include specific details as to the species, sizes of plants, method of planting, method and frequency of watering, maintenance activities (such as weeding and inspection of watering systems), and frequency of monitoring.

After the landscape planting has been implemented, annual monitoring reports related to the health of the plantings shall be provided to the County during the five-year establishment period. Dependent on establishment success, the county may request additional monitoring reports thereafter. Should the overall efficacy of the landscaping be reduced due to excess plant mortality, plantings shall be replaced by the project applicant, and supplemental watering for the replacement plants shall be provided by the project applicant until the replacement plants are established.

The landscape planting shall be maintained by the project applicant throughout the project lifespan and if supplemental watering is required to support the landscape screening throughout the project's lifespan, the applicant shall provide it (anticipated to be at least 35 years, but potentially longer if the project remains economically viable).

Implement Mitigation Measure BR-2 (Avoid, Minimize, and Mitigate for Impacts on Riparian Habitat and Other Sensitive Natural Communities).

Significance After Mitigation

In the short term, generally the first five years, before the landscape plantings required in Mitigation Measure AE-2 are established, there would be no reduction in the level of the impact because portions of the viewshed along Scott Road would change from undeveloped grassland and mature oak trees to solar panels, gravel roads, and agricultural-style woven fencing. Landscape vegetation at the time of planting would not be of sufficient size to soften views of the project. Therefore, short-term views from the segment of Scott Road where the General Plan

establishes the County's policy to "[c]ontinue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road…" (Sacramento County 2022a, page 41) would be **significant and unavoidable**.

In the long term, implementing Mitigation Measures AE-2 and BR-2 would reduce the effect on the scenic viewshed from the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41), but not to a less-than-significant level. As shown in Plate AE-3, oak trees within portions of the viewshed of Scott Road would be removed and replaced with solar panels. Native oak trees are proposed to provide a natural screening effect, and would be effective at obstructing some views of the solar array approximately 5 years after planting. However, the native oak trees would be of a different species (i.e., interior live oak [*Quercus wislizeni*]) that would provide a low-growing "thicket" appearance planted as a hedge, rather than the taller open-canopy native blue oak (*Quercus douglasii*) species that are currently present. The faster-growing interior live oak species have been selected to provide softening after 5 years.

At 3 years after planting approximately 30 percent of the oak seedlings would likely die, and approximately 50 percent of the surviving 3-year seedings would likely die after 15 years due to the difficulty of establishing native oaks from plantings (Garth Ruffner Landscape Architect 2023). This rate of efficacy has been incorporated into planting numbers to ensure screening efficacy. To provide the proposed visual landscape softening effect, all of the species that must be used would be planted to create hedgerows, which would have an artificial appearance as compared to the existing natural landscape. However, even after the landscaping plantings are established, they would not provide screening of all project facilities from the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41) because of the rolling topography; rather, they would provide a softening effect. No other feasible mitigation measures are available. Thus, and although the project does not impact any scenic highway, the long-term impact to scenic resources and the scenic viewshed from the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41) would be **significant and unavoidable**.

IMPACT AE-3: SUBSTANTIALLY DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF THE PROJECT SITE AND CONFLICTS WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY

DEGRADATION OF VISUAL CHARACTER OR QUALITY

DEER CREEK HILLS PRESERVE

The Deer Creek Hills Preserve provides scenic vistas of rolling grasslands, blue oak woodlands, creeks, and (from some locations) the Sierra Nevada. The trails available for public use at the Deer Creek Hills Preserve are approximately 1.5 miles southeast of the closest solar panels at the project site (adjacent to Payen Road at Scott Road). The topography at the Preserve is similar to the project site: gently rolling hills. Even at the highest elevation points on the designated public-use trails in the Preserve, there are intervening ridgelines which are substantially higher than the trails. Therefore, due to the intervening rolling topography and oak woodlands, the solar panels would not be visible to recreationists in the Preserve. Thus, there

would be **no impact** from substantial degradation of visual character or quality from public recreation trails in the Deer Creek Hills Preserve.

GRANT LINE ROAD/WHITE ROCK ROAD

As shown in KOP 1, the existing viewshed is of moderate visual quality, and the western end of the project's proposed access road would be of similar appearance to the existing Grant Line and White Rock Road roadways. The proposed switchyard and gen-tie line would only be visible in background views approximately 0.7 mile east of the intersection of Grant Line and White Rock roads. The switchyard would be approximately 8.25 acres in land area, and would not be a solid mass; views through the tall metal switchyard facilities would be available. The size of the switchyard would be very small in comparison to the panoramic viewshed shown in KOP 1. The heights of the poles in the switchyard and the gen-tie line would be similar to the existing 230-kV metal transmission towers that are visible in the background of KOP 1 to the east, and would be installed in a similar location. There would be no change to foreground or middleground views other than the new 20-foot-wide private gravel roadway, and the existing panoramic views of the Sierra Nevada foothills would be unchanged. Thus, the impact from substantial degradation of visual character or quality for motorists traveling on Grant Line and White Rock Roads would be **less than significant**.

PRAIRIE CITY SVRA ACCESS ROAD

The project's proposed switchyard would be visible in the foreground to recreationists using the Prairie City SVRA access road, at a distance of approximately 300 feet to the southwest (KOP 2). Plate AE-4 provides a photograph of an existing gen-tie switchyard in Sacramento that would have a similar visual appearance and size as compared to the project's proposed facilities. The approximately 8.25-acre switchyard could include facilities up to 100 feet tall. The heights and visual appearance (metal structures) of the switchyard facilities and nearby gen-tie line would be similar to the existing 230-kV metal transmission towers that are visible in the middleground. At a distance of 300 feet from the roadway, the switchyard would fill the middleground and background viewshed shown in KOP 2. Further southeast on the Prairie City SVRA access road, the viewshed is comprised of varying manmade elements within the SVRA (see Plate AE-2) that are of different heights, forms, colors, and textures (see KOPs 3 and 4); the overall visual quality is low. The 150-foot-tall gen-tie metal towers and overhead lines would be visible on the west side of the SVRA access road from KOPs 3 and 4.

Plate AE-4: Existing Gen-Tie Switchyard in Sacramento Similar to Proposed Project

Source: Dudek 2024a

Past the existing Prairie City SVRA Kart Track, the project's proposed construction access road along the gen-tie corridor between the switchyard and substation would continue east off the existing SVRA paved access road and along the route of what is now the SVRA's Feldspar Trail (dirt OHV trail), south of the Kart Track shown in KOP 4. A permanent access road is not proposed along the gen-tie corridor. The existing line of trees and shrubs extending south along the SVRA property boundary would remain in place. From the Prairie City SVRA access road, the lower halves of the 150-foot-tall metal gen-tie towers would be blocked by the existing line of shrubs and trees, but the top halves of the metal towers and the overhead electrical lines would be visible to recreationists traveling on the SVRA access road in the foreground looking up against the sky. Based on the above, the viewshed from KOP 2 would substantially change; the viewshed from KOP 3 would moderately change; and the viewshed from KOP 4 would change very little. The visual quality of the KOP 2, KOP 3, and KOP 4 viewsheds is low, and views of the top portions of the gen-tie towers and overhead electrical lines would not be substantial enough to change the existing visual quality. Thus, the impact from substantial degradation of visual character or quality for recreationists traveling on the Prairie City SVRA access road would be **less than significant**.

PRAIRIE CITY SVRA OHV TRAILS

Proposed solar panels would not be visible from the Hangtown Motocross Track or the associated parking area due to the intervening topography. As stated above, the Prairie City Motocross Track is home to the Hangtown Motocross Classic, part of the Lucas Oil AMA Pro Motocross Championship Series; an event which draws over 26,000 visitors annually. Total yearly visitor attendance throughout the Prairie City SVRA in 2013 consisted of 65,004 recreational visitors and 76,697 special-event visitors, for a total of 141,701 yearly visitors (State Parks 2016).

However, as shown on Plate AE-2, proposed solar panels in the northeast corner of the project site would be visible to OHV riders on the Cougar Trail, Rattlesnake Trail, and Jack Rabbit Loop (in the southeast corner of the SVRA) at distances ranging from 865 feet east to 1,100 feet southeast.

As also shown on Plate AE-2, there are a variety of named dirt OHV trails in the southwest quadrant of the Prairie City SVRA (e.g., Quartz Trail, Placer Trail, Clay Trail, Shale Trail, Pyrite Trail, Sandstone Loop, and Sedimentary Trail). There are also additional dirt OHV trails formed as "use trails" throughout this area, which are not named (also shown on Plate AE-2). The proposed solar panels and the proposed substation would be visible to OHV recreationists on portions of these trails in the southwest quadrant of the Prairie City SVRA. Visual Simulations 1 through 5 (presented above in Impact AE-1) illustrate the viewshed changes from the SVRA trails that are closest to the northwestern portion of the project site.

As shown in Visual Simulations 1 through 5 (in Impact AE-1), the visual character of the landscape to the south and east from the OHV trails in the southwest quadrant of the Prairie City SVRA (Quartz Trail, Placer Trail, Clay Trail, Shale Trail, Pyrite Trail, Sandstone Loop, and Sedimentary Trail) would change substantially, from open rolling grassland to solar panels situated atop rolling hill topography and intermixed with grasslands, and a substation with components up to 150 feet tall. The gen-tie route, which would consist of one or two single-circuit structures constructed with up to 150-foot-tall wood, concrete, or steel poles, would stand out in the landscape and against the skyline in foreground and middleground views from the OHV trails in the southwest quadrant of the Prairie City SVRA. Despite the tall, vertical scale of new wood, concrete, or steel poles, the distance between individual poles would help to preserve some of the long distance, scenic views from OHV trails across the landscape located to the east of the project site. A new lower-voltage powerline and communications line for the proposed project would share the same structures or share the same easement as the gen-tie line and therefore would also be visible and would detract from the existing landscape. As explained in the Environmental Setting, the viewsheds illustrated in KOP 5, KOP 6, and KOP 8 exhibit a high degree of intactness and unity, and a moderate degree of vividness; the visual quality is moderate. The viewshed in KOP 7 exhibits a high degree of intactness, unity, and vividness; the visual quality is high. Viewer sensitivity for recreationists is high on the OHV trails in the areas shown in KOP 5 through KOP 8, as well as the OHV trails up to 1,700 feet to the northwest which are open and provide expansive views of these project areas for recreationists within the SVRA (see Plate AE-2).

The visual appearance of the substation and solar panels throughout the foreground and middleground views available from the Prairie City SVRA would substantially alter the existing visual character, and would degrade the existing visual quality of the project site from moderate and high to low. While the visual experience of trail users at times includes trails across hilly terrain that exist already within the SVRA, the existing character of the project site is that of a primarily undeveloped, rolling hill topography featuring grasslands and clusters of oak trees. As also previously shown in Visual Simulation 1 (in Impact AE-1), the visual character and quality of the viewshed to the south and east from the Prairie City SVRA overlook area would also be substantially degraded due to the changes in the middleground views from rolling hills covered with grass and oak trees to solar panels amongst the grassland and oak tree-dotted landscape. The viewshed from trails in the southeast corner of the SVRA (Cougar Trail, Rattlesnake Trail, and Jack Rabbit Loop) would also change substantially as described above, similar to Visual Simulations 17 and 18. Therefore, this impact is **significant**.

SCOTT ROAD

As shown in Visual Simulations 7 through 19 and discussed in detail in Impact AE-2, proposed project facilities would be visible throughout a 2.8-mile-long segment of Scott Road, which is a public roadway that provides access for motorists to White Rock Road and Latrobe Road. The

visual character and quality of the viewshed along the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41) would be substantially degraded by implementation of the proposed project, as a result of the change in foreground and middleground views from grassland and oak trees to solar panels, gravel roads, and agricultural-style woven fencing. Therefore, this impact is **significant**.

PLEASANT HILL LANE SINGLE-FAMILY RESIDENCE

Under CEQA, an evaluation of a project's potential visual change as viewed from private property is not required. Nevertheless, this analysis includes a discussion of the potential viewshed changes from the large-lot rural residence (with an associated horse barn and training facilities) on Pleasant Hill Lane, approximately 0.75 miles west of the second southwestern corner of the project site. Pleasant Hill Lane is accessed via Glory Lane, from Grant Line Road. Glory Lane and Pleasant Hill Lane are private roadways; thus, it was not possible to obtain photographs for use as KOPs. Therefore, a desktop analysis was performed by reviewing topographic maps and by reviewing Google Earth aerial imagery from June of 2021.

The private residence on Pleasant Hill Lane is situated on an elevated knoll at an elevation of approximately 250 feet above mean sea level. The nearest solar panels would be installed to the east in a direct line of the viewshed from the back of the residence, at a distance of approximately 0.75 miles. The viewshed to the east from the residence consists of rolling hills covered with grassland in the foreground and background, stands of blue oak trees on the hills and valleys in the middleground and background, and the Sierra Nevada in the distant background. The viewshed exhibits a high degree of intactness, vividness, and unity, and therefore the visual quality is high. The visual appearance of the middleground views from the residence after project implementation would be similar to that shown in Visual Simulation 1 (KOP-9). Project implementation would change the existing viewshed in the middleground from rolling hills covered with grassland and oak trees, to solar panels.

As noted above, under CEQA, a lead agency is not required to evaluate potential visual changes from private viewpoints (*Mira Mar Mobile Community v. City of Oceanside*, 119 Cal. App. 4th 477 [Cal. Ct. App. 2004]). Nevertheless, for purposes of disclosure, it is noted that the changes that would occur in middleground views to the east from the private residence on Pleasant Hill Lane would represent a substantial degradation of the existing visual character and quality.

CONFLICTS WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY IN URBAN AREAS

Based on site visits, the KOPs and descriptions in this section, and U.S. Census mapping showing urban areas, the project site not situated within an urbanized area (U.S. Census Bureau 2024). Therefore, an analysis of the project's potential conflicts with zoning and other regulations governing visual quality is not required. Please refer to Chapter 11, "Land Use and Planning," of this EIR for an analysis of the project's potential to conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

MITIGATION MEASURES

Implement Mitigation Measure AE-2 (Prepare and Implement a Landscape Screening and Irrigation Plan that Will be Monitored for Long-term Success).

Implement Mitigation Measure BR-2 (Avoid, Minimize, and Mitigate for Impacts on Riparian Habitat and Other Sensitive Natural Communities).

Significance After Mitigation

Because of the differences in topography and distances from the viewers at the Prairie City SVRA and on the project site, landscape screening to block views of the solar panels and the substation for recreationists within the SVRA would not be effective. No other feasible mitigation measures are available. Thus, the degradation of visual character and quality in south and east-facing views from the southwest quadrant of the Prairie City SVRA, including views from an Overlook, would remain **significant and unavoidable**.

In the long term, implementing Mitigation Measures AE-2 and BR-2 would soften the effect on views from the Scott Road viewshed, but not to a level that is less than significant. As shown in Plate AE-3, blue oak trees within portions of the viewshed of Scott Road would be removed and replaced with solar panels. Native oak trees are proposed as part of the plantings to provide a natural screening effect, and would be effective at obstructing some views of the solar array approximately 5 years after planting. Although native oak tree species are included in the landscape plan required in Mitigation Measure AE-2, they would be of a different species (i.e., interior live oak [*Quercus wislizeni*]) that would provide a low-growing "thicket" appearance planted as a hedge, rather than the taller open-canopy native blue oak (*Quercus douglasii*) species that are currently present. The faster-growing interior live oak species have been selected to provide visual softening after 5 years. At 3 years after planting approximately 30 percent of the oak seedlings would likely die, and approximately 50 percent of the surviving 3-year seedings would likely die after 15 years due to the difficulty of establishing native oaks from plantings (Garth Ruffner Landscape Architect 2023). This rate of efficacy has been incorporated into planting numbers to ensure screening efficacy. To provide the proposed visual landscape softening effect, all of the species that must be used would be planted to create hedgerows, which would have an artificial appearance as compared to the existing natural landscape. However, the landscape plantings would not provide screening of all views of project facilities from the segment of Scott Road where the General Plan establishes the County's policy to "[c]ontinue to provide scenic corridor protection" (Sacramento County 2022a, page 41) because of the rolling topography; rather, they would provide a softening effect. The viewshed from Scott Road through the project site would be modified from views of a rural landscape of native blue oak trees and grassland to views including solar panels, gravel roads, and agricultural-style woven fencing, with some landscape screening. No other feasible mitigation measures are available. Thus, the long-term impact from substantial degradation of visual character and quality of the viewshed from Scott Road through the project site would be **significant and unavoidable**.

Impact AE-4: Create Substantial New Sources of Light and Glare

Glare Analysis

In 2024, Dudek Consulting was retained to prepare a *Glare Analysis Report* for the proposed project (Dudek 2024c), which is included as Appendix AE-2. The analysis was conducted per the recommended procedures described in the FAA's *Technical Guidance for Evaluating Selected Solar Technologies on Airports* (FAA 2018); and the Sandia National Laboratories' Solar Glare Hazard Analysis Tool used by Dudek adheres to FAA policy regarding solar energy

system projects on federally obligated airports[2] (86 FR 25801–25803). With the Solar Glare Hazard Analysis Tool, there are standardized safety metrics to define the anticipated glare intensity that would cause unwanted visual impacts to air traffic control towers and airplane pilots. Although the proposed project is not located on a federally-obligated airport and is not required to do so by Sacramento County, Dudek staff utilized an industry-standard ForgeSolar 3-D geometric glare analysis software tool, which can predict when and where glare would occur from a proposed PV array at discrete observation points.[3] In instances where glare may be a concern, the software can prescribe minor adjustments to the tilt, direction, and location of the panels to alleviate issues.

Reflected light can cause glint (a quick reflection) and glare (reflection that lasts for a longer duration), which can create hazards for pilots, air-traffic control personnel, motorists, residents, and recreationists. In addition to visual hazards, glare can also result in a temporary loss of vision. The hazard level of glare depends on the ocular impact to the observer. Generally, an ocular impact is calculated as a function of the incidence angle and the intensity of the light. Glare intensity is described according to the potential for after-images in human eyesight. For the purpose of Dudek's (2024c) *Glare Analysis Report*, an ocular impact is classified in one of three categories as follows:

- Low potential for the glare to cause an after-image (also known as flash blindness).
- Potential to cause a temporary after-image.
- Potential to cause retinal burn and permanent eye damage.

For the purpose of this impact analysis, any light reflected off of the solar panels is referred to as "glare."

To maximize the amount of solar energy generated from the solar array, the PV system for the proposed project would employ a single-axis tracking mechanism that would adjust to rotate the solar panels following the sun's trajectory as it crosses the sky. This tracking system would be oriented running north–south with the panel faces rotating from east to west. The system would be able to track the sun's progression across the sky, within the system's 120 degrees range of motion (60 degrees to the east and 60 degrees to the west). When the sun is not within the 120 degrees range of motion, the panels would rest at 60 degrees.

In addition to panel orientation, the materials used in the panel construction also play an important role in reducing glare and maximizing efficiency. Different glass textures can be used to reflect light beams into the solar array and anti-reflective coatings can be added to the glass to further reduce reflectivity at high incidence angles (i.e., the angle at which the light hits the solar array). The surface of the panels used for the proposed project would be constructed out of smooth glass and would include an anti-reflective coating.

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[2] An airport is federally obligated when the airport owner has accepted federal funds to buy land or develop or improve the airport. With the acceptance of federal funds, airports agree to comply with certain grant assurances, some of which relate to tenants and businesses operating on an airport. The FAA enforces these obligations through its Airport Compliance Program.

[3] It should be noted that the visibility analysis and geometric modeling software does not consider existing vegetation or structures that might obscure the view of the panels from sensitive receptor locations.

Dudek's (2024c) *Glare Analysis Report* considered various potential glare receptors within the project vicinity consisting of residences, local roadways, airports and airport flight paths[4], and OHV trails within the Prairie City SVRA. The modeled receptors for the glare analysis (Dudek 2024c) consist of the following:

- Mather Airport Air Traffic Control Tower (the Rancho Murieta Airport does not have a control tower);
- 18 residential dwellings (selected as representatives from different locations around the project site);
- 6 airport flight paths (including Mather Airport and Rancho Murieta Airport) extending two miles from each runway and following a straight-line approach vector;
- 13 nearby roadways; and
- 3 OHV trails in the southwest corner of the Prairie City SVRA.

By inputting the proposed solar panel locations and characteristics, as well as the locations and elevations of the existing receptors, the ForgeSolar 3D software used by Dudek (2024c) was able to simulate the sun's progression across the sky over the course of a year and model the potential glare that could be caused by the proposed solar arrays. Model inputs included the physical location, orientation, build material (including the presence of anti-reflective coatings), tilt angle, and tracking technology. If glare is detected, the software then quantifies the level of ocular impact hazard and pinpoints the exact time of year the glare would occur. This analysis was automatically performed for every minute of the calendar year, for each proposed solar array, and for each potential receptor.

Modeling results demonstrated that the proposed solar panels would not result in hazardous glare (i.e., the potential for after-images in human vision) from any of the proposed solar panel arrays at any of the modeled receptors (Dudek 2024c: Table 3 and Figures 4 and 5). Because the proposed project would utilize a tracking system that keeps the surface of the PV arrays pointed perpendicular to the sun's rays for most of the day, this would maximize the solar absorption of the panels and minimize glare. When the sun exits the maximum rotation angle of the solar arrays, the panels would stay fixed at their maximum tracking angle, thereby transmitting any glare into the sky and away from ground-based receptors such as residents, local roads, and OHV riders on trails within the Prairie City SVRA. Furthermore, the panels would be treated with an anti-reflective coating. Finally, because of the distance of the project site from the Sacramento Mather Airport and the Rancho Murieta Airport, and the azimuth (the angle relative to the proposed project), glare would be reflected into the sky at an elevation that would not intersect the flight paths of aircraft approaching these airports. Therefore, the impact associated with creation of a new source of substantial glare is considered **less than significant**.

[4] Rectangular flight patterns and non-approach flight paths associated with nearby airports were excluded from this analysis due to the FAA's most recent determination that in most instances, the glint and glare from solar energy systems experienced by pilots are comparable to those routinely encountered from water bodies, glass façade buildings, parking lots, and similar features (86 FR 25801–25803). Additionally, the distance of the flight patterns for these airports are substantially greater than would be expected for solar arrays located on airport property.

Nighttime Lighting

Nighttime lighting during the project's construction and decommissioning phases may be utilized. During project operation, low elevation (lower than 14 feet) controlled security lighting is proposed at primary access gates, the on-site substation, and at the entrances to the BESS facilities. Nighttime lighting would only be provided in areas where it is required for safety, security, or operations and would only turn on when personnel enter the area (through either motion-sensor or manual activation [switch]). Additionally, all operational lighting would be shielded and pointed downwards.

The Prairie City SVRA OHV routes are closed at sunset. However, there are activities that occur at night on the various tracks within the SVRA, including the Quarter Midget Track, Kart Track, Mini MX Track, and the Hangtown Motocross Track. Nighttime lighting associated with the BESS facility entrance and the substation would be approximately 0.64 mile east of the Kart Track and Quarter Midget Track; approximately 0.9 mile east of the Mini MX Track; and approximately 0.64 mile south of the Hangtown Motocross Track. Trees along the Prairie City SVRA southern boundary, which would not be removed as part of the proposed project, would help to provide some screening between the nighttime lighting at the substation and BESS and the Quarter Midget Track, Kart Track, and Mini MX Track. The proposed project also includes 10 primary entrance gates from Scott Road, where nighttime security lighting would be required. Unshielded or high-voltage nighttime security lighting could result in adverse nighttime light or glare effects for recreationists traveling on internal SVRA access roads or using SVRA facilities, as well as motorists traveling on Scott Road. Therefore, the long-term operational impact associated with creation of a new source of substantial nighttime lighting is considered **potentially significant**.

Nighttime lighting during the project's construction and decommissioning phases may be utilized. If nighttime construction activities were to occur within 500 feet of Scott Road or the Prairie City SVRA access road when nighttime events were occurring, nighttime lighting associated with that construction would result in nighttime glare for motorists on the adjacent roadways. Therefore, the short-term construction and decommissioning impacts associated with creation of a new source of substantial nighttime lighting are considered **significant**.

Mitigation Measure

AE-4. Prepare a Lighting Plan.

The project applicant shall prepare a lighting plan for County review and approval that includes implementation of the following measures.

Construction and Decommissioning

- If nighttime lighting is required where construction areas are 500 feet or closer to Scott Road or to any facilities or roadways at the Prairie City SVRA, the construction contractor shall erect a temporary 6-foot-tall solid-screened fence at the edge of the construction area, between the work area and the roadway/SVRA facility.

- All nighttime construction lighting, regardless of location within the project site, shall be shielded and recessed within each fixture so as to direct light downwards and focused on the area to be illuminated.

- All work zone illumination shall use the minimum foot-candles necessary to safely perform the required work.

- Any lighting systems with flood, spot, or stadium-type luminaires shall be aimed downward at the work area and rotated outward no greater than 30 degrees from straight down.

Operation

- Shield or screen all exterior lighting fixtures to direct the light downward, focus on the area to be illuminated, and prevent light spillover onto adjacent properties.
- Place and shield or screen lighting needed for security so as not to disturb adjacent properties or passing motorists.
- High intensity or high brightness light fixtures (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) shall not be used. Light-emitting diode (LED) lighting shall be used to the maximum extent feasible.
- All nighttime exterior lighting shall either be motion-controlled, or shall be turned on and off when needed using a manual switch.

Significance after Mitigation

Implementation of Mitigation Measure AE-4 would reduce the significant impacts associated with glare and skyglow during nighttime construction, decommissioning, and operational activities to a level that is **less than significant with mitigation** because a lighting plan would be prepared that requires construction areas that are 500 feet or closer to roadways and SVRA facilities to be screened and construction lighting to be shielded and directed downward; and permanent operational lighting would either be motion-controlled or operated manually via a switch, would utilize low-intensity LED fixtures, and would be shielded so the light is directed downward.