VISUAL IMPACT ASSESSMENT

Buckman Springs Road Bridge Widening Project

(for Minor Level VIA)

January 9, 2019

California Department of Transportation

District 11-SD-Buckman Springs Road Bridge (57C-0270)
Unincorporated Community of Campo, San Diego County
BRLS-5957 (084)
PI 1100020114

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Statement of Compliance: Produced in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, as appropriate, to meet the level of analysis and documentation that has been determined necessary for this project.

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PURPOSE OF STUDY AND ASSESSMENT METHOD

The purpose of this visual impact assessment (VIA) is to document potential visual impacts caused by the proposed project and propose measures to lessen any detrimental impacts that are identified. Visual impacts are demonstrated by identifying visual resources in the project area, measuring the amount of change that would occur as a result of the project, and predicting how the affected public would respond to or perceive those changes. This visual impact assessment follows the guidance outlined in the publication *Visual Impact Assessment for Highway Projects* published by the Federal Highway Administration (FHWA) in March 1981.

PROJECT DESCRIPTION

The Buckman Springs Road Bridge Widening Project (herein referred to as "project") entails the rehabilitation and widening of the existing bridge crossing of Buckman Springs Road over Cottonwood Creek (Bridge No. 57C-0270). The project is proposed by the County of San Diego (County) Department of Public Works, in cooperation with the California Department of Transportation (Caltrans) District 11. Figures 1 through 3 show the project location and limits of disturbance (i.e., area of potential effect).

Project Characteristics

Buckman Springs Road Bridge is an approximately 450-foot-long, two-lane bridge with a concrete bridge deck and nine piers. The existing 27-foot-wide bridge carries two lanes of traffic over Cottonwood Creek. As shown in Figure 4, the project would widen the bridge up to 6 feet, 9 inches to create two 15-foot-wide lanes. The underground foundations of four of the piers would be retrofitted, and each of the nine piers would be lengthened by 1.5 feet on each end. Substandard and deteriorated timber rails and concrete overhangs would be removed and replaced with new girders, overhangs, bridge metal railings and Caltrans' standard timber/metal Midwest guardrail system at the two bridge approaches. The bridge deck surface would be overlaid with a polyester concrete overlay and restriped.

In order to improve the storm water treatment of the bridge, all bridge deck drainage flows would be directed to three corners of the bridge at the approach ends. Curb inlets would allow the deck's sheet-flow to enter storm drain infiltration trenches located at the three corners of the bridge approaches. The storm drain would flow through the infiltration trenches and exit the bottom of the trenches through two 18-inch diameter drain pipes (one at each end of the bridge). The drain pipe would convey the flows to energy dissipater rip rap pads at the bottom of the embankment.

Grading would be required at either end of the bridge. A total of 11 trees, including four coast live oak and seven cottonwood trees of varying size and height, would be removed to accommodate grading. Graded areas would be revegetated with native species and restored to pre-construction conditions with respect to contours and vegetation composition, to the extent feasible. Restoration would include planting at least 14 cottonwood trees to replace the seven cottonwood trees to be removed by the project and at least eight coast live oak trees to replace the four coast live oak trees to be removed by the project, a 2:1 ratio. Restoration will follow a restoration plan to be prepared for County approval by a County-approved revegetation planner.

During construction, an approximately 875-foot-long segment of the Pacific Crest Trail (PCT) would be temporarily relocated to the north of its existing alignment as it parallels the bridge and northeast of the bridge footing across Buckman Springs Road (see Figure 4). The trail relocation would be accomplished by placing signs every 50 feet to redirect foot traffic, and would not include any grading or ground disturbance. Signage would be temporarily installed at either end of the relocated segment to inform trail users of the temporary realignment. Temporary detour signs and Equestrian / Hiker Crossing Warning signs also would be installed on either side of Buckman Springs Road, which would be crossed by trail users during the temporary realignment (refer to Figure 4). Following construction, an approximately 10-foot-long segment of PCT at the southeastern side of the southeastern bridge footing would be permanently realigned to the edge of the bridge footing. Two signs, a "slow to 40 mph at the curve" speed limit sign at the eastern end of the bridge, and a 6.5-mile marker at the western end of the bridge, would be relocated to within 5 to 10 feet of their existing locations. The existing reflective striped delineator signs would be removed during construction. Existing utilities, including AT&T lines, would be relocated along the alignment of the new bridge.

Phase 1

Dewatering may be required during retrofitting of the existing bridge footings. The construction dewatering would be localized around each of the four piers that are to be retrofitted. In order to understand the dynamics of the localized groundwater, a Groundwater Dewatering Study (GWDS) would be needed prior to awarding the construction contract.

The GWDS would involve drilling three eight-inch diameter holes adjacent to the existing bridge. Two of the holes are used to monitor groundwater levels while the center hole is used to pump out water and time the drawdown rate. This would give the Contractor who would ultimately conduct the construction of the bridge footings an estimate of the quantity of water they may need to dewater during the bridge footing retrofit and the time they have to install the retrofit for each pier.

The water that is encountered during the GWDS would be pumped out of the hole and sprayed evenly on the surface of the creek bed just downstream of the bridge. Water would be applied in a way that does not cause substantial sediment erosion. In order to minimize impacts to the creek and to sensitive arroyo toad individuals that may be present, an arroyo toad exclusion fence would be installed in an approximately 50 x 50 foot area prior to initiation of the GWDS. Once the GWDS test is concluded, the arroyo toad fence would be removed.

Construction

Construction of the project is expected to take approximately 12 months. During construction, a 16-foot-wide temporary access road (for construction vehicles only) would be created immediately northeast of the Buckman Springs Road Bridge from Buckman Springs Road. This would enable construction vehicles to access the underside of the bridge (depicted on the right side of the bridge in Figure 4). Construction staging would occur on a City-owned parcel one-half mile west of the project site on Morena Stokes Valley Road, also known as Corral Canyon Trail (see Figures 2 and 3). The staging area would be temporarily cleared of vegetation and would be utilized for building material storage and overnight parking of construction equipment. Upon completion of construction, the staging area would be revegetated using hydroseed. Traffic would be limited to a single 12-foot-wide travel lane through the center of the bridge as necessary during construction. As noted above, the PCT would be temporarily relocated outside the project's impact area along the northeastern boundary of the project. The ground beneath the bridge would be restored to pre-project conditions and replanted with native species after construction.

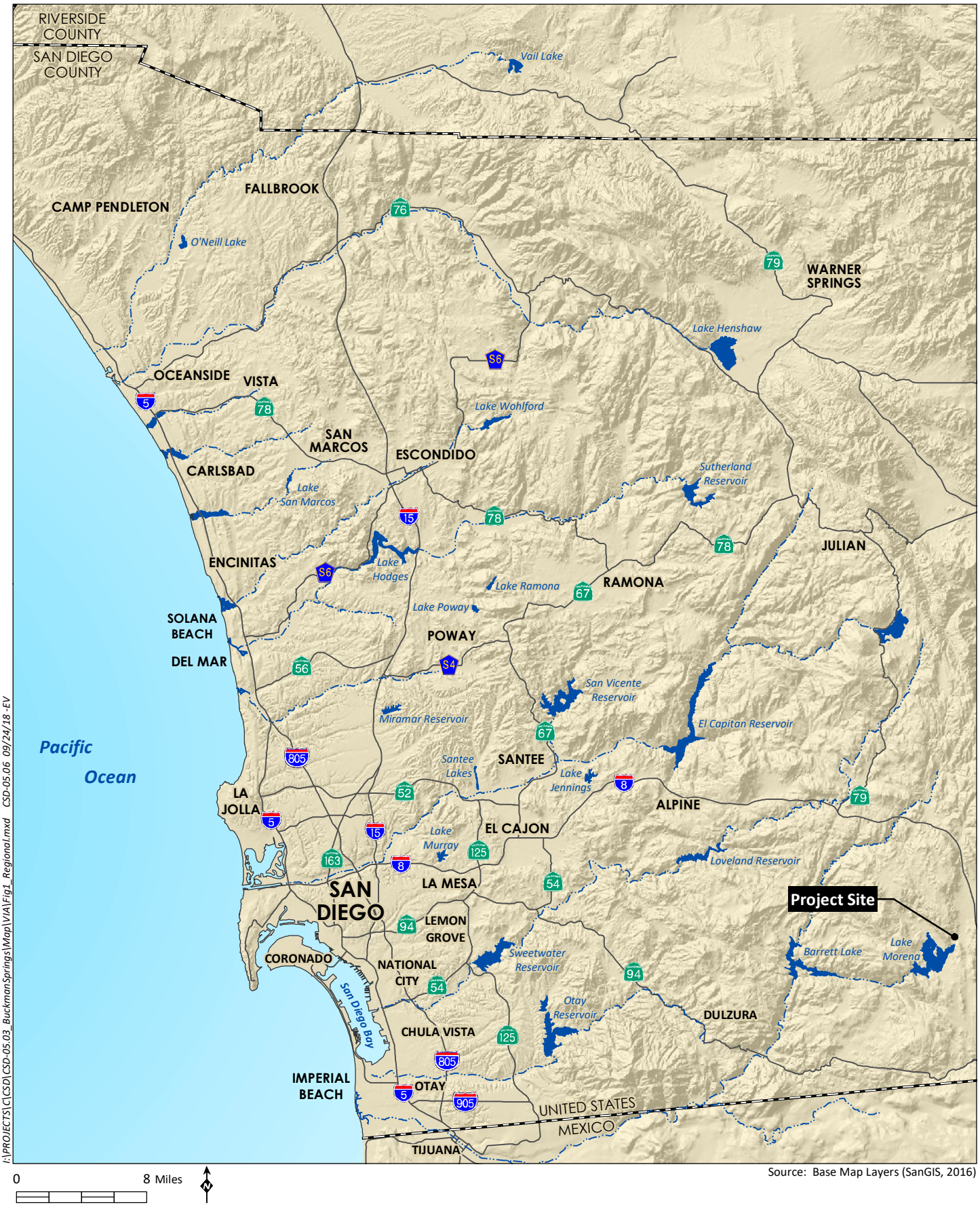
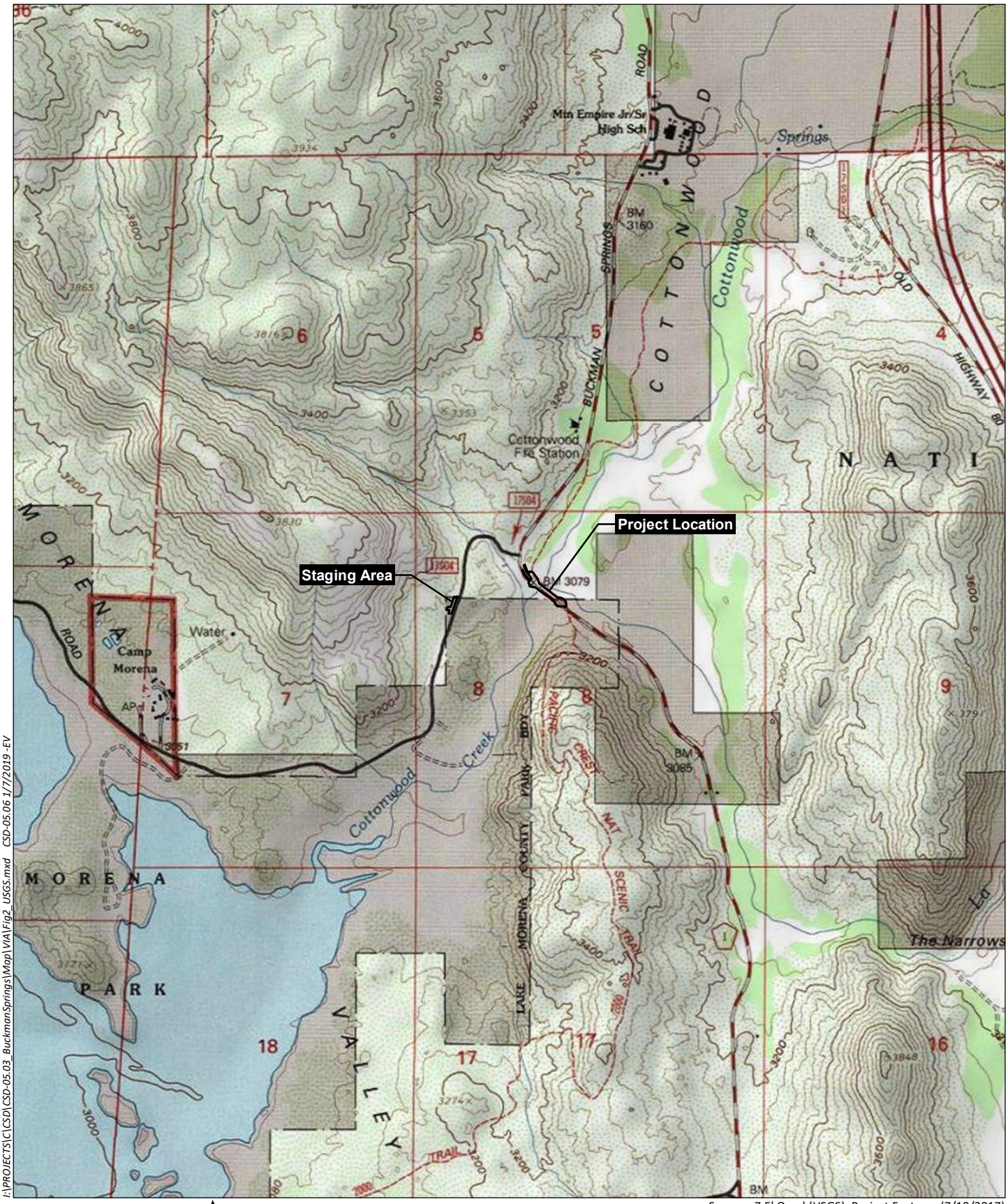


Figure 1: Regional Project Location



Source: 7.5' Quad (USGS); Project Features (7/10/2017)

Figure 2: USGS Topography

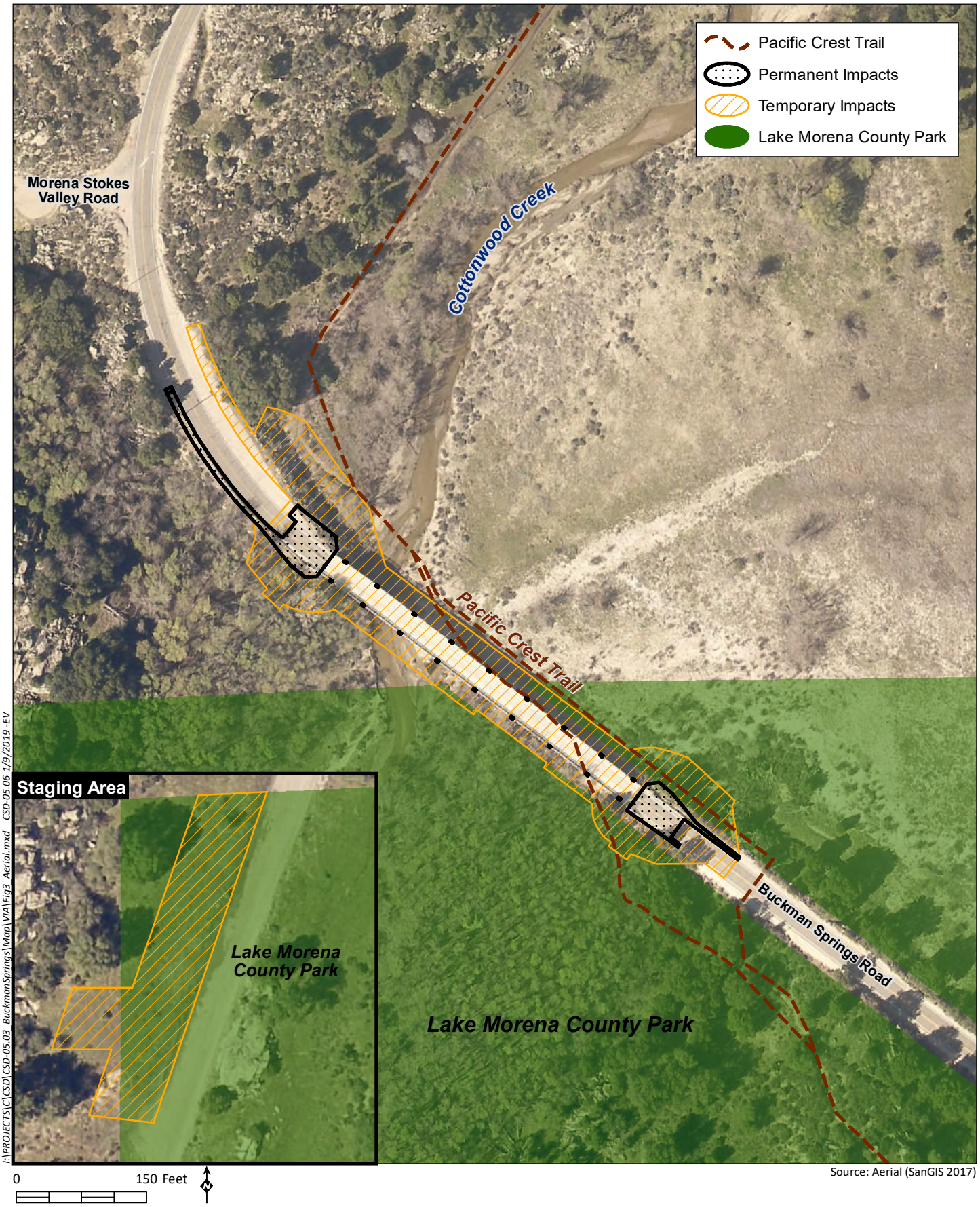


Figure 3: Project Location and Limits of Work

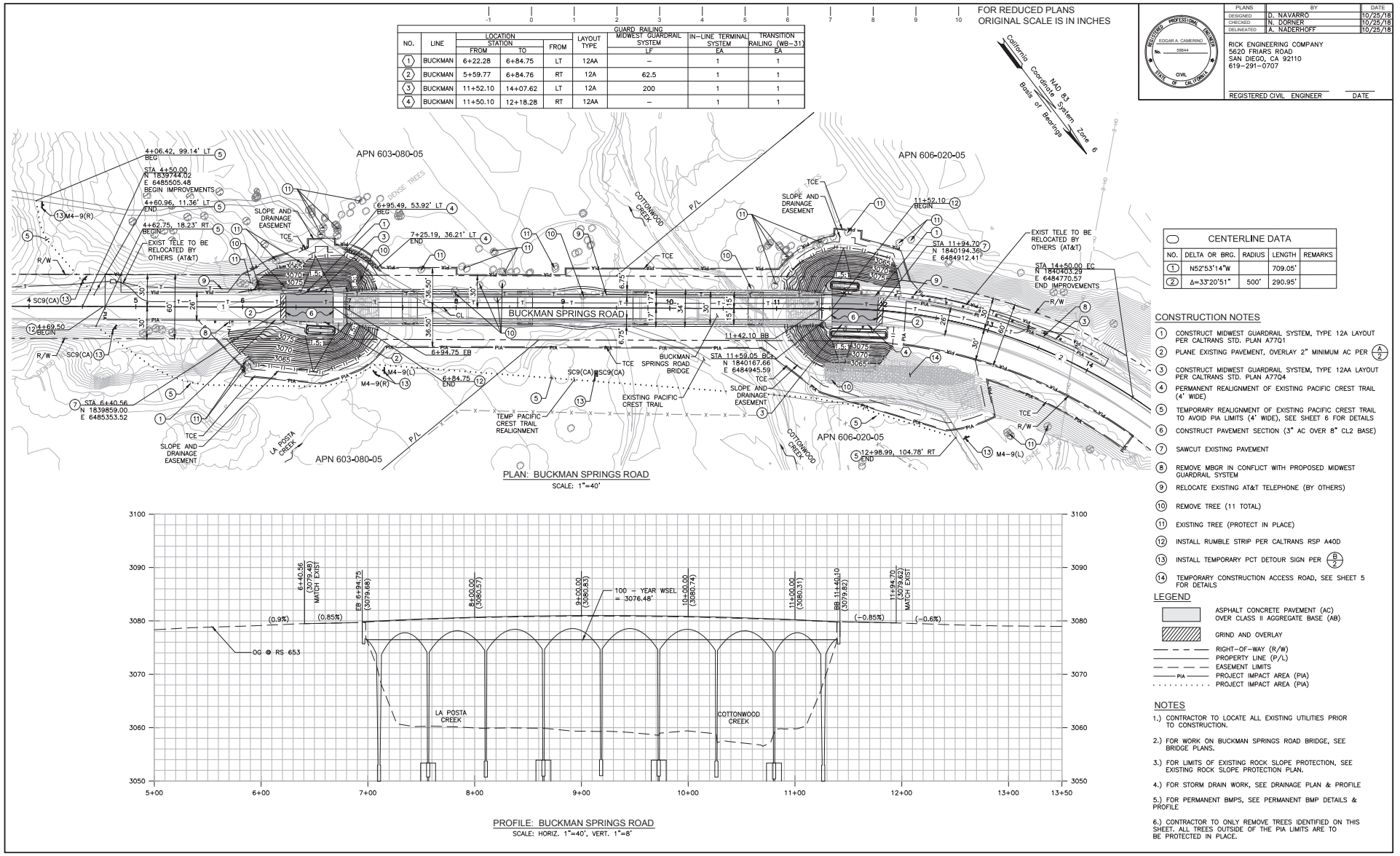


Figure 4: Site Plan

Purpose and Benefits

The purpose of the proposed project is to widen and rehabilitate Buckman Springs Road Bridge to meet the federal bridge safety requirements established by the American Association of State Highway Transportation Officials (AASHTO). Buckman Springs Road is a Rural Major Collector, and is the only north-south road from Interstate 8 (I-8) to State Route 94 (SR-94) in the area. In order to meet AASHTO standards, the existing two-lane bridge with a concrete deck must be widened, the deck rehabilitated, and the substandard and deteriorating timber rails upgraded.

PROJECT LOCATION AND SETTING

The project location and setting provide for the context for determining the type of changes to the existing visual environment. As shown in Figures 2 and 3, the proposed project is located on Buckman Springs Road, approximately 3.1 miles south of its intersection with I-8, where Cottonwood Creek crosses under the existing Buckman Springs Road Bridge in the village of Lake Morena, in the unincorporated community of Campo in the County of San Diego, California. It is situated in Section 8 of Township 17 South, Range 5 East on the Moreno Reservoir and Cameron Corners U.S. Geological Survey (USGS) 7.5-minute quadrangle maps. The project is located within Cleveland National Forest, owned by the U.S. Forest Service, and is located within the northern edge of the County-owned Lake Morena County Park.

Site Characteristics and Surrounding Uses

As described above, the existing Buckman Springs Road Bridge is a two-lane roadway crossing of Cottonwood Creek. The roadway traverses the creek in a general northwest to southeast direction. The concrete bridge is approximately 450 feet in length and is constructed with nine piers. The roadway along the bridge is 27 feet wide, and is flanked by wooden railings painted in white. The paint is worn and chipped on both sides of the roadway.

Buckman Springs Road is a north-south road, but curves to the east as the roadway approaches the bridge from the north. At the northern end of the bridge, an approximately 350-foot dirt pullout provides visibility along this curve. The project site is therefore visible from the northern approach along Buckman Springs Road for approximately 450 feet, near the intersection with Morena Stokes Valley Road. The southern approach toward the bridge is a straight path providing views of the project site from approximately 900 feet to the southeast. Figures 5 and 6 show the bridge and surrounding area from the northern and southern approaches, respectively.

As shown in Figures 7 and 8, the surrounding landscape is undeveloped and characterized by hilly terrain to the north, south, and west, and a flat plain within the valley to the northeast. The primary topographic features in the area are the surrounding hills, with distant mountains to the south and north beyond I-8. Cottonwood Creek is located in a small valley between hills to the north and south of the bridge. The creek intermittently flows under the bridge, and is a sandy, unvegetated channel during dry seasons. Figure 9 depicts the creek from north of the bridge, as well as the hill immediately south of the bridge. Vegetated areas surrounding the bridge contain riparian and herbaceous wetland vegetation, a variety of scrub vegetation communities (big sagebrush scrub, mulefat scrub, and tamarisk scrub), coast live oak woodland, southern arroyo willow riparian forest, southern mixed chaparral, and non-native grassland.

Figure 5: View of Bridge and Surroundings from North

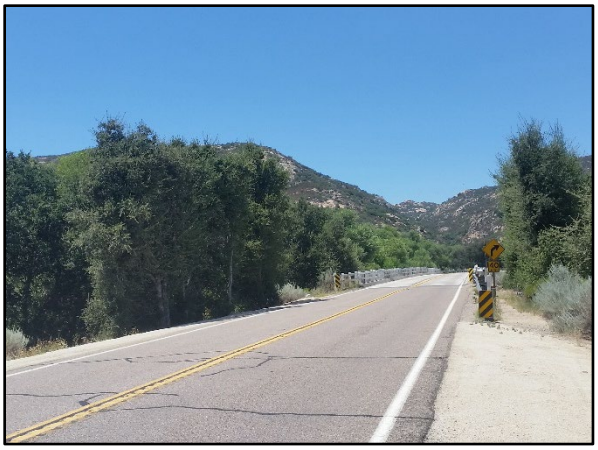


Figure 6: View of Bridge and Surroundings from South

Figure 7: View of Surroundings from PCT South of Bridge

Figure 8: View of Surroundings from Bridge

Figure 9: View of Bridge from North at Cottonwood Creek

The project corridor is defined as the area of land that is visible from, adjacent to, and outside the roadway right-of-way, and is determined by topography, vegetation, and viewing distance. As noted above, the primary land use within the project corridor is undeveloped, passive conservation land associated with the Cleveland National Forest and Lake Morena County Park (see Figure 3). The nearest inhabited structure to the project is the U.S. Forest Service's Cottonwood Fire Station, located 0.5 mile north of the project site. Mountain Empire High School is located 1.25 miles north of the site, and the unincorporated community of Morena Village is approximately 2.5 miles to the south. The surrounding terrain is largely devoid of manmade alterations. Morena Stokes Valley Road (also referred to as Corral Canyon Trail) is a dirt roadway that intersects with Buckman Springs Road approximately 500 feet north of the project. This roadway travels in a southerly direction away from the project toward the Corral Canyon Off-highway Vehicle (OHV) Area and Lake Morena. The PCT approaches the project site from the north and south, generally parallel to Cottonwood Creek. The PCT crosses Buckman Springs Road south of the bridge; paralleling the northeastern side of the bridge. Aside from the Buckman Springs Road and the PCT described above, the project site is not visible from nearby roadways, structures, or settlements.

The proposed staging area is an irregularly shaped parcel located within an undeveloped area adjacent to Morena Stokes Valley Road (see Figure 3). The staging area is relatively flat and vegetated with low-growing, non-native grassland. Figure 10 depicts the staging area, looking northeast. The staging area extends from Morena Stokes Valley Road on the right to the edge of the coast live oak tree on the left.

Figure 10: View of Staging Area

Existing Landforms

As described above, landforms in the area are comprised of hills and mountains. The bridge is at an average elevation of approximately 3,070 feet above mean sea level (AMSL). Land to the west rises quickly from the roadway, with an elevation gain of approximately 500 feet to a hilltop 0.5 mile to the west, as seen in the background of Figure 6. A hill approximately 400 feet above the project site is located 0.4 mile to the southeast, as seen in the background of Figure 9. The hillsides are heavily vegetated with large rock outcroppings. A large rock outcropping is located near the project site south of the intersection of Morena Stokes Valley Road and Buckman Springs Road. As seen in Figure 8, a large flat plain through which Cottonwood Creek flows is located directly north of the bridge. Cottonwood Creek flows through a narrower valley south of the bridge. The lowest elevations in the vicinity are associated with the creek bed. Prominent peaks in the Laguna Mountains are distantly visible to the north with elevations of nearly 5,000 feet AMSL.

Scenic Resources

Visual Landmarks

Landmarks are memorable visual elements that aid in navigation and orientation, define neighborhood boundaries, and help to define the visual setting of an area. Landmarks can be small-scale or large scale, pedestrian- or vehicular-oriented. Landmarks within the project area include the nearby hills and distant mountains that define the valley in which the project is located, as well as Cottonwood Creek that flows through the valley. Figures 7 and 8 depict the distant Laguna Mountains visible to the north as viewed from PCT on the hillside south of Buckman Springs Road and from the bridge itself, respectively. Figure 9 shows Cottonwood Creek northwest of the bridge. Cottonwood Creek starts in the Laguna Mountains, flowing perpendicular to Buckman Springs Road through the adjacent valley, under Buckman Springs Road Bridge, and eventually to Lake Morena southwest of the project. Within the vicinity of the project, the creek is a sandy, unvegetated channel during dry seasons.

The bridge itself represents a visual landmark that can be used as orientation by PCT trail users. The bridge is a visually interesting structure within an area that is primarily undeveloped and fairly uniform in setting. Views of the bridge are available from portions of PCT to the north, but are generally obscured by surrounding trees and vegetation when approaching the bridge from the south. Figure 11 shows the view from PCT at the point where it extends from a more densely vegetated area to the unvegetated Cottonwood Creek channel, north of the bridge. Where the trail extends directly adjacent to the northern side of the bridge, the bridge represents a strong visual element that is dominant over adjacent natural elements. Figure 12 shows the view from the north side of the bridge, where the concrete piers and overhangs are seen as dominant visual elements.

For motorists, the bridge structure would not necessarily represent a visual landmark; with the exception of the wooden guardrails and the change in coloration between the roadway asphalt and the concrete bridge deck surface, the bridge is visually consistent with the roadway. The bridge does, however, provide a break in the scenery along Buckman Springs Road and facilitates open views of the mountains and valley to the north that are unique to this portion of the roadway. This change in setting could represent a visual landmark to motorists.

Figure 11: View of Bridge from PCT North of Project

Figure 12: View of North side of Bridge

Scenic Highways

The California Scenic Highway Program is intended to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the state's scenic resources. A state scenic highway is any designated freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. A scenic designation is determined by the local jurisdiction after consideration and evaluation of how much of the natural landscape a passing motorist sees and the extent to which visual intrusions (e.g., buildings, unsightly land uses, noise barriers) impact the "scenic corridor." There are no officially designated state scenic highways in the project area. I-8 and State Route (SR) 94 are eligible for designation. I-8 is visible from the project site at a distance of 2.5 miles. SR-94 is over six miles southwest of the project and is not visible due to intervening terrain.

Scenic Vistas and View Corridors

There are no designated scenic vistas or view corridors within the project site or the immediate surrounding area. Views to the surrounding hillsides and distant mountains are provided from the bridge due to the lack of vegetative screening along the central portion of the bridge and change of terrain immediately surrounding the bridge right-of-way; the adjacent valley provides a corridor by which the hillsides and mountains can be seen. Visible peaks include those associated with the Laguna Mountains to the north, as well as hillsides to the west and southeast. Views of these scenic landforms are intermittently obscured from nearby stretches of Buckman Springs Road and PCT due to the heavy vegetation and terrain immediately surrounding the roadway and trail.

VISUAL RESOURCES AND RESOURCE CHANGE

Visual resources of the project setting are defined and identified below by assessing *visual character* and *visual quality* in the project corridor. *Resource change* is assessed by evaluating the visual character and the visual quality of the visual resources that comprise the project corridor before and after the construction of the proposed project.

Visual Character

Visual character is composed of pattern elements and pattern character. Pattern elements are the artistic attributes inherent in the elements that compose a landscape and include the primary visual attributes of objects such as form, line, color, and texture. The form of an object is its visual mass, bulk, or shape. Line is introduced by the edges of objects or parts of objects. The color of an object is both its visual or reflective brightness and its hue. Texture is apparent surface coarseness. Awareness of pattern elements varies with distance. Pattern character describes the dominance, scale, diversity, or continuity between the pattern elements. Dominance occurs when a specific feature is prominently positioned, contrasted, or extended to a point where the specific feature strongly influences the pattern character of a scene. Scale is the size relationship among landscape components in the visual environment. Diversity is the frequency, variety, and positioning of pattern elements. Continuity is the uninterrupted flow or transition among pattern elements.

The existing visual character of the project site is largely defined by the surrounding natural environment. With the exception of the roadway and bridge itself and the Cottonwood Fire Station located approximately 0.5 mile north of the bridge, the areas surrounding the project are undeveloped. The area is characterized by a mix of vegetation, from the open grassy areas of the adjacent valley, to

the densely vegetated oak groves along the roadway to the north and south, to the more scrub-like vegetation on nearby hillsides and mountains. The vegetation varies in color (brown/yellow and shades of green) and height (from grasses to large, mature trees), and provides textural diversity compared to the sandy creek channel. In some areas, vegetation is punctuated by rock outcroppings, which provide visual interest.

The linear alignment of the roadway and existing bridge provides the only variation in the natural setting. Buckman Springs Road is comprised of a linear paved roadway in a monochromatic gray color with a generally uniform paved surface. The bridge appears rural in character with white-painted wooden guard rails, light gray piers and archways, and a concrete deck. A variety of mature trees, including coast live oak and cottonwood, are present adjacent to the bridge and roadway, and help to integrate these developed features into the undeveloped visual landscape of the surrounding area.

The visual character of the proposed project would be compatible with the existing visual character of the corridor. The project proposes to widen and rehabilitate the existing bridge and would generally maintain the same design, form, and coloration of the existing bridge. The proposed project elements would not be dominant visual features or out of scale with existing visual elements. Grading is proposed at each end of the bridge, which would require removal of vegetation and mature trees. As noted above, a total of 11 trees would be removed, one on the north side of the bridge where the temporary construction access road is proposed and the remainder along the south side of the bridge (see Figure 4). Although this would reduce the vegetative cover that currently helps obscure and soften the developed features of the bridge, many of the existing mature trees located beyond the project impact footprint would remain, and the graded areas would be replanted with in-kind species. In general, the project would be visually compatible with elements in the existing viewscape such that it would not result in a new visual feature that would substantially contrast with the existing visual environment, and changes in visual character would be low.

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the visual environment. Vividness is the visual power or memorability of landscape components as they combine in distinctive, contrasting, and diverse visual patterns. Intactness is the visual integrity of the natural and man-built landscape and the extent to which the existing landscape is free from non-typical visual intrusions. Unity is the visual coherence and compositional harmony of the landscape considered as a whole.

The existing visual quality within the project corridor is moderately high to high. Existing visual patterns consist of generally scenic varying landscape ranging from the adjacent valley and creek areas (flat in appearance) north and south of the bridge, to the surrounding hills and distant mountains (larger scale) to the south and north beyond I-8, which in combination result in moderately high to high vividness. Intactness is considered moderately high to high. Although the bridge represents a developed feature within a primarily natural setting, the scale and form of the bridge generally exhibit a rural character that does not substantially detract from the intactness of the surrounding landforms. Unity within the project corridor is also moderately high to high, due to the predominance of natural landforms that comprise the project area.

The visual quality of the existing corridor would not be adversely altered by the proposed project. The widening of the bridge and associated improvements would not substantially diminish the vividness,

intactness, or unity of the project site or its setting. Although the bridge is an elevated structure, the proposed improvements would not increase the height of the bridge or result in a skylining effect or block open or distant horizon views of surrounding hillsides. Although some alterations to the existing landform and vegetation are proposed (e.g., grading and removal of existing trees and vegetation at the bridge approaches from Buckman Springs Road), the visual intactness of the area would not be substantially reduced because the project would be compatible with existing built environment elements. The bridge widening and rehabilitation activities would not introduce new distinctive or contrasting visual features and would be visually compatible with the existing landscape.

Resource Change

Resource change (changes to visual resources as measured by changes in visual character and visual quality) would be low due to the nature of proposed project elements (their compatibility with and similarity to the existing setting) resulting in minimal variation in visual character, and minimal change to the existing visual quality of the project corridor.

VIEWERS AND VIEWER RESPONSE

Viewers are people whose views of the landscape may be altered by the proposed project—either because the landscape itself has changed or their perception of the landscape has changed. There are two types of viewer groups for transportation projects: *neighbors* and *users*. Neighbors are people with views *to* the road, and users are people with views *from* the road. Each of these viewer groups has their own particular level of viewer response, which is comprised of *viewer exposure* and *viewer sensitivity*. These elements, which are described below, combine to form a method of predicting how viewers might react to visual changes brought about by a project.

Viewer Exposure

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. Location relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. Quantity refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. Duration refers to how long a viewer is able to keep an object in view. The longer an object can be kept in view, the more exposure. High viewer exposure helps predict that viewers will have a response to a visual change.

Exposure to the visual elements associated with project implementation would be limited to motorists using Buckman Springs Road and recreationalists (pedestrians and equestrians) on PCT in the vicinity of the project site. The number of users (motorists) would be moderate based on daily traffic volumes along the roadway. The segment of Buckman Springs Road within the project area carries approximately 4,300 automobiles per day (SANDAG Transportation Forecast Information Center 2018). Motorists traveling on Buckman Springs Road would have brief view durations of approximately 23 seconds in the northbound direction and 16 seconds in the southbound direction given the vehicle speeds (40 miles per hour [mph] posted at the bridge) and extent of the viewshed along the roadway (approximately 1,350 feet and 920 feet, respectively, from the point the bridge is first viewed through the length of the bridge).

The number of neighbors would be low, given the low number of recreationalists using the trail daily, as well as the lack of nearby residents or development. According to the Pacific Crest Trail Association, up to 50 hikers per day may use the PCT near the project (Pacific Crest Trail Association 2018). Trail users on PCT would have longer view durations given their lower speed of travel and ability to encompass static views. Figure 13 shows a distant view of the bridge from the PCT to the north, where the bridge can be seen in the center of the photo. Views from the PCT north of the bridge are dominated by the adjacent vegetation and landforms until the PCT opens up to the unvegetated Cottonwood Creek channel and passes alongside the bridge (see Figures 11 and 12).

Figure 13: Distant View from PCT North of Bridge

Competing natural visual elements, such as the adjacent hills and the valley through which the bridge spans, as well as the transitory nature of the viewers would generally render roadway user exposure to the project moderately low. Although the number of users is anticipated to be much higher than neighbors, viewer exposure of the bridge would be greater for neighbors given that view durations would be longer. The proposed project would not increase exposure to project elements by these viewer groups; the location, quantity, and duration of views would not change. Based on the foregoing considerations, overall viewer exposure of the project elements would be moderately low.

Viewer Sensitivity

Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' recognition of change in the visual resources that make up the view. This recognition has three attributes: activity, awareness, and local values. Activity relates to the preoccupation of viewers and whether they are preoccupied or truly engaged in observing their surroundings. The more they are observing their surroundings, the more sensitivity viewers will have to changes to visual resources. Awareness relates to the focus of view and whether the focus is wide and the view is general, or whether the focus is narrow and the view is specific. The more specific the awareness, the more sensitive a viewer is to change. Local values and attitudes also affect viewer sensitivity. If the viewer group values aesthetics, or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers will be more sensitive to visible changes. Conversely, local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals.

Viewer sensitivity within the project corridor in general is anticipated to be moderately high for users and high for neighbors given the difference in overall awareness and local values between users and neighbors. Motorists on smaller, rural roads generally have moderately high sensitivity as they are less preoccupied with transportation activity and can be more engaged in observing the scenic nature of their surroundings. Motorists in the project area would generally be sensitive to changes in the visual environment and views from the roadway. The PCT is known for its "wild character and remote location and iconic landscapes" (Pacific Crest Trail Association 2017). Given this characterization, viewers from PCT would be highly sensitive to changes in the visual environment, as they are highly engaged in observing their surroundings, more specifically aware of variations in the visual setting, and place high value on the aesthetics of the areas through which they traverse.

The project proposes to expand the existing built elements in the visual environment, and would also require grading and vegetation removal that would alter the visual transition from natural to built environment. Although the built elements would be visually consistent with the existing conditions, removal of native vegetation—including up to 11 large, mature trees consisting of coast live oak and cottonwood—would reduce the screening and visual diversity that helps blend the bridge into the natural setting. While the users' concerns for scenic quality in general would be moderately high given the natural setting, their recognition of change in the visual resources resulting from the project would be low. Visually, for users, the proposed project elements would be consistent with the existing setting, and would not impact/block views to adjacent topography and landscapes. The proposed modifications would occur at the roadway level and, from the user's perspective, would not be the focus of views along the corridor. Thus, while the change to the existing visual environment would be noticeable, it would not result in a substantial change to the viewer's visual experience along the roadway corridor. User sensitivity to implementation of the project is assessed as low.

For recreationalists using the PCT, although viewer concerns for scenic quality are considered high, viewer sensitivity to changes in the project corridor is assessed as moderately low, given the small component within the views that the project features would represent relative to the length of the trail. It is assumed that trail users would have a wider focus on the overall setting, rather than focus on specific changes to features of the visual environment. Views from the PCT are generally broad and expansive from north of the bridge, extending across the valley to the hillsides beyond, with the project corridor providing a comparatively small element within the view (see Figure 13). Once the trail approaches and then parallels the northeastern side of the bridge, the structure represents a dominant visual element (see Figure 12), but only for as long as the viewer is adjacent to the bridge. Following implementation and completion of construction, the temporary realignment of the PCT would be restored to its original alignment, with the exception of a 10-foot-long segment at the southeastern bridge footing that would be permanently realigned slightly south of its current alignment. The variation from the existing condition is expected to be moderately low. The project would be consistent with the existing bridge design, and would retain/replace natural elements to the extent feasible, including revegetating graded areas and retaining as many mature trees as possible and otherwise replacing removed trees at a 2:1 ratio, while completing the necessary improvements.

Based on viewer exposure and sensitivity, including the nature of competing visual elements, the generally short time-frame of views, and the consistency with the existing setting, it is anticipated that the average response would be moderately low.

VISUAL IMPACT

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. Visual resource change is the combination of the change in visual character and change in visual quality. As previously discussed under Visual Resources and Resources Change, visual resource change will be low due to the compatibility of proposed project elements with the existing visual character, and the minimal change to the existing visual quality of the project corridor. The viewer response to project changes is the combination of viewer exposure and viewer sensitivity. As previously discussed above under Viewers and Viewer Response, it is anticipated that the viewer response to project changes would be moderately low.

The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to be affected by the change and include the following visual impact levels:

- **None** – Negligible change to the existing visual resource.
- **Low** – Minor adverse change to the existing visual resource with low viewer response to change in the visual environment.
- **Moderately Low** – Minor adverse change to the visual resource with a moderate viewer response, or moderate adverse change with a low viewer response.
- **Moderate** – Moderate adverse change to the visual resource with moderate viewer response.
- **Moderately High** – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response.
- **High** – A high level of adverse change to the resource or a high level of viewer response to visual change.

Potential visual impacts resulting from the project are associated with bridge rehabilitation and widening activities within federal, state, and County right-of-way, as well as temporary construction activities. These categories of potential visual impact are addressed below along with aesthetics issues contained in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

Project Modifications

The proposed modifications (including bridge foundation retrofitting, bridge pier extension, new timber rails and overhangs, re-striping, relocation of signage, grading, installation of storm drain infrastructure, salvage and replacement of riprap, and removal of trees and shrubs followed by replacement with trees and shrubs) are common transportation infrastructure elements that are visually compatible with, and already occur within, the regional project corridor. They would not introduce new visual elements, constitute dominant visual features, or be out of scale with existing visual elements. As discussed further below, the proposed grading would not substantially alter existing landforms or degrade the unity or intactness of the existing visual environment. Although grading and widening of the bridge would require removal of existing trees immediately adjacent to the bridge, the retention of other adjacent trees and replacement of trees and vegetation within graded areas would lessen the visual effects of the

proposed tree removal. At least 14 cottonwood trees would be planted to replace the seven cottonwood trees to be removed by the project and at least eight coast live oak trees would be planted to replace the four coast live oak trees to be removed by the project, a 2:1 ratio. Therefore, the project would be compatible with the existing visual character of the corridor and would not substantially alter or degrade the visual quality of the project corridor. The overall resource change would be low.

The anticipated viewer response is moderately low due to moderate viewer exposure and sensitivity relative to the extent of changes, and the fact that project features would be noticeable by all viewer groups because they would represent alterations in the visual environment.

Based on the low degree of resource change and anticipated moderate to moderately low viewer response, the resulting visual impact level assessed for the bridge widening and retrofitting would be moderately low.

Temporary Construction Activities

The proposed project would result in temporary visual impacts during construction, which is anticipated to occur over a 12-month period. Visible indications of construction could contrast with existing conditions given the extent of required construction activities, and may include exposed soil, tarps, scaffolding, signs, construction fencing, trucks and equipment, and construction materials. The construction staging area would be visible from Morena Stokes Valley Road.

The visual construction elements and staging area would contrast with the existing natural setting of the project corridor. The elements would generally be small in scale and consistent with the scale of the bridge itself, but would reduce the visual quality of the area creating low vividness, intactness, and unity, since no other construction is currently occurring or proposed in the area. Associated changes to the visual environment caused by construction would be temporary in nature. Most construction-related visual disruptions (i.e., construction materials, equipment, and staging) would be removed upon completion of construction in the area.

Although construction activities would contrast with the existing visual environment, due to their temporary nature and limited extent, viewer response to the project construction activities is anticipated to be moderately low.

Based on the low degree of resource change and anticipated moderately low viewer response, the resulting visual impact level assessed for temporary construction activities would be moderately low. This would be a focused and short-term effect that would be removed upon completion of construction.

Scenic Vistas

As discussed throughout this VIA, views to the surrounding hillsides, distant mountains, and adjacent valley are provided from the bridge and roadway and the PCT. The proposed project elements would not block or substantially interfere with these vistas. Project elements would be below the view line for motorists and would not introduce large structures or dominant visual elements into the visual environment of these users. Although the project proposes improvements and expansion of elements already within the existing visual landscape that would be visible from PCT trail viewers, the project would not substantially affect scenic views. Therefore, no adverse effects on a scenic vista would occur and the resulting visual impact level assessed for scenic vistas would be low.

Scenic Resources along a State-designated Scenic Highway

There are no officially designated state scenic highways in the project area. Therefore, the project would not substantially damage scenic resources within a state scenic highway and the resulting visual impact level assessed for scenic resources along a state scenic highway would be none.

Degradation of Visual Character or Quality

As discussed previously, the change to visual character and quality resulting from the proposed project would be low. The visual character of the proposed project would be compatible with the existing visual character of the corridor. Visual pattern elements (i.e., form, line, color, texture) and character (e.g., dominance and scale) of the proposed project elements would be similar and consistent with those that make up the existing visual environment. The design, form, and coloration of the project would be visually compatible with the existing bridge such that it would not result in a new visual feature that would substantially contrast with the existing visual environment. The project would not introduce new dominant visual features or be out of scale with the visual elements of the existing bridge. Although the grading and associated tree removal necessary to rehabilitate and widen the bridge would lessen the vegetative cover that currently helps reduce the visual prominence of the bridge, the graded areas would be replanted and the visual effects would be temporary. The retention of other adjacent trees, combined with the replacement of removed trees in kind at a 2:1 ratio and replacement of other vegetation with shrubs providing color, texture, and height variation, would continue to provide visual relief from the built environment. In general, the project would be visually compatible with elements in the existing viewscape such that it would not result in a new visual feature that would substantially contrast with the existing visual environment, and changes in visual character would be low.

Similarly, the visual quality of the existing corridor would not be substantially altered by the proposed project. The widening of the bridge and associated improvements would not substantially change the overall vividness, intactness, or unity of the project site or surrounding setting. The proposed improvements described and their pattern elements are visually compatible with, and already present within, the existing landscape. Although alterations to the existing landform and vegetation are proposed (e.g., grading and removal of existing trees and vegetation at the bridge approaches from Buckman Springs Road), the project would be compatible with existing built environment elements and the visual intactness of the area would not be substantially reduced. The bridge widening and rehabilitation activities would not introduce new distinctive or contrasting visual features and would be visually compatible with the existing landscape.

Based on these considerations, the proposed project would not degrade the existing visual character or quality of the project corridor and resulting visual impact level assessed for the project related to degradation of visual character or quality would be low.

Light and Glare

The project corridor is located in a rural setting with no existing lighting sources in the immediate vicinity. The project would not create a new source of light or glare, as no lighting is proposed. Construction activities would be limited to daytime hours, and no night lighting is proposed. Project elements would not include highly reflective surfaces or materials that would create adverse glare effects on surrounding roadways or uses. Therefore, long-term impacts to day or nighttime views would

not be adverse and the resulting visual impact level assessed for the project related to light and glare would be low.

AVOIDANCE AND MINIMIZATION MEASURES

No avoidance and minimization measures are required based on the moderately low visual impact conclusions assessed for the project. The design of proposed project elements would be similar to existing roadway/transportation infrastructure visual elements such that they would be visually compatible with the existing visual environment. In order to stabilize graded areas and offset the visual effects of the proposed tree removal, graded areas would be revegetated with native species. Existing trees and shrubs would be retained to the extent feasible.

CONCLUSIONS

The proposed project would rehabilitate and widen an existing bridge. The proposed project elements would not substantially change the existing visual environment of the project corridor. The visual character of the proposed project would be compatible with the existing visual character of the corridor, and the visual quality of the existing corridor would not be substantially altered by the proposed project. Viewer exposure to the project elements would be moderately low and the viewer sensitivity to changes is expected to be moderately low. Based on the low degree of resource change and the anticipated moderately low viewer response to these changes, impacts of the project are assessed as moderately low and no avoidance and minimization measures beyond project design are identified.

REFERENCES

Federal Highway Administration (FHWA)
1981 Visual Impact Assessment for Highway Projects. March.

HELIX Environmental Planning, Inc.
2019 Buckman Springs Road Bridge Widening Project Biological Assessment. January.

Pacific Crest Trail Association
2018 PCT Visitor Use Statistics. Accessed December 10. Available at: https://www.pcta.org/our-work/trail-and-land-management/pct-visitor-use-statistics/.

San Diego Association of Governments (SANDAG)
2018 SANDAG Transportation Forecast Information Center. Accessed December 10. Available at: http://www.sandag.org/index.asp?subclassid=78&fuseaction=home.subclasshome