COUNTY OF SANTA BARBARA

Department of Public Works, Transportation

Proposed Final Mitigated Negative Declaration

Foothill Road Low Water Crossing Replacement (New Bridge 51C-0381)

16NGD-00000-00008

SCH No. 2016101006

November 14, 2016

PROJECT PROPONENT:

Santa Barbara County Public Works Department
123 E. Anapamu Street
Santa Barbara, California 93101
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1.0 INTRODUCTION

1.1 PURPOSE AND LEGAL AUTHORITY

The California Environmental Quality Act (CEQA) requires that local, regional, and state agencies and special purpose districts prepare an Initial Study to identify potential environmental impacts associated with discretionary actions. An Initial Study is generally used to determine if significant impacts would occur, and to determine the need for preparation of either a Negative Declaration or further analysis in an EIR. The Santa Barbara County Public Works Department has prepared this Initial Study for the proposed replacement of an at-grade crossing of Foothill Road at the Cuyama River with a bridge to comply with the provisions of CEQA.

1.2 PROJECT PROPONENT

Santa Barbara County Public Works Department
123 E. Anapamu Street
Santa Barbara, California 93101

Contact: Mr. Morgan Jones - 805/568-3059

1.3 PROJECT BACKGROUND

Foothill Road is an east-west oriented two lane rural roadway that begins at its junction with State Route (SR) 33 (three miles south of the SR 33/SR 166 intersection), and extends approximately 8.6 miles west to its terminus at Bell Road. Foothill Road crosses the Cuyama River at grade, and pavement is not maintained within the low flow channel. The crossing is equipped with gates and signage that can be used to close the roadway crossing during periods of high surface flow.

1.4 PROJECT LOCATION

The subject Foothill Road Cuyama River crossing is located approximately 1.5 miles west of SR 33, and 8.7 miles east-southeast of the community of New Cuyama (see Figure 1). The portion of Foothill Road east of the Cuyama River follows the boundary between Santa Barbara County and San Luis Obispo County.

1.5 PROJECT PURPOSE AND OBJECTIVES

SR 166 is an important travel corridor that connects coastal areas (Santa Maria/Nipomo) to the San Joaquin Valley (Maricopa). The SR 166 Bridge, approximately 4.3 miles downstream of Foothill Road, is one of two Cuyama River crossings in the area. Foothill Road also crosses the Cuyama River, but is impassable for substantial periods following major storm events, leaving the SR 166 Bridge as the only river crossing during these periods. In the event that the SR 166 Bridge becomes impassable, the travelling public may be required to use SR 58 as an alternate east-west connection, which would involve up to 100 additional miles (Ventucopa to Santa Maria via SR 58). Under these circumstances, the proposed bridge would provide a vital alternative River crossing, providing the shortest east-west route between coastal and valley areas.

The proposed bridge would allow for safe crossing of the Cuyama River under all weather conditions by residents and commercial traffic, and improve emergency access during rainy periods when the current crossing is impassable.

The project objectives are to improve all-weather traffic circulation through the eastern Cuyama Valley, and Improve safety for the travelling public and emergency access along Foothill Road.

Site Information Table

Comprehensive Plan Designation	Comprehensive Plan designation A-II, AC; First Supervisorial District	
Zoning District, Ordinance	Santa Barbara County Land Use and Development Code; zoned AG-II-100, U	
Site Size	Approximately 33 acres, including the new bridge footprint, bank protection, connector roads, construction access and staging, stream diversion (if needed)	
Present Use & Development	Orchards, row crops, flood control channel	
Surrounding Uses/Zoning	North: orchards, river channel, San Luis Obispo County; zoned U South: orchards, river channel; zoned AG-II-100 East: row crops; zoned U West: orchards; zoned AG-II-100	
Access	Foothill Road	
Public Services	Water Supply	*N/A*
	Sewage:	*N/A*
	Fire:	Santa Barbara County Fire Department (New Cuyama)
	Police:	Santa Barbara County Sheriff

1.6 PROJECT APPROVALS AND PERMITS

Project implementation may require the County to obtain permits and/or other forms of approval from Federal and State agencies. These agencies may include, but are not limited to, the following:

1.6.1 Federal Agencies

The project would be funded by the Federal Highway Administration, administered through Caltrans.

- U.S. Army Corps of Engineers - Clean Water Act Section 404 permit (work within the Cuyama River); and
- U.S. Fish and Wildlife Service - Section 7 Consultation under the Endangered Species Act (potential impacts to listed species).

1.6.2 State Agencies

The California Fish and Game Code identifies "fully protected" fish, amphibian, reptile, bird and mammal species that cannot be taken or possessed at any time. Although some of these species are listed as endangered or threatened under Section 2070 of the California Fish and Game Code, incidental take of fully protected species cannot be authorized under Section 2081 of the California Fish and Game Code (California Endangered Species Act). The fully protected and endangered blunt-nosed leopard lizard was observed within the project impact area in 2012. The proposed project would incorporate mitigation measures (see Section 4.4) to avoid take and offset temporary disturbance and habitat loss associated with project construction activities. Therefore, the project is not anticipated to require a California incidental take permit or a consistency determination for a Federal incidental take permit. However, other State approvals may be required, including:

- California Regional Water Quality Control Board, Central Coast Region (Clean Water Act Section 401 Water Quality Certification);
- California Regional Water Quality Control Board, Central Coast Region (General Permit for Discharges of Storm Water Associated with Construction and Land Disturbance Activities); and
- California Department of Fish & Wildlife (Fish and Game Code Section 1602, Streambed Alteration Agreement).

1.6.3 Local Agencies

- Santa Barbara County Public Works, Transportation – roadway encroachment permit.

1.7 PUBLIC COMMENTS

In compliance with Section 15073 of the State Guidelines for the Implementation of the California Environmental Quality Act, the Santa Barbara County Public Works Department accepted written comments on the adequacy of the information contained in the Draft MND during the public review period ending November 4, 2016.

A comment letter was received from the Santa Barbara County Air Pollution Control District during the public comment period. In addition, an e-mail was received from Gayle Totton of the Native American Heritage Commission indicating that the MND should include mitigation measures to address inadvertent finds of cultural resources including human remains.

The Santa Barbara Pistachio Company telephoned the project manager (Mr. Morgan Jones) and expressed concerns about project-related removal of pistachio trees and the potential for project construction to interfere with pistachio harvesting.

Section 15074(b) of the State Guidelines for the Implementation of the California Environmental Quality Act, requires the decision-making body to consider comments received on the MND when approving the project. Copies of the comment letters and full responses are provided as Appendix A. Changes to the Draft MND are provided in underline and strike-out mode.

2.0 PROJECT DESCRIPTION

The Santa Barbara County Public Works Department proposes to replace the Foothill Road low water crossing with an all-weather structure. A Bridge Type Selection Report was prepared which analyzed three alternative structures and provided a recommended structure, with which Caltrans concurred. This preferred alternative consists of a multi-span cast-in-place post-tensioned concrete slab bridge with seat abutments founded on pile footings. The proposed Foothill Road County bridge 51C-0381 adheres to the Caltrans Highway Design Manual guidelines, requiring that the new bridge passes the 2 percent probability flood (50-year) with at least 2.0 feet of freeboard; and also pass the 1 percent probability flood (100-year) without freeboard. The project would also include approach roadways and drainage improvements. Existing maintenance access roads along the river banks would be reconstructed to tie into the revised Foothill Road profile.

2.1 EXISTING LOW WATER CROSSING

The existing Foothill Road at-grade low water crossing of the Cuyama River is approximately 3,700 feet long, including the approach roadways and gates used to close the road during flood events. The actual bank-to-bank crossing distance across the Cuyama River is approximately 1,600 feet, with a maximum roadbed width of 35 feet. Due to periodic flood-related erosion and associated earthwork needed to restore the roadbed following storm flows, the crossing is not paved, excluding about 300 feet on the west side. Following completion of bridge construction, the pavement would be removed, the riverbed would be contoured to approximate natural conditions and the crossing abandoned.

2.2 RIGHT-OF-WAY ACQUISITION

The project includes the acquisition of a 60 foot-wide right-of-way along Foothill Road on APNs 149-170-006 and 149-170-042.

2.3 BRIDGE STRUCTURE

The proposed project consists of the construction of a new bridge to replace the at-grade low water crossing of the Cuyama River at Foothill Road (see Figure 2). The total bridge length would be approximately 1,430 feet and supported on either end by abutments founded on five 30 inch-diameter cast-in-drilled-hole piles. The bridge deck would be supported by 32 sets of five 30 inch-diameter cast-in-drilled-hole piles with extension columns, which would produce 31 spans of 44 feet each. The bridge deck would be a cast-in-place reinforced concrete slab, approximately 39 feet, 10 inches in width. The bridge deck would provide two 12 foot-wide traffic lanes, a four foot-wide shoulder on each lane and a 5 foot-wide pedestrian walkway. Concrete barriers would be provided on each side of the two traffic lanes, which would provide safety separation between the traffic lanes and pedestrian walkway. The edge of the bridge deck along the pedestrian walkway would be provided with a metal picket hand railing. The top of the bridge deck would be a maximum of 20 feet above the river bed.

2.4 ROADWAY APPROACHES

The project includes improvements (widening and paving) to the roadway approaches to the proposed bridge, including 400 feet to the east and west of the bridge structure. Existing connections from Foothill Road to unimproved access roads along the riverbank would be reconstructed to accommodate the proposed bridge and rock slope protection.

2.5 ROCK SLOPE PROTECTION

Due to the meandering nature of the Cuyama River, the bridge approaches, bridge and abutments would be protected from scour by a layer of buried rock slope protection (RSP) to control potential lateral channel movement (see Figure 3). Due to the wide channel and roadway skew (river crossing is not at right angles, see Figure 2), the post-construction water surface elevation would not be uniform along the length of the bridge, and the projected water surface elevation is lower than existing in some areas and minimally higher in other areas. Therefore, it's necessary to modify the width of the channel on the eastern side to decrease scour and install RSP to help channelize flow to ensure storm flows generated by a 100-year event are fully contained by the channel.

At the western abutment, approximately 330 linear feet of RSP would be placed immediately north of and parallel to Foothill Road west of the river bank, and curve to the right along the river bank. At the eastern abutment, approximately 365 linear feet of RSP would be placed at about a 30 degree angle to the proposed bridge, parallel with river flow, both north and south of Foothill Road. A small triangular area (about 0.7 acres, see Figure 3) of river bank/floodplain would be removed just west of the proposed RSP to widen the riverbed and improve storm flow. Existing failed bank protection (rock and remnant pipe-and-wire revetment) on the east bank would be removed from this triangular area.

The RSP would be composed of one-half ton rock with backing rock, placed on a 2:1 (horizontal:vertical) manufactured fill slope. The bottom of the RSP would be placed 5 feet below the riverbed elevation, with the top of the RSP located one-half foot above the projected water surface elevation of a 100-year storm event. The top and face (river-side) of the RSP would be covered with two feet of fill, with backfill behind (landward) of the RSP.

2.6 HABITAT RESTORATION

The soil-covered RSP, the abandoned at-grade crossing and other areas of temporary disturbance would be planted with native vegetation to offset short-term habitat loss. Habitat restoration measures may include collecting existing vegetation and/or seeds for off-site propagation, installing a compost blanket with a site-specific native seed mix and planting of plant species native to the area. Additional habitat improvements would include the removal of invasive and non-native plant species. Herbicides may be used to ensure the removal of non-native plant species when absolutely necessary.

2.7 DRAINAGE IMPROVEMENTS

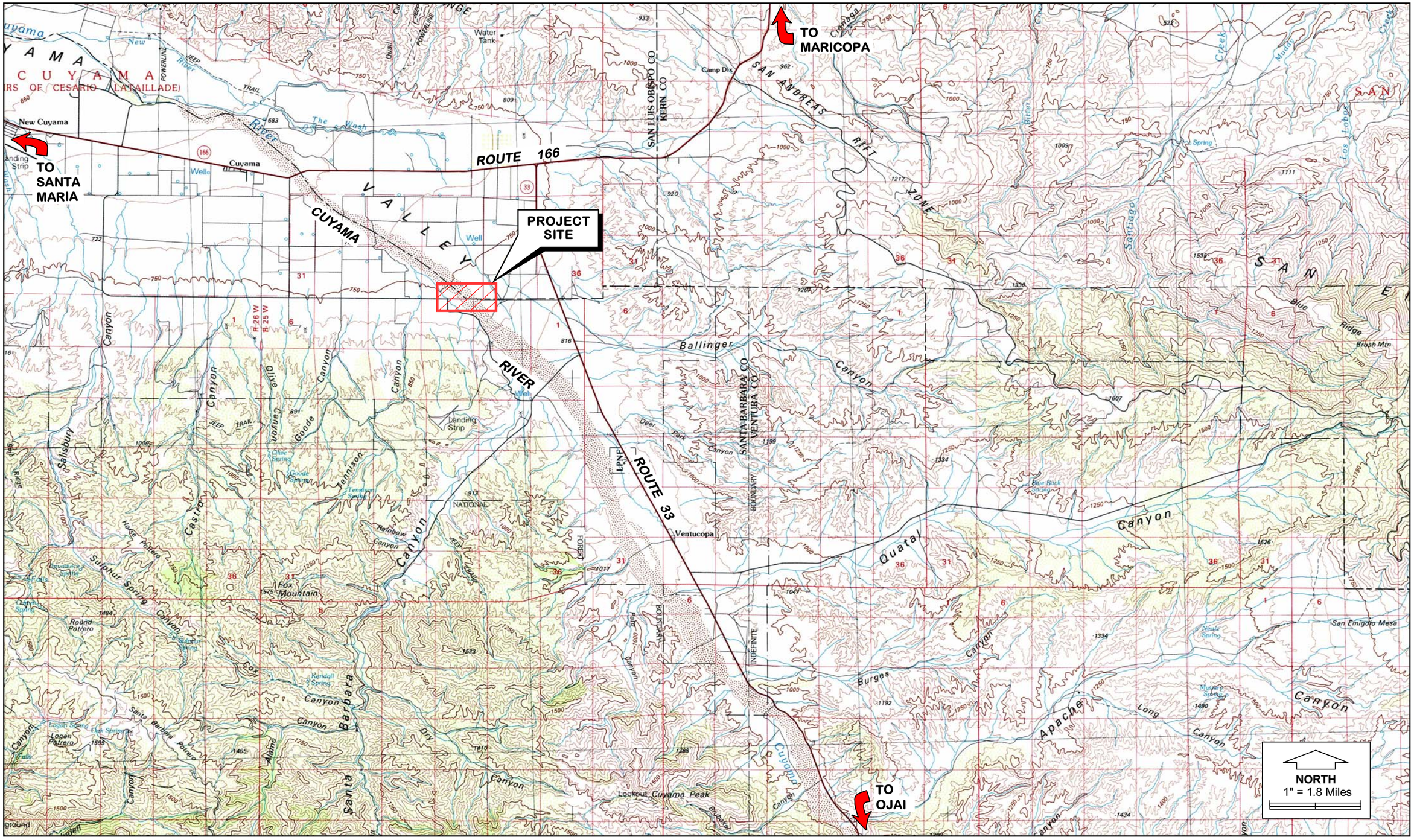
Two depressional areas bounded by the proposed access road improvements, Foothill Road and the soil-covered RSP would act as retention basins which would allow for natural percolation of the deck drainage from the bridge. Deck drains are proposed along both sides of the structure and along the pedestrian path to prohibit water from running off the proposed bridge into the river below. The deck drains would connect to pipes running within the bridge and then connect to drainage systems at each corner of the bridge. These drainage systems would discharge to the retention basins described above.

2.8 CONSTRUCTION

It is anticipated that project construction would require about 12 months to complete. Work in the riverbed would be conducted during the dry season (April through October) to avoid the need to divert storm flows away from the construction area. However, summer thunder storms may occur in the project area, and a berm may be constructed in the riverbed to divert any summer storm flows. The existing at-grade Foothill Road crossing would be closed for most of the construction period, and signage would be provided to direct traffic to use the SR 166 crossing, either via SR 33 or Kirschenmann Road.

Staging of construction equipment and materials would utilize the County right-of-way along Foothill Road and a 7.4 acre area east of the river crossing (see Figure 4) on APN 149-170-005. Heavy equipment used to construct the bridge and associated improvements may include a bore-hole drill rig (piles), excavators, dozers, wheeled loaders, cranes, motor graders, concrete pumps, paving machines and pavement rollers.

July 2015
Project No. 1102-2051

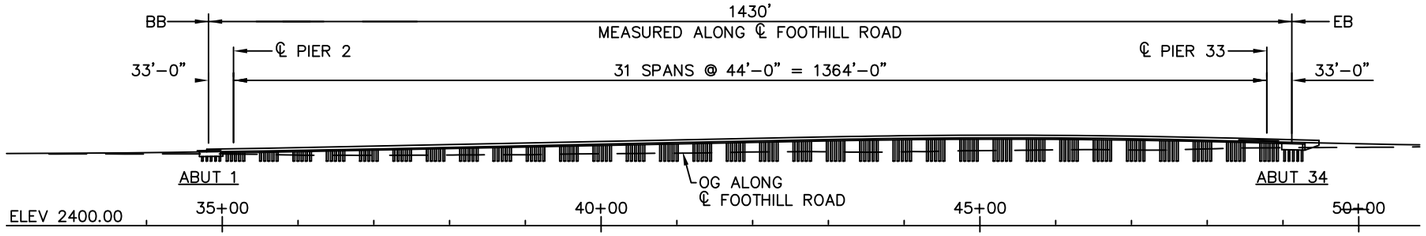


padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

Foothill Road LWC Replacement Project

SITE LOCATION MAP
FIGURE 1

BACK OF COLOR FIGURE



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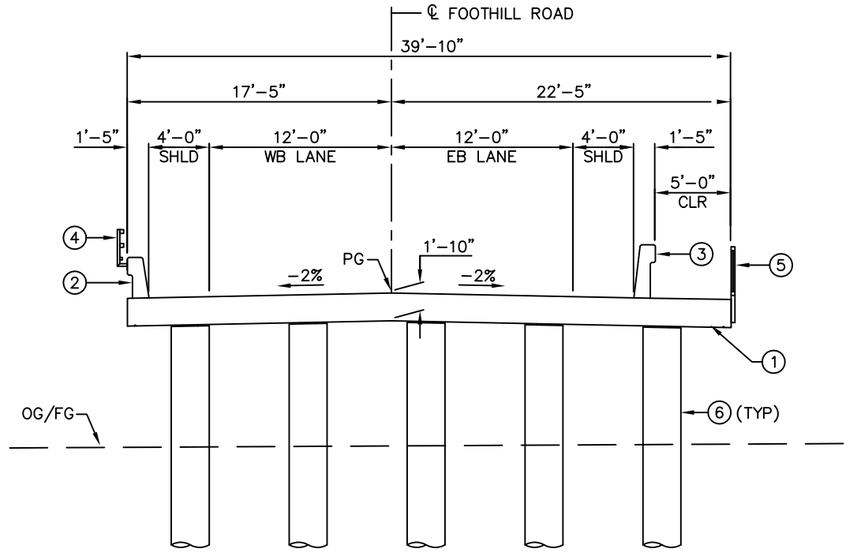

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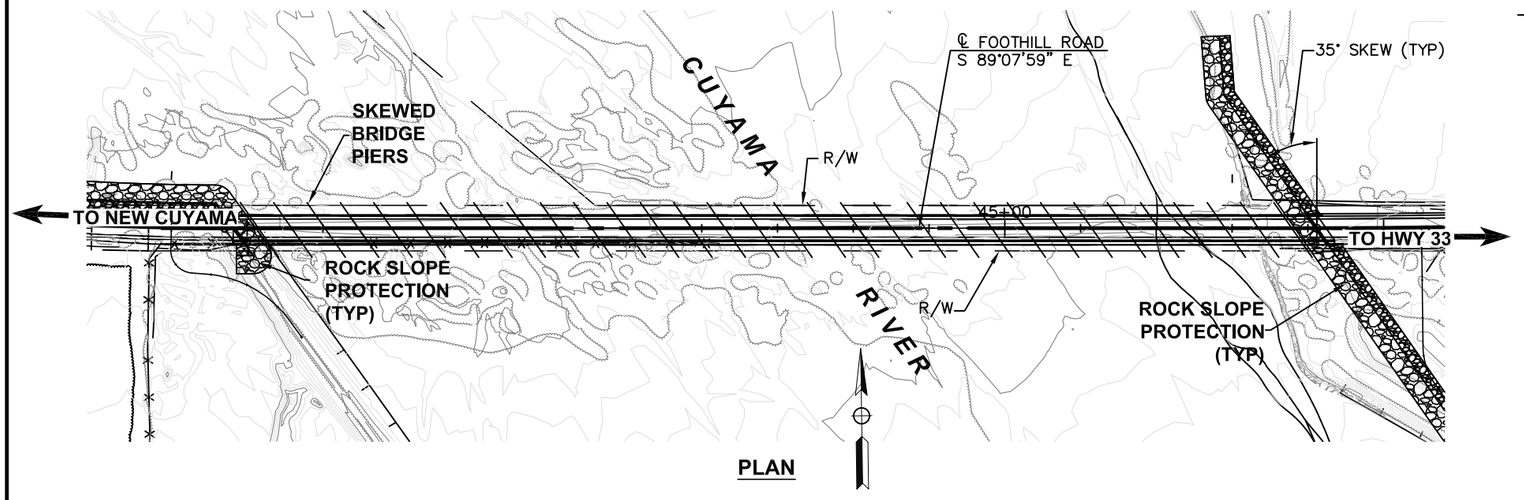


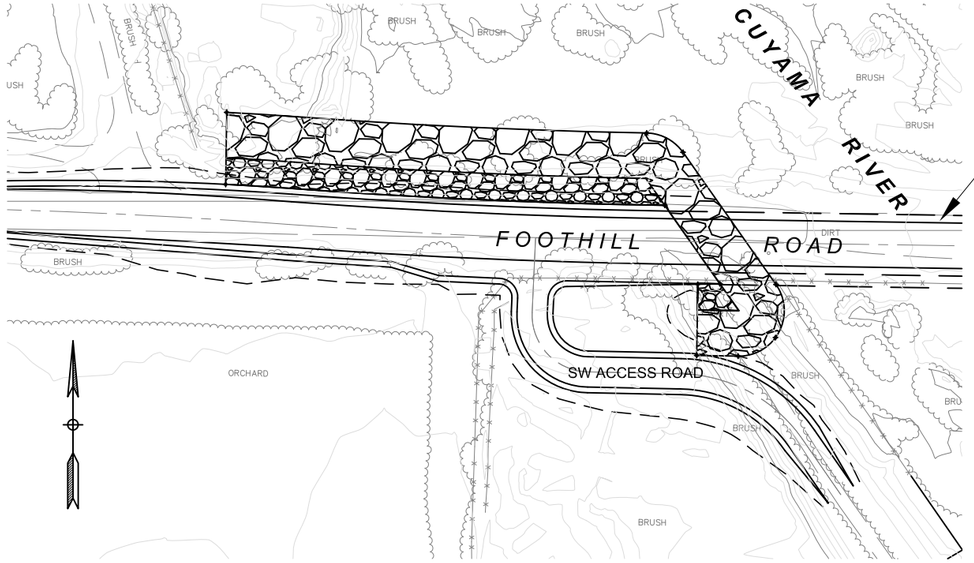
PLAN

LEGEND:

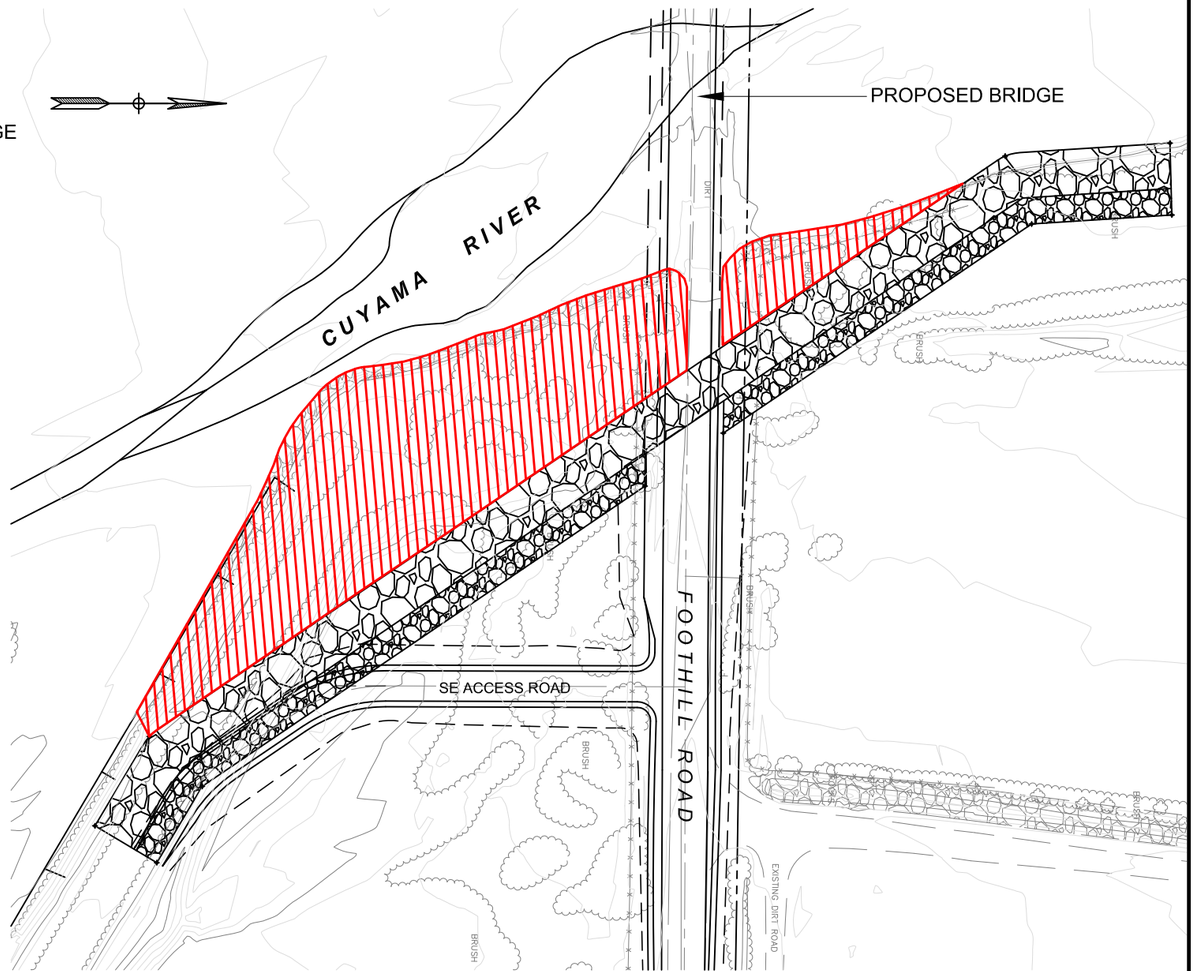
1. CAST-IN-PLACE REINFORCED CONCRETE SLAB
2. CONCRETE BARRIER (TYPE 732 MODIFIED)
3. CONCRETE BARRIER (TYPE 742 MODIFIED)
4. TUBULAR BICYCLE RAILING
5. METAL PICKET HAND RAILING
6. 30" DIA PILE EXTENSION COLUMNS

BACK OF COLOR FIGURE

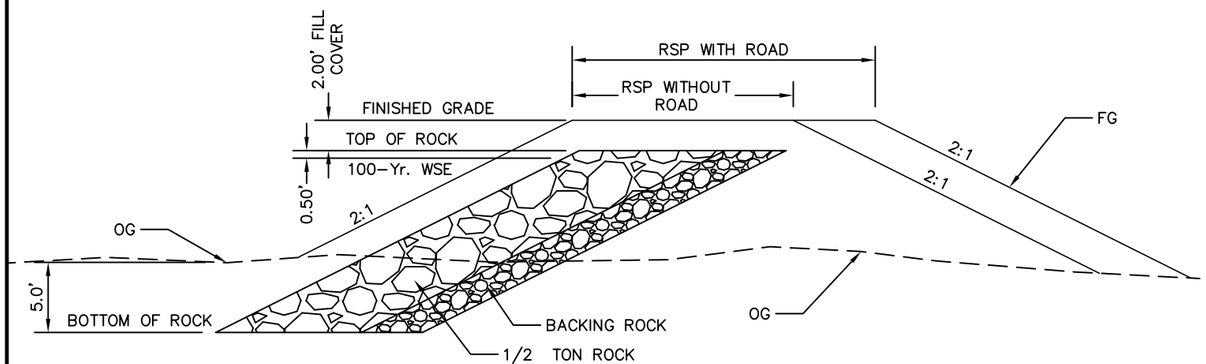
May 2015
Project No. 1102-2051



WEST ABUTMENT ROCK SLOPE PROTECTION PLAN



EAST ABUTMENT ROCK SLOPE PROTECTION PLAN



TYPICAL SECTION - ROCK SLOPE PROTECTION

LEGEND

RIVER BANK TO BE REMOVED

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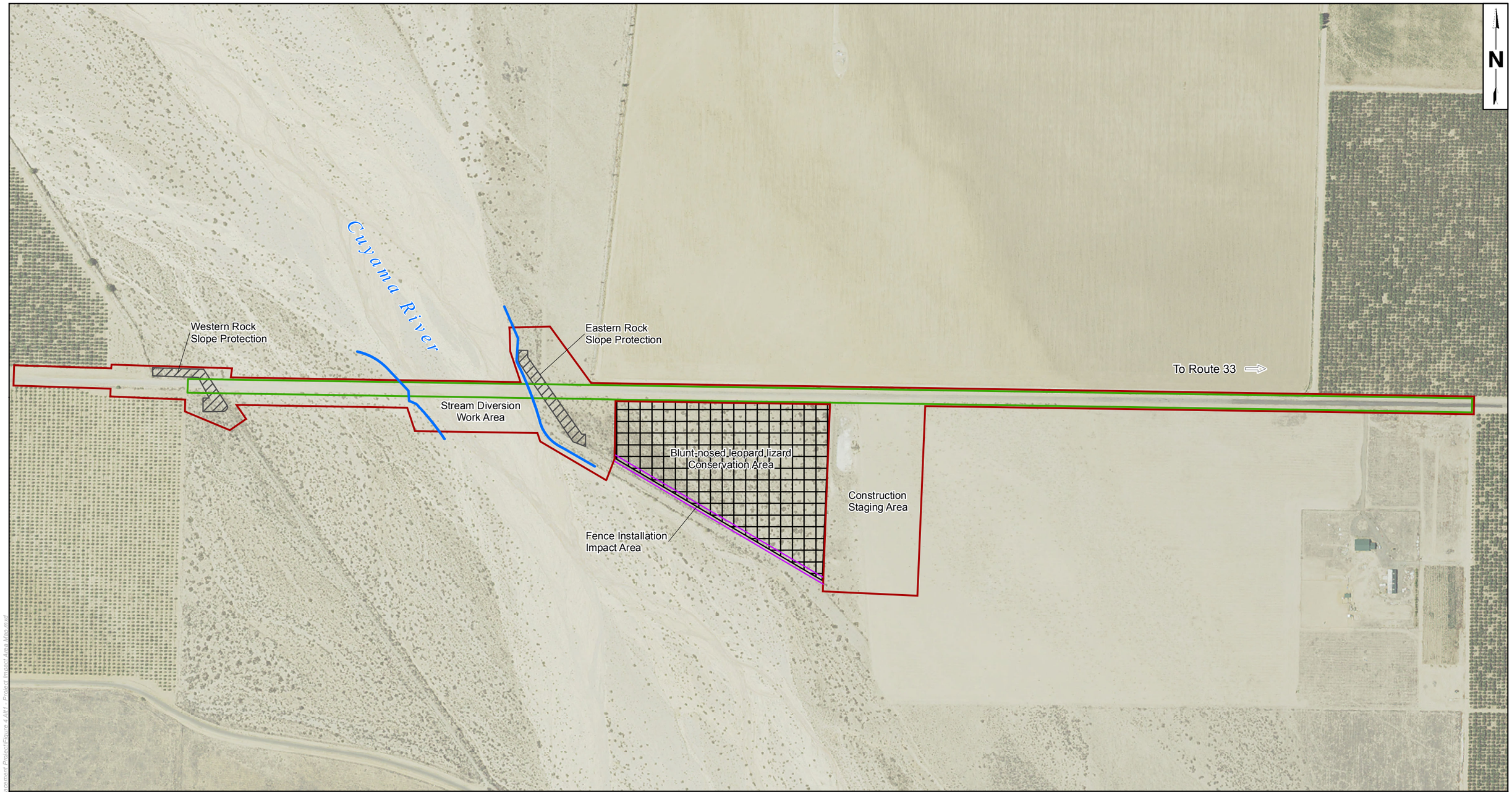
Foothill Road LWC Replacement Project

ROCK SLOPE PROTECTION PLAN
FIGURE 3

BACK OF COLOR FIGURE



LEGEND:

- Conservation Area Fence
- Ordinary High Water Mark
- Rock Slope Protection
- Right of Way to be Acquired
- Conservation Easement
- Project Impact Area

0 200 400
FEET

Source: NAIP 2014 Image
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

PROJECT NAME: FOOTHILL ROAD LOW WATER CROSSING REPLACEMENT PROJECT (CUYAMA VALLEY) SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 1102-2051

DATE: September 2015

PROJECT IMPACT AREA MAP

FIGURE 4

Z:\Kiefer\GIS Maps\Map Project\Foothill Road Replacement Project\Figure 4 AM1 - Project Impact Area Map.mxd

BACK OF COLOR FIGURE

July 2015
Project no. 1102-2051

a. Foothill Road just east of the Cuyama River, facing west

b. Cuyama River low flow channel, facing south towards Foothill Road

c. Scale-broom scrub, just northeast of the Foothill Road crossing

d. Desert tea scrub with goldfields (low yellow flowers)

SITE PHOTOGRAPHS
FIGURE 5

BACK OF FIGURE

3.0 ENVIRONMENTAL SETTING

3.1 AFFECTED PARCELS

Proposed construction would occur within the existing roadway right-of-way (minimum 50 feet wide) along Foothill Road, and on the following parcels:

- APN 149-150-026 (Santa Barbara County): 106.28 acres, land use designation AC (agriculture-commercial), zoned AG-II-100;
- APN 149-170-005 (Santa Barbara County): 82 acres, land use designation A-II (agriculture), zoned U (unlimited agriculture);
- APN 149-170-006 (Santa Barbara County): 80.66 acres, land use designation A-II (agriculture), zoned U (unlimited agriculture);
- APN 149-170-042 (Santa Barbara County): 39.38 acres, land use designation AC, zoned AG-II-100;
- APN 096-211-029 (San Luis Obispo County): land use designation AG (agriculture); and
- APN 096-211-040 (San Luis Obispo County): land use designation AG (agriculture).

The proposed project includes acquisition of a 60 foot-wide right-of-way along Foothill Road on APN 149-170-005 and -006 (approximately 7.55 acres). The proposed 7.4 acre construction staging area is located on APN 149-170-006 (see Figure 4). Proposed mitigation includes establishment of a 10.5 acre Conservation Area for blunt-nosed leopard lizard on APN 149-170-005. Zoning designation AG-II indicates prime and non-prime farmland located in the Rural Area with the goal to preserve lands for long-term agricultural use.

3.2 EXISTING LAND USE

Land uses of the project site (including construction staging areas) are comprised of the Foothill Road right-of-way, pistachio orchards to the west and fallow row crops to the northeast. The remainder of the project site is undeveloped and supports native vegetation. A small dairy is located approximately 0.7 miles west of the proposed bridge site, immediately north of Foothill Road. The nearest residences are farmworker dwellings located just south of Foothill Road approximately 3,200 feet west of the proposed bridge site, and a single-family residence on Santa Barbara Canyon Road 0.5 miles to the south.

3.3 SITE CHARACTERISTICS

The project site is located in the southeastern portion of the Cuyama Valley, a relatively level area located between the Santa Ynez Mountains to the south and the Caliente Range to the north. The Cuyama Valley is about two miles wide at the project site, but is about 5 miles wide in the vicinity of Cuyama, to the northwest. The elevation of the Cuyama Valley increases from the northwest to the southeast, and is about 2,500 feet above mean sea level at the project site.

The project site is located along the upper Cuyama River approximately two miles downstream (northwest) of its confluence with Santa Barbara Canyon. The 1,140 square mile upper Cuyama River watershed empties into Twitchell Reservoir, about 53 miles downstream of the project site. Based on data collected at the U.S. Geological Survey gauging station near Ventucopa (about 18 miles upstream of the project site), the upper Cuyama River is typically dry from June through September (mean monthly discharge of 1.5 cfs or less).

Climate data collected at Fire Station #41 at New Cuyama indicates the average annual rainfall within the project area is 7.66 inches (1954-2015 data). However, rainfall recorded at Fire Station #41 during the 2010-2011 rainy season was 40 percent above normal (10.73 inches). Subsequent rainfall has been mostly below normal; 5.09 inches in 2011-2012, 2.32 inches in 2012-2013, 1.74 inches in 2013-2014, 5.29 inches in 2014-2015 and 7.58 inches in 2015-2016.

3.4 OTHER PENDING AND APPROVED DEVELOPMENT

Based on review of the County's website, there are five projects proposed, in process, recently approved or under construction in the greater Cuyama Valley:

- Cuyama Solar Project: 327 acre photo-voltaic energy facility with three mile power line (approved October 2014).
- Brodiaea Reservoirs: three new agricultural reservoirs served by existing wells and pipelines, approximately 18 miles to the west-northwest (under review).
- Bolthouse Agricultural Preserve Contract: new preserve contract (under review).
- Blue Sky Center: As-built development plan, land use permit for construction of a bathhouse, trellis, landscaping and conversion of a storage building to cold storage (approved).
- E & B Natural Resources oil wells: two new oil wells with above-ground pipelines west of New Cuyama (completed).
- E & B Natural Resources natural gas pipeline: 1,125 foot-long buried pipeline near Route 166 west of New Cuyama (under construction).
- Russell Ranch lot split: west of New Cuyama, split a 1,520 acre lot into one 100 acre lot and one 1,428 acre lot, no new development (approved).

Section 15355 of the State CEQA Guidelines states that "cumulative impacts refers to two or more individual effects which when considered together are considerable or which compound or increase other environmental impacts." Further, "the individual effects may be changes resulting from a single project or a number of separate projects", and "the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is abbreviated as follows:

Potentially Significant Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Less than Significant Impact with Mitigation: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

Less than Significant Impact: An impact is considered adverse but does not exceed a significance threshold.

No Impact: There is adequate supporting documentation that the impact does not apply to the subject project.

Reviewed Under Previous Document: The analysis contained in a previously adopted/certified environmental document adequately addresses this issue and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page or pages where the information is found, and identification of mitigation measures incorporated from those previous documents.

4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?			X		
b. Change to the visual character of an area?			X		
c. Glare or night lighting which may affect adjoining areas?			X		
d. Visually incompatible structures?				X	

Setting:

The project site is located in an area designated as “moderate” scenic value by the Open Space Element of the Santa Barbara County Comprehensive Plan. SR 33 is located approximately 1.5 miles east of the proposed bridge site and is an officially designated State scenic highway. Public views of the project site are limited to motorists on Foothill Road. The project site is not visible from SR 33 due to distance and level terrain.

The project site is located in the Cuyama Valley, a broad feature (several miles wide) surrounded by steep slopes supporting native desert scrub, and patches of pinyon-juniper woodland. In the project area, the floor of the Cuyama Valley is dominated by irrigated crops, with occasional pistachio orchards. The project site and adjacent areas support row crops, orchards, and scrub dominated by scale-broom and desert tea, while the Cuyama River corridor is virtually barren. The visual character of the project area is entirely rural. Commercial land uses in the area are limited to a diary along Foothill Road, approximately 0.7 miles west of the bridge site.

Environmental Thresholds. The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The Guidelines address public, not private views.

Impact Discussion:

a. The proposed bridge would be approximately 1,430 feet long, with a bridge deck up to 20 feet above the riverbed. Structures above the bridge deck would be limited to barriers and railing, no superstructure is proposed. The bridge would not be visible from SR 33 (a designated scenic corridor) or any other scenic vista. The proposed bridge would be characteristic of other roadway bridges in the region (such as the Route 166 Cuyama River bridge) and would not be considered aesthetically offensive.

b. The new bridge would be of a design and scale consistent with the rural environment, and public views would be limited to motorists on Foothill Road. The visual character of the site (rural, desert-like) would be modified by the large urban-like bridge structure, but this change would be less than significant because the rural character would be largely preserved.

c. The proposed bridge would not include any lighting. However, project-related construction activities may require occasional night lighting. Such lighting would be located relatively close to the bridge site and focused on work activities, and is not anticipated to substantially increase ambient light levels at residences, which are located at least 0.5 miles away.

d. As discussed above, the proposed bridge would not substantially modify the visual character of the area; therefore, the bridge would be compatible with adjacent land uses.

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts to visual resources or contribute to cumulative impacts.

4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?			X		
b. An effect upon any unique or other farmland of State or Local Importance?			X		

Setting:

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of nearly $1.5 billion (Santa Barbara County Agricultural Commissioner's Office, 2014). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the County's rural character.

Farmlands in the immediate project area include pistachio orchards to the west of the Cuyama River and fallow row crops to the northeast of the Foothill Road crossing. Orchards and row crops are located further to the east near Route 33. An Important Farmland map for the project area was obtained from the California Department of Conservation. The nearest designated Prime farmland is located southwest and northeast of the proposed bridge site, but is not located within the project footprint. Designated Unique farmland is located within the project footprint, including approximately 290 feet of the western bridge approach roadway and a portion of the rock slope protection.

Environmental Thresholds. The County's Agricultural Resources Guidelines (approved by the Board of Supervisors, August 1993) provide a methodology for evaluating impacts to agricultural resources with regard to conversion of agricultural lands, impairment of productivity or conflict with agricultural preserve programs. These guidelines utilize a weighted point system assessing nine components to serve as a preliminary screening tool for determining significance, and indicate land division, conversion or disruption of operations of lands scoring 60 points or more would be considered a potentially significant impact.

Impact Discussion:

a. The project would not result in the conversion of prime agricultural land, impair agricultural productivity of adjacent orchards or conflict with agricultural preserve programs. Providing access for construction may require the temporary removal of about 15 pistachio trees located immediately south of the Foothill Road right-of-way and west of the river crossing. The property owner would be compensated for removal of these trees to allow replanting following the completion of construction.

b. The proposed western rock slope protection would displace approximately 0.09 acres of designated Unique Farmland located east of existing pistachio orchards. However, the affected area is immediately adjacent to the Cuyama River (within the 100-year floodplain) and has not been cultivated in recent history (since at least 1994). Table 1 indicates the affected area has a relatively low agricultural productivity potential (42 points); therefore, this impact is considered less than significant.

Table 1. Agricultural Assessment of the Affected Area

Component	Score	Discussion
Parcel size (APN 149-150-026)	11	106.28 acres
Soil classification	0	Class VIII (Riverwash)
Water availability	12	Land has current water supply, assumed adequate
Agricultural suitability	3	Riverwash not assessed in Conservation Element, low suitability for crops due to soil texture
Existing and historic land use	2	Affected area not cultivated within last 20 years
Comprehensive Plan designation	3	Agriculture-Commercial land use designation
Adjacent land uses	9	Surrounded by agricultural operations or open space
Agricultural preserve potential	2	Can quality for non-prime preserve with adjacent parcels
Combined farming operations	0	No combined operation
TOTAL	42	

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts to agricultural resources or substantially contribute to cumulative impacts.

4.3 AIR QUALITY

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation including, CO hotspots, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?			X		
b. The creation of objectionable smoke, ash or odors?			X		
c. Extensive dust generation?			X		

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Greenhouse Gas Emissions					
d. Emissions equivalent to or greater than 1,000 metric tons of CO_2 per year from industrial stationary sources?			X		
e. Consistent with the greenhouse gas reduction strategies of the Energy and Climate Action Plan?				X	

Setting:

The project site is located on the boundary of Santa Barbara County and San Luis Obispo County within the South Central Coast Air Basin (SCCAB) which encompasses three counties: San Luis Obispo, Santa Barbara and Ventura. Both the Santa Barbara County and San Luis Obispo County portions of the SCCAB periodically fail to meet air quality standards and are designated "non-attainment" areas for the State 8-hour ozone standard and State particulate matter (PM_{10}) standard.

Air pollution control is administered on three governmental levels. The U.S. Environmental Protection Agency (EPA) has jurisdiction under the Clean Air Act, the California Air Resources Board (CARB) has jurisdiction under the California Health and Safety Code and the California Clean Air Act, and local districts (Santa Barbara County APCD and San Luis Obispo County APCD) share responsibility with the CARB for ensuring that all State and Federal ambient air quality standards are attained within the SCCAB.

The Santa Barbara County APCD and Santa Barbara County Association of Governments adopted the 2010 Clean Air Plan in January 2011, which was prepared to address the requirements of the California Clean Air Act. The 2010 Clean Air Plan provides an update to the County's emission inventory, and all feasible measures to reduce emissions of ozone precursors by at least 5 percent per year. A 2013 Clean Air Plan was adopted on March 19, 2015 as a triennial update to the 2010 Clean Air Plan and indicates air quality is improving, and strategies for further air pollutant emissions reductions are focused on mobile sources, particularly marine shipping.

The San Luis Obispo County APCD prepared the 2001 Clean Air Plan as a third update to the 1991 CAP, which contained a comprehensive set of control measures designed to reduce ozone precursor emissions from a wide variety of stationary and mobile sources. Ongoing implementation of the control measures adopted through the 2001 Clean Air Plan and previous plans was expected to bring San Luis Obispo County into attainment of the State ozone standard within a three year timeframe.

Overall, air quality in Santa Barbara County is improving, as the number of County exceedances of the State 1-hour ozone standard has declined from 37 days in 1990 to three days or less in recent years.

The closest air quality monitoring station is the Maricopa station in Kern County, located approximately 13 miles to the north-northeast. However, this station is exposed to oil production related emissions and is not representative of the project site. Therefore, data from the Carrizo Plains School station (located 42 miles to the northwest) is considered more representative of the project site, and is presented in Table 2.

Table 2. Summary of Ambient Air Quality Data

Pollutant	2013	2014	2015
Ozone – Carrizo Plains School			
Highest 1-Hour concentration (ppm)	0.079	0.073	0.092
Highest 8-Hour concentration (ppm)	0.074	0.070	0.072
Number of State Exceedances (8-Hour>0.070 ppm)	3	0	2
Number of Federal Exceedances (8-Hour>0.075 ppm)	0	0	0

Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These greenhouse gases lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the Greenhouse Effect. There is increasing evidence that the Greenhouse Effect is leading to global warming and climate change. The heat trapping potential of a GHG is referred to as the "Global Warming Potential" (GWP). Each GHG has a GWP value based on the heat trapping properties of the GHG relative to CO_2. This is commonly referred to as CO_2 equivalent (CO_2E).

Following Executive Order S-3-05 in June 2005, which declared California's particular vulnerability to climate change, the California Global Warming Solutions Act of 2006 (AB 32) was signed by Governor Arnold Schwarzenegger on September 27, 2006. In response to global warming, AB 32 requires the CARB to adopt a statewide greenhouse gas emissions limit equivalent to the statewide GHG emissions levels in 1990 to be achieved by 2020 and requires the CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. CARB developed a Draft Scoping Plan for Climate Change in 2008, and proposed a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California's economy.

The First Update to the Scoping Plan was approved by the CARB on May 22, 2014, and builds upon the initial Scoping Plan with new strategies and recommendations to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB's climate change priorities for the next five years, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Santa Barbara County completed the first phase (Climate Action Study) of its climate action strategy in September 2011. The Climate Action Study provides a County-wide GHG inventory and an evaluation of potential emission reduction measures. The second phase of the County's climate action strategy is an Energy and Climate Action Plan (ECAP), which was adopted by the County Board of Supervisors on June 2, 2015. The ECAP includes a base year (2007) GHG inventory for unincorporated areas of the County, which identifies total GHG emissions of 1,192,970 metric tons CO_2E and 28,560 metric tons CO_2E for construction and mining equipment (primary project-related GHG source). Note that the base year inventory does not include stationary sources and energy use (natural gas combustion and electricity generation). The focus of the ECAP is to establish a 15 percent GHG reduction target from baseline (by 2020), and develop source-based and land use-based strategies to meet this target.

Equipment and vehicles used to construct the new bridge would emit greenhouse gases (primarily carbon dioxide), and may contribute to global climate change.

Environmental Thresholds. The Santa Barbara County Planning and Development Department (2015) has developed the following thresholds to determine the significance of long-term air emissions under the California Environmental Quality Act.

- Project emissions (mobile and stationary sources) greater than the daily trigger for offsets of 55 pounds per day for NOx and ROC, and 80 pounds per day for PM_{10},
- Emit less than 25 pounds per day of NOx or ROC from motor vehicle trips;
- Cause or contribute to a violation of any California or National ambient air quality standard (except ozone);
- Exceed the health risk public notification thresholds of the APCD; and
- Be inconsistent with the adopted 2013 Clean Air Plan.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, paints, solvents, and chemical or industrial processing operations that release pollutants).

The Santa Barbara County Planning & Development Department established a numeric GHG threshold of 1,000 metric tons CO_2E per year for industrial stationary sources in July 2015. Although the proposed project is not an industrial stationary source of air pollutant emissions, this threshold has been adopted for the project due to the lack of any thresholds of significance applicable to the proposed project. This threshold also dictates that construction-related GHG emissions are to be accounted for in the year they occur.

The recently adopted ECAP indicates that interim GHG thresholds will no longer be used and project compliance with the GHG reduction strategies of the ECAP will be used to determine the significance of project-related GHG emissions. Strategies that apply to the proposed project include BE-10 (construction equipment operations) and WR-3 (construction and demolition waste recycling).

Impact Discussion:

a-c. Potential Air Quality Impacts

Short-Term Construction Impacts. The proposed project would generate air pollutant emissions as a result of construction activities; primarily exhaust emissions from heavy-duty trucks, worker vehicles and heavy equipment. Emissions were estimated for a peak day, focusing on earthwork required for the bridge approaches and rock slope protection. It was assumed that 4 truck trips (8 one-way trips) and 6 worker trips (12 one-way trips) would occur during earthwork activities. Estimated project peak day emissions are listed in Table 3. Due to their small magnitude and duration, project emissions are considered a less than significant air quality impact.

Table 3. Construction Air Pollutant Emissions

Source	Pounds per Peak Day			
	ROC	NO_x	CO	PM_{10}
Equipment exhaust	8.6	125.5	65.5	8.2
On-road vehicles	0.6	7.4	6.8	0.4
Fugitive dust	0.0	0.0	0.0	134.2
Total	9.2	132.9	72.3	142.8

Construction-related earthwork at the project site would not have the potential to result in significant project-specific short-term emissions of fugitive dust and $PM_{10,}$ with the implementation of standard dust control measures that are required for all new development in the County.

Emissions of ozone precursors (NO_x and ROC) during project construction would result primarily from the on-site use of heavy equipment. Due to the limited period of time that heavy equipment operation would occur on the project site, construction-related emissions of NO_x and ROC would not be significant on a project-specific or cumulative basis. However, due to the non-attainment status of the SCCAB for ozone, the project should implement measures recommended by the SBCAPCD to reduce construction-related emissions of ozone precursors to the extent feasible. Compliance with these measures is routinely required for all new development in the County.

Long-Term Operation Emissions. The proposed project is limited to replacement of an existing at-grade river crossing at the same location and configuration (two lanes), and would not result in an increase in traffic volumes or resulting vehicle exhaust emissions following completion of construction. However, the replacement of the existing unpaved river crossing with a bridge would reduce long-term fugitive dust emissions, as vehicles would no longer traverse the riverbed.

d-e. Greenhouse Gas Emissions/Global Climate Change

Project GHG construction emissions were estimated using emissions factors from the EMFAC2007 model and the California Climate Action Registry General Reporting Protocol, and include concrete truck GHG emissions associated with transporting concrete to the site for the 170 cast-in-place bridge piles and 1,430 foot-long bridge deck. Total project GHG construction emissions are estimated as 268.3 metric tons CO_2E (see Table 4), and would occur in a single 12 month period. This value is less than the County's threshold for industrial stationary sources (1,000 metric tons per year CO_2E); therefore, global climate change impacts are considered less than significant.

Table 4. Construction GHG Emissions (metric tons)

Source	CO_2	N_2O	CH_4	CO_2E
Heavy equipment	194.12	0.002	0.027	195.4
Motor vehicles	72.24	0.002	0.002	72.9
Total	**266.36**	**0.004**	**0.029**	**268.3**

The project involves replacement of an existing at-grade roadway crossing with an elevated bridge in a rural area, and would not result in any long-term changes in traffic patterns or traffic volumes, and would not increase vehicle emissions. The project would not result in any greenhouse gas emissions from stationary sources during long-term operation or from non-stationary sources during long-term operation, and would not contribute to climate change (excluding short-term construction activities). The project does not involve any new land use plans or amendments to the General Plan.

Compliance with the GHG reduction strategies of the ECAP may be used to determine the significance of project GHG emissions. Strategy BE-10 involves the development and implementation of best management practices for construction equipment operation, such as reduced idling, use of alternative fuels, electrification of equipment and equipment maintenance. The identification of feasible best management practices has not been completed to date and construction equipment operating on alternative fuels or electricity are not readily available. Strategy WR-3 involves recycling of construction waste, which would be implemented by the proposed project (see Section 4.13).

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts to air quality or climate change or substantially contribute to cumulative impacts.

4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?				X	
b. A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?			X		
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?			X		
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?			X		
e. The loss of healthy native specimen trees?				X	
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?				X	
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		X			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?			X		

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?			X		
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			X		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			X		

Setting:

The following discussion is based on the results of a Natural Environment Study prepared by Padre Associates (2015) for the project (available for review upon request), which included biological surveys and a preliminary wetland delineation. A Biological Study Area (BSA) of about 325 acres was identified based on review of the 35 percent design drawings provided by Santa Barbara County. At a minimum, the BSA includes the construction impact area and a 300 foot-wide buffer. Biological surveys and habitat mapping was conducted within the BSA. The Project Impact Area (PIA, see Figure 4) encompasses the area that may be directly affected by construction of the bridge, including construction of the bridge structure, roadway approaches, rock slope protection, construction staging area, stream diversion (if required) and fencing of the proposed BNLL Conservation Area (to prevent off-road vehicle use).

Vegetation. A total of 108 vascular plant species were identified during the field surveys of the BSA. Plants observed within the BSA consisted of 82 (76 percent) native taxa and 26 (24 percent) non-native, naturalized, or ornamental taxa.

The vegetation of the immediate project area can be divided into four plant communities/cover types: scale-broom scrub (*Lepidospartum squamatum* shrubland alliance), California desert tea scrub (*Ephedra californica* shrubland alliance), riverbed and cultivated areas.

Scale-broom Scrub. This community occurs along the margins of the low flow channel of the Cuyama River, in areas that are only occasionally affected by storm-related erosion. Dominant species include scale-broom (*Lepidospartum squamatum*), rubber rabbit-brush (*Ericameria nauseosa*), and California buckwheat (*Eriogonum fasciculatum*). Ground cover in this community is dominated by spring annuals including red-stem filaree *(Erodium cicutarium*), wooly-star (*Eriastrum densifolium*), California evening primrose (*Oenothera californica*), summer mustard (*Hirchfeldia incana*) and red brome (*Bromus madritensis* ssp*. rubens*). The area southeast of the Foothill Road crossing appears to have been cleared within the last 10 years and supports a low density of native shrubs (mostly scale-broom). Approximately 4.8 acres of this plant community occurs within the PIA and would be directly affected by project construction.

California Desert Tea Scrub. This community occurs in sandy areas along the Cuyama River, mostly in areas that are rarely inundated. The dominant species is California desert tea (*Ephedra californica*), other common species include California match-weed (*Gutierrezia californica*) and burro brush (*Ambrosia salsola*). Spring annuals in this community include red-stem filaree, California goldfields (*Lasthenia californica*), valley lessingia (*Lessingia glandulifera*) and leptosiphon (*Leptosiphon liniflorus*). Approximately 0.3 acres of this plant community occurs within the PIA and would be directly affected by project construction.

Riverbed. This community represents encroachment of scale-broom scrub into the low flow channel of the Cuyama River, and is comprised of scattered small shrubs and annuals that colonize this area between storm flows. Scale-broom is the dominant species, but many other species may be found here including tumble mustard (*Sisymbrium altissimum*) and cryptantha (*Cryptantha intermedia*). Approximately 2.6 acres of this plant community occurs within the PIA and would be directly affected by project construction.

Cultivated/Disturbed Areas. This designation is used to describe weedy roadside areas and agricultural areas within the BSA, including orchards (mostly pistachio) and row crops.

Wildlife. The wildlife habitat value of the BSA is moderate, in that much of it is disturbed by storm flows and cultivation. However, vegetated terraces above the low flow channel provide suitable scrub habitat for most of the wildlife species known from the Cuyama Valley. Observed vertebrate species include those seen or detected by track, scat, burrows or vocalizations (calls, songs, etc.). Vertebrate taxa expected for the area are based on sight records from other environmental documents (Hunt & Associates, 2008; Baumgardner Biological Consulting, 2002, 2003a, 2003b); range maps (Zeiner et al., 1988, 1990a, 1990b); and bird species reported from the Cuyama Valley area of Santa Barbara County (Lehman, 2015).

Due to the lack of surface water, no fish were observed within the BSA during field surveys. Swift at al. (1993) reports arroyo chub and partially-armored three-spined stickleback in the lower Cuyama River near Twitchell Reservoir, about 50 miles downstream. Due to the lack of consistent surface water, fish are considered absent from the BSA.

Amphibians were not observed during field surveys of the BSA. Five reptile species were observed during field surveys, including side-blotched lizard (*Uta stansburiana*), coast horned lizard (*Phrynosoma blainvillii*), California whiptail lizard (*Cnemidophorus tigris mundus*), blunt-nosed leopard lizard (*Gambelia sila*) and gopher snake (*Pituophis catenifer*). Ten other reptiles are known to occur in the region and may occur within the BSA.

Fifteen species of birds were observed during field surveys of the BSA including killdeer (*Charadrius vociferous*), Cooper's hawk (*Accipiter cooperii*), Swainson's hawk (*Buteo swainsoni*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), California horned lark (*Eremophila alpestris*), Bewick's wren (*Thyromanes bewickii*), starling (*Sturnus neglecta*), Scott's oriole (*Icterus parisorum*), Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoenicus*), sage sparrow (*Artemisiospiza belli canescens*), white-crowned sparrow *(Zonotrichia leucophrys*) and house finch (*Carpodacus mexicanus*). Fifty-five other bird species are known to occur in the region and may occur within the BSA.

Evidence of six mammal species were observed within the BSA, including opossum (*Didelphis virginiana*), black-tailed jackrabbit (*Lepus californicus richardsonii*), desert cottontail (*Sylvilagus auduboni*), California ground squirrel (*Spermophilus beecheyi*), Heerman's kangaroo rat (*Dipodomys heermani*), and coyote (*Canis latrans*). Thirty other mammal species are known to occur in the region and may occur within the BSA.

Wildlife Corridors. Highly mobile species such as larger mammals and birds are expected to move between coastal and inland areas such as the Cuyama Valley. The Cuyama River links the Santa Maria Valley and adjacent coastal areas to the inland and montane habitats of the Los Padres National Forest. The Cuyama River provides a means for wildlife to traverse mountainous areas with dense vegetation and steep slopes. However, the region is generally undeveloped and numerous canyons and ridgelines offer opportunities for wildlife to move through the region. Therefore, the importance of the Cuyama River as a wildlife movement corridor is unclear. Mammal tracks (coyote) were observed in the Cuyama River within the BSA during the field surveys, indicating wildlife may be using the River as a movement corridor.

Invasive Species and Level of Disturbance. The California Invasive Plant Council has developed an Invasive Plant Inventory which rates weedy non-native plant species based on their potential to have severe ecological effects (high, moderate, limited). Three plant species rated as "high" for invasiveness was found within the BSA; yellow star-thistle (*Centaurea solstialis*), red brome (*Bromus madritensis* ssp. *rubens*) and cheat grass (*Bromus tectorum*). Yellow star-thistle occurs in disturbed areas within the BSA, while red brome is common within scale-broom scrub. Cheat grass is rare within the BSA, mostly found in scale-broom scrub. In addition, seven plant species rated as "moderate" and seven species rated as "limited" for invasiveness were found within the BSA. Many of these species were observed within the dry low flow channel of the Cuyama River.

The BSA has been disturbed in the past primarily by agricultural cultivation along the Cuyama River, including row crops and pistachio orchards. Occasional off-road vehicle use occurs in the riverbed within the BSA. In addition, re-establishment of the Foothill Road crossing after flood events results in repeated disturbance of roadside areas.

Special-Status Plant Species. Special-status plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare or of scientific interest (but not formally listed) by resource agencies, professional organizations (e.g., Audubon Society, California Native Plant Society [CNPS]), and the scientific community (e.g., Santa Barbara Botanic Garden).

For the purposes of this project, special-status plant species are defined in Table 5. The literature search conducted for this impact analysis indicates 12 special-status plant species have the potential to occur within the region (Cuyama Valley and vicinity). Table 6 lists these species, their current status, and the nearest known location relative to the BSA. The presence-absence column in Table 6 refers to suitable habitat within the BSA, and does not necessarily indicate the presence of the species.

Table 5. Definitions of Special-Status Plant Species

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register, December 24, 2015).
- Plants that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines,* Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS, 2001).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS 2001).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), State and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (see Santa Barbara Botanic Garden, 2012).
- Trees protected by Santa Barbara County Ordinances.

Four-wing Saltbush. Approximately 50 individuals of this species were observed in the BSA, with approximately 10 within the PIA. Four-wing saltbush is very common in the Cuyama Valley and abundant in the San Joaquin Valley, but is considered rare in Santa Barbara County since it occurs only in the extreme northeastern portion of the County.

California Jewel-Flower. California jewel-flower occurs in non-native grasslands, upper Sonoran scrub and juniper woodland/scrub (USFWS, 2013). The nearest known population to the BSA is at the mouth of Santa Barbara Canyon in juniper scrub, approximately 0.9 miles to the south (upstream) (CNDDB, 2016). A single desiccated jewel-flower was observed in the BSA in 2012, within the dry low flow channel of the Cuyama River approximately 150 feet north of Foothill Road (outside the PIA). This specimen could not be positively identified due the poor condition of the specimen. Based on herbarium records, six other species of jewel-flower (*C. amplexicaulis, C. anceps, C. cooperi, C. heterophyllus, C. inflatus, C. lemmonii*) occur in the Cuyama Valley region. Therefore, the specimen found within the BSA is not expected to be California jewel-flower.

The BSA supports California desert tea scrub, which may be considered suitable habitat. However, the single jewel-flower found was in the riverbed, which likely grew from a seed transported downstream. California jewel-flower was not found within the BSA during spring botanical surveys conducted in 2013 and 2015. The current multi-year drought may prevent germination and growth of California jewel-flower, as none were found in known population areas in the Cuyama Valley in 2012 (USFWS, 2013). However, rainfall was 70 percent of normal for the 2014/2015 wet season and other wildflowers (such as Cuyama gilia and Hoover's eriastrum) were found in the BSA during the spring 2015 botanical survey. Therefore, California jewel-flower would have been detected if present. Based on evidence presented above, this species is highly unlikely to occur within the PIA at the time of construction.

Hoover's Eriastrum. Several thousand individuals of this species were found within the BSA in 2013 and 2015, mostly within scale-broom scrub and along the sandy shoulder of Foothill Road. Hoover's eriastrum appears to be common in the region, reported from three nearby surface mining sites including GPS River Rock Products (RAM Environmental Engineering Services, 2007), Diamond Rock (Baumgardner, 2003a) and an unnamed proposed mining site (Hunt & Associates, 2008). In addition, the CNDDB reports Hoover's eriastrum along a 1 mile segment of Foothill Road approximately 0.5 miles west of the BSA.

Cuyama Gilia. This species was observed in low numbers in the BSA in 2013 and 2015, including the PIA. Cuyama gilia typically occurs within pinyon and juniper woodland, which does not occur within the BSA. This species is considered a plant of limited distribution by CNPS (List 4), but is found in Kern County, Los Angeles County, Santa Barbara County and Ventura County, including the Cuyama Valley and Hungry Valley (near Gorman).

Special-Status Wildlife Species. Special-status wildlife species are defined in Table 7. The potential for these species to occur within the BSA was determined by habitat characterization, review of sight records from other environmental documents and range maps described above. Table 8 lists special-status wildlife species that have the potential to occur within the BSA for at least a portion of their life cycle. The presence-absence column in Table 8 refers to suitable habitat within the immediate project area, and does not necessarily indicate the presence of the species.

Table 6. Special-Status Plant Species of the Cuyama Valley Region

Common Name ***Scientific Name***	**Status**	**Habitat Description**	**Nearest Known Location**	**Present /Absent based on Habitat**	**Rationale for Absence/ Discussion**
Indian rice-grass (*Stipa* [*Achnatherum] hymenoides*)	LC	Desert scrub, pinyon-juniper woodland	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	Scrub habitats within BSA may be suitable
Four-wing saltbush (*Atriplex canescens var. canescens*)	LC	Clay to gravelly flats, scrub	About 50 individuals were found within the BSA	P	Found within BSA
California jewel-flower (*Caulanthus californicus*)	SE, FE, List 1B	Saltbush scrub, pinyon & juniper woodland, grassland; 200-3300 feet elevation	0.9 miles to the south (CNDDB, 2016); one desiccated jewel-flower was found within the BSA	HP	Suitable habitat (desert tea scrub) within BSA
Lemmon's jewel-flower (*Caulanthus lemmonii*)	List 1B	Pinyon & juniper woodland, grassland; 250-4000 feet elevation	1.7 miles to the southeast (CNDDB, 2016)	HP	Grassy scrub habitats within BSA may be suitable
Hoover's eriastrum (*Eriastrum hooveri*)	List 4	Saltbush scrub, pinyon & juniper woodland, grassland; 150-3000 feet elevation	Several thousand individuals were found within the BSA	P	Found within BSA
Stink bells (*Fritillaria agrestis*)	List 4	Chaparral, cismontane woodland, pinyon & juniper woodland, grassland; 30-5000 feet elevation	East of Tennison Canyon, 1.0 miles to the southwest (CNDDB, 2016)	HP	Grassy scrub habitats within BSA may be suitable
Cuyama gilia (*Gilia latiflora* ssp. *cuyamensis*)	List 4	Pinyon & juniper woodland, 2000-6500 feet elevation	Found within the BSA and PIA during field surveys	P	Found within BSA
Pale-yellow layia (*Layia heterotricha*)	List 1B	Cismontane woodland, pinyon & juniper woodland, grassland; 1000-5200 feet elevation	Confluence of Cuyama River and Santa Barbara Canyon, 2.3 miles to the south-southeast (CNDDB, 2016)	HP	Grassy scrub habitats within BSA may be suitable
Munz's tidy-tips (*Layia munzii*)	List 1B	Saltbush scrub, grassland; 500-2300 feet elevation	Two miles to the northeast (CNDDB, 2016)	HP	Grassy scrub habitats within BSA may be suitable
Spring lessingia (*Lessingia tenuis*)	List 4	Chaparral, woodland, lower coniferous forest	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	Scrub habitats within BSA may be suitable
Showy golden madia (*Madia radiata*)	List 1B	Cismontane woodland, grassland; 80-3000 feet elevation	Cuyama Valley region (CNDDB, 2016)	HP	Grassy scrub habitats within BSA may be suitable
San Joaquin woolly-threads (*Monolopia congdonii*)	FE, List 1B	Saltbush scrub, grassland; 200-2600 feet elevation	Confluence of Cuyama River and Santa Barbara Canyon, two miles to the southeast (CNDDB, 2016)	A	BSA at elevational limit, suitable habitat not present

Status Codes:
FE Federal Endangered (USFWS)
SE California Endangered (CDFW)
List 1B Plants rare, threatened, or endangered in California and elsewhere (CNPS)
List 3 Plants about which we need more information, a review list (CNPS)
List 4 Plants of limited distribution (CNPS)
LC Locally rare (Santa Barbara Botanic Garden, 2012)

Habitat Codes:
A: Habitat absent within the BSA
HP: Habitat present within the BSA
P: Species observed within the BSA

Table 7. Definitions of Special-Status Wildlife Species

Special-Status Wildlife Species
➢ Animals listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species). ➢ Animals that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (Federal Register December 24, 2015). ➢ Animals that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, Section 15380). ➢ Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5). ➢ Animal species of special concern to the CDFW (Shuford & Gardali, 2008 for birds; Williams, 1986 for mammals; Moyle et al., 1989 for fish; and Jennings and Hayes, 1994 for amphibians and reptiles). ➢ Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Table 8. Special-Status Wildlife Species of the Cuyama Valley Region

Common Name ***Scientific Name***	**Habitat**	**Status**	**Nearest Known Location Relative to the Project Site**	**Present /Absent based on Habitat**	**Rationale for Absence/ Discussion**
Kern primrose sphinx moth (*Euproserpinus euterpe*)	Sandy washes	FT	Cuyama River floodplain, 2.0 miles to the southeast (BLM, 2006)	A	Larval food plant density is inadequate
Western spadefoot toad (*Spea hammondi*)	Ephemeral pools	CSC	Near Camp Dix, 6.3 miles to the northeast (CNDDB, 2016)	A	Suitable habitat not present within BSA
Blunt-nosed leopard lizard (*Gambelia sila*)	Saltbush scrub, alkali scrub, grassland	SE, FE, FP	Found within the BSA and PIA during protocol surveys in 2012	P	
Silvery legless lizard (*Anniella pulchra pulchra*)	Woodlands, canyon bottoms	CSC	Upper Cuyama River, 15 miles to the south-southeast (Santa Barbara Natural History Museum 1996 collection)	A	Suitable habitat not present within BSA
Coast horned lizard (*Phyrnosoma blainvillii*)	Scrub, chaparral, grassland	CSC	Found within the PIA during field surveys	P	
San Joaquin coachwhip (*Masticophis flagellum ruddocki*)	Grassland, open scrub	CSC	Soda Lake Road, 7.3 miles to the north-northeast (CNDDB, 2016)	HP	
Tri-colored blackbird (*Agelaius tricolor*)	Freshwater marsh	CSC	1.8 miles to the northeast (CNDDB, 2016)	A	Suitable habitat not present within BSA

Table 8. Continued

Common Name *Scientific Name*	Habitat	Status	Nearest Known Location Relative to the Project Site	Present /Absent based on Habitat	Rationale for Absence/ Discussion
Swainson's hawk (*Buteo swainsoni*)	Oak savanna, grasslands, croplands	ST	One individual observed foraging within the BSA in 2012	P	
Le Conte's thrasher (*Toxostoma lecontei*)	Scrub, chaparral	CSC	Confluence of Cuyama River and Ballinger Canyon, 2.0 miles to the southeast (Shuford & Gardali, 2008)	HP	
Lawrence's goldfinch (*Spinus lawrencei*)	Woodlands	SA	Diamond Rock mine site, 3.1 miles to the southeast (Baumgardner, 2003a)	A	Suitable habitat not present within BSA
California horned lark (*Eremophila alpestris actia*)	Grasslands, open scrub	WL	One individual observed foraging within the BSA in 2012	P	
Brewer's sparrow (*Spizella breweri*)	Scrub, chaparral	SA	Diamond Rock mine site, 3.1 miles to the southeast (Baumgardner, 2003a)	HP	
Loggerhead shrike (*Lanius ludovicianus*)	Scrub, grassland	CSC	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	
Golden eagle (*Aquila chrysaetos*)	Grasslands, scrub, woodland	WL	Ventucopa GPS Rock Plant site, 2.4 miles to the southeast (URS, 2009)	HP	
Merlin (*Falco columbarius*)	Grasslands, scrub, woodland	WL	Cuyama Valley, transient (Lehman, 2015)	HP	
Prairie falcon *(Falco mexicanus*)	Grasslands, open scrub	WL	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	
Long-eared owl (*Asio otus*)	Riparian woodlands	CSC	Cuyama Valley (Lehman, 2015)	A	Suitable habitat not present within BSA
Burrowing owl (*Athene cunicularia*)	Grasslands, open scrub	CSC	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	
Cooper's hawk (*Accipiter cooperii*)	Woodlands, riparian scrub	WL	One individual observed foraging within the BSA in 2012	P	
Northern harrier (*Circus cyaneus*)	Marshes, woodlands, scrub	CSC	Near confluence of Cuyama River and Ballinger Canyon, 1.5 miles to the southeast (Hunt & Associates, 2008)	HP	
Ferruginous hawk (*Buteo regalis*)	Grasslands, open scrub	WL	Cuyama Valley, transient (Lehman, 2015)	HP	
California condor (*Gymnogyps californianus*)	Grasslands, scrub, open woodland	SE, FE	Caliente Range, 5 miles to the north	HP	
Oregon vesper sparrow (*Pooectes gramineus affinis*)	Grasslands	CSC wintering	Cuyama Solar site, 2.4 miles to the west (AMEC, 2014)	A	Grasslands not found within BSA
McKittrick pocket mouse (*Perognathus inornatus neglectus*)	Grassland, desert scrub	SA	Goode Canyon, 2 miles to the west-southwest (Santa Barbara Natural History Museum 1987 collection)	HP	
San Joaquin kit fox (*Vulpes macrotis mutica*)	Grassland, scrub	ST, FE	Cuyama Valley, 1.3 miles to the south-southeast (CNDDB, 2016)	HP	
Giant kangaroo rat (*Dipodomys ingens*)	Saltbush scrub, grassland	SE, FE	Elkhorn Plain, 14 miles to the northwest (USFWS, 2010c)	HP	

Table 8. Continued

Common Name *Scientific Name*	Habitat	Status	Nearest Known Location Relative to the Project Site	Present /Absent based on Habitat	Rationale for Absence/ Discussion
San Joaquin antelope squirrel (*Ammospermophilus nelson*)	Saltbush scrub, grassland	ST	Western Cuyama Valley, 10 miles to the northwest (Harris & Stearns, 1991)	HP	
American badger (*Taxidea taxus*)	Open scrub, grassland	CSC	Diamond Rock mine site, 3.1 miles to the southeast (Baumgardner, 2003b)	HP	

Status Codes:
CSC California Species of Special Concern (CDFW)
FE Federal Endangered (USFWS)
FT Federal Threatened (USFWS)
FP Fully protected under the California Fish & Game Code
ST State Threatened (CDFW)
SA Special Animal (CDFW)
SE State Endangered (CDFW)
WL Watch List (CDFW)

Habitat Codes:
A: Habitat absent within BSA
P: Species observed within BSA
HP: Habitat present within BSA

Kern Primrose Sphinx Moth (KPSM). Five field surveys of the BSA were conducted by an authority on the species (Ken Osborne), focusing on identifying the larval food plant (*Camissonia campestris*). The field surveys included the use of a pheromone lure to attract any adult KPSM's flying in the survey area. Mr. Osborne also visited areas supporting known KPSM populations, and determined that KPSM pupae did not develop into adults and emerge from the soil in the Cuyama Valley and Carrizo Plain in 2012, likely due to low precipitation and its effect on host plant growth. Mr. Osborne concluded that the BSA does not support a sufficient quantity of the larval food plant to support development of KPSM, such that this species is not expected to occur here.

Blunt-nosed Leopard Lizard (BNLL). This species was observed in May 2012 during protocol field surveys of the BSA. Surveys were conducted on five days in May (11, 14-17), 2012 during appropriate weather conditions as stipulated in the CDFW survey protocol. At least one biologist familiar with BNLL and classified as a Level II Researcher as defined in the CDFW survey protocol was involved in each survey. A total of five BNLL were observed within the BSA during the five survey days, primarily within desert tea scrub east of the Cuyama River.

Coast Horned Lizard. A single individual of this species was observed in 2012 within the BSA, in scale-broom scrub approximately 50 feet north of Foothill Road (within the PIA). Two individuals were observed within the PIA in April 2015. Coast horned lizard has been reported from several locations in the Cuyama Valley (CNDDB, 2016; URS Corporation, 2007; Hunt & Associates, 2008), and appears to be relatively widespread.

San Joaquin Coachwhip. This snake was not observed during field surveys of the BSA, but has been reported from the Carrizo Plain area. Jennings and Hayes (1994) indicates San Joaquin coachwhip has been reported from along Route 166 in the lower Cuyama Valley. However, these data are over 21 years old, and the current status of this species in the Cuyama Valley is unknown. The PIA provides suitable habitat for San Joaquin coachwhip.

Transient Raptors and California Condor. Cooper's hawk were observed during field surveys of the BSA. California condor has been reported roosting about 5 miles north of the BSA and could forage over the site. Cooper's hawk, merlin, ferruginous hawk, golden eagle and northern harrier do not breed in the Cuyama Valley (Lehman, 2015), but may occasionally forage within the BSA.

Swainson's Hawk. This species has been observed nesting along Route 166 approximately three miles north of the BSA, and was observed foraging within the BSA during field surveys conducted for the proposed project.

Le Conte's Thrasher. This bird was not observed during field surveys of the BSA, but has been reported from the project area (Ballinger Canyon near the Cuyama River). However, the last sighting was in 1992, and Le Conte's thrasher appears to have been displaced by California thrasher in the Cuyama Valley (Shuford and Gardali, 2008).

California Horned Lark. This species was observed during field surveys of the BSA, and is known to breed in short grass and agricultural fields of the Cuyama Valley (Lehman, 2015).

Brewer's Sparrow. This species was not observed during field surveys of the BSA, but is known to breed in semi-desert scrub of the Cuyama Valley (Lehman, 2015). Brewer's sparrow prefers to breed in stands of big sagebrush (*Artemisia tridentata*) (Zeiner et al., 1990a), which is uncommon within the BSA.

Loggerhead Shrike. This species was not observed during field surveys of the BSA, but is considered an uncommon resident of the Cuyama Valley (Lehman, 2015). A possible breeding pair was observed east of the Cuyama River about 2 miles south of the BSA (Hunt & Associates, 2008).

Prairie Falcon. This species was not observed during field surveys of the BSA, but is known to forage in the Cuyama Valley and breed in the Sierra Madre Mountains (Lehman, 2015).

Burrowing Owl. This species was not observed during field surveys of the BSA, but is considered a possible resident of the Cuyama Valley (Lehman, 2015). A possible burrow used by burrowing owl was observed about 2 miles south of the BSA (Hunt & Associates, 2008).

McKittrick Pocket Mouse. This species was not observed during field surveys of the BSA, but is known to occur in the Cuyama Valley and Carrizo Plain. Pocket mice are very secretive and this species could occur within the BSA.

San Joaquin Kit Fox. Evidence of this species (scat, tracks, burrows) was not observed during field surveys of the BSA. A kit fox habitat evaluation was conducted of the BSA according to the San Luis Obispo County guidelines, which yielded a score of only 38 (maximum score is 100). The most recent documented sighting of San Joaquin kit fox in Cuyama Valley was in 1979, and its current status in this area is unknown (USFWS, 2010b). However, Caltrans biologist Tom Edell reports a 2015 San Joaquin kit fox sighting along SR 166, about 8 miles to the west-northwest of the BSA.

Giant Kangaroo Rat. This species was not observed during field surveys of the BSA. The nearest known population of giant kangaroo rat is located at Elkhorn Plain, approximately 14 miles northwest of the BSA (USFWS, 2010c). Little is known about the status of the small satellite populations of giant kangaroo rats in the Cuyama Valley, San Juan Creek Valley and Kettleman Hills. A small population of about 100 giant kangaroo rats was reported on a juniper woodland bench in Taylor Canyon near western Cuyama Valley (25 miles west-northwest of the BSA) within the protected Carrizo Plain Ecological Reserve. Surveys of active precincts in 2005 showed that the occupied acreage of giant kangaroo rats there had doubled in size since 2001. Much of the rest of Cuyama Valley, however, is farmed and no longer provides habitat for the giant kangaroo rat (USFWS, 2010c).

San Joaquin Antelope Squirrel. This species was not observed during field surveys of the BSA. Extensive field surveys of the vicinity of BSA (Cuyama River floodplain, lower Santa Barbara Canyon) were conducted in 1988-1989 and San Joaquin antelope squirrel was not found. In the Cuyama Valley, this species appears to be limited to a narrow band along the northern edge of the valley (Harris & Stearns, 1991), approximately 10 miles to the northwest of the BSA.

American Badger. Evidence (tracks, scat, burrows) of this species was not observed during field surveys of the BSA, but is known to occur in the Cuyama Valley, and may forage for ground squirrels within the BSA.

Wetlands. Definition. The U.S. Army Corps of Engineers (Corps) has jurisdiction over waters of the United States (U.S.) under the authority of the Section 404 of the Clean Water Act. The limit of jurisdiction in non-tidal waters extends to the ordinary high water mark and includes all adjacent wetlands. Waters of the U.S. are defined as:

> *"All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; including all interstate waters including interstate wetlands, all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce."*

The Corps and U.S. Environmental Protection Agency define wetlands as:

> *"Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."*

Santa Barbara County has adopted the U.S. Fish and Wildlife Service (USFWS) wetland definition (Santa Barbara County, 2015):

> "Wetlands" must have one or more of the following attributes:
>
> - At least periodically, the land support predominantly hydrophytes, that is plants adapted to moist areas;
> - The substrate is predominately undrained hydric soil; and

- The substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season each year."

Corps-defined wetlands are determined to be present if evidence of each of three criterion are observed (prevalence of hydrophytic vegetation, presence of hydric soils, and wetland hydrology).

Preliminary Wetland Delineation. A preliminary wetland delineation was conducted to determine the area of jurisdiction of the Corps under Section 404 of the Clean Water Act. The delineation was performed in accordance with the routine procedures for areas greater than 5 acres detailed in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement: Arid West Region* (Environmental Laboratory, 2008).

Jurisdictional wetlands were determined to be present if evidence of all three Federal criteria were observed (hydrophytic vegetation, hydric soils, and wetland hydrology). However, the U.S. Fish and Wildlife Service (USFWS) and Santa Barbara County wetland definition requires that only one of the wetland criteria be present to define a wetland. Wetlands data was collected at one location (plot) within the Cuyama River at the project site.

Federal Jurisdictional Determination. On June 29, 2015, the Corps adopted a new set of standards to define and identify waters of the U.S., known as the Clean Water Rule. The County project manager met with the Corps of Engineers on June 9, 2015 at the Corps' Ventura office, and the Corps representative indicated the Cuyama River would be considered a water of the U.S. under the Clean Water Rule. However, on October 9, 2015 the Federal Sixth Circuit Court issued a nationwide stay blocking enforcement of the Clean Water Rule. Based on the large number of states and organizations opposing the Clean Water Rule, implementation is not anticipated in the near future. Therefore, this preliminary jurisdictional determination is based on Corps guidance (Corps and USEPA, 2007) provided prior to adoption of the Clean Water Rule.

The Cuyama River is located within the project site and is a tributary to the Santa Maria River which is not a navigable water. The Cuyama River is not a relatively permanent water and is unlikely to have a significant nexus to a traditionally navigable water (Pacific Ocean, including tidal portions of the Santa Maria River). Therefore, the Cuyama River is unlikely to be considered a water of the U.S. and within Corps jurisdiction. This issue will be resolved as part of project permitting.

Wetland Delineation Results. According to the *Soil Survey of Northern Santa Barbara Area California* (Web Soil Survey), the immediate project area supports Metz loamy sand (2-9 percent slopes), Panoche sandy loam overflow (2-5 percent slopes), riverwash and sandy alluvial land. According to Field Office Official List of Hydric Soil Map Units for Northern Santa Barbara Area, California (U.S. Department of Agriculture, Soil Conservation Service, 1992), riverwash is listed as a hydric soil. It was assumed that the Cuyama River low flow channel (mapped as riverwash) meets the hydric soil wetland criterion.

Surface water, sediment deposits and saturated soils were present along the Cuyama River during the March 27, 2012 jurisdictional delineation. It is anticipated that the Cuyama River flow channel within the BSA meets the wetland hydrology standard of 14 or more consecutive days of inundation during the growing season, in a typical rain year.

Dominant vegetation within the wetland sampling plot was scale-broom and tumble mustard, which are not considered hydrophytic. Due to the lack of hydrophytic vegetation, jurisdictional wetlands do not occur within the BSA.

County Environmental Thresholds. Santa Barbara County's Environmental Thresholds and Guidelines Manual (2015) include guidelines for the assessment of biological resource impacts. Disturbance to habitats or species may be significant, based on substantial evidence in the record (not public controversy or speculation), if they substantially impact significant resources in the following ways:

- Substantially reduce or eliminate species diversity or abundance;
- Substantially reduce or eliminate quantity or quality of nesting areas;
- Substantially limit reproductive capacity through losses of individuals or habitat;
- Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources;
- Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes); and/or
- Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Impact Discussion:

a. No unique, rare or threatened plant communities occur within the project site, and implementation of the proposed project would not adversely affect these resources.

b. Three special-status plant species are known to occur within the construction footprint (PIA); four-wing saltbush, Hoover's eriastrum and Cuyama gilia. These species are sufficiently common in the project region that the project-related loss of individuals during construction would not significantly reduce the numbers or range of these plant species.

c. Construction of the proposed project would result in the temporary loss of approximately 5.1 acres of native vegetation (4.8 acres of scale-broom scrub, 0.3 acres of California desert tea scrub), and permanent loss of 0.28 acres of native vegetation (scale-broom scrub). Affected vegetation is common in the region and the magnitude of vegetation loss is minimal as compared to that present in the Cuyama Valley area. The permanent loss of native vegetation would be more than offset by abandonment and planned restoration (see Section 2.6) of the at-grade river crossing, which would create 0.55 acres by scale-broom scrub. This area represents the paved portion of the existing at-grade roadway that is outside the Cuyama River channel. Therefore, impacts are considered less than significant.

d. Construction of the proposed project would result in the temporary loss of 11.6 acres of previously cultivated areas and weedy disturbed areas. Due to the high frequency of disturbance, lack of woody vegetation and dominance by non-native plant species, habitat value is considered low. Therefore, these temporary impacts are considered less than significant.

e. The proposed project would not result in the removal of any native trees.

f. No chemicals, animals, human habitation or invasive plants would be associated with project implementation.

g. **Blunt-nosed Leopard Lizard**. This endangered species was found within the PIA, and 5.1 acres of temporary habitat loss would occur. Impacts are considered potentially significant.

Coast Horned Lizard. This California species of special concern was found within the PIA, and 5.1 acres of temporary habitat loss would occur. Impacts are considered potentially significant.

San Joaquin Coachwhip. Although unlikely to be present in PIA, it is possible that bridge construction activities could result in mortality of this species. Impacts are considered potentially significant.

Cooper's Hawk, Merlin, Ferruginous Hawk, Golden Eagle, Northern Harrier, California Condor and Prairie Falcon. The PIA was developed to minimize disturbance of suitable foraging habitat by utilizing the roadway right-of-way to the extent feasible, minimizing the width of the bridge construction corridor and locating the construction staging area in a recently disturbed area (planned orchard). Due to the temporary nature and relatively small amount of foraging habitat loss (5.1 acres) as compared to the home range of these species, impacts are considered less than significant.

Swainson's Hawk. This species has been reported nesting in the lower Cuyama Valley, and forages in the vicinity of the PIA. Due to the temporary nature and relatively small amount of foraging habitat loss (5.1 acres) as compared to the home range of these species, impacts are considered less than significant.

Le Conte's Thrasher. This species is not expected to occur within the PIA; therefore, significant impacts are not anticipated.

California Horned Lark, Brewers Sparrow, Loggerhead Shrike and Burrowing Owl. Native vegetation within the PIA is considered potential breeding habitat for these species, and construction-related heavy equipment activity may disrupt breeding within and adjacent to the PIA. Impacts to these species are considered potentially significant.

McKittrick Pocket Mouse. Construction of the proposed project would result in the temporary loss of 5.1 acres of suitable habitat for this species, and construction-related mortality may occur. Impacts are considered potentially significant.

San Joaquin Kit Fox. This species is not expected to occur within the PIA; therefore, significant impacts are not anticipated. However, precautionary avoidance measures developed by USFWS will be implemented at the request of Caltrans.

Giant Kangaroo Rat. This species is not expected to occur within the PIA; therefore, significant impacts are not anticipated.

San Joaquin Antelope Squirrel. This species is not expected to occur within the PIA; therefore, significant impacts are not anticipated.

American Badger. Construction of the proposed project would result in the temporary loss of 5.1 acres of suitable habitat for this species, and construction-related mortality may occur. Impacts are considered potentially significant.

h. The project-related loss of native habitat would be small on a regional basis (approximately 5.1 acres) and all temporary, as habitat displaced by project components would be offset by habitat restoration of the existing at-grade river crossing following abandonment (see Section 2.6). Construction-related disturbance (noise, vibration, equipment activity) would be localized and occur in a previously disturbed area (existing roadway crossing). Therefore, a reduction in diversity or substantial reduction in numbers of common wildlife is not expected.

i. As discussed in c. and g., a small amount of project-related habitat loss would occur. However, such habitat loss is not anticipated to affect local wildlife populations.

j. Although wildlife movement is not constrained by development or topographic features in the project area, the Cuyama River may be used by wildlife moving through the area. As compared to the existing at-grade river crossing, the proposed bridge would be elevated and allow for free passage of wildlife. Construction activities may restrict wildlife movement during the construction period by fencing proposed to minimize impacts to BNLL (see BIO-1). However, wildlife could avoid the fencing by moving through the work area using native vegetation on both sides of the PIA. Impacts to wildlife movement are considered less than significant.

k. Excluding the project construction period, project implementation would not involve fencing, lighting, or human presence. As indicated in Section 4.12, the proposed bridge may result in a small increase in traffic noise at the river crossing due to the elevated bridge design and increased travel speeds. Due to the very low traffic volumes, this noise increase would not substantially hinder wildlife activity. Impacts are considered less than significant.

Mitigation and Residual Impact:

BIO-1: Avoidance and Minimization of Impacts to Blunt-nosed Leopard Lizard (BNLL), McKittrick Pocket Mouse and American Badger. The following measures shall be implemented to detect and avoid BNLL and special-status mammal species prior to and during construction. These measures are taken from the avoidance and minimization measures documented in the not likely to adversely affect concurrence letter from USFWS dated March 21, 2016.

- **Construction Worker Training**. A worker awareness program shall be implemented to inform all contractor and subcontractor workers of the presence of BNLL and measures to minimize disturbance, including speed limits, role of the biological monitor, avoidance of exclusion fencing and other restrictions within the PIA.

- **Pre-construction BNLL Surveys**. Pre-construction BNLL surveys shall be conducted within the PIA and 100 foot buffer according to the 2004 CDFW protocol. To reduce conflicts with the construction schedule, BNLL surveys shall be initiated at the beginning of the appropriate survey period (April 15) and the 12 required surveys completed as soon as possible under the constraints of the survey protocol (maximum of 4 surveys per week, and 8 per month). If BNLL are found within the PIA, additional surveys shall be conducted as needed to determine their distribution within the PIA and allow exclusion fencing to be installed without trapping BNLL within the fence, and allow construction work to proceed.

- **Exclusion Fencing**. The PIA boundaries shall be modified to the extent feasible based on the results of pre-construction BNLL surveys, with the goal to avoid suitable/occupied BNLL habitat. Within 3 days after BNLL pre-construction surveys are completed and provided no BNLL were observed, BNLL shall be fully excluded from the PIA by the installation of E-Fence EF40L (or approved equal). All work areas, including storage and staging areas shall be fenced. To the extent feasible, small mammal burrows shall be avoided during fence installation. Installation of the exclusion fencing shall be monitored by a qualified biologist to detect BNLL and re-direct fence installation activities away from observed BNLL.

- **Construction Monitoring**. Each construction work day from spring through fall, a qualified biologist shall inspect the exclusion fencing and PIA to detect BNLL. If BNLL are detected within the PIA, all construction work within 100 feet of the BNLL shall be halted and the exclusion fencing shall be temporarily opened to allow the lizard to leave the area on its own (no chasing, following, etc. can occur). Work shall not resume until the BNLL has left the area on its own reconnaissance.

- **Compensatory Mitigation**. Measures listed above shall minimize impacts and prevent take; therefore, compensatory mitigation is not needed. However, a 10.5 acre BNLL Conservation Area has been added to the project (see Figure 4), and shall be protected in perpetuity by a conservation easement. Note that the BNLL Conservation Area encompasses locations where BNLL was observed during protocol surveys.

- **Avoidance and Minimization of Impacts to Special-Status Mammal Species**. Repeated BNLL surveys and installation of exclusion fencing would result in McKittrick pocket mouse and American badger abandoning the PIA (if present).

Plan Requirements and Timing: A detailed pre-construction biological survey and monitoring plan shall be prepared and submitted to CDFW and USFWS for review, and shall be approved prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with these measures.

Residual Impacts. Mitigation measures provided above would reduce impacts to blunt-nosed leopard lizard, McKittrick pocket mouse and American badger to a level of less than significant.

BIO-2: Avoidance and Minimization of Impacts to Special-Status Reptile Species. Any coast horned lizards and San Joaquin coachwhip snakes found during BNLL surveys shall be re-located outside the PIA under the authorization of a streambed alteration agreement. Exclusion fencing identified for BNLL would also prevent direct and indirect impacts to coast horned lizard and San Joaquin coachwhip.

Plan Requirements and Timing: A pre-construction biological survey and monitoring plan shall be prepared and submitted to CDFW for review, and shall be approved prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with this measure.

Residual Impacts. Mitigation measures provided above would reduce impacts to coast horned lizard and San Joaquin coachwhip snake to a level of less than significant.

BIO-3: Avoidance and Minimization of Impacts to Special-Status Bird Species. The following measures shall be implemented to mitigate potential impacts to California horned lark, Brewer's sparrow, loggerhead shrike and burrowing owl. In addition, exclusion fencing installed to protect BNLL (see BIO-1), loss of habitat and heavy equipment activity would discourage breeding within the project impact area and associated take of nests, eggs or nestlings.

- Vegetation within the project impact area shall be removed during the fall or winter (September 1 to February 15) prior to construction, to minimize the potential for bird nesting within the project site. Vegetation removal shall be conducted using hand tools and monitored by a qualified biologist to avoid mortality of BNLL and other seasonally inactive reptiles. In addition, any unoccupied nests found within the project impact area shall be removed to discourage nesting.
- A breeding bird survey shall be conducted prior to construction and all active nests shall be identified. Caltrans, CDFW and USFWS shall be contacted if any active nests are found within 300 feet of planned construction activities. Construction activity shall be modified based on input from Caltrans, CDFW and USFWS to prevent adverse effects to nesting birds. Such modifications may include postponing construction within 100 feet of active nests until young have fledged and/or reducing the magnitude and duration of activity near nests. Nest monitoring may be conducted to verify project-related adverse effects have been minimized. Breeding bird surveys and nest avoidance measures may be modified prior to construction to be consistent with the Streambed Alteration Agreement to be issued by CDFW for the project.

Plan Requirements and Timing: A breeding bird avoidance plan shall be developed, and shall be approved prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with these measures.

Residual Impacts. Mitigation measures provided above would reduce impacts to special-status bird species and other breeding birds to a level of less than significant.

Recommended Precautionary Measures for San Joaquin Kit Fox

This species is rare in the Cuyama Valley, was not observed during numerous biological surveys conducted for the project, and is not expected to be present at the project site. Therefore, impacts are not anticipated. However, the following standard recommendations from USFWS (2011) and the not likely to adversely affect concurrence letter from USFWS dated March 21, 2016 shall be implemented:

1. Project-related vehicles shall observe a daytime speed limit of 20 mph within the PIA and adjacent areas. Night-time construction shall be minimized to the extent possible, with a nighttime speed limit of 10 mph. Off-road traffic outside of the PIA shall be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If a kit fox is found trapped in an excavation during construction, an escape ramp shall be provided immediately and the USFWS and Caltrans contacted for further guidance.
3. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected by the project biologist for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until USFWS and CDFW have been consulted. If necessary and authorized by USFWS and CDFW, and under the direct supervision of the project biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the project site.
5. No firearms shall be allowed on the project site.
6. No pets, such as dogs or cats, shall be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

7. Use of rodenticides and deleterious herbicides in project areas shall be prohibited.
8. The County shall identify a contact for reporting any incidents involving kit foxes, including any found dead, injured or entrapped. The contact will be provided at the pre-construction meeting and their name and telephone number shall be provided to USFWS and CDFW. The County shall contact USFWS and CDFW immediately if a dead or injured kit fox is found on-site, followed up by a written notification within three working days.
9. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. shall be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions.

A kit fox protection plan would be prepared and submitted to CDFW and USFWS for review, and shall be approved prior to the initiation of construction. The protection plan shall be implemented for the entire construction period.

4.5 CULTURAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Archaeological Resources					
a. Disruption, alteration, destruction, or adverse effect on a recorded prehistoric or historic archaeological site				X	
b. Disruption or removal of human remains?				X	
c. Increased potential for trespassing, vandalizing, or sabotaging archaeological resources?				X	
d. Ground disturbances in an area with potential cultural resource sensitivity based on the location of known historic or prehistoric sites?				X	
Ethnic Resources					
e. Disruption of or adverse effects upon a prehistoric or historic archaeological site or property of historic or cultural significance to a community or ethnic group?				X	
f. Increased potential for trespassing, vandalizing, or sabotaging ethnic, sacred, or ceremonial places?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
g. The potential to conflict with or restrict existing religious, sacred, or educational uses of the area?				X	

Setting:

The following discussion is based on an Archeological Survey Report prepared for the project by Applied Earthworks, Inc. dated April 2012.

Regional Prehistoric Overview. Humans were present in the Santa Barbara Channel area by 12,000 years ago, as indicated by human bones from Santa Rosa Island that are at least that old (Erlandson et al., 2007). The earliest human presence on the mainland is reflected by a basal corner of a Clovis point which may indicate a mainland occupation of a comparable age (Glassow et al., 2007). These are some of the oldest archaeological finds from North America.

Two additional sites from the Channel Islands and one other site from the Santa Barbara Channel mainland date prior to 7000 B.C. (Glassow et al., 2007). Sites dating to this period are characterized by an artifact assemblage of primarily flaked stone tools and people appear to have subsisted largely on plants, shellfish, and some vertebrate species (Erlandson et al., 2007). Fishing with gorge and line was practiced by about 7800 B.C.; however, milling implements were not used during this period (Glassow et al., 2007). Overall, this period has been described as a time of low population density, simple technology, and egalitarian social organization (Erlandson, 1994).

After 7000 B.C., the population began expanding and metates and manos become abundant (Glassow et al., 2007). Approximately 40 sites have been dated to the Milling Stone Period (7,000 to 4,500 B.C.). Many sites contain substantial deposits with hundreds of artifacts, implying regular use and longer periods of residence (Glassow et al., 2007). These ground stone implements have been interpreted as evidence for a subsistence focus on seeds and other plant materials, and may imply increased storage of food between seasons (Glassow, 1996).

Hammerstones, fire-altered rocks, and a variety of flaked stone tools are also abundant in sites dating to the Milling Stone Period (Glassow et al., 2007). Estuarine shell species are very common in sites of this age along the channel coast and appear to have been more important than other animal food sources (Erlandson 1991, 1994; Warren, 1968). Additionally, artifacts made from exotic obsidian, imported from at least as far away as the southeastern Sierra Nevada, have been recovered from sites dating to the early phases of this era (Erlandson, 1994). However, sites of this age contain few or no projectile points (Glassow et al., 2007). *Olivella biplicata* shell beads make their first appearance during the Milling Stone Period, but they do not indicate social stratification as in later prehistory (Glassow et al., 2007).

The patterned distribution of artifact types interred with burials indicate that social status was determined by an individual's own accomplishments rather than on inherited or ascribed social standing (Erlandson, 1993; Glassow, 1996; King, 1990).

The period of 4,500 to 2,000 B.C. represents a time of technological advances, population growth, and greater social complexity. Metates and manos continued to be used during this period with the addition of mortars and pestles, indicating utilization of a greater variety of plant foods, including acorns. There is also a significant increase in the quantity of projectile points found in sites from this period (Glassow et al., 2007).

Population densities and reliance on marine fish and mammals appears to increase steadily from 3000 to 1000 B.C. (Glassow, 1996). Settlement became more complicated; both large sites and smaller, less dense sites existed at the same time. The larger sites may have served as primary residential bases where a variety of specialized activities took place, while the smaller sites would have been occupied for much shorter periods. There is also an increase in the number of shell beads and ornaments found with burials, indicating greater social complexity (Glassow et al., 2007).

Transitions from the middle to late Holocene (2,000 B.C.–A.D. 1) are characterized by changes in technology, subsistence, and settlement during this period that reflect an increasingly maritime orientation with intensified fishing and regional exchange. Contracting stemmed points, notched stone sinkers or net weights, and circular shell fishhooks all make their first appearance during this period; these directly transformed hunting, fishing, and warfare, respectively. There is a broadening of diet to include a diverse array of marine and terrestrial species. There is also evidence for increased sedentism at sites based on their increased size and/or high density of faunal remains and artifacts, floral assemblages indicative of year-round habitation, formal architecture, ceremonial structures, and formal cemeteries (Glassow et al., 2007).

The A.D. 1 to 1,000 era is considered to be a time of steady intensification of resource use to support increasing populations, reflected by increasing diversity of food sources taken from a wider range of habitats (Erlandson, 1993). This was enabled by technological changes that supported fishing and hunting. The most significant technological change is the introduction of the plank canoe, or *tomol.* The *tomol* was important in fishing and commerce between the mainland coast and the Channel Islands. The bow and arrow, also introduced during this period, influenced methods of hunting and warfare. Population growth and increased sedentism is reflected by larger midden deposits and the presence of well-developed cemeteries (Glassow et al., 2007).

Late prehistory (A.D. 1000–1542) represents the height of Chumash population, craft specialization, and social complexity. Island populations manufactured millions of shell beads which would be exchanged for mainland products (Glassow et al., 2007). This was supported by micro-lithic blade technology, linked with production of standardized micro-drills for perforating shell beads, that emerged by circa A.D. 900.

During the next 250 years, these island chert micro-drills are found at both island and mainland villages. Beginning circa A.D. 1150, developments include the appearance of a technologically superior microblade form; increases in production scale, labor investment, and product standardization; and decreased failure rates (Arnold, 2001).

Evidence from the archaeological record clearly implicates changing environmental conditions in addition to growing populations and the resulting increased pressure on subsistence and other resources as notable influences on changing Chumash social and cultural practices. Shorter-term periods of environmental perturbation appear to correlate with higher incidence of infectious disease and traumatic injuries indicative of violent conflict (Lambert, 1994; Walker and Lambert, 1989). Unfavorable climate conditions and introduction of the bow and arrow, both beginning circa A.D. 500, are associated with increased signs of interpersonal violence in channel populations (Walker et al., 1989).

Ethnography. The Chumash at the time of European contact inhabited villages and towns in coastal and inland areas extending from the Santa Monica Mountains in the south to Paso Robles in the north as well as the Northern Channel Islands (Grant, 1978; Milliken and Johnson, 2003). Chumash society developed over the course of some 9,000 years and achieved a level of social, political and economic complexity not ordinarily associated with hunting and gathering groups (Greenwood, 1972). The prehistoric Chumash are believed to have maintained one of the most elaborate bead money systems in the world, as well as one of the most complex non-agricultural societies (King, 1990).

The Chumash aboriginal way of life ended with Spanish colonization. As neophytes brought into the mission system they were transformed from hunters and gatherers into agricultural laborers and exposed to diseases to which they had no resistance. By the end of the Mission Period in 1834, the Chumash population had been decimated by disease and declining birthrates. Population loss as a result of disease and economic deprivation continued into the next century.

Today, many people claim their Chumash heritage in Santa Barbara County. In general, they place high value on objects and places associated with their past history, especially burials, grave goods, and archaeological sites.

Record Search. Applied Earthworks conducted a records search at the Central Coast Information Center on January 12, 2012. The results of the record search indicate that no cultural resource studies have been completed within six miles of the project site, and no cultural resources have been recorded within proximity to the project site. The closest resource, archeological site CA-SBA-3679 consists of three ground stone artifacts located approximately 8 miles west of the project site.

The Native American Heritage Commission conducted a file search on January 30, 2012 to identify any sacred lands in the project area. The file search failed to identify any cultural resources within the immediate project area.

Field Investigation. Applied Earthworks conducted a pedestrian (surface) survey of the project site (including potential construction staging areas) on January 31, 2012. No cultural resources were found during the survey.

Native American Consultation. A total of 18 Native American contacts (provided by the Native American Heritage Commission) were mailed a letter requesting cultural resources information by Applied Earthworks on February 6, 2012. These contacts were also telephoned to solicit concerns about the project. Three responses were received; both Julie Tumamait and Charles S. Parra requested construction activities be monitored by a Native American representative and/or archeological monitor. Patrick Tumamait asked if a records search had been completed and if a Native American and/or archeological monitor would be used during construction.

Environmental Thresholds. The County Environmental Thresholds and Guidelines Manual contains guidelines for identification, significance determination, and mitigation of impacts to important cultural resources. Chapter 8 of the Manual, the *Archaeological Resources Guidelines: Archaeological, Historic and Ethnic Element,* specifies that if a resource cannot be avoided, it must be evaluated for importance under CEQA. CEQA Section 15064.5 contains the criteria for evaluating the importance of archaeological and historical resources. For archaeological resources, the criterion usually applied is: (D), "Has yielded, or may be likely to yield, information important in prehistory or history. A project that may cause a substantial adverse effect on an archaeological resource may have a significant effect on the environment.

Impact Discussion:

a. Based on the results of the record search, the project-specific field investigation and the project location within or adjacent to the Cuyama River, ground disturbance associated with bridge construction would not disrupt any known or potential archeological sites.

b. Impacts to known archeological sites would not occur; therefore, disruption or removal of human remains is not anticipated.

c. The proposed project would not result in an increase in population or increased access to archeological sites. Therefore, an increased potential for trespassing, vandalism or sabotage is not anticipated.

d. No disruption or other adverse effects to known or suspected archaeological sites are anticipated.

e. No prehistoric or historic archeological sites or properties of historic or cultural significance would be adversely affected by the proposed project.

f. No ethnic, sacred or ceremonial places occur in the vicinity of the project; therefore, no adverse effects are expected.

g. The proposed project would not result in an increase in population or increased access to ethnic, sacred or ceremonial places. Therefore, increased conflicts with religious, sacred or educational uses are not expected.

Mitigation Measures and Residual Impacts:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts to cultural resources or substantially contribute to cumulative impacts. However, implementation of the following standard Santa Barbara County measures is recommended to address cultural resources (if any) found during project construction:

- In the unexpected event that potentially significant archaeological resources are exposed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended until a qualified archaeologist has evaluated the nature and significance of the find. The County shall be notified of any such find. A Chumash representative should monitor any archaeological field work associated with Native American materials.
- If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. The County shall be notified of any such find.

4.6 ENERGY

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?				X	
b. Requirement for the development or extension of new sources of energy?				X	

Impact Discussion:

a. The project consists of bridge construction and would not consume energy, with the exception of fossil fuels used in construction equipment. Overall, no increase in demand for energy would occur.

b. The project would not require or induce new development or extension of existing sources of energy.

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in impacts to energy resources or substantially contribute to cumulative impacts.

4.7 FIRE PROTECTION

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Introduction of development into an existing high fire hazard area?				X	
b. Project-caused high fire hazard?		X			
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?				X	
d. Introduction of development that will hamper fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?				X	
e. Development of structures beyond safe Fire Dept. response time?				X	

Setting:

The project site consists of the existing river crossing, portions of Foothill Road, the Cuyama River and adjacent areas. Fire hazard is moderate, primarily associated with native shrubs located just outside the right-of-way. However, the project area has been mapped as a high fire hazard area on the State Fire Hazard Severity Zones map for Santa Barbara County. Santa Barbara County Fire Station 41 serves the project area, and is located in New Cuyama, approximately 8.7 miles west-northwest of the project site.

Environmental Thresholds. Predictions about the long-term effects of global climate change in California include increased incidence of wildfires and a longer fire season, due to drier conditions and warmer temperatures. Any increase in the number or severity of wildfires has the potential to impact resources to fight fires when they occur, particularly when the state experiences several wildfires simultaneously. Such circumstances place greater risk on development in high fire hazard areas.

Impact Discussion:

a. The proposed project does not involve the construction of habitable or other flammable structures, and would not directly or indirectly lead to any such structures that may increase the exposure of the public to fire hazard.

b. Construction activities would occur in areas supporting potentially flammable vegetation and would have the potential to significantly increase fire hazard to nearby residential and agricultural commercial areas. Implementation of Mitigation Measure FIRE-1 would ensure impacts are reduced to less than significant levels.

c. The proposed project does not include any development.

d. The proposed project does not include any new development (excluding the proposed bridge), and would not hamper fire prevention activities.

e. The proposed project would be constructed of non-flammable materials (primarily Portland cement, steel and asphalt concrete) and would not require fire protection.

Mitigation and Residual Impact:

FIRE-1. To minimize potential fire hazards, a Fire Awareness and Avoidance Plan shall be implemented during construction. The Plan shall include the following:

- Fire prevention measures addressing cutting, grinding and welding;
- Maintaining fire extinguishers in every vehicle on-site;
- Providing a water truck;
- Prohibiting cutting, grinding or welding during red flag alerts; and
- Communication with emergency response agencies.

Plan Requirements/Timing: The Fire Awareness and Avoidance Plan shall be submitted prior to the initiation of construction. MONITORING: The County-appointed inspector shall ensure the Plan is fully implemented.

Residual Impacts. Full implementation of the above mitigation measure would reduce project-specific and cumulative fire hazard impacts to a level of less than significant.

4.8 GEOLOGIC PROCESSES:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			X		
b. Disruptions, displacements, compaction or overcovering of the soil by cuts, fills, or extensive grading?			X		
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?			X		
d. The destruction, covering or modification of any unique geologic, paleontologic, or physical features?				X	
e. Any increase in wind or water erosion of soils, either on or off the site?			X		

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?			X		
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				X	
h. Extraction of mineral or ore?				X	
i. Excessive grading on slopes of over 20%?				X	
j. Sand or gravel removal or loss of topsoil?				X	
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?			X		
l. Excessive spoils, tailings or over-burden?				X	

Setting:

Based on the Geologic Map of the Eastern Three-Quarters of the Cuyama 30' x 60' Quadrangle (Kellogg et al., 2008), the project site is underlain by surficial sediments composed of active alluvium (Holocene), inactive alluvium (Holocene and late Pleistocene) and older alluvium (Pleistocene). Soils of the project site include sandy alluvial land, riverwash, Metz loamy sand and Panoche sandy loam. Nearby mapped faults are the Ozena Fault (inactive thrust fault, 6.3 miles to the southwest) and the San Andreas Fault system (active strike-slip fault, 7 miles to the northeast). The nearest Alquist-Priolo fault hazard zone is the San Andreas Fault system. Groundwater pumping in the Cuyama Valley has caused up to 0.2 feet of subsidence since 2000 (U.S. Geological Survey, 2014).

Environmental Thresholds. Pursuant to the County's Thresholds and Guidelines Manual, impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

- The project site or any part of the project is located on land having substantial geologic constraints, as determined by Planning and Development, and the Department of Public Works. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.
- The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.

- The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
- The project is located on slopes exceeding 20 percent grade.

Impact Discussion:

a. Based on the Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan, the project site is located in an area assigned low problem ratings for, tsunami, expansive soils, soil creep, and compressible-collapsible soils; moderate problem rating for liquefaction; and high problem rating for seismic-tectonic. The project site does not include any unstable slopes with landslides or slope stability concerns. The proposed bridge would be designed to withstand anticipated seismic stresses according to American Association of State Highway and Transportation Officials and Caltrans standards. The proposed project would not include any habitable structures. Persons travelling over the bridge would not be exposed to geologic hazards.

b. Earthwork associated with the proposed project would include placement of engineered fill for the bridge approaches, rock slope protection and connector roads. Cut and fill slopes would be no more than 10 feet high and would not be subject to substantial soil displacement or disruption.

c. The ground surface would be mostly restored following bridge construction, with only minor, localized changes in topography associated with the new bridge and rock slope protection.

d. Based on the Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan, no Areas of Special Geologic Interest occur in the project area. A search of the University of California Museum of Paleontology data base identified a Miocene-age echinoderm from Cuyama Valley and a Miocene-age pika from Branch Canyon (south of New Cuyama). Project-related ground disturbance would occur in recent alluvium, such that intact paleontological resources would not be present. No impacts to unique geologic, paleontologic, or physical features would occur.

e. The project does not involve hillside grading or other components that would increase soil erosion. Potential erosion associated with storm water flows during the construction period is addressed in Section 4.16. Construction activities would avoid surface flows in the Cuyama River to the extent feasible, ensuring increased water-related erosion is minimized.

f. Bridge construction would generally not involve stream diversion or excavation within the surface flow of the Cuyama River. However, diversion of flows generated by summer thunderstorms (if any) would be required. Based on surface water monthly statistics for the stream gauge near Ventucopa, these flows would be less than 5 cfs. A Storm Water Pollution Prevention Plan would be implemented during bridge construction to minimize discharge of silt-laden storm water to the Cuyama River. Therefore, impacts from increased erosion or siltation would be less than significant.

g. The proposed project would not involve the placement of septic systems.

h. The proposed project does not involve the extraction or processing of minerals or ore.

i. No grading of existing slopes is proposed.

j. Excavation associated with bridge construction would occur within previously disturbed areas and would not result in the loss of topsoil.

k. Vibration would be generated by heavy equipment during bridge construction, but would not be detected at any occupied land uses or adversely affect any structures due to the distance from the project site. Therefore, vibration impacts are considered less than significant.

l. No spoils would be generated and any material excavated would be used on-site.

Mitigation and Residual Impact:

Mitigation for potentially significant erosion and siltation impacts are addressed under Water Resources (Section 4.16). Residual impacts would be less than significant.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?			X		
b. The use, storage or distribution of hazardous or toxic materials?			X		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?				X	
d. Possible interference with an emergency response plan or an emergency evacuation plan?				X	
e. The creation of a potential public health hazard?				X	
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?				X	
g. Exposure to hazards from oil or gas pipelines or oil well facilities?				X	
h. The contamination of a public water supply?				X	

Setting:

The project area supports residential, commercial and agricultural land uses. No industrial land uses are located in the immediate area. Based on review of the GeoTracker (State Water Resources Control Board) and ENVIROSTOR (California Department of Toxic Substances Control) data bases, a leaking underground storage tank case was identified at the Cuyama Elementary School (4.4 miles to the northwest). This case consisted of soil contamination by gasoline, and was closed in 1995.

Environmental Thresholds. The County's safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

Impact Discussion:

a. The project site does not have a history of hazardous materials production, use or storage. It is expected that pesticides have been applied currently or in the past within adjacent agricultural areas. However, affected areas are within the 100-year floodplain of the Cuyama River, such that periodic erosion and sedimentation would prevent the accumulation of pesticides in areas to be excavated. Therefore, project implementation would not result in exposure of persons or the local environment to hazardous materials.

b. Excluding fuels used by construction equipment and vehicles, the project does not involve the use, storage or distribution of hazardous or toxic materials. Equipment and vehicles associated with the project would be fueled from a maintenance vehicle located away from drainages and residences. No storage of fuel is proposed at or near the project site.

c. Although such accidents have not been reported, vehicles attempting to cross the Cuyama River during high flows may be damaged and may release fuel and other hydrocarbons to the Cuyama River. The proposed bridge would span the River and prevent such accidents and any associated hydrocarbon releases. No risk of explosion or release of hazardous substances is expected as a result of project-related activities.

d. The proposed project would not interfere with any emergency response plan. In the long-term, the proposed project would improve emergency response by allowing Foothill Road to remain open during periods of high flows in the Cuyama River. Although the Foothill Road crossing would be closed for much of the construction period, alternate access is available for land uses west of the Cuyama River.

e. The proposed project does not involve the creation, storage or handling of any hazardous materials, and would not create any potential health hazard.

f. The proposed project does not include any new development near hazardous materials.

g. No oil or gas wells or other oil production facilities, or oil or gas pipelines occur at the project site. Therefore, project implementation would not result in exposure of persons or property to these hazards.

h. The proposed project does not include any activities that would affect public water supplies.

Mitigation Measures and Residual Impacts:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts related to hazardous materials or hazardous waste or substantially contribute to cumulative impacts.

4.10 HISTORIC RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Adverse physical or aesthetic impacts on a structure or property at least 50 years old and/or of historic or cultural significance to the community, state or nation?				X	
b. Beneficial impacts to a historic resource by providing rehabilitation, protection in a conservation/open easement, etc.?				X	

Setting:

Following Mexican independence from Spain in 1822, the Mexican government gained control over California, and about 500 land grants were given to local rancheros. Two ranchos were granted along the Cuyama River in the project vicinity (Beck and Hasse, 1974). Life on the ranchos in many ways resembled life in the Spanish missions, with a typical rancho employing between 20 and several hundred Native Americans, many of whom had lived at local missions. Agriculture continued to be the dominant industry in the region.

George S. Gilbert was among the first men to produce oil in California, and he built a small refinery on the Ojai Ranch in Ventura County in 1861. The 1890's saw a dramatic expansion in oil production as new discoveries were made across the state. In 1910, the discovery of the Lakeview gusher in west Kern County spurred an oil boom. By 1925, petroleum refining had become California's largest manufacturing industry with a monetary value twice that of the fruit and vegetable canning industry. The town of Maricopa was established as a terminal of the Southern Pacific Railroad's Sunset line in 1903–1904. The Atlantic Richfield Company developed the town of New Cuyama in the early 1950's as a base for its work force in the Cuyama Valley.

The record search conducted at the Central Coast Information Center on January 12, 2012 by Applied EarthWorks did not identify any historic sites in the project area. In addition, the California Inventory of Historic Resources, California Historic Landmarks and California Points of Historical Interest were consulted, and no resources were identified in the project area.

Environmental Thresholds. The significance of historic resource impacts is determined through use of the County's Cultural Resources Guidelines. A significant resource: a) possesses integrity of location, design, workmanship, material, and/or setting; b) is at least fifty years old, and c) is associated with an important contribution, was designed or built by a person who made an important contribution, is associated with an important and particular architectural style, or embodies elements demonstrating outstanding attention to detail, craftsmanship, use of materials, or construction methods.

Impact Discussion:

a. No historic properties or structures occur in the project area. Therefore, proposed bridge construction would not adversely affect any historic resources.

b. As no historic resources occur in the project area, rehabilitation or protection of such resources is not proposed.

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in impacts to historic resources or contribute to cumulative impacts.

4.11 LAND USE

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?				X	
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		X			
c. The induction of substantial growth or concentration of population?				X	
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?				X	
e. Loss of existing affordable dwellings through demolition, conversion or removal?				X	
f. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X	
h. The loss of a substantial amount of open space?				X	
i. An economic or social effect that would result in a physical change? (i.e., closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)				X	
j. Conflicts with adopted airport safety zones?				X	

Setting:

Proposed construction would occur within the existing roadway right-of-way (minimum 50 feet wide) along Foothill Road, and on the following parcels:

- APN 149-150-026 (Santa Barbara County): 106.28 acres, land use designation AC (agriculture-commercial), zoned AG-II-100;
- APN 149-170-005 (Santa Barbara County): 82 acres, land use designation A-II (agriculture), zoned U (unlimited agriculture);
- APN 149-170-006 (Santa Barbara County): 80.66 acres, land use designation A-II (agriculture), zoned U (unlimited agriculture);
- APN 149-170-042 (Santa Barbara County): 39.38 acres, land use designation AC, zoned AG-II-100;
- APN 096-211-029 (San Luis Obispo County): land use designation AG (agriculture); and
- APN 096-211-040 (San Luis Obispo County): land use designation AG (agriculture).

The proposed project includes acquisition of a 60 foot-wide right-of-way along Foothill Road on APN 149-170-005 and -006 (approximately 7.55 acres). The proposed 7.4 acre construction staging area is located on APN 149-170-006 (see Figure 4). Proposed mitigation includes establishment of a 10.5 acre Conservation Area for blunt-nosed leopard lizard on APN 149-170-005. Zoning designation AG-II indicates prime and non-prime farmland located in the Rural Area with the goal to preserve lands for long-term agricultural use.

Land uses of the project site (including construction staging areas) are comprised of the Foothill Road right-of-way, pistachio orchards to the west and fallow row crops to the northeast. The remainder of the project site is undeveloped and supports native vegetation. A small dairy is located approximately 0.7 miles west of the proposed bridge site, immediately north of Foothill Road. The nearest residences are farmworker dwellings located just south of Foothill Road approximately 3,200 feet west of the proposed bridge site, and a single-family residence on Santa Barbara Canyon Road 0.5 miles to the south.

Environmental Thresholds. The Thresholds and Guidelines Manual contains no specific thresholds for land use. Generally, a potentially significant impact can occur if a project as proposed is potentially inconsistent with policies and standards adopted by an agency for the purposes of environmental protection or would result in substantial growth inducing effects.

Impact Discussion:

a. The proposed project consists of a new bridge to replace an at-grade river crossing, with the same number of traffic lanes within the same right-of-way, and is entirely compatible with surrounding land uses.

b. With incorporation of all required mitigation, this project would be consistent with policies adopted for the purpose of avoiding or mitigating environmental effects. These mitigation measures include BIO-1, BIO-2, BIO-3, FIRE-1, SW-1 and WR-1.

c. The proposed project is limited to improvement of an existing roadway river crossing, and would not facilitate or result in population growth or changes in the spatial configuration of the existing population.

d. The proposed project does not include the extension of sewer lines or roadways.

e. The proposed project would not displace any dwellings.

f. See e.

g. See e.

h. No loss of open space would occur as a result of the proposed project.

i. No social or economic effect would occur that would result in a physical change in the local community. Temporary closure of Foothill Road would occur during construction, but would not result in the isolation of any land uses, as alternate routes are available.

j. The project site is located approximately 36 miles northeast of the Santa Ynez Airport (nearest airport). The project would not conflict with any airport safety zones.

Mitigation and Residual Impact:

See mitigation measures BIO-1, BIO-2, BIO-3, FIRE-1, SW-1 and WR-1. Incorporation of these mitigation measures would reduce land use impacts to a level of less than significant.

4.12 NOISE

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?			X		
b. Short-term exposure of people to noise levels exceeding County thresholds?			X		
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?			X		

Setting:

The dominant noise source in the project area is traffic on local roadways, including Foothill Road, SR 33 (to the east) and SR 166 (to the north). Traffic volumes on Foothill Road are estimated as 200 average daily trips (Santa Barbara County Public Works, 2013). The 2014 average annual daily trips on nearby Route 33 are 740. Other local noise sources include the dairy located 0.7 miles to the west, and occasional farm equipment used for cultivation of adjacent croplands and orchards. Noise sensitive receptors in the vicinity of the project site are limited to farmworker dwellings located just south of Foothill Road approximately 3,200 feet west of the proposed bridge site, and a single-family residence on Santa Barbara Canyon Road 0.5 miles to the south.

Environmental Thresholds. Noise is generally defined as unwanted or objectionable sound which is measured on a logarithmic scale and expressed in A-weighted decibels (dB(A)). The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (L_{dn}) are noise indices which account for differences in intrusiveness between day and night-time uses.

County noise thresholds are: 1) 65 dB(A) CNEL maximum for exterior exposure, and 2) 45 dB(A) CNEL maximum for interior exposure of noise-sensitive uses. Noise-sensitive land uses include: residential dwellings, transient lodging, hospitals and other long-term care facilities, public or private educational facilities, libraries, churches, and places of public assembly.

Impact Discussion:

a. The proposed project involves replacement of an existing unpaved at-grade roadway crossing with an elevated bridge, at the same location. The project would not affect traffic volumes on Foothill Road. The proposed bridge would result in an increase in travel speeds over the Cuyama River from about 25 mph up to 55 mph (bridge design speed). The elevated bridge design and increased travel speed would result in a long-term increase in traffic noise. Due to the small traffic volume (about 200 average daily trips) and distance to the nearest noise-sensitive land use (0.5 miles), the 65 dB(A) CNEL threshold is not anticipated to be exceeded.

b. Heavy equipment activity would occur at various times at the site over the anticipated 12 month construction period. Noise modeling was conducted using the Federal Highway Administration Roadway Construction Noise Model to estimate the short term noise levels for the peak construction scenario (earthwork). Estimated noise levels are 47.0 dBA Leq at the nearest residence (2,800 feet to the south) and 46.0 dBA Leq at the next nearest residence (3,200 feet to the west). The County has not developed any short-term noise thresholds. However, construction activities within 1,600 feet of a residence are considered to generally result in a potentially significant impact (County of Santa Barbara, 2015). As residences are located greater than 1,600 feet from the project site, construction noise impacts are considered less than significant.

c. See a. and b. above.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts related to noise or substantially contribute to cumulative impacts.

4.13 PUBLIC FACILITIES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				X	
b. Student generation exceeding school capacity?				X	
c. Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?		X			
d. A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
e. The construction of new storm drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	

Setting:

Environmental Thresholds. Construction and demolition solid waste from commercial, industrial or residential development exceeding 350 tons is considered to have a significant impact on public services.

Impact Discussion:

a. The proposed project does not include any new development or any facilities that would require police protection or health care services.

b. The project does not include any residential land uses, and would not generate demand for school capacity.

c. The project includes demolition of the existing Cuyama River at-grade crossing (primarily a portion of the roadway approaches) which would generate solid waste. In addition, project-related construction would generate some solid waste requiring landfill disposal. The project may exceed the 350 ton County solid waste CEQA threshold for construction and demolition.

d. The proposed project does not include any residential or commercial development, and would not generate demand for sewage collection or related facilities.

e. The proposed project would not require the construction of any storm drain or water quality control facilities.

Mitigation and Residual Impact:

SW-1. To minimize potential impacts to landfill capacity, the following measures shall be implemented:

- Cut and fill operations shall be balanced on-site to the extent feasible to minimize export of any materials requiring disposal; and
- Construction-related solid waste such as road base, asphalt and concrete shall be recycled to the extent feasible.

Plan Requirements/Timing: Cut and fill volumes shall be shown on the construction plans. A Solid Waste Recycling Plan shall be developed and approved prior to the initiation of construction. MONITORING: The County-appointed inspector shall ensure the Plan is fully implemented.

Residual Impacts. Full implementation of the above mitigation measures would reduce project-specific and cumulative public services impacts to a level of less than significant.

4.14 RECREATION

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				X	
b. Conflict with biking, equestrian and hiking trails?				X	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				X	

Setting:

The Santa Barbara County Parks Department maintains more than 900 acres of parks and open spaces, as well as 84 miles of trails and coastal access easements. The only recreational facility in the area is Richardson County Park in New Cuyama, located approximately 8.5 miles to the west-northwest of the project site.

Environmental Thresholds. The Thresholds and Guidelines Manual contains no thresholds for park and recreation impacts. However, the Board of Supervisors has established a minimum standard ratio of 4.7 acres of recreation/open space per 1,000 people to meet the needs of a community.

Impact Discussion:

a. Project implementation would not limit access or otherwise conflict with existing recreational uses.

b. Although the project site is not located in the vicinity of any trails, the proposed bridge includes a dedicated pedestrian walkway. Construction and operation of the proposed project would not adversely affect any bike, equestrian or hiking trails.

c. The project does not include residential land uses; therefore, it would not generate demand for recreational facilities or result in associated overuse.

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in impacts related to recreation or substantially contribute to cumulative impacts.

4.15 TRANSPORTATION/CIRCULATION:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system?			X		
b. A need for private or public road maintenance, or need for new road(s)?				X	
c. Effects on existing parking facilities, or demand for new parking?				X	
d. Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods?				X	
e. Alteration to waterborne, rail or air traffic?				X	
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians (including short-term construction and long-term operational)?			X		
g. Inadequate sight distance?				X	
h. Inadequate ingress/egress?				X	
i. Inadequate general road capacity?				X	
j. Inadequate emergency access?				X	
k. Impacts to the Congestion Management Plan system?				X	

Setting:

Foothill Road is an 8.6 mile-long east-west rural arterial roadway, and connects Route 33 to Bell Road which connects to Route 166. Kirschenmann Road is the primary connector between Route 166 and Foothill Road. Traffic volumes on Foothill Road are estimated as 200 average daily trips (Santa Barbara County Public Works, 2013). The 2014 average annual daily trips on nearby Route 33 are 740, and 3,750 on Route 166 (at the Santa Barbara/San Luis Obispo county line).

Environmental Thresholds. According to the County's Environmental Thresholds and Guidelines Manual, a significant traffic impact would occur when:

- The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the value provided below, or sends at least 15, 10 or 5 trips to an intersection operating at LOS D, E or F.

- Project access to a major road or arterial road would require a driveway that would create an unsafe situation or a new traffic signal or major revisions to an existing traffic signal.
- Project adds traffic to a roadway that has design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structures) or receives use which would be incompatible with substantial increases in traffic (e.g., rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use, etc.) that will become potential safety problems with the addition of project or cumulative traffic. Exceeding the roadway capacity designated in the Circulation Element may indicate the potential for the occurrence of the above impacts.
- Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections which would operate from 0.86 to 0.90, and 0.01 for intersections operating at anything lower.

Impact Discussion:

a. Project-related traffic would be limited to the construction period. Employee and materials transportation associated with project construction would generate a maximum of about 40 average daily trips (20 round trips per day; 10 heavy-duty trucks, 10 light-duty vehicles). Construction worker trips would occur mostly prior to peak hour, and heavy-duty truck trips (mostly concrete deliveries) would occur throughout the work day. Therefore, peak hour trips are expected to be less than 5. It is anticipated that most construction-related traffic would access the site from Route 166, from both the west (Santa Maria area) and east (Maricopa/Bakersfield area). No intersections operating at LOS D, E or F would be affected, and project-related construction traffic would not result in congestion on Route 166.

b. The proposed project involves transportation improvements and would not result in a need for new roads or maintenance of existing roads. It is likely that maintenance activity associated with the new bridge would be less than existing conditions, as re-establishment of the existing at-grade river crossing would not be required after storm events.

c. The project area is rural, and parking facilities do not occur in the vicinity of the project site. The project would not generate long-term parking demand. Project construction-related parking needs would be accommodated on the project site.

d. The proposed project would not create a demand for transit or interfere with the existing transit system or circulation of people and goods.

e. The proposed project would not affect waterborne or rail traffic, and is not located in either clear zones or approach zones of any airport.

f. The existing at-grade Foothill Road crossing would be closed for most of the construction period, and signage would be provided to direct traffic to use the SR 166 crossing, either via SR 33 or Kirschenmann Road. Traffic controls (including signage and flagmen, as needed) would be used to minimize any traffic hazards to motorists. Implementation of standard County Public Works practices would ensure that impacts would be less than significant.

g. The proposed bridge would be designed according to American Association of State Highway and Transportation Officials and Caltrans standards and would provide adequate sight distance for motorists on Foothill Road.

h. The proposed project would not affect ingress/egress on any public or private roads. Access to all land uses would be maintained during the construction period.

i. The proposed bridge would provide more than adequate roadway capacity.

j. Emergency access to land uses along Foothill Road would not change. As indicated in Section 2.6, the Foothill Road crossing would be closed for much of the construction period, and signage would be provided to direct traffic to use the Route 166 crossing via Route 33 or Kirschenmann Road. Therefore emergency access would be available during the construction period.

k. Roadways and intersections in the project area operate at acceptable levels of service and are not subject to Congestion Management Plan requirements.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in significant impacts related to transportation or substantially contribute to cumulative impacts.

4.16 WATER RESOURCES/FLOODING:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X		
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?			X		
c. Change in the amount of surface water in any water body?			X		
d. Discharge, directly or through a storm drain system, into surface waters or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?		X			

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
e. Alterations to the course or flow of flood waters, or need for private or public flood control projects?				X	
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise or seawater intrusion?				X	
g. Alteration of the direction or rate of flow of groundwater?				X	
h. Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?				X	
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?				X	
j. The substantial degradation of groundwater quality including saltwater intrusion?				X	
k. Substantial reduction in the amount of water otherwise available for public water supplies?				X	
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?			X		

Setting:

Rainfall Data. Climate data collected at Fire Station #41 at New Cuyama indicates the average annual rainfall in the project area is 7.66 inches (1954-2015 data). However, rainfall recorded at Fire Station #41 during the 2010-2011 rainy season was 40 percent above normal (10.73 inches). Subsequent rainfall has been below normal; 5.09 inches in 2011-2012, 2.32 inches in 2012-2013, 1.74 inches in 2013-2014, 5.29 inches in 2014-2015 and 5.98 inches in 2015-2016.

Surface Waters. The project site is located along the upper Cuyama River approximately two miles downstream of its confluence with Santa Barbara Canyon. The 1,140 square mile upper Cuyama River watershed empties into Twitchell Reservoir, about 53 miles downstream of the project site. Based on data collected at the U. S. Geological Survey gauging station near Ventucopa (about 18 miles upstream of the project site), the upper Cuyama River is typically dry from June through September (mean monthly discharge of 1.5 cfs or less).

Floodplain. The project site is depicted on the National Flood Insurance Program Flood Insurance Rate Map panels 06083C0370G (Santa Barbara County) and 06079C2025G (San Luis Obispo County). Foothill Road traverses approximately 3,500 feet of the 100-year floodplain associated with the Cuyama River. Estimated flood flows in the Cuyama River at the project site are 24,500 and 33,800 cubic feet/second for a 50-year and 100-year event, respectively (West Consultants, 2013).

Groundwater. The project site lies within the Cuyama Valley Groundwater Basin, a 230 square mile area underlain by a sequence of unconsolidated and partly consolidated non-marine deposits. The Basin is considered to have an annual over-draft (extraction exceeds replenishment) of 29,900 acre-feet. In some portions of the Basin, groundwater elevations have declined as much as 400 feet below historic levels (Santa Barbara County Public Works, 2014).

Water Quality Regulation. The Regional Water Quality Control Board (RWQCB) has developed a Water Quality Control Plan for the Central Coast Region (Basin Plan) (2011) to protect the water quality of surface and groundwaters of the region. The Basin Plan designates beneficial uses, sets narrative and numerical objectives to protect beneficial uses and describes implementation programs. Beneficial uses are processes, habitats, organisms or features that require water and are considered worthy of protection. Identified beneficial uses for the Cuyama River upstream of Twitchell Reservoir include municipal water supply, agricultural water supply, industrial process supply, industrial service supply, groundwater recharge, water contact recreation, non-water contact recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, spawning habitat, rare species habitat, freshwater replenishment, and commercial and sport fishing habitat. The Cuyama River upstream of Twitchell Reservoir has been listed as impaired (beneficial uses not fully supported) under Section 303(d) of the Clean Water Act for elevated levels of boron, chloride, electrical conductivity, fecal coliform, sodium and pH. Note that the Cuyama River at the project site is dry for most of the year, such that these impairments may not fully apply.

Environmental Thresholds. A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;

- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Basin Plan or otherwise impairs the beneficial uses of a receiving water body;
- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

A project is determined to have a significant effect on groundwater resources if it would exceed 31 acre-feet/year threshold set for the over-drafted Cuyama Valley Groundwater Basin.

Impact Discussion:

a. Bridge construction activities within the Cuyama River channel would be limited to the dry season to minimize the need for stream diversion. However, stream diversion may be required should a summer thunderstorm occur during construction. These changes in the course of water movements would be temporary and limited to diversion of minor flows (if required). The proposed project would not alter the Cuyama River channel; therefore, no long-term changes in water movement would occur.

b. No large scale changes in drainage patterns would occur. The proposed bridge deck would be constructed of impervious concrete, with a crown such that storm run-off would be directed to the drains along the edges of the bridge deck and empty into the Cuyama River. The improved bridge approaches and proposed access road connectors would result in a small increase in impervious surfaces. Much of the increase in impervious surfaces would be offset by abandonment of the existing at-grade crossing, including approximately 0.55 acres of pavement. Overall, these changes would not result in substantial changes in storm run-off patterns or percolation rates or require new storm drain systems.

c. As discussed in a. and b. above, temporary stream diversion may be required but no long-term change in run-off patterns would occur. Therefore, no change in the amount of surface water present in any water body would occur as a result of the project.

d. Storm run-off from the project site during the construction period may cause increased turbidity and siltation, and discharge of hydrocarbons and other pollutants. This impact is considered potentially significant.

e. The bridge would be constructed to pass Cuyama River surface flows generated by 50-year storm event with a minimum of two feet of freeboard (distance between the predicted water surface elevation and bridge deck). Therefore, the proposed bridge would not substantially alter the course or flow of floodwaters. The project includes rock slope protection to minimize scour of the bridge abutments and minimize unanticipated lateral channel movement during major storm events. Therefore, no other flood control improvements are required.

f. The proposed project is located within the 100-year floodplain, but would be designed to withstand and convey flood flows. The project does not include any habitable structures; such that an increase in flood-related hazards to people or property would not occur. The proposed project would reduce the flood hazard to persons crossing the Cuyama River as an at-grade crossing would be replaced with an elevated bridge. Due to the inland location of the project site, tsunamis, sea level rise and seawater intrusion are not issues of concern.

g. The proposed project would not involve any groundwater extraction or other changes that could alter the rate or flow of groundwater.

h. The project does not involve substantial or long-term extraction of groundwater, excavation of aquifers or interference with recharge.

i. The project would not involve groundwater pumping. Therefore, the proposed project would not contribute to overdraft of the Cuyama Valley Groundwater Basin.

j. As no groundwater pumping would occur, the proposed project would not contribute to seawater intrusion.

k. The project would not require a long-term source of water and would not affect public water supplies.

l. Storm run-off from Foothill Road and adjacent land uses likely contributes pollutants to the Cuyama River. Vehicle-related pollutants (fuel, lubricants, brake dust, coolant, fugitive dust) are currently discharged to the riverbed by users of the existing at-grade unpaved crossing. These same pollutants would be discharged to the bridge deck, and enter the Cuyama River as a result of storm run-off. Overall, the proposed bridge would not affect the type or volume of these pollutants generated, or substantially increase the discharge of these pollutants to Cuyama River.

Mitigation Measures and Residual Impacts:

WR-1. The project would require coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Water Quality Order 2009-0009-DWQ). As required by the conditions of the General Permit, a Storm Water Quality Pollution Prevention Plan (SWPPP) would be prepared, which would include best management practices to be implemented and a monitoring program. The following Best Management Practices shall be incorporated into the SWPPP to minimize potential water quality impacts.

- All ground disturbance shall be limited to the dry season or periods when rainfall is not predicted, to minimize erosion and sediment transport to surface waters;
- Disturbed areas shall be stabilized or re-vegetated prior to the start of the rainy season;
- Impacts to vegetation within and adjacent to the Cuyama River and storm drains shall be minimized. The work area shall be flagged to identify its limits. Vegetation shall not be removed or intentionally damaged beyond these limits.
- Construction materials and soil piles shall be placed in designated areas where they could not enter creeks or storm drains due to spillage or erosion.
- Trash, waste and debris generated during construction shall be stored in designated waste collection areas and containers away from the Cuyama River. All trash, waste and debris shall be disposed of regularly.
- All fueling of heavy equipment shall occur in a designated area removed from the Cuyama River and other drainages, such that any spillage would not enter surface waters. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.
- Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and coolant, and shall be examined for leaks on a daily basis. All maintenance shall occur in a designated offsite area. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.
- Any accidental spill of hydrocarbons or coolant that may occur on the construction site shall be cleaned immediately. Absorbent materials shall be maintained on the construction site for this purpose. The Regional Board shall be notified immediately in the event of an accidental spill to ensure proper clean up and disposal of waste.

Plan Requirements/Timing: These measures shall be included in the project specifications and SWPPP. MONITORING: The County-appointed inspector shall ensure the measures are fully implemented.

Residual Impacts. Mitigation measures are provided above would reduce construction-related water quality impacts to a level of less than significant.

5.0 INFORMATION SOURCES

5.1 COUNTY DEPARTMENTS CONSULTED

Public Works Department

5.2 COMPREHENSIVE PLAN (CHECK THOSE SOURCES USED):

X	Seismic Safety/Safety Element	X	Conservation Element
X	Open Space Element	X	Noise Element
	Coastal Plan and Maps	X	Circulation Element
	ERME		Agricultural Element

5.3 OTHER SOURCES (CHECK THOSE SOURCES USED):

X	Field work		Ag Preserve maps
	Calculations	X	Flood Control maps
X	Project plans	X	Other technical references
	Traffic studies		(reports, survey, etc.)
X	Records		Planning files, maps, reports
X	Grading plans	X	Zoning maps
	Elevation, architectural renderings	X	Soils maps/reports
X	Published geological map/reports		Plant maps
X	Topographical maps	X	Archaeological maps and reports
X	Important Farmland Maps	X	FEMA Floodplain maps
		X	Project hydraulic analysis

5.4 REFERENCES

Althouse and Meade, Inc. 2012. *Biological Report for Cuyama Solar Array Project*. Prepared for Cuyama Solar, LLC.

AMEC Environmental & Infrastructure. 2014. *Certified Final Environmental Impact Report Cuyama Solar Facility and Comprehensive Plan/Land Use Development Code Amendments Project*. Prepared for Santa Barbara County.

Applied Earthworks, Inc. 2012. *Archaeological Survey Report, Foothill Road Low Water Crossing Bridge Project, Santa Barbara County, California*. Prepared for County of Santa Barbara Public Works Department, Transportation Division.

Arnold, Jeanne E. 2001. *The Chumash in World and Regional Perspectives*. In The Origins of a Pacific Coast Chiefdom: The Chumash of the Channel Islands, edited by Jeanne E. Arnold, University of Utah Press, Salt Lake City.

Avila and Associates Consulting Engineers. 2012. *Ordinary High Water Mark Delineation, Foothill Bridge, Cuyama River – Santa Barbara County, CA*. Technical Memorandum prepared for Santa Barbara County Public Works.

Baldwin, B., D. Goldman, D. Keil, R. Patterson, T. Rosatti and D. Wilken (editors). 2012. *The Jepson Manual, Vascular Plants of California*. University of California Press. Berkeley, CA.

Baumgardner Biological Consulting. 2002. *Troesh Ready Mix - Diamond Rock Surface Mining Site Biological Resources Report, Santa Barbara County, California*. Prepared for West Coast Environmental and Engineering.

Baumgardner Biological Consulting. 2003a. *2003 Supplement to the Troesh Ready Mix - Diamond Rock Surface Mining Site Biological Resources Report, Santa Barbara County, California*. Prepared for West Coast Environmental and Engineering.

Baumgardner Biological Consulting. 2003b. *Troesh Ready Mix - Diamond Rock Surface Mining Site Biological Report, Revised Supplement*. Prepared for West Coast Environmental and Engineering.

Beck, W. and Y. Hasse. 1974. *Historical Atlas of California*. University of Oklahoma Press.

Bureau of Land Management (BLM). 2006. Map of Kern primrose sphinx moth locations in Cuyama Valley based on field surveys conducted in 2002 through 2005.

California Native Plant Society. 2016. On-line Inventory of Rare and Endangered Vascular Plants of California.

California Natural Diversity Data Base (CNDDB). 2016. RAREFIND5 Query for Cuyama 7.5 minute quadrangle. California Department of Fish and Wildlife. Sacramento, CA.

California Regional Water Quality Control Board, Central Coast Region. 2011. *Water Quality Control Plan for the Central Coastal Basin*.

Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*. (Technical Report Y-87-1). Vicksburg, LA.

Environmental Laboratory. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ERDC/EL TR-08-28).*

Erlandson, Jon M. 1991. Early Maritime Adaptations on the Northern Channel Islands. In *Hunters and Gatherers of Early Holocene Coastal California*, edited by Jon M. Erlandson and Roger H. Colten. Perspectives in California Archaeology, vol. 1. Institute of Archaeology, University of California, Los Angeles.

Erlandson, Jon M. 1993. Cultural Setting. In *Archaeological Investigations at CA-SBA-1731: A Transitional Middle-to-Late Period Site on the Santa Barbara Channel*, edited by Jon Erlandson and Joyce Gerber. Dames & Moore, Santa Barbara, California. Submitted to Exxon Company, Goleta, California.

Erlandson, Jon M. 1994. *Early Hunter-Gatherers of the California Coast.* Plenum, New York.

Erlandson, Jon M., Torben C. Rick, Terry L. Jones, and Judith F. Porcasi. 2007. *One If by Land, Two If by Sea: Who Were the First Californians?* In: California Prehistory: Colonization, Culture, and Complexity, edited by Terry L. Jones and Kathryn A. Klar.

Glassow, Michael A. 1996. *Purisimo Chumash Prehistory: Maritime Adaptations along the Southern California Coast*. Case Studies in Archaeology. Jeffrey Quilter, series editor. Harcourt Brace College Publishers, San Diego.

Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. *Prehistory of the Northern California Bight and the Adjacent Transverse Ranges*. In: California Prehistory: Colonization, Culture, and Complexity, edited by Terry L. Jones and Kathryn A. Klar.

Grant, C. 1978. *Chumash: Introduction*. In: Handbook of North American Indians, California, Vol. 8. Edited by Robert F. Heizer, Smithsonian Institution, Washington D.C.

Greenwood, R. 1972. *9,000 Years of Prehistory at Diablo Canyon, San Luis Obispo County, California*. San Luis Obispo County Archaeological Society Occasional Paper No. 7.

Harris J. and D. Stearns. 1991. *Population Density, Census Methods, Habitat Relationships, and Home Range of the San Joaquin Antelope Squirrel, 1988-1989*. Prepared for the California Department of Fish and Game Wildlife Management Division.

Hunt & Associates. 2008. *Updated Biological Assessment of Proposed Sand and Gravel Mine on the Cuyama River (APN 149-170-17), Santa Barbara County, California*. Prepared for Penfield & Smith Engineers.

King, C. 1990. *The Evolution of Chumash Society: A Comparative Study of Artifacts Used in the Social Maintenance of the Santa Barbara Channel Islands Region Before A.D. 1804.* Garland Publishing, Inc., New York.

Jennings, M. and M. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. California Department of Fish and Wildlife, Inland Fisheries Division. Sacramento, California.

Jump, Peter M. 2006. *Ventucopa Rock Plant Survey for the Kern Primrose Sphinx (*Euproserpinus euterpe*)*.

Jump, Peter M., T. Longcore, and C. Rich. 2006. *Ecology and distribution of a newly discovered population of the federally threatened* Euproserpinus euterpe *(Sphingidae*). Journal of the Lepidopterists' Society 60(1): 41-50.

Kellogg, K., S. Minor and P. Cossette. 2008. Geologic Map of the Eastern Three-Quarters of the Cuyama 30' x 60' Quadrangle.

Lambert, Patricia M. 1994. *War and Peace on the Western Front: A Study of Violent Conflict and Its Correlates in Prehistoric Hunter-Gatherer Societies of Coastal Southern California*. Ph.D. dissertation, Department of Anthropology, University of California, Santa Barbara.

Lehman, P. 2015 update. *The Birds of Santa Barbara County, California*. Vertebrate Museum, University of California, Santa Barbara.

Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. *Arid West Regional Wetland Plant List: Update of Wetland Ratings*. Phytoneuron 2014:41:1-42.

Milliken, Randall, and John R. Johnson. 2003. *Salinan and Northern Chumash Communities of the Early Mission Period.* Far Western Anthropological Research Group, Inc, Davis, California. Prepared for California Department of Transportation.

Natural Resources Conservation Service. 1992. *Field Office Official List of Hydric Soil Map Units for Northern Santa Barbara Area, California*.

Osborne Biological Consulting. 2012. *Habitat Assessment and Survey for Kern Primrose Sphinx Moth for the Proposed Foothill Road Bridge Project on the Cuyama River, Santa Barbara and San Luis Obispo Counties, California*. Prepared for Padre Associates.

Padre Associates, Inc. 2015. *Natural Environment Study, Foothill Road Low Water Crossing Replacement Project*. Prepared for the Santa Barbara County Public Works Department.

RAM Environmental Engineering Services, Inc. 2007. *GPS River Rock Products, Ventucopa, California, Biological Field Survey Report*.

Sawyer, J.O., T. Keeler-Wolf and J.M. Evans. 2009. *A Manual of California Vegetation*. California Native Plant Society.

Santa Barbara Botanic Garden. 2012. *Rare Plants of Santa Barbara County*. In coordination with the Central Coast Center for Plant Conservation.

Santa Barbara County Air Pollution Control District. 2015. *2013 Clean Air Plan*. Prepared in association with the Santa Barbara County Association of Governments.

Santa Barbara County Agricultural Commissioner. 2014. *Santa Barbara County Agricultural Production Report 2013*.

Santa Barbara County. 1979 (amended 2010). *Santa Barbara County Comprehensive Plan; Seismic Safety and Safety Element*.

Santa Barbara County Long Range Planning Division. 2015. *County of Santa Barbara Energy and Climate Action Plan*.

Santa Barbara County Planning and Development Department. 1994. *Santa Barbara County Comprehensive Plan Conservation Element Groundwater Resources Section*.

Santa Barbara County Planning and Development Department. 2015 (revised). *Environmental Thresholds and Guidelines Manual*.

Santa Barbara County Public Works Department. 2012. *2011 Santa Barbara County Groundwater Report*.

Santa Barbara County Public Works Department. 2013. *Type Selection Memo Foothill Road Low Water Crossing Replacement (Bridge) over Cuyama River Federal Project no. BRLO-NBIL(512), Santa Barbara County, California*.

Santa Barbara County Public Works Department. 2014. *County of Santa Barbara Groundwater Basins Status Report.*

Santa Barbara Natural History Museum. 2000. *Checklist of Amphibians and Reptiles of the Tri-Counties*.

Shipman, G. 1981. *Soil Survey of the Northern Santa Barbara Area, California*. U.S. Department of Agriculture, Soil Conservation Service in cooperation with University of California Agricultural Experiment Station. Washington, DC.

Shuford, W.D. and T. Gardali, editors. 2008. *California Bird Species of Special Concern*. Published by Western Field Ornithologists and California Department of Fish and Game.

Swift, C., T. Haglund, M. Ruiz and T. Fisher. 1993. *The Status and Distribution of the Freshwater Fishes of Southern California*. Bull. Southern California Acad. Sci. 92(3)-101.

URS Corporation. 2007. *Final Environmental Impact Report, Diamond Rock Sand and Gravel Mine and Processing Facility*. Prepared for Santa Barbara County.

URS Corporation. 2009. *Draft Environmental Impact Report, Ventucopa GPS Rock Plant*. Prepared for Santa Barbara County.

U.S. Fish and Wildlife Service. 2007. *Kern Primrose Sphinx Moth (*Euproserpinus euterpe*) 5-year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2009. Navarretia fossalis *(Spreading navarretia) 5-Year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2010a. *Blunt-nosed Leopard Lizard (*Gambelia sila*) 5-Year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2010b. *San Joaquin Kit Fox (*Vulpes macrotis mutica*) 5-year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2010c. *Giant Kangaroo Rat (*Dipodomys ingens*) 5-year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2010d. Monolopia (=Lembertia) congdonii (*San Joaquin wooly-threads); 5-Year Review: Summary and Evaluation*.

U.S. Fish and Wildlife Service. 2011. *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance*.

U.S. Fish and Wildlife Service. 2013. Caulanthus californicus *(California jewelflower) 5-Year Review: Summary and Evaluation*.

U.S. Geological Survey. 2014. *Cuyama Valley, California Hydrologic Study: An Assessment of Water Availability*. Fact Sheet 2014-3075.

Warren, Claude N. 1968. *Cultural Tradition and Ecological Adaptation on the Southern California Coast*. In: Archaic Prehistory in the Western United States, edited by C. Irwin-Williams, Eastern New Mexico University Contributions in Anthropology.

Walker, Phillip L., and Patricia Lambert. 1989. *Skeletal Evidence for Stress during a Period of Cultural Change in Prehistoric California*. In: Advances in Paleopathology, edited by L. Capasso, Journal of Paleopathology Monographic Publication 1.

Walker, Phillip L., Patricia Lambert, and Michael J. DeNiro. 1989. *The Effects of European Contact on the Health of Alta California Indians*. In: Columbian Consequences, edited by David Hurst Thomas.

West Consultants. 2013. *Foothill Road Bridge over the Cuyama River 2-D Hydraulic Analysis*. In association with Avila & Associates.

Wiskowski, T. 1988. *Sensitive Plants of Santa Barbara County*. Prepared for the Resource Management Department, County of Santa Barbara.

Zeiner, D., W. Laudenslayer, Jr. and K. Mayer. 1988. *California's Wildlife, Volume I, Amphibians and Reptiles*. California Department of Fish and Wildlife. Sacramento, CA.

Zeiner, D., W. Laudenslayer, Jr., K. Mayer, and M. White. 1990a. *California's Wildlife, Volume II, Birds*. California Department of Fish and Wildlife. Sacramento, CA.

Zeiner, D., W. Laudenslayer, Jr., K. Mayer, and M. White. 1990b. *California's Wildlife, Volume III, Mammals*. California Department of Fish and Wildlife. Sacramento, CA.

6.0 PROJECT SPECIFIC (SHORT- AND LONG-TERM) AND CUMULATIVE IMPACT SUMMARY

6.1 SIGNIFICANT UNAVOIDABLE IMPACTS

None identified.

6.2 SIGNIFICANT BUT MITIGABLE IMPACTS

Biological Resources. The proposed project would result in temporary habitat loss and potential construction-related mortality to the following special-status wildlife species:

- Reptiles: blunt-nosed leopard lizard, coast horned lizard and San Joaquin coachwhip.
- Birds: California horned lark, Brewer's sparrow, loggerhead shrike and burrowing owl.
- Mammals: McKittrick pocket mouse and American badger.

Fire Protection. The proposed project may result in:

- Increased fire hazard to nearby rural residential and commercial properties associated with construction activities in areas supporting potentially flammable vegetation.

Public Services. The proposed project may result in:

- Construction-related generation of solid waste exceeding the 350 ton threshold of significance.

Water Resources/Flooding. The proposed project may result in:

- Temporary degradation of surface water quality associated with discharge of storm water from project construction areas.

6.3 CUMULATIVE IMPACTS

Cumulative impacts are defined as two or more individual effects which, when considered together are considerable, or which compound or increase other environmental impacts. Under Section 15064 of the State CEQA Guidelines, the lead agency (Santa Barbara County Public Works Department) must identify cumulative impacts, determine their significance and determine if the effects of the project are cumulatively considerable.

This assessment is focused on potential impacts of the project that may be less than significant on a project-specific basis, but potentially significant when viewed in combination with other projects in the region. Section 3.4 summarizes other projects under review or recently approved within the project region (Cuyama Valley).

6.3.1 Air Quality

The cumulative projects listed in Section 3.4 would generate both short-term construction emissions and long-term emissions (vehicles, oil production-related). The proposed project would not contribute to cumulative long-term emissions, but may contribute to cumulative construction emissions, should construction of these projects occur at the same time as the proposed project. However, construction emissions of both the proposed project and other projects would be mitigated by standard measures required by the Santa Barbara County APCD. Implementation of these measures is considered to prevent significant project-specific and cumulative air quality impacts from construction. Therefore, the incremental air quality impact associated with project construction would not be cumulatively considerable.

6.3.2 Water Resources

The Blue Sky Center project landscaping would require additional potable water and may affect groundwater supplies. The Brodiaea Reservoirs project may result in evaporative loss of stored groundwater. The proposed project would not require a water supply and would not contribute to this impact. Cumulative development would increase pollutant concentrations in storm run-off and may adversely affect surface water quality. During the construction period, the proposed project may contribute to cumulative surface water quality impacts. However, mitigation measures are provided to avoid and minimize impacts to surface water quality. Therefore, the project's incremental contribution to any significant cumulative surface water quality impacts would not be considerable.

The cumulative projects are located near the Branch Canyon Wash (or other tributary of the Cuyama River), and similar to the proposed project, inadvertent spills of fuel or lubricants during construction could occur and percolate into groundwater supplies. The proposed project would contribute to this cumulative impact; however, mitigation measures are provided to avoid and minimize impacts to groundwater quality. The project's contribution to groundwater impacts would not be considerable.

6.3.3 Biological Resources

The cumulative projects summarized in Section 3.4 are located at developed sites and significant impacts to biological resources are not anticipated. However, loss of low quality foraging habitat would occur at the Cuyama Solar site, Brodiaea Reservoirs site and E & B Natural Resources project sites, potentially affecting California horned lark, ferruginous hawk, golden eagle, loggerhead shrike, merlin, northern harrier, Swainson's hawk and tri-colored blackbird. The proposed project would incrementally contribute to these impacts; however, the significance of cumulative impacts would be the same as project-specific impacts. The project's contribution to cumulative biological resources impacts would not be considerable.

6.3.4 Cultural Resources

The cumulative projects summarized in Section 3.4 are located in previously developed areas and are unlikely to adversely affect intact archeological resources. The proposed project would not impact cultural resources, and would not incrementally contribute to a cumulative impact.

6.3.5 Noise

The Blue Sky Center project is located within New Cuyama and may generate significant short-term construction noise at adjacent residences. The proposed project would contribute to cumulative construction noise. However, the proposed project is not located in close proximity to other projects, and would not have a considerable contribution to cumulative impacts at noise sensitive receptors affected by these projects.

The cumulative projects summarized in Section 3.4 may result in an increase in long-term traffic or operational noise. The proposed project may result in a small long-term increase in traffic noise at the river crossing, and incrementally contribute to cumulative noise impacts. Overall, cumulative noise impacts are expected to be less than significant.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X			
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?				X	
3. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)			X		
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR?				X	

Discussion of Findings:

1. The proposed project has the potential to substantially degrade the quality of the environment. However, implementation of mitigation measures BIO-1 through BIO-3 would ensure impacts to fish and wildlife habitat would be minimized and offset through habitat restoration, and prevent fish or wildlife populations from dropping below self-sustaining levels. Due to the small scale of project impacts, it would not threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

Based on an archeological survey and record search conducted for the project, no impacts to cultural resources are anticipated. The proposed project would not eliminate important examples of the major periods of California history or prehistory.

2. The proposed project does not have the potential to achieve short-term to the disadvantage of long-term environmental goals. The proposed project is designed to achieve the long-term goal of the Public Works Department to provide an all-weather crossing of the Cuyama River to serve the regional population.

3. The proposed project may contribute to cumulative impacts, but its incremental contribution would not be substantial or result in cumulatively significant impacts.

4. The proposed project may create environmental effects which would cause substantial adverse effects on human beings, including fire hazard, solid waste disposal and surface water quality. However, mitigation measures have been provided (see FIRE-1, SW-1, WR-1) to reduce these impacts to a level of less than significant.

5. There is no disagreement supported by facts or any reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR.

8.0 PROJECT ALTERNATIVES

No significant, adverse unmitigable impacts were identified; therefore, no project alternatives were considered.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

An analysis of the consistency of the proposed project with applicable policies of the Santa Barbara County Comprehensive Plan is provided in Table 9. The proposed project, with mitigation, is expected to be consistent with all existing land use and development policies.

Table 9. Policy Consistency Analysis – Comprehensive Plan

Applicable Policy Number	Issue	Consistency
Land Use: Streams & Creeks 1	All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased run-off, sedimentation, biochemical degradation or thermal pollution	Potentially Consistent: construction work within the Cuyama River would be planned for the dry season, when flow is minimal or absent to minimize water quality impacts. Increased run-off, sedimentation, biochemical degradation and thermal pollution associated with construction are anticipated to be minimal. In the long-term, the replacement of the at-grade crossing with a bridge is expected to reduce sedimentation of surface water in the Cuyama River caused by vehicle traffic in the riverbed.
Land Use: Flood Hazard 1	All development, including construction, excavation and grading, except flood control projects and non-structural agricultural uses shall be prohibited in the floodway, unless offsetting improvements in accordance with federal regulations are provided	Potentially Consistent: the Flood Insurance Rate Map does not designate a regulated floodway at the project site. Since the project consists of a new bridge, it must be placed within the 100-year floodplain. However, the bridge has been designed to accommodate water surface elevations associated with a 50-year storm event with 2 feet of freeboard, and would not increase the floodplain area or floodwater elevations.
Land Use: Flood Hazard 2	Permitted development shall not cause or contribute to flood hazards or lead to expenditure of public funds for flood control works	Potentially Consistent: the proposed bridge would not contribute to flood hazards as it would not increase the floodplain area or floodwater elevations. In addition, the project includes rock slope protection to protect the bridge abutments and prevent channel migration. Therefore, no additional flood control works would be required.
Land Use: Visual Resources 2	The height, scale and design of structures shall be compatible with the character of the natural environment, subordinate to natural landforms and not intrude into the skyline as seen from public viewing places.	Potentially Consistent: the proposed bridge would be relatively low (up to 20 feet above the riverbed), without any superstructure and visually compatible with other bridges in the area (Route 166 bridge). The bridge would be subordinate to the hills forming the Cuyama Valley and not intrude into the skyline.

10.0 RECOMMENDATION BY LEAD AGENCY STAFF

On the basis of the Initial Study, lead agency staff:

_____ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

__X__ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of a Mitigated Negative Declaration (MND). The MND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

_____ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas: None

_____ With Public Hearing ___X___ Without Public Hearing

PREVIOUS DOCUMENT:
PROJECT EVALUATOR: Matt Ingamells, Padre Associates
DATE: August 22, 2016

11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

__X__ I agree with staff conclusions. Preparation of the appropriate document may proceed.

_____ I DO NOT agree with staff conclusions. The following actions will be taken:

_____ I require consultation and further information prior to making my determination.

SIGNATURE:_____ INITIAL STUDY DATE: 9/22/16

SIGNATURE:_____ DRAFT ND DATE: _____

SIGNATURE:_____ REVISION DATE: _____

SIGNATURE:_____ FINAL MND DATE: 11/16/16

APPENDIX A

PUBLIC COMMENTS AND RESPONSES

APPENDIX A

COMMENTS RECEIVED ON THE PROPOSED MITIGATED NEGATIVE DECLARATION

	Party	Date
1.	Santa Barbara County Air Pollution Control District	November 3, 2016
2.	Native American Heritage Commission	October 27, 2016
3.	Santa Barbara Pistachio Company	October 24, 2016

November 3, 2016

Morgan Jones
Santa Barbara County
Public Works Department
123 E. Anapamu Street
Santa Barbara, CA 93101

Re: APCD Suggested Conditions on Foothill Road Low Water Crossing Replacement Project, 16NGD-00000-00008

Dear Mr. Jones:

The Air Pollution Control District (APCD) has reviewed the referenced project, which consists of the construction of a new 1,430 foot-long bridge to replace the at-grade low water crossing of the Cuyama River at Foothill Road. The bridge deck would provide two 12 foot-wide traffic lanes, a 4 foot-wide shoulder on each lane, and a 5 foot-wide pedestrian walkway. Concrete barriers would be provided on each side of the two traffic lanes. The project would also include rock slope protection to minimize erosion caused by storm flows, and retention basins to collect storm water run-off from the bridge deck. The subject property, found on APN 149-170-005, is located approximately 1.3 miles west of State Route 33, and 8.7 miles east-southwest of the unincorporated community of New Cuyama.

Air Pollution Control District staff offers the following suggested conditions:

1. Standard dust mitigations (**Attachment A**) are recommended for all construction and/or grading activities. The name and telephone number of an on-site contact person must be provided to the APCD prior to grading/building permit issuance.

2. The State of California considers particulate matter emitted by diesel engines carcinogenic. Therefore, during project grading, construction, and hauling, construction contracts must specify that contractors shall adhere to the requirements listed in **Attachment B** to reduce emissions of particulate matter (as well as of ozone precursors) from diesel equipment. Recommended measures should be implemented to the maximum extent feasible.

3. All portable diesel-fired construction engines rated at 50 bhp or greater must have either statewide Portable Equipment Registration Program (PERP) certificates or APCD permits prior to grading/building permit issuance. Construction engines with PERP certificates are exempt from APCD permit, provided they will be on-site for less than 12 months.

4. Asphalt paving activities shall comply with APCD Rule 329, *Cutback and Emulsified Asphalt Paving Materials*.

If you or the project applicant have any questions regarding these comments, please feel free to contact me at (805) 961-8893 or via email at NightingaleK@sbcapcd.org.

Sincerely,

Krista Nightingale
Air Quality Specialist
Technology and Environmental Assessment Division

Attachments: Fugitive Dust Control Measures
Diesel Particulate and NO_x Emission Measures

cc: Matt Ingamels, Padre Associates, Inc.
TEA Chron File

Santa Barbara County
Air Pollution Control District

ATTACHMENT A
FUGITIVE DUST CONTROL MEASURES

These measures are required for all projects involving earthmoving activities regardless of the project size or duration. Proper implementation of these measures is assumed to fully mitigate fugitive dust emissions.

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.

- Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.

- If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.

- Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.

- After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.

- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to grading/building permit issuance and/or map clearance.

  Plan Requirements: All requirements shall be shown on grading and building plans and/or as a separate information sheet listing the conditions of approval to be recorded with the map. **Timing:** Requirements shall be shown on plans prior to grading/building permit issuance and/or recorded with the map during map recordation. Conditions shall be adhered to throughout all grading and construction periods.

  MONITORING: Lead Agency shall ensure measures are on project plans and/or recorded with maps. Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.

Santa Barbara County
Air Pollution Control District

ATTACHMENT B
DIESEL PARTICULATE AND NO_x EMISSION REDUCTION MEASURES

Particulate emissions from diesel exhaust are classified as carcinogenic by the state of California. The following is a list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible.

The following measures are required by state law:

- All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of mobile construction equipment are subject to the California Air Resource Board (CARB) Regulation for In-Use Off-Road Diesel Vehicles (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce oxides of nitrogen (NOx), diesel particulate matter (DPM), and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. For more information, see www.arb.ca.gov/msprog/ordiesel/ordiesel.htm.
- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use (On-Road) Heavy-Duty Diesel-Fueled Vehicles (Title 13, CCR, §2025), the purpose of which is to reduce DPM, NOx and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. On-road heavy-duty trucks shall comply with the State On-Road Regulation. For more information, see www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.
- All commercial off-road and on-road diesel vehicles are subject, respectively, to Title 13, CCR, §2449(d)(3) and §2485, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

The following measures are recommended:

- Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible.
- On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible.
- Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, should be used on-site where feasible.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

Plan Requirements: All requirements shall be shown on grading and building plans and/or as a separate information sheet listing the conditions of approval to be recorded with the map. **Timing:** Requirements shall be shown on plans prior to grading/building permit issuance and/or recorded with the map during map recordation. Conditions shall be adhered to throughout all grading and construction periods.

MONITORING: Lead Agency shall ensure measures are on project plans and/or recorded with maps. Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.

Commenter: Krista Nightingale, Santa Barbara County Air Pollution Control District

Date: November 3, 2016

Response:

1. The referenced standard dust mitigation measures would be implemented as stated on page 26 of the Draft Mitigated Negative Declaration (MND).
2. The referenced standard diesel particulate and NO_x emissions mitigation measures would be implemented as ozone precursor reduction measures as stated on page 27 of the Draft MND.
3. The contractor selected to construct the proposed project must comply with State law (California Code of Regulations, Title 17, Section 2450-2465) regarding portable equipment registration. Therefore, project-specific mitigation measures are not required to ensure any portable engines are properly registered.
4. The contractor selected to construct the proposed project must comply with Santa Barbara County APCD Rule 329 regarding asphalt paving materials. Therefore, project-specific mitigation measures are not required.

From: Totton, Gayle@NAHC [mailto:Gayle.Totton@NAHC.CA.GOV]
Sent: Thursday, October 27, 2016 8:40 AM
To: Jones, Morgan
Subject: Foothill Road Low Water Crossing Replacement Project

Good morning Morgan,

Nice to chat with you briefly this morning.

First I want to say how nice it is to review an environmental document where the lead agency has incorporated the new Tribal Cultural Resources (TCR) subsection and questions. It is still a rare occurrence! And I was also pleased to see that you documented your consultation efforts and results. All good.

I actually only had one minor concern and that is the Cultural Resource Section did not include any mitigation measures for inadvertent finds of Tribal Cultural Resources or human remains. AB-52 requires mitigation for TCRs with or without consultation occurring. And, of course, the standard mitigation for human remains is usually included as well.

Thanks for offering to send me the Cultural Resources Appendix that was not included in the Initial Study document. I look forward to seeing it.

Sincerely,

Gayle

Gayle Totton, M.A., PhD.

Associate Governmental Program Analyst

Native American Heritage Commission

Commenter: Gayle Totton, Native American Heritage Commission

Date: October 27, 2016

Response:

It is the County's policy to include measures to address inadvertent finds of cultural resources during project construction. The Draft MND did not expressly include these measures due to the distance to the nearest reported cultural resources (8 miles), lack of any resources found during a field survey, and periodic disturbance of the project site associated with flood events. However, these measures have been included as recommendations to address the unexpected discovery of cultural resources during construction.

October 24, 2016
Monday 3:00 to 4:00 pm

Meeting with Gene Zannon Commercial Property Owner adjacent to project site, Santa Barbara Pistachio Company.
Contact Numbers; Work: (805)-962-5600 Home :(805) 965-1159.

1. Mr. Zannon had concerns that the project would require removal of pistachio tress from the property. I informed him no Santa Barbara Pistachio Company trees would need to be removed for the bridge project.
2. Mr. Zannon had informed me the during the harvest season (first weeks of October) the Pistachio tree shaker requires a 42' turn around radius at the end of each row of trees. I informed him the County would insure no contractor equipment was blocking the required turn around radius for the trees on the western end of the project site.

Thank you,

Morgan M. Jones

Morgan M. Jones
Engineering Environmental Planner, Senior
Santa Barbara County Public Works, Transportation Division-Engineering Section
123 Anapamu Street, Santa Barbara, CA 93101-2026
Phone 805-568-3059
Fax 805-884-8081

Commenter: Gene Zannon, Santa Barbara Pistachio Company

Date: October 24, 2016

Response:

1. The Draft MND conservatively assumed that 15 pistachio trees would need to be removed at the southwest corner of the bridge site (see page 21). However, in a meeting with Mr. Zannon on October 24, 2016, the County representative (Morgan Jones) assured Mr. Zannon that trees owned by the Santa Barbara Pistachio Company would not require removal.
2. In the October 24, 2016 meeting, the County representative also assured Mr. Zannon that the County would ensure that contractor equipment does not interfere with pistachio harvesting.