**COUNTY OF SANTA BARBARA**

## Department of Public Works, Transportation

# Proposed Final Mitigated Negative Declaration

# Bonita School Road Bridge (51C-0230) Replacement

23NGD-00000-00008

SCH no. 2024020026

**March 26, 2024**


**PROJECT PROPONENT:**

Santa Barbara County Public Works Department
123 E. Anapamu Street
Santa Barbara, California 93101
Contact: Morgan Jones - (805) 568-3059

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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 the existing Bonita School Road crossing over the Santa Maria River 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

Bonita School Road is a north-south oriented two-lane rural roadway that begins at its junction with State Route (SR) 166, and extends approximately 3.3 miles north to its terminus at Division Road in San Luis Obispo County. Bonita School Road crosses the Santa Maria River and the boundary between Santa Barbara and San Luis Obispo counties. The Santa Maria River is confined by levees, located approximately 2,400 feet apart at the existing Bonita School Road crossing. The current River crossing consists of a 24 foot-wide and 323-foot-long bridge of four spans, made up of three steel railroad flatcars each and cantilevered at each end, and approximately 2,100 feet of embankment fill as a low water crossing within the channel. The existing bridge extends south from the northern levee, with the embankment fill extending from the bridge to the southern levee (see Figure 1).

The current crossing was constructed in 2002 as a temporary replacement of a failed crossing to allow the road to remain open for most of the year, and was not planned as a permanent solution. Additionally, the embankment fill is designed to have a controlled failure when high flow events overtop the road, to limit flow damage to a localized area that could easily be controlled. In practice, this area has had to be breached manually to relieve high river flows that are impeded by the embankment fill.

## 1.4 PROJECT LOCATION

The current Bonita School Road Bridge (51C-0230) crosses the Santa Maria River approximately 3.4 miles west of the City of Santa Maria (Figure 1). The Santa Maria River is an intermittent drainage with a 1,741 square mile watershed, encompassing portions of the Sierra Madre Mountains, San Emigdio Mountains and Santa Ynez Mountains.

**Site Information Table**

| | |
|---|---|
| Comprehensive Plan Designation | Comprehensive Plan designation A-II, AC<br>Third and Fifth Supervisorial Districts (Bonita School Road forms the boundary) |
| Zoning District, Ordinance | Santa Barbara County: Land Use and Development Code; zoned AG-II-40<br>San Luis Obispo County: Agriculture |
| Site Size | Approximately 40.8 acres, including the new bridge footprint, bridge abutments, approach roadway improvements, construction access and staging, surface flow diversion |
| Present Use & Development | Agriculture (row crops, temporary greenhouses), flood control channel |
| Surrounding Uses/Zoning | North: row crops (zoned Agriculture; San Luis Obispo County)<br>South: row crops (zoned AG-II-40)<br>East: row crops (zoned AG-II-40); flood control channel (zoned AG-II-40, AG-II-100)<br>West: row crops (zoned AG-II-40); flood control channel (zoned AG-II-40) |
| Access | Bonita School Road |
| Public Services | Water Supply *N/A*<br>Sewage: *N/A*<br>Fire: Santa Barbara County Fire Department (Orcutt Station)<br>San Luis Obispo County Fire (Nipomo Station)<br>Police: Santa Barbara County Sheriff |

## 1.5 PROJECT PURPOSE AND OBJECTIVES

The Bonita School Road crossing of the Santa Maria River carries substantial traffic volumes (about 4,000 average vehicles per day) and is an important transportation connection between agricultural operations in Santa Barbara County and San Luis Obispo County. Routine bridge inspections performed by Caltrans have discovered several stress cracks in fracture-critical elements. These cracks, along with other structural conditions noted in these inspections cause this bridge to be considered “Structurally Deficient” and have contributed to a Sufficiency Rating of 48.3 (out of 100) first noted in early 2014. A Sufficiency Rating below 50 indicates replacement is warranted, and eligible for funding through the Federal Highway Administration (FHWA) Highway Bridge Program.

The embankment fill forms the majority of the river crossing and is located at-grade within the riverbed and subject to failure during storm flows. The two previous Bonita School Road crossing structures (a series of corrugated steel pipes and a concrete box culvert) washed away during high flow events along with the embankment fill. The local Flood Insurance Rate Map (Panel 06083C0160F) indicates the agricultural fields south of the Bonita School Road crossing would be inundated during a 100-year storm event, partially due to the embankment fill impeding storm flow in the Santa Maria River. In addition, a drainage culvert serving these agricultural fields crossing under the embankment fill near the southern levee is prone to plugging with sediment and debris and has caused localized flooding of these fields.

The existing Bonita School Road crossing also does not provide an adequate shoulder to allow pedestrians or bicyclists to safely cross the Santa Maria River. The County's 2012 Draft Bicycle Master Plan indicates Bonita School Road is proposed to support Class II bike lanes.

Therefore, the basic project objectives are:

1. Provide a permanent, all-weather river crossing that will withstand a 100-year flood event.
2. Eliminate a source of flooding (embankment fill) of nearby agricultural fields.
3. Provide a safe crossing for pedestrians and bicyclists.

The proposed project is programmed under the Federal Transportation Improvement Program (Highway Bridge Program) and assigned project no. BRLO-5951(151).

## 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. The following Federal permits would be required to authorize the proposed project.

- U.S. Army Corps of Engineers (Corps) - Clean Water Act Section 404 permit (work within the Santa Maria River).
- Corps – Title 33 Section 408 United States Code permit (alteration of the Santa Maria River Levee, a Federal facility).
- U.S. Fish and Wildlife Service (USFWS) - Section 7 Consultation under the Endangered Species Act (potential impacts to listed plant and/or wildlife species). USFWS issued a Biological Opinion and Incidental Take Statement for the project on November 26, 2021, acknowledging the potential for take of the threatened California red-legged frog and endangered least Bell's vireo.
- National Marine Fisheries Service (NMFS) - Section 7 Consultation under the Endangered Species Act (potential impacts to the endangered southern California steelhead). NMFS issued a formal letter dated September 30, 2021 concurring with Caltrans' finding that the project is not likely to adversely affect the endangered southern California steelhead.

### 1.6.2 State Agencies

- 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 (Construction Stormwater General Permit Order 2022-0057-DWQ).

- California Department of Fish and Wildlife (California Fish and Game Code Section 1602, Streambed Alteration Agreement).

1.6.3 Local Agencies

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

## 1.7 PUBLIC REVIEW

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 IS/MND during the public review period (February 8 through March 11, 2024). No comments were received; therefore, no changes have been made to the Draft IS/MND.

# 2.0 PROJECT DESCRIPTION

The proposed project involves the replacement of the Bonita School Road bridge and embankment fill with a full span bridge. Project components include:

- 2,321 foot-long, full span bridge.
- Roadway approaches to conform to the new bridge profile and existing access roads.
- Modifications as required to levee ramps to maintain County Flood Control District access.
- Bio-retention basins to collect and treat post-construction storm water associated with project components.
- Americans with Disabilities Act-compliant separated pedestrian path on the bridge deck.
- Appropriate roadway signage and pavement markings.

## 2.1 EXISTING BRIDGE/CROSSING

The Santa Maria River is confined by levees, located approximately 2,400 feet apart at the existing Bonita School Road crossing. The bridge extends south from the northern levee, with the fill extending from the bridge to the southern levee (see Figure 1). The current crossing was constructed in 2002 as a temporary replacement of a failed crossing to allow the road to remain open for most of the year and was not planned as a permanent solution.

The existing structure consists of a 24 foot-wide and 323 foot-long bridge of four spans, made up of three steel railroad flatcars each and cantilevered at each end, and approximately 2,100 feet of embankment fill as a low water crossing within the channel. The embankment fill within the channel is simply earthen fill with a road oil topping rather than a full structural roadway section. This topping is frequently refreshed to maintain an adequate surface for traffic flow. Additionally, this embankment fill is designed to have a controlled failure when high flow events overtop the road, to limit flow-related damage to a localized area that could easily be controlled. In practice, this area has had to be breached manually to relieve high river flows that are blocked by the embankment.

## 2.2 RIGHT-OF-WAY ACQUISITION

The existing Santa Barbara County right-of-way along Bonita School Road is 66 feet-wide. Adjacent parcels will be affected by right-of-way acquisition and/or temporary construction easements, potentially including:

- Santa Barbara County: 113-050-035, 113-050-036, 113-050-037, 113-050-038, 113-050-044, 113-050-046, 113-050-047, 113-050-054, 113-050-055, 113-050-062, 117-020-074.
- San Luis Obispo County: 092-061-008, 092-371-007, 092-371-009.

## 2.3 PROPOSED BRIDGE STRUCTURE

The proposed bridge will replace the existing Bonita School Road crossing using the same alignment, and fully span the River from the northern to the southern levee, a distance of approximately 2,321 feet. The new bridge deck would be up to nine feet higher than the existing crossing and up to 21 feet above the riverbed (north end). The total length of proposed improvements would be approximately 4,060 feet, including the new bridge and approach roadway modifications (see Figure 2).

The bridge superstructure would be constructed of pre-cast, pre-stressed wide-flange concrete girders. The bridge deck would be approximately 48.5 feet-wide and provide two 12-foot-wide traffic lanes (one each direction), two 8-foot-wide shoulders and one 5-foot-wide pedestrian path. The shoulders would include bike lanes in each direction. The pedestrian path would be separated from the traffic lane and shoulder by a barrier. The bridge would be supported by 15 sets of two five-foot diameter concrete columns founded on seven-foot diameter cast-in-drill-hole piles with pre-cast concrete pile caps. The top of the pile caps would be buried 13.7 feet below finished grade (riverbed) to minimize the potential for exposure by scour during peak storm flow events.

Safety lighting would be provided along the east side of the bridge, composed of 30-foot-tall light standards spaced approximately 145 feet apart, with 8,325 lumen fixtures on 8 foot arms over the bike lane. Resulting light levels are estimated as approximately 0.5 foot-candles on average along the bike path.

## 2.4 ROADWAY APPROACHES AND LEVEE ACCESS ROADS

The project includes adjusting the elevation of the approach roadways and widening to accommodate the proposed bridge (including any needed embankment slopes). These improvements would extend approximately 1,040 feet to the north and 700 feet to the south of the proposed bridge structure. Minor modifications to existing levee access roads and adjacent farm roads may be required to accommodate the new bridge and approach roadways. In addition, the project design would accommodate the planned Santa Maria Levee Multi-Use Trail to be constructed on the southern levee access road.

## 2.5 DRAINAGE IMPROVEMENTS

Drainage improvements would include bridge deck drains and post-construction storm water retention basins.

## 2.6 CONSTRUCTION

### 2.6.1 Schedule and Phasing

Construction of the proposed project is anticipated to take two construction seasons to complete. The approximately 24-month construction period is planned to begin in spring 2024. Bonita School Road would be closed during most of the construction period, with local traffic directed to the west to cross the Santa Maria River using the SR 1 bridge. The Project Impact Area (PIA) is identified in Figure 1 and includes the construction disturbance area for the proposed project. The project would be constructed in eight primary phases:

1. Place barriers (K-rails) along both sides of the existing roadway in the riverbed and install cast-in-drilled-hole piles and columns.
2. Close Bonita School Road and remove the existing roadway embankment fill and bridge.
3. Install pre-cast concrete pier caps on the columns and construct the bridge abutments.
4. Install pre-cast concrete girders on the bridge abutments and pier caps.
5. Form and pour cast-in-place end diaphragms.
6. Form and pour the deck concrete.
7. Construct bridge approaches, levee access roads and stormwater detention basins.
8. Install the concrete bridge railing, hand railing and lighting.

### 2.6.2 Clearing and Grubbing

All vegetation conflicting with bridge demolition and construction within the PIA would be removed, including tree removal and trimming as necessary. In addition, any fencing, culvert pipes and other obstructions would be removed.

### 2.6.3 Bridge Demolition

The existing bridge would be demolished by cutting the connections between the 12 railroad flatcars and removing them intact, to the extent feasible. The embankment fill comprising the southern portion of the crossing would be removed to provide work space and earth materials to facilitate construction of the surface flow diversion berm.

### 2.6.4 Surface flow Diversion

Construction work will not be conducted within surface water. A temporary flow diversion would be installed prior to the start of the rainy season to divert storm flows away from work areas to avoid flood-related damage to the work area and minimize adverse impacts on water quality and aquatic species. The project impact area identified in Figure 1 includes any required areas for flow diversion activities.

### 2.6.5 Earthwork

Construction-related earthwork would include about 26,510 cubic yards of cut (removal) of roadway embankment fill in the riverbed, about 43,790 cubic yards of fill for the approach roadways, levee access ramps, stormwater detention basins, Santa Maria Levee Multi-Use Trail undercrossing and private driveway transitions, and about 29,070 cubic yards of cut for the approach roadways, levee access ramps, stormwater detention basins, Santa Maria Levee Multi-Use Trail undercrossing and private driveway transitions. Overall, the net earthwork budget is 11,790 cubic yards of fill to be imported.

### 2.6.6 New Bridge Construction

Construction of the new bridge foundation would involve drilling holes in the riverbed, inserting rebar cages in the holes and pouring support piles. Columns would be installed on the piers and the pre-cast concrete pier caps would be placed on the columns. Concrete girders would be placed on the pier caps, and the bridge deck formed and poured over the girders.

The new bridge would require false-work to be erected on temporary steel and timber supports within the riverbed. Forms would be constructed on the false-work, and then concrete and reinforcement placed for the new bridge. False-work would then be removed from the riverbed and concrete surfaces finished. Potential contractor site access and lay down areas are included in the PIA shown in Figure 1.

N

To Route 166

Embankment Fill

Existing Bridge

BONITA SCHOOL RD

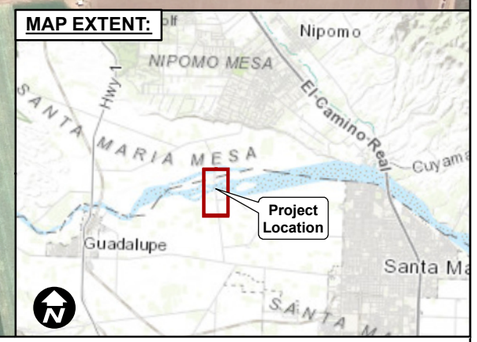
To Division Road

Santa Maria River

SAN LUIS OBISPO COUNTY

SANTA BARBARA COUNTY

MAP EXTENT:




LEGEND:

- Embankment Fill
- Existing Bridge
- Project Impact Area
- County Boundary
- Agricultural Ditch

0 200 400

FEET

*Source: Google Earth Pro Image May 2023, Esri Online Topo Basemap, County of Santa Barbara*
*Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet*
*Notes: This map was created for informational and display purposes only.*

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
BONITA SCHOOL ROAD BRIDGE REPLACEMENT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 1602-1921

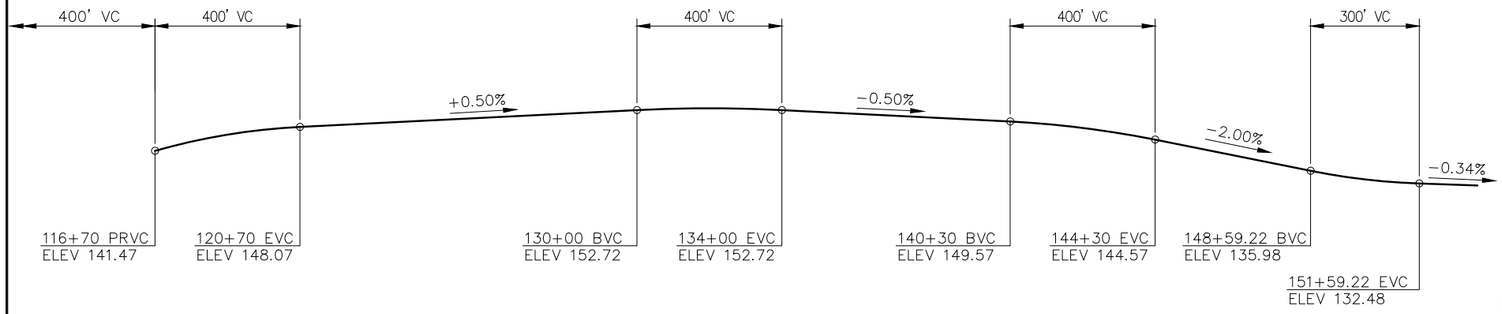
DATE: June 2023

# PROJECT SITE MAP

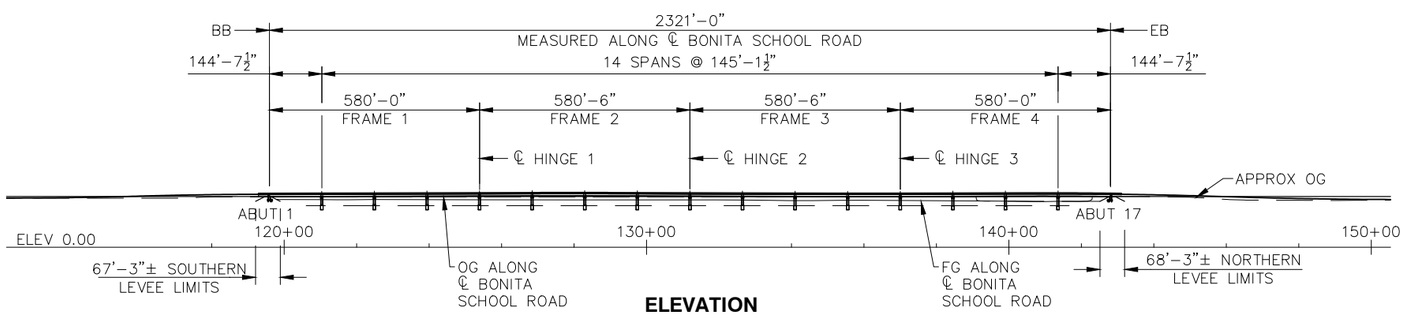
FIGURE 1

roject\Bonita School Road Bridge\MND\Project Site Map.mxd 6/28/2023

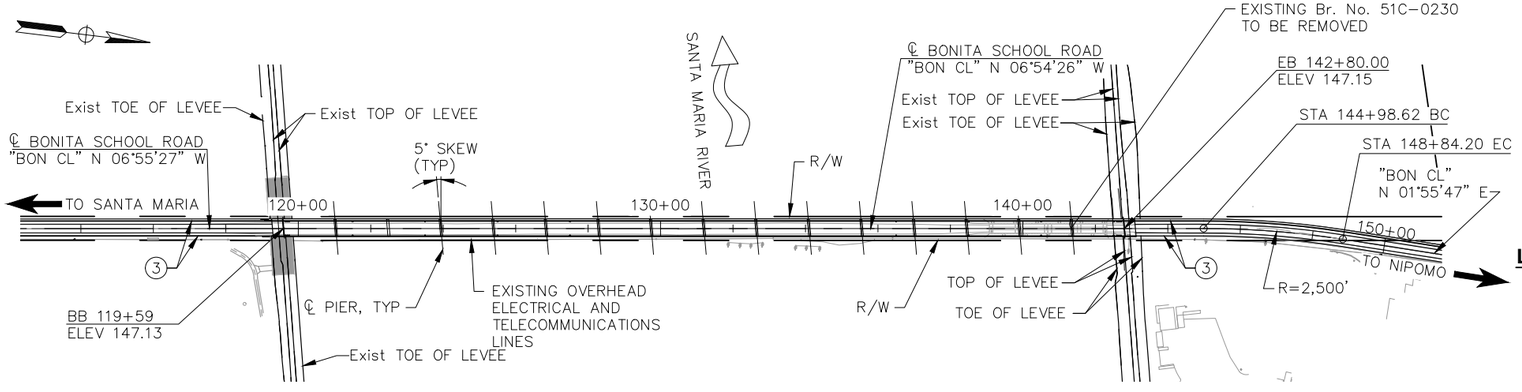
# 65% PLANS




**PROFILE GRADE**
NO SCALE




**ELEVATION**
1" = 200'

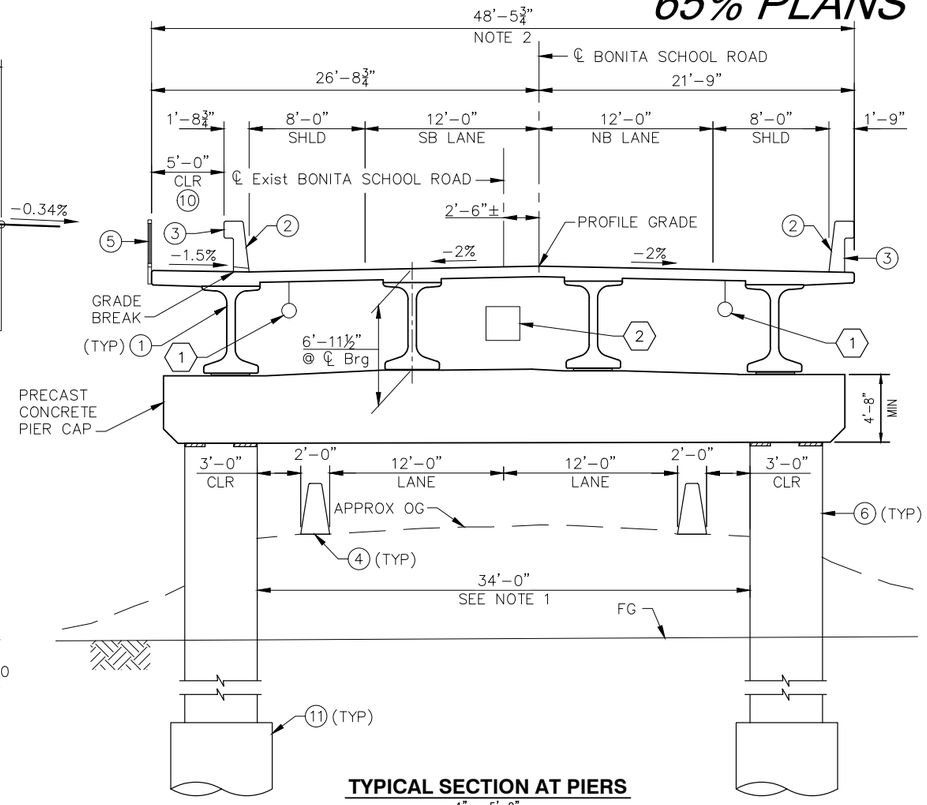



**PLAN**
1" = 200'

**LEGEND:**

DIRECTION OF TRAFFIC

DIRECTION OF RIVER FLOW




**TYPICAL SECTION AT PIERS**
1" = 5'−0"

**NOTES:**

1. EXISTING TRAFFIC UNDER PROPOSED BRIDGE REMAINS OPEN DURING SUBSTRUCTURE CONSTRUCTION. FOR BRIDGE CONSTRUCTION SEQUENCE, SEE "BRIDGE CONSTRUCTION SEQUENCE" SHEET.
2. FOR STRUCTURE INFORMATION, SEE "STRUCTURE PLAN NO. 1 THROUGH NO. 4" SHEETS.
3. FOR INDEX TO BRIDGE PLANS", AND "QUANTITIES", SEE "INDEX TO PLANS" SHEET.
4. FOR "PILE DATA TABLE", "SCOUR DATA TABLE", AND "HYDROLOGIC DATA SUMMARY", SEE "FOUNDATION DATA" SHEET.
5. FOR "GENERAL NOTES" AND "STANDARD PLANS (DATED 2018)", SEE "GENERAL NOTES" SHEET.

**LEGEND:**

(1) PC/PS CONCRETE "WIDE−FLANGE" GIRDER (CA WF72)
(2) COBBLE STONE TEXTURE, STAINED
(3) CONCRETE BARRIER (TYPE 842 MODIFIED)
(4) TEMPORARY RAILING (TYPE K)
(5) METAL PICKET HAND RAILING WITH "NATINA STEEL" COATING
(6) 5'−0" DIA COLUMNS
(9) MGS (SEE ROADWAY PLANS)
(10) 5'−0" WIDE WALKWAY
(11) 7'−0" DIA CIDH CONCRETE PILES (AT PIERS)

**UTILITIES**

(1) DECK DRAINAGE SYSTEM
(2) FUTURE UTILITY OPENING

Source: Rende Consulting Group, County of Santa Barbara
Notes: This map was created for informational and display purposes only.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: BONITA SCHOOL ROAD BRIDGE REPLACEMENT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 1602-1921

DATE: June 2023

PRELIMINARY BRIDGE PLAN

FIGURE 2

Z:\GIS Projects\GIS Maps\Map Project\Bonita School Road Bridge\Preliminary Bridge Plan.mxd 6/28/2023

a. Existing bridge (right) and embankment fill (left background)

b. Riverbed following January 9, 2023 storm flows

c. Bridge approach roadway from the north, facing south

d. Embankment fill crossing near the southern levee, facing north

**SITE PHOTOGRAPHS**
**FIGURE 3**

# 3.0 ENVIRONMENTAL SETTING

## 3.1 AFFECTED PARCELS

Proposed construction would occur within the existing roadway right-of-way (66 feet wide within Santa Barbara County) along Bonita School Road, and on the following parcels:

- APN 113-050-035 (Santa Barbara County): 30.69 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 113-050-036 (Santa Barbara County): 35.05 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 113-050-037 (Santa Barbara County): 116.38 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 113-050-038 (Santa Barbara County): 383.32 acres, land use designation AC (agriculture-commercial), zoned AG-II-40.
- APN 113-050-044 (Santa Barbara County): 3.19 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 113-050-046 (Santa Barbara County): 9.13 acres, land use designation AC (agriculture-commercial), zoned AG-II-40.
- APN 113-050-047 (Santa Barbara County): 65.20 acres, land use designation AC (agriculture-commercial), zoned AG-II-40.
- APN 113-050-054 (Santa Barbara County): 84.96 acres, land use designation AC (agriculture-commercial), zoned AG-II-40.
- APN 113-050-055 (Santa Barbara County): 12.00 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 113-050-062 (Santa Barbara County): 71.70 acres, land use designation AC (agriculture-commercial), zoned AG-II-40.
- APN 117-020-074 (Santa Barbara County): 34.28 acres, land use designation A-II-40 (agriculture), zoned AG-II-40.
- APN 092-371-007 (San Luis Obispo County): 0.68 acres, land use designation agriculture.
- APN 092-371-009 (San Luis Obispo County): 1.12 acres, land use designation agriculture.
- APN 092-061-008 (San Luis Obispo County): 563.50 acres, land use designation agriculture.

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 Bonita School Road right-of-way, row crops to the east and west, and short-term greenhouse operations to the northeast. The remainder of the project site (River channel) is undeveloped and supports a mixture of native and non-native vegetation. An agricultural truck-loading operation is located approximately 1.2 miles to the south at the Bonita School Road/Bonita Lateral Road intersection. Bonita School is located approximately 1.4 miles to the south at the Bonita School Road/SR 166 intersection.

The nearest residences are caretaker dwellings, including one located immediately adjacent to the project impact area within the greenhouse operation. The nearest residential areas include Nipomo (1.4 miles to the north), Guadalupe (3.2 miles to the southwest) and Santa Maria (3.3 miles to the east).

## 3.3 SITE CHARACTERISTICS

The project site is located in the western portion of the Santa Maria Valley, a relatively level area located between the Purisima Hills and Solomon Hills to the south and the Sierra Madre Mountains to the north. The Santa Maria Valley is about eight miles wide in the project area. An aerial photograph of the project site and surrounding areas is provided as Figure 1. Site photographs are provided as Figure 3.

The elevation of the project site varies from approximately 126 feet (River bottom) to 140 feet (existing roadway) above mean sea level. The project site is located along the Santa Maria River approximately eight miles upstream of its confluence with the Pacific Ocean. The 1,741 square mile Santa Maria River watershed includes two primary tributaries; the Cuyama River to the northeast and the Sisquoc River to the southeast.

Based on 2007 through 2017 data collected at the U.S. Geological Survey gauging station at the Suey Road crossing (approximately 7.2 miles upstream of the project site), surface flow in the Santa Maria River varies from no flow in the summer months to a monthly mean of 76 cubic feet/second (cfs) in February. Recent peak flows recorded at this station include 24,700 cfs on December 19, 2010, 15,700 cfs on February 17, 2017 and 19,600 cfs on January 9, 2023. The highest peak flow recorded in the River was 33,600 cfs on March 1, 1983 at the Garey gauging station.

Climate data collected at Santa Maria City Hall indicates the average annual rainfall in the project area is 13.22 inches (1906-2022 data). Rainfall recorded at City Hall during the 2022-2023 rainy season (25.56 inches) was 193 percent of normal, while rainfall recorded between 2019 and 2022 was below normal.

## 3.4 OTHER PENDING AND APPROVED DEVELOPMENT

The following projects are under review or have been recently approved by Santa Barbara County in the Santa Maria Valley that may contribute to cumulative impacts in the project area:

- OSR/NRG Enterprises: 237,636 square foot agricultural development (approved).
- Curletti Farm Employee Housing: 50,000 square foot multifamily residential (approved).
- North Garey Oil and Gas Production Plan: installation of 56 new oil and gas wells on nine well pads, approximately 13 miles southeast of the project site (under construction).
- Gordon Sand Company Reclamation Plan: mining land reclamation (under review).
- Artic Cold: 449,248 square feet of fruit puree processing facilities (under construction).
- Plantel Nurseries: 1,596,480 square foot nursery development plan revision (under review).
- Orcutt Union Plaza Phase II Amendment: 16,880 square feet of retail uses (approved).
- OUSD Senior Housing (Key Site 17): community center, child daycare center, public park, and 75 dwelling units (under review).
- Clark Avenue Commercial: 12,875 square feet of commercial uses (approved).
- Key Site 30 Tract Map 14,739: 69 single-family homes and a recreational park on 79 acres, approximately 9 miles southeast of the project site (approved).
- Terrace Villa Tract Map: 16 residential units (approved).
- Key Site 3: 125 single-family residences on 139 acres, approximately 10 miles southeast of the project site (under review).
- Oasis General Plan Amendment: 15,333 square feet of commercial uses (approved)
- Orcutt Public Marketplace: 211,264 square feet of commercial uses (under review).
- Vintage Ranch Tract Map: 41 residential units (under review).
- Orcutt Gateway Retail Center: 49,921 square feet of commercial uses (under review).
- The Neighborhoods of Willow Creek and Hidden Canyon Specific Plan: 143 residential units (under review).
- Orcutt Gas Station: 7,868 square foot fueling station (under review).

- AMG & Associates Affordable Housing: 58 residential units (under review)

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.** Have a substantial adverse effect on a scenic vista? | | | | X | |
| **b.** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X | |
| **c.** In non-urban areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | X | | |
| **d.** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | X | | |

**Setting:**

The project site is located in an area designated as “low” scenic value by the Open Space Element of the Santa Barbara County Comprehensive Plan. The SR 166 travel corridor, located approximately 1.4 miles south of the project site is considered scenic level three (least scenic) in the Open Space Element. Public views of the project site are limited to motorists on Bonita School Road. The only residence (private views) in the immediate project area is a caretaker residence located just east of Bonita School Road north of existing bridge. U.S. Highway 101 is an eligible State scenic highway, and located approximately 4.5 miles east of the project site.

The project site is located in the Santa Maria Valley, a broad feature (several miles wide) dominated by row crops, but also includes the developed areas of Santa Maria and Orcutt. The visual character of the area surrounding the project site is entirely rural-agricultural. However, the wide scrub-dominated River channel imparts a desert-like almost natural visual character. Non-agricultural land uses in the immediate area are limited to the Bonita School.

**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 2,321 feet long, with a bridge deck up to 21 feet above the riverbed. Structures above the bridge deck would be limited to barriers and railing, no superstructure is proposed. The proposed bridge would not be visible from SR 166 or any scenic vista. The proposed bridge would be characteristic of other roadway bridges crossing the Santa Maria River (SR 1, U.S. Highway 101) and would not be considered aesthetically offensive.

**b.** There are no State-designated scenic highways in the project area. The proposed bridge would not be visible from U.S. Highway 101.

**c.** The new bridge would be of a design and scale consistent with the rural environment, and public views would be limited to motorists on Bonita School Road. Views of the proposed bridge from the caretaker residence would be blocked by existing vegetation and greenhouses. The visual character of the site (agricultural, rural) would be modified by the large concrete bridge structure, but this change would be less than significant because the rural character would be largely preserved, as loss of agricultural land would be minimal and the removal of the embankment fill would return the riverbed to a more natural state. The replacement of the existing bridge constructed of railroad flat cars with a modern highway bridge may be considered an improvement in the visual quality of the site by some viewers. Overall, the proposed bridge would not degrade the visual character or quality of the project area.

**d.** The proposed bridge lighting would be low intensity and focused downward. The low light levels (less than one foot-candle) and small number of light fixtures (about seven) would not substantially affect nighttime views in the area. Project-related construction activities may require occasional night lighting. Such lighting would be located relatively close to the bridge structure and focused on work activities, and is not anticipated to substantially increase ambient light levels at the caretaker residence, due to intervening vegetation and greenhouses.

**Mitigation and Residual Impact:**

Significant impacts were not 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 Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | X | | |

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **b.** Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | X | | |
| **c.** Conflict with existing zoning for, or cause rezoning of forest land, timberland or timberland zoned Timberland Production? | | | | X | |
| **d.** Result in the loss of forest land or conversion of forest land to non-forest use? | | | | X | |
| **e.** Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | | | | X | |

**Setting:**

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Based on the 2021 Agricultural Production Report, agriculture continues to be Santa Barbara County's major producing industry with a gross production value of $1,918 million (Santa Barbara County Agricultural Commissioner's Office, 2023). Strawberries are the most lucrative crop in the County, with a value of $800 million in 2021. 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 support row crops (including celery, broccoli, lettuce, strawberries) and short-term greenhouses (plastic-covered metal hoops) producing herbs and berries. Based on important farmland mapping obtained from the California Department of Conservation. Bonita School Road traverses mostly Prime Farmland; however, patches of Unique farmland also occur (see Figure 4).

Most of the larger agricultural parcels within and surrounding the project site are enrolled in Williamson Land Conservation Act contracts. San Luis Obispo County has designated the area north of the Santa Barbara/San Luis Obispo county line as the Oso Flaco Agricultural Preserve, which includes the northern portion of the project site.

The Natural Resources Conservation Service soil survey indicates the River channel supports Corducci-Typic Xerofluvents, while areas away from the levees support Metz loamy sand (0 to 2 percent slopes), Tujunga loamy sand (0 to 2 percent slopes) and Sorrento loam (0-2 percent slopes).

N

P
X
X
U
P
U
P
X
To Route 166
BONITA SCHOOL RD
To Division Road
Santa Maria River
X
P
U
P
U
P
U
SAN LUIS OBISPO COUNTY
SANTA BARBARA COUNTY
P
U
X
X

**MAP EXTENT:**


LEGEND:

- Project Impact Area
- County Boundary

**Farmland Designation**

- Prime Farmland (P)
- Unique Farmland (U)
- Other Land (X)

0 200 400
FEET

*Source: Google Earth Pro Image May 2023, Esri Online Topo Basemap, County of Santa Barbara, County of San Luis Obispo, California Department of Conservation 2016*
*Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet*
*Notes: This map was created for informational and display purposes only.*

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
BONITA SCHOOL ROAD BRIDGE REPLACEMENT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 1602-1921
DATE: June 2023

# IMPORTANT FARMLAND MAP

FIGURE 4

roject\Bonita School Road Bridge\MND\Important Farmland Map.mxd 6/28/2023

**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.** In general, proposed improvements near agricultural lands would be located within the existing right-of-way and consist of narrow roadway embankments that would widen the roadway shoulder adjacent to these agricultural lands (including Prime farmlands). These project components would not result in farmland conversion as these areas are precluded from agricultural production by the existing roadway and adjacent land uses. However, the following four project components may result in farmland conversion:

- Proposed northwestern road embankment: displacement of approximately 0.07 acres of Prime farmland north of the Santa Maria River on APN 113-050-037.
- Proposed northwestern stormwater detention basin: displacement of approximately 0.06 acres (50 feet by 50 feet) of Unique farmland north of the Santa Maria River on APN 113-050-037.
- Proposed southwestern road embankment: displacement of approximately 0.06 acres of Unique farmland south of the Santa Maria River on APN 113-050-062.
- Proposed southwestern stormwater detention basin: displacement of approximately 0.06 acres of Unique farmland south of the Santa Maria River on APN 113-050-062.

Overall, approximately 0.07 acres of Prime farmland and 0.18 acres of Unique farmland would be converted to accommodate the proposed project.

The four areas listed above where proposed project components would result in farmland conversion are assessed in Table 1 for agricultural suitability and productivity according to the Environmental Thresholds and Guidelines Manual. Table 1 indicates one of the affected areas has a relatively high agricultural productivity potential (at least 60 points). Conversion of farmland is considered a less than significant impact because:

- The proposed project would not result in a division of land or otherwise result in any parcels becoming non-viable for agriculture.
- The proposed project would not result in a substantial disruption of surrounding agricultural operations.
- The proposed project would virtually eliminate fugitive dust produced by vehicle traffic on the existing unpaved embankment fill and terminate the associated reduction in agricultural productivity.

- The areas of farmland conversion are located adjacent to the existing roadway which would avoid any extension into other agricultural areas.
- The area of farmland conversion is very small (0.25 acres, of which only 0.07 acres have relatively high agricultural potential) as compared to the surrounding ~30,000 acres of farmland.

**b.** The proposed project would not result in changes in zoning of agricultural lands and would reduce existing conflicts with adjacent farmlands by terminating fugitive dust generated by vehicles using the existing river crossing.

**c.** The proposed project would not conflict with any areas zoned for forestry and would not cause any forest land or timberlands to be rezoned.

**d.** The proposed project would not result in the loss or conversion of forest land to non-forest uses.

**e.** Projects that involve public infrastructure (e.g., roads, power, water, sewer) in a previously undeveloped area may lead to inducement of population growth and associated conversion of agricultural lands or forest lands. The proposed project is limited to improving an existing river crossing with no increase in capacity and could not foster new development or population growth.

**Table 1. Agricultural Assessment of the Farmland Conversion Areas**

| Parameter | Northwestern Road Embankment | Northwestern Stormwater Basin | Southwestern Embankment | Southwestern Stormwater Basin |
|---|---|---|---|---|
| Affected area (acres) | 0.07 | 0.06 | 0.06 | 0.06 |
| Farmland classification | Prime | Unique | Unique | Unique |
| Parcel size | 11 | 11 | 10 | 10 |
| Soil classification | 9 | 3 | 3 | 3 |
| Water availability | 13 | 13 | 13 | 13 |
| Agricultural suitability | 8 | 0 | 0 | 0 |
| Existing and historic land use | 5 | 5 | 5 | 5 |
| Comprehensive Plan designation | 5 | 5 | 5 | 5 |
| Adjacent land uses | 9 | 9 | 9 | 9 |
| Agricultural preserve potential | 5 | 4 | 4 | 4 |
| Combined farming operations | 3 | 3 | 3 | 3 |
| **TOTAL** | 68 | 53 | 52 | 52 |

**Mitigation and Residual Impact:**

Significant impacts were not 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 AND GREENHOUSE GAS EMISSIONS

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | | | | X | |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | | | X | | |
| c. Expose sensitive receptors to substantial pollutant concentrations? | | | X | | |
| d. Result in other emissions (such as those leading to odors) affecting a substantial number of people? | | | | X | |
| **Greenhouse Gas Emissions** | | | | | |
| e. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | X | | |
| f. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | | | | X | |

**Setting:**

Air Quality. 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 the State 8-hour ozone standard. Santa Barbara County is designated as non-attainment/transitional while San Luis Obispo County is designated as a non-attainment area for the State 8-hour ozone standard. Both counties are designated as non-attainment areas for the State particulate matter ($PM_{10}$) standard. In addition, eastern San Luis Obispo County is considered a non-attainment area for the Federal 8-hour ozone 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 2019 Ozone Plan (2019 Plan) was adopted by the APCD's Board of Directors in December 2019 and is the ninth triennial update to the initial state Air Quality Attainment Plan (other updates were done in 1994, 1998, 2001, 2004, 2007, 2010, 2013, and 2016). Each of the plan updates have implemented an "every feasible measure" strategy to ensure continued progress toward attainment of the state ozone standards. Since 1992, Santa Barbara County has adopted or amended more than 25 control measures aimed at reducing emissions from stationary sources of air pollution. These measures have substantially reduced ozone precursor pollutants, which includes NOx and ROC.

Along with the implementation of statewide measures, the APCD's control measure strategy has successfully improved the County's air quality, as we've witnessed a downward trend in ozone exceedances. For the last four years, Santa Barbara County had three or fewer exceedances of the State 8-hour ozone standard, and the County was designated as nonattainment-transitional in April 2017. This designation means that the County is getting close to attaining the standard and the APCD must determine whether additional control measures are necessary to accomplish expeditious attainment of the state standard.

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 has brought San Luis Obispo County into attainment of the State ozone standard.

The closest air quality monitoring station and most representative of the project site is the Nipomo (Regional Park) station in San Luis Obispo County, located approximately 2.9 miles to the north. Recent air quality data from the Nipomo station is presented in Table 2.

**Table 2. Summary of Ambient Air Quality Data**

| Pollutant | 2020 | 2021 | 2022 |
|---|---|---|---|
| **Ozone** | | | |
| Highest 1-Hour concentration (ppm) | 0.067 | 0.063 | 0.065 |
| Highest 8-Hour concentration (ppm) | 0.064 | 0.056 | 0.061 |
| Number of State Exceedances (8-Hour>0.070 ppm) | 0 | 0 | 0 |
| Number of 2015 Federal Std. Exceedances (8-Hour>0.070 ppm) | 0 | 0 | 0 |
| **Particulate Matter less than 10 microns ($PM_{10}$)** | | | |
| Highest sample (micrograms/cubic meter) | 104.2 | 66.3 | 74.5 |
| Number of State exceedances (samples>50 ug/$m^3$) | 17 | 5 | 5 |

Greenhouse Gas Emissions. Climate change, often referred to as "global warming" is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic, or man-made, factors including changes in land-use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping greenhouse gases (GHG), defined as any gas that absorbs infrared radiation within the atmosphere.

In 2021, the average contiguous U.S. temperature was 54.5°F, 2.5°F above the 20th-century average and ranked as the fourth-warmest year in the 127-year period of record. The six warmest years on record have all occurred since 2012. The December 2021 contiguous U.S. temperature was 39.3°F, 6.7°F above average and exceeded the previous record set in December 2015.

GHG emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- Carbon Dioxide ($CO_2$): natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of $CO_2$ include burning fuels such as coal, oil, natural gas, and wood.
- Methane ($CH_4$): natural sources include wetlands, permafrost, oceans and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills.

- Nitrous Oxide ($N_2O$): natural sources include microbial processes in soil and water, including those reactions which occur in nitrogen-rich fertilizers; anthropogenic sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels.
- Chlorofluorocarbons (CFCs): no natural sources, synthesized for use as refrigerants, aerosol propellants, and cleaning solvents.
- Hydrofluorocarbons (HFCs): no natural sources, synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing.
- Sulfur Hexafluoride ($SF_6$): no natural sources, synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF6 has a long lifespan and high global warming potential.
- Ozone: unlike the other GHGs, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Due to the nature of ozone, and because this project is not anticipated to contribute a significant level of ozone, it is excluded from consideration in this analysis.
- Water Vapor: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during construction of the proposed project are $CO_2$, $CH_4$ and $N_2O$. The project is not expected to have any associated use or release of HFCs, CFCs or $SF_6$.

$CO_2$ is also used as a reference gas for climate change. To account for different GHG global warming potentials, emissions are often quantified and reported as $CO_2$ equivalents ($CO_2E$). Currently, the $CO_2$ global warming potential is set at a reference value of 1, $CH_4$ has a global warming potential of 27.9 (i.e., 1 ton of methane has the same warming potential as 27.9 tons of $CO_2$), while nitrous oxide has a warming potential of 273.

In efforts to reduce and mitigate climate change impacts, State and local governments are implementing policies and initiatives aimed at reducing GHG emissions. California, one of the largest state contributors to the national GHG emission inventory, has adopted significant reduction targets and strategies. The primary legislation affecting GHG emissions in California is the California Global Warming Solutions Act (Assembly Bill [AB] 32). AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. In addition, two State-level Executive Orders have been enacted by the Governor (Executive Order S-3-05, signed June 1, 2005, and Executive Order S-01-07, signed January 18, 2007) that mandate reductions in GHG emissions.

In December of 2009, the California Natural Resources Agency adopted amendments to the CEQA Guidelines (Title 14, Cal. Code of Regulations, §15000 et seq.) to comply with the mandate set forth in Public Resources Code §21083.05. These revisions became effective March 18, 2010. According to GHG amendments to the CEQA Guidelines, each public agency that is a CEQA lead agency needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions. A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information.

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. The County has been implementing the ECAP's emission reduction measures since 2016. However, the County did not meet the 2020 GHG emission reduction goal contained within the ECAP, and an updated 2030 Climate Action Plan is in development.

In November 2021, Santa Barbara County completed a Climate Change Vulnerability Assessment as a first step to improving regional resiliency by analyzing how climate change may harm the community. The Assessment considered how severe the effects of climate change hazards are likely to be for the county's people and assets and identifies which groups of people and assets face the greatest potential for harm. The County will use these results to prepare an Adaptation Plan and update the Santa Barbara County Seismic Safety and Safety Element to increase resiliency throughout the unincorporated county.

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

**Environmental Thresholds**. The Santa Barbara County Planning and Development Department's Environmental Thresholds and Guidelines Manual (updated 2021) has developed the following thresholds to determine the significance of long-term (operational) air pollutant emissions under the California Environmental Quality Act.

- Emits (from all sources, except registered portable equipment) greater than the daily trigger for offsets in the APCD's 1995 New Source Review Rule (240 pounds per day for $NO_x$ or ROC; 80 pounds per day for $PM_{10}$).
- Emits greater than 25 pounds per day of $NO_x$ or ROC (motor vehicle trips only).
- Causes or contributes to a violation of a State or Federal air quality standard (except ozone).

- Exceeds APCD health risk public notification thresholds.
- Is inconsistent with adopted State and Federal Air Quality Plans (2019 Ozone 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 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).

On January 26, 2021, the Santa Barbara County Board of Supervisors adopted interim thresholds of significance for GHG emissions from non-industrial stationary source projects. The numeric screening threshold is 300 $MTCO_2E$ per year and is used in this Initial Study to determine the significance of the project's GHG emissions. Consistent with the County's Environmental Thresholds and Guidelines Manual, construction GHG emissions are to be amortized over the lifetime of the project (assumed to be 50 years for the proposed project).

**Impact Discussion:**

**a.** The proposed project would not result in any long-term increase in air pollutant emissions and would not induce population growth that may exceed the projections of the 2019 Ozone Plan. Therefore, the proposed project would not conflict with implementation of the 2019 Ozone Plan.

**b.** **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 using the OFFROAD 2021 model (heavy equipment emissions) and the EMFAC 2021 model (on-road vehicle emissions for Santa Barbara County, 2024, annual) developed by CARB. A peak day would occur during removal of the embankment fill. It was assumed that some earth material would be staged off-site generating 30 one-way heavy-duty truck trips on a peak day. Estimated project peak day air pollutant emissions are listed in Table 3. Due to their small magnitude and temporary nature, project construction 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 | 4.2 | 42.1 | 26.4 | 1.7 |
| On-road vehicles | 0.1 | 2.5 | 1.2 | 0.2 |
| Fugitive dust | 0.0 | 0.0 | 0.0 | 280.7 |
| **Total** | 4.3 | 44.6 | 27.6 | 282.6 |

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 Santa Barbara County APCD to reduce construction-related emissions of ozone precursors to the extent feasible. These measures are listed below. Compliance with these measures is routinely required for all new development in the County.

Standard APCD Construction Emissions Reduction Measures. Measures provided in the APCD's 2022 Scope and Content of Air Quality Sections in Environmental Documents would be implemented and are listed below.

- During construction, use water trucks, sprinkler systems, or dust suppressants in all areas of vehicle movement to prevent dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. When using water, this includes wetting down areas as needed but at least once in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained 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.
- Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.
- Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track-out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.

- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day 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.
- Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.
- Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.
- The contractor or builder shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures 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.
- All portable diesel-powered construction equipment greater than 50 brake horsepower (bhp) shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the California Air Resource Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce 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.
- Fleet owners of diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (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.
- 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. Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area.

- Diesel-powered mobile equipment shall utilize engines 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. Electric auxiliary power units should be used to the maximum extent 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.
- Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible.
- Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors.
- Construction staging areas should be located away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows.

**Long-Term Operation Emissions**. The proposed project is limited to replacement of an existing bridge 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. The replacement of the existing unpaved embankment fill with a full span bridge would reduce long-term fugitive dust emissions generated by vehicle traffic on Bonita School Road, which would be beneficial.

**c.** Exhaust emissions and fugitive dust would be generated during construction activities. However, there is only one residence in proximity to the project site. The proposed project would implement standard emissions reduction measures recommended by the Santa Barbara County APCD. The reduction in vehicle exhaust emissions and fugitive dust associated with closing Bonita School Road during most of the bridge construction period would mostly offset the project's construction emissions at adjacent sensitive receptors.

Overall, the proposed project would not expose sensitive receptors (such as residences) to substantial pollutant concentrations.

**d.** The proposed project would not result in the generation of any new or modified odors.

**e.** Total project GHG construction emissions were estimated using emissions factors from the CARB's EMFAC 2021 and OFFROAD 2021 models and the California Climate Action Registry General Reporting Protocol. Total project GHG construction emissions are estimated as 738.3 metric tons $CO_2E$ (see Table 4). This value is less than the County's numeric screening threshold of 300 $MTCO_2E$ per year when amortized over the life of the proposed bridge (50 years). Amortization of construction GHG emissions over the lifetime of a project is consistent with the Environmental Thresholds and Guidelines Manual (page 86). Therefore, global climate change impacts are considered less than significant.

**Table 4. Total Construction GHG Emissions (metric tons)**

| Source | $CO_2$ | $N_2O$ | $CH_4$ | $CO_2E$ |
|---|---|---|---|---|
| Heavy equipment | 506.6 | 0.011 | 0.025 | 510.3 |
| Motor vehicles | 223.3 | 0.003 | 0.017 | 228.0 |
| Total | 729.9 | 0.014 | 0.042 | 738.3 |
| **Amortized over 50 years** | | | | **14.8** |
| ***Screening Threshold*** | | | | **300** |

The project involves the 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 GHG emissions. The project would not result in any GHG 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.

**f.** 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 is not readily available. Strategy WR-3 involves recycling of construction waste, which would be implemented by the proposed project (see Section 4.12).

**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 |
|---|---|---|---|---|---|
| **a.** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | | X | | | |
| **b.** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | | X | | | |
| **c.** Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | X | | | |
| **d.** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | | | X | | |
| **e.** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | X | |
| **f.** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | | | | X | |

**Setting:**

The following discussion is based on the results of a Natural Environment Study dated July 2021 prepared for the project (available for review upon request), which included biological surveys and a preliminary wetland delineation. A Biological Study Area (BSA) of about 182 acres was identified based on review of a preliminary bridge plan provided by Santa Barbara County. Biological surveys and habitat mapping were conducted within the BSA. The Project Impact Area (PIA, see Figures 1 and 5) encompasses the area that may be directly affected by construction of the bridge, including construction of the bridge structure, roadway approaches, construction staging areas, and surface flow diversion.

**Vegetation**. A total of 132 vascular plant species were identified during the field surveys of the BSA. Plants observed within the BSA consisted of 69 (52 percent) native taxa and 63 (48 percent) non-native, naturalized, or ornamental taxa. The large proportion of non-native plant species is likely associated with transport of agricultural weed seeds from adjacent agricultural activities and related truck traffic over the Bonita School Road crossing. A list of all vascular plant species observed within the BSA is provided as Appendix A.

The vegetation of the BSA can be divided into nine plant communities described below. Agricultural fields and other human-modified land uses are included under a tenth classification (developed). These plant communities and developed areas are depicted on Figure 5 and described below.

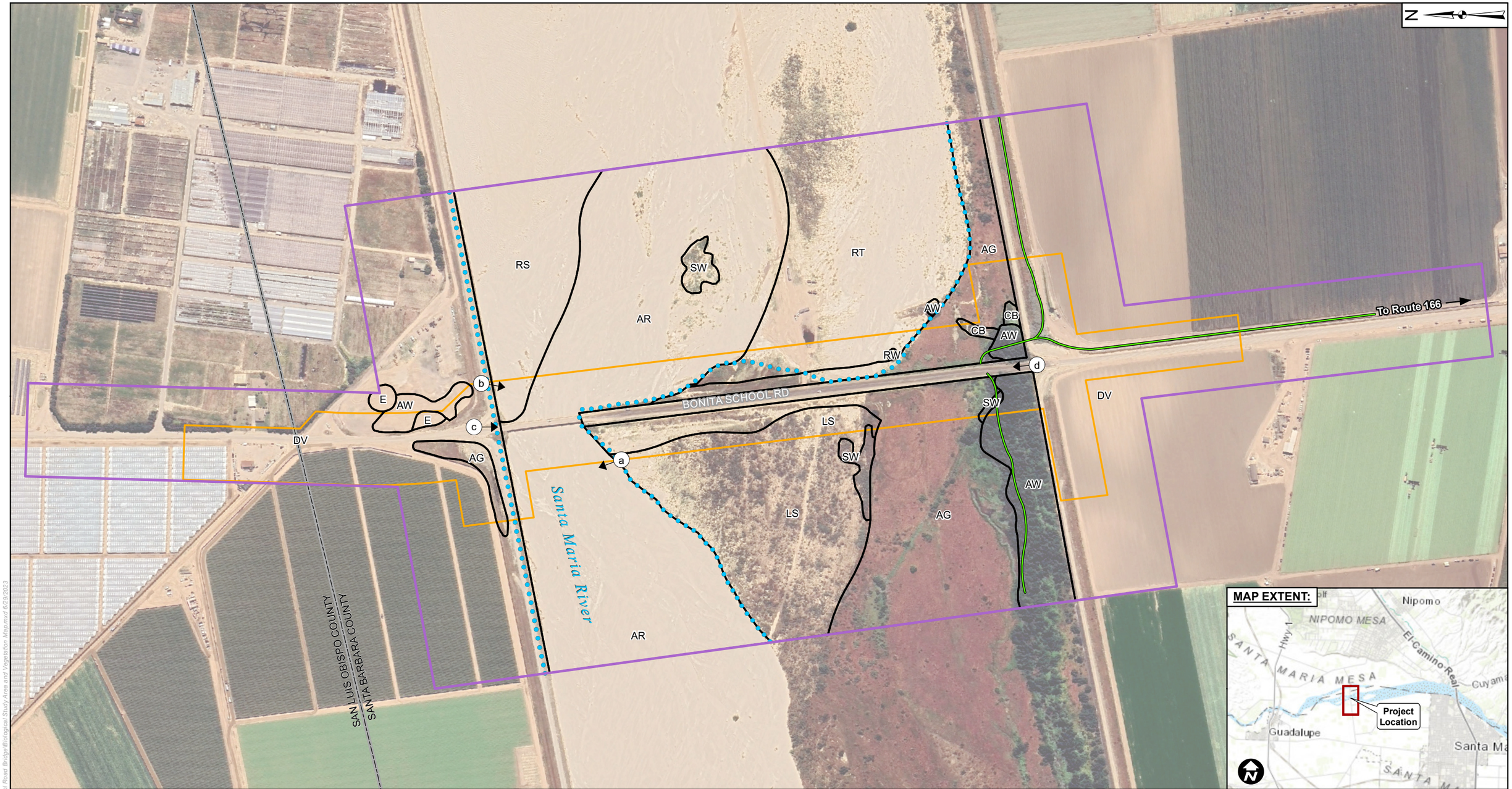
*Lupinus albifrons* Shrubland Alliance (LS). This plant community occurs in the Santa Maria River within the BSA in areas not recently affected by storm flows. Dominant species include silver bush lupine (*Lupinus albifrons*), sandbar willow (*Salix exigua*), croton (*Croton californicus*), telegraph weed (*Heterotheca grandilfora*) and veldt grass (*Ehrharta calycina*). Other species found in this plant community include Blochman's ragwort (*Senecio blochmaniae*), mock heather (*Ericamerica ericoides*), mulefat (*Baccharis salicifolia*), annual bursage (*Ambrosia acanthicarpa*) and red brome (*Bromus madritensis ssp. rubens*). Silver bush lupine plant communities have been assigned a State rarity ranking of S5, meaning they secure, at very low or no risk of extirpation due to its very extensive range and/or abundant populations or occurrences. Approximately 1.9 acres of this plant community occurs within the PIA.

*Salix lasiolepis* Shrubland Alliance (Arroyo Willow Thickets, AW). This plant community occurs primarily in areas where agricultural run-off collects in the riverbed, along the southern levee. However, this plant community also occurs adjacent to agricultural operations northeast of the existing bridge. The dominant species is arroyo willow (*Salix lasiolepis*), with a sparse understory in openings of poison hemlock (*Conium maculatum*) and coyote brush (*Baccharis pilularis*). Arroyo willow thickets have been assigned a State rarity ranking of S4, meaning this plant community is apparently secure, at a fairly low risk of extirpation due to its extensive range and/or many populations or occurrences. Approximately 1.5 acres of this plant community occurs within the PIA.

*Salix exigua* Shrubland Alliance (Sandbar Willow Thickets, SW). This plant community occurs in the riverbed. The dominant plant species is sandbar willow, other species common in this community include poison hemlock. Sandbar willow thickets have been assigned a State rarity ranking of S4, meaning this plant community is apparently secure, at a fairly low risk of extirpation due to its extensive range and/or many populations or occurrences. Approximately 0.1 acres of this plant community occurs within the PIA.

*Baccharis pilularis* Shrubland Alliance (Coyote Brush Scrub, CB). This plant community is dominated by coyote brush, and occurs in small patches within the BSA, mostly adjacent to *Salix lasiolepis* Shrubland Alliance. Coyote brush scrub has been assigned a State rarity ranking of S5, meaning this plant community is secure, at very low or no risk of extirpation due to its very extensive range and/or abundant populations or occurrences. Approximately 0.3 acres of this plant community occurs within the PIA.

*Salix laevigata* Scrub. This term is used to describe a patch of red willow (*Salix laevigata*) saplings in the riverbed.




LEGEND:

- Photo Location (See Figure 3)
- Agricultural Ditch
- Ordinary High Water Mark
- County Boundary
- Project Impact Area
- Biological Study Area Boundary (BSA)

Vegetation Types

- AG - Non-native annual grassland
- AR - Active riverbed
- AW - Salix lasiolepis shrubland alliance
- CB - Coyote brush scrub
- DV - Developed (roads, levees, agricultural fields, greenhouses)
- E - Eucalyptus trees
- LS - Lupinus albifrons shrubland alliance
- RS - Riparian scrub
- RT - Recently tilled areas (2020/2023)
- RW - Salix laevigata scrub
- SW - Salix exigua shrubland alliance

0 200 400 FEET

*Source: Google Earth Pro Image May 2023, Esri Online Topo Basemap, County of Santa Barbara*
*Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet*
*Notes: This map was created for informational and display purposes only.*

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: BONITA SCHOOL ROAD BRIDGE REPLACEMENT SANTA BARBARA COUNTY, CA
PROJECT NUMBER: 1602-1921
DATE: June 2023

# BIOLOGICAL STUDY AREA AND VEGETATION MAP

FIGURE 5

Z:\GIS Projects\GIS Maps\Map Project\Bonita School Road Bridge\Biological Study Area and Vegetation Map.mxd 6/29/2023

Riparian Scrub. This term is used to describe vegetation found in the northeastern portion of the BSA within the riverbed, which is typically not flooded every year. This plant community is composed of scattered shrubs with a grassy understory. Dominant species include red brome, mulefat, coyote brush, sandbar willow and summer mustard. Other species typical of *Lupinus albifrons* Shrubland Alliance also occur including silver bush lupine and croton. Note this plant community was removed by flood flows in January 2023 (not present in the aerial photo in Figure 5), but is anticipated to become reestablished in the next few years. Approximately 0.6 acres of riparian scrub occurs within the PIA.

Active Riverbed (AR). This plant community occurs in areas affected by flow events, typically several times per year. Dominant plant species are similar to *Lupinus albifrons* Shrubland Alliance, but annual bursage is more dominant and shrubs occur at lower density. Dominant species include annual bursage, silver bush lupine, sandbar willow, mulefat and telegraph weed. Following major flow events such as on January 9, 2023, the riverbed is mostly barren with small patches of *Salix exigua* Shrubland Alliance. Approximately 5.4 acres of this area/plant community occurs within the PIA.

Non-Native Annual Grassland (AG). This plant community occurs in areas outside the active riverbed affected by more recent disturbance, primarily vehicle activity. Dominant plant species include rip-gut grass (*Bromus diandrus*), red brome, summer mustard (*Hirschfeldia incana*) and fiddleneck (*Amsinckia menziesii*). Small patches of coyote brush and other native shrubs within disturbed areas is included within the non-native annual grassland plant community. Approximately 8.6 acres of this plant community occurs within the PIA.

Eucalyptus Tree Stands. This term is used to describe stands of red gum eucalyptus (*Eucalyptus camaldulensis*) located north of the river east of Bonita School Road.

Recently Tilled. This term is used to describe vegetation found in the southeastern portion of the BSA within the riverbed, which was tilled in 2020. A portion of this area was again disturbed in 2023. This area is dominated by rip-gut grass, fiddleneck and red-stem filaree (*Erodium cicutarium*).

Developed Areas (DV). This classification is used to describe man-made cover types including agricultural fields, maintained irrigation ditches, roadways, embankments, levees, accessory agricultural structures and greenhouses.

**Wildlife**. The wildlife habitat value of the BSA is low to moderate, in that much of it is regularly disturbed by storm flows or cultivation. However, the river channel provides suitable scrub habitat for many of the wildlife species known from the Santa Maria 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 (Corps of Engineers, 2009; Padre Associates, 2014); range maps (Zeiner et al., 1988, 1990a, 1990b); and bird species reported from the Santa Maria Valley area of Santa Barbara County (Lehman, 2022). A list of all vertebrate wildlife species observed within the BSA is provided as Appendix B.

No fish were observed within the BSA during field surveys. Within the BSA, surface water (fish habitat) is limited to agricultural drainage ditches, an earthen channel in the riverbed carrying run-off from adjacent agricultural fields, and the Santa Maria River channel during flow events. Fish known from the lower Santa Maria River include arroyo chub (*Gila orcuttii*), mosquitofish (*Gambusia affinis*), partially-armored 3-spined stickleback (*Gasterosteus aculeatus microcephalus*) and tidewater goby (*Eucyclogobius newberryi*) (Swift et al., 1993). Mosquitofish were observed in the northern portion of the Unit II flood control channel (empties into the river) approximately 1.3 miles east of the BSA (Padre, 2014).

Amphibians observed during field surveys of the BSA were limited to California toad (*Anaxyrus boreas halophilus*), Baja California treefrog (*Pseudacris hypochondriaca*) and California red-legged frog (*Rana draytonii*). A single CRLF was observed in a pond within the earthen channel immediately west of the embankment fill in the BSA on April 19, 2017. A splash (frog entering the water) was heard during the May 10, 2021 survey at this same pond, potentially indicating the presence of CRLF. Other amphibian species known or expected to occur in the Santa Maria River and/or adjacent drainage ditches include western spadefoot toad (*Spea hammondii*).

Five reptile species were observed within the BSA during field surveys, including western pond turtle (*Emys marmorata*), fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*) and Santa Cruz garter snake (*Thamnophis atratus atratus*). Three juvenile western pond turtles (4 to 6 inch carapace length) were observed in the pond in the earthen channel west of the embankment fill on May 10, 2021. Other reptile species known or expected to occur in the BSA include western rattlesnake (*Crotalus viridis helleri*) and coast horned lizard (*Phrynosoma blainvillii*) (CNDDB, 2023; Corps of Engineers, 2009).

Thirty-four species of birds were observed during field surveys of the BSA including turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), California quail (*Callipela californica*), killdeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), Anna's hummingbird (*Calypte anna*), downy woodpecker (*Dryobates pubescens*), blue-gray gnatcatcher (*Polioptila caerulea*), cliff swallow (*Hirundo pyrrhonota*), barn swallow (*Hirundo rustica*), California scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), ruby-crowned kinglet (*Regulus calendula*), yellow warbler (*Setophaga petechia*), common yellowthroat (*Geothlypis trichas*), Bewick's wren (*Thryomanes bewickii*), least Bell's vireo (*Vireo bellii pusillus*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), European starling (*Sturnus vulgaris*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), song sparrow (*Melospiza melodia*), white-crowned sparrow (*Zonotrichia leucophrys*), red-winged blackbird (*Agelaius phoeniceus*), brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*) and lesser goldfinch (*Carduelis psaltria*).

Active cliff swallow nests were observed attached to the bridge structure, and starlings were observed entering the bridge structure with food, presumably to feed chicks. Numerous owl pellets found under the bridge in 2016 and 2017 indicate great horned owl and/or barn owl use the bridge structure as a feeding perch. A pair of red-tailed hawks were observed in red gum trees (*Eucalyptus camaldulensis*) located just northeast of the bridge.

Evidence of ten mammal species were observed within the BSA, including Virginia opossum (*Didelphis virginiana*), broad-footed mole (*Scapanus latimanus*), big-eared woodrat (*Neotoma macrotis*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), Heermann's kangaroo rat (*Dipodomys heermanni arenae*), coyote (*Canis latrans*), raccoon (*Procycon lotor*) and black-tailed deer (*Odocoileus hemionus*). Heermann's kangaroo rat occurs within the BSA and appears to be an important food source for the local owl population.

**Wildlife Corridors**. Highly mobile species such as larger mammals and birds are expected to move between coastal (such as the Santa Maria Valley) and inland areas (such as the Sisquoc River and Cuyama River corridors, and Santa Ynez and Sierra Madre Mountains). In the vicinity of the BSA, the Santa Maria River provides a means for wildlife to traverse intensely cultivated agricultural areas. However, numerous open space areas (Casmalia Hills, Nipomo Mesa) occur within the foothills along the Valley which provide opportunities for wildlife to move through the region. Therefore, the importance of the Santa Maria River as a regional wildlife movement corridor is unclear. Concentrated mammal tracks (game trails) were not observed within the BSA.

The Santa Maria River may function as a migration pathway for steelhead to reach spawning areas in the Sisquoc River, when adequate surface water is present. Due to the presence of surface water only during peak run-off events, the Santa Maria River does not provide a movement corridor for CRLF.

**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). Four plant species rated as "high" for invasiveness were found within the BSA; red brome, veldt grass, freeway iceplant (*Carpobrotus edulis*) and sweet-fennel (*Foeniculum vulgare*). Red brome and veldt grass are common to dominant within the River floodplain, sweet-fennel is uncommon within annual grassland, and freeway iceplant is relatively rare within the BSA. In addition, 14 plant species rated as "moderate" and 16 species rated as "limited" for invasiveness were found within the BSA (see Appendix A).

The BSA has been disturbed in the past primarily by storm flows, construction and maintenance (including post-storm event repairs/reconstruction) of the Bonita School Road crossing, maintenance of drainage culverts and the agricultural run-off channels, levee maintenance and agricultural cultivation (row crops) along the roadway. Vehicle use appears to regularly occur in the riverbed within the BSA.

**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., California Native Plant Society [CNPS]), and the scientific community (e.g., Santa Barbara Botanic Garden).

For the purposes of this Initial Study, special-status plant species are defined in Table 5. The literature search conducted for this impact analysis and the U.S. Fish and Wildlife Service (USFWS) official species list indicates 27 special-status plant species have the potential to occur within the region (Santa Maria 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. Several botanical surveys were conducted within the BSA (August 10, 2016, April 19, 2017, May 10, 2021, June 28, 2023), and Blochman's ragwort and arroyo willow were the only special-status plant species found. All other special-status plant species are considered absent, based on the lack of suitable habitat and/or the findings of project-specific botanical surveys.

Blochman's ragwort is considered a plant of limited distribution by the CNPS, and several hundred were observed in the BSA during the spring botanical survey. This species is relatively common in dunes and adjacent sandy areas in the Guadalupe/Nipomo area and is a common species in the Santa Maria River in the project area.

**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, June 27, 2023).
- 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 (CNPS Lists 1B and 2).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (CNPS Lists 3 and 4).
- 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 Central Coast Center for Plant Conservation, 2012).
- Trees protected by Santa Barbara County Ordinances.

Santa Barbara County considers loss of 10 percent of native specimen trees on a project site to be a potentially significant impact. The California Department of Fish and Wildlife (CDFW) considers native riparian trees valuable and typically requires replacement when removed by construction projects conducted under a streambed alteration agreement. Arroyo willow trees occur within the project site in the southern portion of the riverbed, mostly where irrigation run-off collects.

**Table 6. Special-Status Plant Species of the Santa Maria Valley Region***

| Common Name *Scientific Name* | Status | Habitat Description | Nearest Known Location | Present /Absent based on Habitat | Rationale for Absence/ Discussion |
|---|---|---|---|---|---|
| Purissima manzanita *Arctostaphylos purissima* | List 1B | Coastal chaparral, sandy soils, below 1,000' elevation | Point Sal Ridge, 8.3 miles to the southwest of the BSA (CNDDB, 2023) | HP | Not observed during botanical surveys |
| Sand mesa manzanita *Arctostaphylos rudis* | List 1B | Coastal chaparral, sandy soils, below 1,250' elevation | Corralitos Canyon, 7.4 miles to the southwest of the BSA (CNDDB, 2023) | HP | Not observed during botanical surveys |
| Marsh sandwort *Arenaria padulicola* | FE, SE, List 1B | Freshwater marshes, swamps, below 1,000' elevation | Oso Flaco Lake, 6.7 miles northwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Davidson's saltscale *Atriplex serenana var. davidsoni* | List 1B | Coastal bluffs, below 650' elevation | Along Highway 1, 3.1 miles west of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| California jewel-flower *Caulanthus californicus* | FE, SE, List 1B | Grassland, scrub, 200-3,300' elevation | Cuyama Valley, 58 miles east of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Lompoc ceanothus *Ceanothus cuneatus var. fascicularis* | List 4 | Coastal chaparral, sandy soils, below 900' elevation | Guadalupe dunes, 5 miles west of the BSA, CNPS, 2023) | HP | Not observed during botanical surveys |
| Monterey ceanothus *Ceanothus rigidus* | List 4 | Sandy chaparral, closed-cone pine forest, below 1,300' elevation | Guadalupe dunes, 5 miles west of the BSA, (CNPS, 2023) | HP | Not observed during botanical surveys |
| Saltmarsh birds-beak *Chloropyron maritimum* ssp. *maritimum* | FE, SE, List 1B | Saltmarsh, below 33' elevation | Cuesta-by-the Sea, 29.7 miles northwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Palmer's spineflower *Chorizanthe palmeri* | List 4 | Serpentine soils, 200-2,300' elevation | Guadalupe quadrangle (CNPS, 2023) | A | Not observed during botanical surveys |
| Surf thistle *Cirsium rhothophilum* | ST, List 1B | Coastal dunes, bluffs, below 100' elevation | Guadalupe dunes, 7 miles west of the BSA, (CNDDB, 2023) | A | Not observed during botanical surveys |
| La Graciosa thistle *Cirsium scariosum var. loncholepis* | FE, ST, List 1B | Marshes, dune wetlands, below 200' elevation | Guadalupe, 3.9 miles southwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |

| Common Name<br>*Scientific Name* | Status | Habitat Description | Nearest Known Location | Present /Absent based on Habitat | Rationale for Absence/ Discussion |
|---|---|---|---|---|---|
| Small-flowered morning-glory<br>*Convolvulus simulans* | List 4 | Coastal sage scrub, grassland, chaparral, mostly clay soils, 100-2,900' elevation | Guadalupe quadrangle (CNPS, 2023) | A | Not observed during botanical surveys |
| Gaviota tarplant<br>*Deinandra increscens ssp. villosa* | FE, SE, List 1B | Coastal bluffs, terraces, below 200' elevation | Casmalia Hills, 7.0 miles southwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Paniculate tarplant<br>*Deinandra paniculata* | List 4 | Grassland, open chaparral and woodland, below 4,300' elevation | Santa Maria quadrangle (CNPS, 2023) | A | Not observed during botanical surveys |
| Dune larkspur<br>*Delphinium parryi ssp. blochmaniae* | List 1B | Sandy coastal chaparral, below 650' elevation | Nipomo Dunes, 6.4 miles northwest of the BSA (CNDDB, 2023) | HP | Not observed during botanical surveys |
| Beach spectacle-pod<br>*Dithyrea maritima* | ST, List 1B | Coastal dunes, below 200' elevation | Guadalupe dunes, 8 miles west of the BSA, (CNDDB, 2023) | A | Not observed during botanical surveys |
| Blochman's dudleya<br>*Dudleya blochmaniae ssp. blochmaniae* | List 1B | Open rocky slopes, often clay or serpentine soils, below 1,500' elevation | Casmalia Hills, 7.1 miles southwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Blochman's leafy daisy<br>*Erigeron blochmaniae* | List 1B | Coastal dunes and hills, below 200' elevation | Black Road, 3.6 miles south-southeast of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Kellogg's horkelia<br>*Horkelia cuneata var. sericea* | List 1B | Old dunes, sand hills, generally below 650' elevation | Guadalupe-Nipomo Dunes, 4.7 miles to the west of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| San Luis Obispo County lupine<br>*Lupinus ludovicianus* | List 1B | Grassy areas in oak woodland, 150-1,650' elevation | Guadalupe quadrangle (CNPS, 2023) | A | Not observed during botanical surveys |
| Crisp monardella<br>*Monardella undulata ssp. crispa* | List 1B | Active coastal dunes, below 350' elevation | Guadalupe Dunes, 4.9 miles west of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| San Luis Obispo monardella<br>*Monardella undulata ssp. undulata* | List 1B | Stabilized dunes, sandy coastal scrub, below 650' elevation | Guadalupe quadrangle (CNPS, 2023) | HP | Not observed during botanical surveys |
| Gamble's watercress<br>*Nasturtium (Rorippa) gambellii* | FE, ST, List 1B | Marshes, below 1,150' elevation | Vandenberg AFB, 15.3 miles south of the BSA CNDDB, 2023) | A | Not observed during botanical surveys |
| Spreading navarretia<br>*Navarretia fossalis* | FT, List 1B | Vernal pools, marshes, 100-4,300' elevation | Near Creston, 37.3 miles north of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |

| Common Name *Scientific Name* | Status | Habitat Description | Nearest Known Location | Present /Absent based on Habitat | Rationale for Absence/ Discussion |
|---|---|---|---|---|---|
| Black-flowered figwort *Scrophularia atrata* | List 1B | Calcium and/or diatom-rich soils, below 1,300' elevation | Casmalia Hills, 7.4 miles southwest of the BSA (CNDDB, 2023) | A | Not observed during botanical surveys |
| Blochman's ragwort *Senecio blochmaniae* | List 4, RPSBC | Coastal dunes, sandy floodplains, below 500' elevation | Common within the BSA | P | Observed during botanical surveys |
| Arroyo willow *Salix lasiolepis* | Native riparian tree | Stream channels, floodplains, below 9,200' elevation | Found within the BSA, mostly in areas where agricultural run-off collects | P | Observed during botanical surveys |

*Includes species provided in the USFWS official species list

**Status Codes:**
FE Federal Endangered (USFWS)
SE California Endangered (CDFW)
ST California Threatened (CDFW)
List 1B Plants rare, threatened, or endangered in California and elsewhere (CNPS)
List 4 Plants of limited distribution (CNPS)
RPSBC Rare Plants of Santa Barbara County (Central Coast Center for Plant Conservation, 2012)

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

**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, and includes those species identified by the USFWS official species list. 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. Species listed as absent in Table 8 would not be impacted by the proposed project and are not discussed further.

## Table 7. Definitions of 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 June 27, 2023).
- Animals that meet the definition 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. (2015) for fish; and Thomson et al. (2016) 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 Santa Maria Valley Region*

| **Common Name** *Scientific Name* | **Habitat** | **Status** | **Nearest Known Location Relative to the BSA** | **Present /Absent based on Habitat** | **Rationale for Absence Discussion** |
|---|---|---|---|---|---|
| **Invertebrates** | | | | | |
| Vernal pool fairy shrimp *Branchinecta lynchi* | Seasonal ponds | FT | Near Santa Maria Airport, 6.4 miles south-southeast of the BSA (CNDDB, 2023) | A | Suitable seasonal ponds are absent |
| Monarch butterfly *Danaus plexippus* | Coastal tree groves | SA | Preisker Park, 4.0 miles east of the BSA (Meade, 1999) | A | Tree groves are absent |
| El Segundo Blue butterfly *Euphilotes battoides allyni* | Dunes with larval food plant | FE | Palos Verdes, 146 miles southeast of the BSA (CNDDB, 2023) | A | BSA is outside the known distribution |
| Kern primrose sphinx moth *Euproserpinus euterpe* | Sandy washes | FT | Carrizo Plain, 39 miles northeast of the BSA (CNDDB, 2023) | A | BSA is outside the known distribution |
| **Fish** | | | | | |
| Arroyo chub *Gila orcuttii* | Low elevation streams | CSC | Lower Santa Maria River, 6.5 miles west of the BSA (CNDDB, 2023) | HP | Presumed present during surface flows |
| Southern California steelhead *Oncorhynchus mykiss* | Coastal streams | FE | Santa Maria River (migration to the Sisquoc and lower Cuyama Rivers) (Stoecker et al., 2003) | HP | Presumed present during surface flows |

| Common Name<br>*Scientific Name* | Habitat | Status | Nearest Known Location Relative to the BSA | Present /Absent based on Habitat | Rationale for Absence Discussion |
|---|---|---|---|---|---|
| Tidewater goby<br>*Eucyclogobius newberryi* | Coastal estuaries and streams | FE, CSC | Santa Maria River estuary, 6.9 miles west of the BSA (CNDDB, 2023) | A | Insufficient connectivity to the estuary |
| **Amphibians and Reptiles** | | | | | |
| California tiger salamander<br>*Ambystoma californiense* | Seasonal ponds | FE, ST, CSC | GUAD-3 breeding pond, 5.5 miles south of the BSA (Hunt & Associates, 2000) | A | BSA is outside the known distribution |
| Western spade-foot toad<br>*Spea hammondii* | Seasonal ponds (breeding) | PT, CSC | Santa Maria River, 1.4 miles east of the BSA (CNDDB, 2023) | HP | Suitable pond habitat is present |
| California red-legged frog<br>*Rana draytonii* | Stream pools and ponds | FT, CSC | Observed within the BSA during field surveys | P | Observed within BSA |
| Western pond turtle<br>*Emys marmorata* | Stream pools and ponds | CSC | Observed within the BSA during field surveys | P | Observed within BSA |
| Silvery legless lizard<br>*Anniella pulchra pulchra* | Sandy soils with leaf litter, high soil moisture | CSC | Near Mahoney Road, 4.9 miles to the south of the BSA (CNDDB, 2023) | A | Habitat unsuitable due to lack of leaf litter and periodic soil disturbance |
| Coast horned lizard<br>*Phrynosoma blainvillii* | Coastal scrub, open chaparral | CSC | Santa Maria River floodplain, 3.7 miles east of the BSA (CNDDB, 2023) | HP | Suitable scrub habitat within BSA |
| Blunt-nosed leopard lizard<br>*Gambelia silas* | Saltbush scrub, alkali scrub, grasslands | FE, SE, FP | Cuyama Valley, 55 miles east of the BSA (CNDDB, 2023) | A | BSA is outside the known distribution |
| **Birds** | | | | | |
| Marbled murrelet<br>*Brachyramphus marmoratus* | Ocean, bays | FT, SE | Santa Cruz area, ~160 miles north-northwest of the BSA (CNDDB, 2023) | A | BSA is outside the known distribution |
| California clapper rail<br>*Rallus longirostris obsoletus* | Salt marsh | FE, SE, FP | San Francisco Bay (USFWS, 2013b) | A | Extirpated in region |
| California least tern<br>*Sternula antillarum browni* | Beaches, estuaries, bays, harbors | FE, SE, FP | Oceano Dunes SVRA, 8.3 miles northwest of the BSA (Frost, 2013) | A | Suitable habitat is absent |
| Southwestern willow flycatcher<br>*Empidonax trailli extimus* | Riparian forest | FE, SE | Santa Ynez River, 29.4 miles southeast of the BSA (CNDDB, 2023) | A | Suitable habitat is absent |
| Least Bell's vireo<br>*Vireo bellii pusillus* | Riparian woodland, riparian scrub | FE, SE | Discovered with the PIA in May 2020, new occurrence in the region | P | Observed within the PIA |
| Sharp-shinned hawk<br>*Accipiter striatus* | Woodlands | WL (nesting) | Oceano, 3.7 miles northwest of the BSA (CNDDB, 2023) | A | Suitable habitat is absent |

| Common Name<br>*Scientific Name* | Habitat | Status | Nearest Known Location Relative to the BSA | Present /Absent based on Habitat | Rationale for Absence Discussion |
|---|---|---|---|---|---|
| Burrowing owl<br>*Athene cunicularia* | Grasslands | CSC | Near Unit II flood control channel, 1.5 miles east of the BSA (Padre Associates, 2014) | A | May forage in agricultural areas within BSA |
| California horned lark<br>*Eremophila alpestris actia* | Grasslands | WL | Near Unit II flood control channel, 1.5 miles east of the BSA (Padre Associates, 2014) | A | Suitable habitat is absent |
| Loggerhead shrike<br>*Lanius ludovicianus* | Grasslands, open scrub and chaparral | CSC (nesting) | Santa Maria River floodplain, 4 miles east of the BSA (Corps of Engineers, 2009) | HP | Suitable habitat within the BSA |
| Tri-colored blackbird<br>*Agelaius tricolor* | Marshes | ST, CSC (nesting) | Observed foraging near the Unit II flood control channel, 1.5 miles east of the BSA (Padre Associates, 2014) | A | Suitable habitat is absent |
| California condor<br>*Gymnogys californianu*s | Grassland, shrub land, woodland | FE, SE | Los Padres National Forest (potential roost sites), 20 miles to the east (USFWS, 2013a) | HP | BSA is within the reported distribution |
| Yellow warbler<br>*Setophaga petechia* | Riparian woodlands | CSC (nesting) | Heard calling within the PIA in June 2023 | P | Observed within the PIA |
| **Mammals** | | | | | |
| Giant kangaroo rat<br>*Dipodomys ingens* | Saltbush scrub, grassland | FE, SE | Taylor Canyon, 34.9 miles east-northeast of the BSA (CNDDB, 2023) | A | BSA is outside the known distribution |
| American badger<br>*Taxidea taxus* | Grassland, scrub, open woodlands | CSC | Grasslands near effluent storage ponds, 5.1 miles south of the BSA, Hunt & Associates, 2000) | HP | Suitable habitat within the BSA |

*Includes species provided in the USFWS official species list

**Status Codes**:
CSC California Species of Special Concern (CDFW)
FE Federal Endangered (USFWS)
FT Federal Threatened (USFWS)
FP California Fully Protected (CDFW)
MMPA Marine Mammal Protection Act
PT Proposed Threatened (USFWS)
ST State Threatened (CDFW)
SA Special Animal (CDFW)
SC Candidate for listing (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

Arroyo Chub. Arroyo chub was not found within the BSA during field surveys conducted for this project. However, this species is known to occur in the lower Santa Maria River and may occur within the BSA during periods of surface flow and connectivity to downstream reaches. This species is native to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana and Santa Margarita rivers and Malibu and San Juan creeks. Arroyo chub has been introduced to the Santa Maria River (Moyle et al., 2015).

Southern California Coast Steelhead. This endangered fish species was not observed during field surveys of the BSA. Steelhead is an anadromous form of rainbow trout, which reproduces in freshwater but spends much of its life cycle in the ocean where greater prey availability and mass provides a greater growth rate and size. Steelhead have been divided into evolutionary significant units (ESU) based on similarity in life history, location, and genetic markers. The southern California ESU includes populations from the Santa Maria River in the north to the Tijuana River in the south. The southern California ESU was listed as endangered by the National Marine Fisheries Service (NMFS) on October 17, 1997.

The Santa Maria River, including the BSA, is designated critical habitat for southern California steelhead (National Oceanic and Atmospheric Administration, 2005). The Santa Maria River watershed produced a relatively large run of steelhead in the 1940's prior to the construction of the Twitchell Dam (Stoecker et al., 2003). The Santa Maria River is considered a migration corridor for steelhead to access the Sisquoc River. However, releases from the Twitchell Dam on the Cuyama River may be required to provide adequate surface flow for steelhead to reach the Sisquoc River. Steelhead have been reported from the upper Sisquoc River (Los Padres National Forest), generally in high rainfall years (Stoecker et al., 2003). Migration to/from the ocean could occur through the PIA during high flow periods.

Western Spade-foot Toad. This species was not observed during biological surveys of the BSA. Western spade-foot toad was reported breeding in 1995 (CNDDB, 2023) in a pool formed by agricultural run-off in the Santa Maria River near the confluence with the Unit II flood control channel (1.3 miles east of the BSA). The BSA provides similar habitat as agricultural run-off collects in the riverbed near the southern levee and immediately west of the crossing.

California Red-legged Frog. This species was observed in the earthen channel adjacent to Bonita School Road carrying run-off from adjacent agricultural fields during biological surveys of the BSA and is also known to occur in agricultural drains in the project area (Padre Associates, 2014; CNDDB, 2023). Due to the rarity of surface water within the riverbed, suitable habitat within the BSA is limited to this channel and adjacent agricultural drains as they are fed by irrigation run-off from agricultural fields located east of Bonita School Road, which provides dependable surface water.

Western Pond Turtle. This species was observed in the riverbed in April 2017 and December 2018 within the channel formed by agricultural run-off within the BSA during biological surveys conducted for this project. Western pond turtle is also known to occur in agricultural ponds in the project area (CNDDB, 2023). Due to the rarity of surface water within the riverbed, suitable aquatic habitat within the BSA is limited to this channel as it is fed by agricultural run-off from agricultural fields located east of Bonita School Road, which provides dependable surface water.

Coast Horned Lizard. This species was not observed during biological surveys of the BSA. Coast horned lizard has been reported from sandy areas along the Santa Maria River 3.7 miles east of the BSA. Suitable habitat occurs within the BSA, and this species may be present.

Least Bell's Vireo. This species was not observed during biological surveys of the BSA. Suitable habitat (*Salix lasiolepis* Shrubland Alliance and *Salix exigua* Shrubland Alliance) within the BSA consists of a small 6-acre fragment, isolated from other riparian habitats, and frequently maintained (limb removal, channel clearing) by Santa Barbara County Flood Control staff. This species had not been reported nesting in the region for many decades.

A new population of this species along the Santa Maria River was found in May 2020, with four nesting pairs found in riparian habitat maintained by agricultural irrigation run-off along the southern levee. Two of these nests were found within the BSA, with one nest located within the PIA (just west of Bonita School Road). Cowbird eggs were observed within the nests and two cowbird traps were placed along the levee by Griffith Wildlife Biology and activated on April 2, 2021. Focused surveys conducted in 2021 and 2022 by Griffith Wildlife Biology did not find any least Bell's vireo nesting pairs within the BSA or PIA. In 2023, Griffith Wildlife Biology reported two active nests within the PIA.

Yellow Warbler. This species was heard calling from *Salix lasiolepis* Shrubland Alliance within the PIA on June 28, 2023. Suitable habitat consists of a small 6-acre fragment, isolated from other riparian habitats, and frequently maintained (limb removal, channel clearing) by Santa Barbara County Flood Control staff. Yellow warbler may nest within or adjacent to the PIA.

Loggerhead Shrike. This species was not observed during field surveys of the BSA. Loggerhead shrike is considered an uncommon fall/winter resident of the coastal areas in Santa Barbara County (Lehman, 2022). The current breeding status in the project area is unclear. This species was observed in late summer 2008 approximately four miles east of the BSA (Corps of Engineers, 2009), and spring/summer 2000 approximately five miles south of the BSA (Hunt & Associates, 2000). Suitable habitat occurs within the project impact area, and this species may be present.

Burrowing Owl. In 2012 and 2013, this species was observed foraging in agricultural fields 1.5 miles south of the BSA, but was not found during focused surveys of this area in 2014 (Padre Associates, 2014). Although burrowing owl is known to winter in the Santa Maria area, breeding pairs have not been reported in the Santa Maria Valley since at least the 1990's (Lehman, 2022). Agricultural fields within the BSA provide suitable wintering habitat, and burrowing owl may occur within the BSA.

California Condor. California condor was not observed during field surveys of the BSA. The BSA is within the range of the California condor (USFWS, 2013a); however, this species tends to forage in mountainous areas near release sites such as Ventana Wilderness, Bitter Creek National Wildlife Refuge and Hopper Mountain National Wildlife Refuge. Although very unlikely, it is possible a condor may forage in the vicinity of the project site.

American Badger. Evidence (tracks, scat, burrows) of this special-status mammal species was not observed during field surveys of the BSA. American badger is known to occur in the western Santa Maria Valley and may forage for ground squirrels within the project site.

**Wetlands**. Definition. The U.S. Army Corps of Engineers (Corps) has jurisdiction over waters of the United States (U.S.) (including wetlands) under the authority of the Section 404 of the Clean Water Act. 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."*

The State Water Resources Control Board (2020) defines an area as wetland as follows:

> *"An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."*

Santa Barbara County has adopted the U.S. Fish and Wildlife Service (USFWS) wetland definition (Santa Barbara County, 2021):

> "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 criteria are observed (prevalence of hydrophytic vegetation, presence of hydric soils, and wetland hydrology).

Preliminary Wetland Delineation. The purpose of the preliminary delineation was to determine the area of jurisdiction of the Corps under Section 404 of the Clean Water Act. The delineation was performed on December 4, 2018 (and updated June 28, 2023) in accordance with the routine procedures for areas greater than five acres detailed in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and Arid West Supplement (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). The focus of the preliminary delineation was the agricultural run-off channel and adjacent areas along the southern levee, as this area supports hydrophytic vegetation and saturated soils.

Federal Jurisdictional Determination. In non-tidal waters, the lateral extent of Corps jurisdiction is determined by the ordinary high water mark (OHWM) which is defined as the:

> *"…line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."* (40 CFR 120.2.c.4).

The Corps asserts jurisdiction over the following categories of waterbodies (effective September 8, 2023):

1. 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 (traditionally navigable water, TNW).
2. Territorial seas.
3. Interstate waters.
4. All impoundments of waters otherwise identified as waters of the U.S. other than impoundments of intrastate lakes and ponds.
5. Tributaries of waters identified above that are relatively permanent, standing or continuously flowing bodies of water.
6. Wetlands adjacent to a TNW, territorial sea or interstate water.
7. Wetlands adjacent to relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to those waters.
8. Intrastate lakes and ponds not identified above that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to a TNW or a tributary of waters that are relatively permanent, standing or continuously flowing bodies of water.

The Santa Maria River is not considered a TNW by the Corps. However, tidally influenced portions of the Santa Maria River including the estuary would be considered jurisdictional due to proximity to the Pacific Ocean (a TNW and territorial sea). Therefore, the reach of the River within the project site is considered a water of the U.S. and under the jurisdiction of the Corps.

OHW marks and the limit of Corps jurisdiction within the project site were identified by bank shelving patterns and other erosional features observed on June 28, 2023 which were formed by a large flow event (19,600 cfs at the Suey Road gauging station) on January 9, 2023. A total of 8.3 acres of Corps jurisdictional area occurs within the PIA (see area between OHWMs in Figure 5).

Wetland Delineation Results. The dominant plant species within the wetland sampling plots was arroyo willow, rated as a facultative-wetland species. Indicators of wetland hydrology were found along the agricultural run-off channel in the riverbed, including surface water, saturated soil, water marks, drift deposits and drainage patterns. Soil pits were excavated in areas meeting the hydrophytic vegetation criterion, along the channel carrying agricultural run-off near the southern levee. Soil pits excavated within a few inches of surface water in the channel exhibited faint signs of hydric soils (gleying, redox mottling) but were insufficient to meet Arid West indicators for loamy soils. Therefore, hydric soils were not found along the channel. Due to the lack of hydric soils, Corps jurisdictional wetlands do not occur within the PIA.

The Santa Maria River within the project site supports wetlands under the State definition as the existing sandy unconsolidated substrate is seasonally (recurrent) saturated by shallow surface water. For the purposes of this analysis, it is assumed the area between OHWMs (Corps jurisdiction) is considered State-defined wetlands as this area is seasonally saturated by surface water. A total of 7.6 acres of State-defined wetlands occurs within the PIA which includes 5.4 acres of active riverbed and 2.2 acres of hydrophytes (*Salix lasiolepis* Shrubland Alliance, *Salix exigua* Shrubland Alliance, *Salix laevigata scrub* and riparian scrub).

The Santa Maria River within the project site supports wetlands under the County definition as the existing sandy unconsolidated substrate (non-soil) is saturated and covered with surface water for a portion of the growing season. Methodology to establish the limits of County-defined wetlands has not been developed. For the purposes of this analysis, it is assumed the area between OHWMs and adjacent areas supporting hydrophytes is considered County-defined wetlands. A total of 7.6 acres of County-defined wetlands occurs within the PIA which includes 5.4 acres of active riverbed and 2.2 acres of hydrophytes (*Salix lasiolepis* Shrubland Alliance, *Salix exigua* Shrubland Alliance, *Salix laevigata scrub* and riparian scrub).

**County Environmental Thresholds**. Santa Barbara County's Environmental Thresholds and Guidelines Manual (updated 2021) 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.

Santa Barbara County considers loss of 10 percent of native specimen trees on a project site to be a potentially significant impact.

**Impact Discussion:**

**a. Special-status Plant Species**. Two special-status plant species are known to occur within the construction footprint (PIA); Blochman's ragwort and specimen native trees (arroyo willow). Project implementation would result in the loss of 50 to 100 individuals of Blochman's ragwort. This loss would be temporary as this species would re-colonize the riverbed following bridge construction. This species is not rare or endangered as defined in the State CEQA Guidelines and is common in the project region. Therefore, the project-related temporary loss of Blochman's ragwort is considered a less than significant impact.

Based on a preliminary native tree survey conducted on December 4, 2018, seventeen specimen arroyo willow trees (at least 12 inches in diameter) occur within the project site and would be removed during bridge construction. This project-related loss of specimen native trees is considered a significant impact.

**Arroyo Chub**. The affected reach of the Santa Maria River only supports surface water during the wet season of average and above-average rainfall years. All construction work within the riverbed would be conducted when surface flow is absent or directed away from work areas using berms. However, surface flow diversion activities have the potential to result in mortality of this species, which is considered a significant impact. Therefore, impacts to arroyo chub are considered potentially significant. In the long-term, the proposed removal of the embankment fill in the riverbed (existing roadway crossing) would expand the area of potential habitat for this species.

**Southern California Coast Steelhead**. All construction work within the riverbed would be limited to periods when the riverbed is dry or when surface flow is directed away from work areas using berms (or similar methods). Surface flow diversion would occur prior to the arrival of storm flows such that steelhead would not be affected by flow diversion activities. Disturbance of the riverbed is not anticipated to substantially increase turbidity as storm flows reaching the PIA are already turbid. However, an unusually large storm event may require repair to diversion berms when steelhead could be present. Therefore, impacts to steelhead are considered significant.

Construction activities would not interfere with steelhead migration. The proposed new bridge would remove the existing 2,100-foot-long embankment fill (flow constriction) of the 2,400-foot-wide floodplain, which will allow for meandering of the active flow channel and likely improve conditions for steelhead migrating through the PIA.

**California Red-legged Frog**. Project construction would result in the temporary loss of 1.6 acres of occupied habitat along the toe of the southern levee. However, in the long-term, removal of the embankment fill would increase suitable habitat area (*Salix lasiolepis* Shrubland Alliance, *Salix exigua* Shrubland Alliance and the associated agricultural run-off channel) near the southern levee by approximately 0.34 acres (300 feet by 50 feet). In addition, removal of the embankment fill would allow the termination of maintenance of the channel and culverts transporting agricultural run-off to the downstream side of the existing road crossing (including the channel currently supporting CRLF). This would permanently increase habitat quality for this threatened species. Impacts to CRLF may include direct mortality (if present during construction) and short-term habitat loss and are considered significant. Caltrans has determined (and USFWS has concurred) that incidental take of CRLF associated with implementation of this project is authorized under the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (PBO: 8-8-10-F-58).

**Least Bell's Vireo**. Project construction would result in the temporary loss of 1.6 acres of potentially occupied least Bell's vireo habitat (arroyo willow thickets and sandbar willow thickets). Loss of suitable habitat would reduce available forage, cover and reproductive habitat for the newly established least Bell's vireo population. Direct mortality (loss of eggs and/or nestlings) may occur if habitat removal was conducted during the breeding season (February 15 through August 30). The duration of habitat loss is anticipated to be about four years including the two-year construction period and two years for implementation of the Habitat Mitigation and Monitoring Plan (see Mitigation Measures) to provide nesting habitat.

In the long-term, removal of the embankment fill would increase suitable habitat area (*Salix lasiolepis* Shrubland Alliance and the associated agricultural run-off channel) near the southern levee by approximately 0.34 acres (300 feet by 50 feet). In addition, removal of the embankment fill would allow the termination of maintenance of the channel and culverts transporting agricultural run-off to the downstream side of the existing road crossing. This would permanently increase habitat quality for this endangered species. Impacts to least Bell's vireo may include direct mortality and short-term habitat loss and are considered significant. Incidental take of least Bell's vireo associated with implementation of this project has been authorized under a Biological Opinion and Incidental Take Statement issued by USFWS dated November 26, 2021.

**Yellow Warbler**. Project construction would result in the temporary loss of 1.6 acres of potentially occupied habitat for this species (arroyo willow thickets and sandbar willow thickets). Loss of suitable habitat would reduce available forage, cover and reproductive habitat for the local population. Direct mortality (loss of eggs and/or nestlings) may occur if habitat removal was conducted during the breeding season. The duration of habitat loss is anticipated to be about four years including the two-year construction period and two years for implementation of the Habitat Mitigation and Monitoring Plan (see Mitigation Measures) to provide nesting habitat.

In the long-term, removal of the embankment fill would increase suitable habitat area (*Salix lasiolepis* Shrubland Alliance and the associated agricultural run-off channel) near the southern levee by approximately 0.34 acres (300 feet by 50 feet). In addition, removal of the embankment fill would allow the termination of maintenance of the channel and culverts transporting agricultural run-off to the downstream side of the existing road crossing. This would permanently increase habitat quality for this species. Impacts to yellow warbler may include direct mortality and short-term habitat loss and are considered significant.

**Western Spade-foot Toad**. Project construction would result in the temporary loss of 1.6 acres of potential western spade-foot toad habitat along the toe of the southern levee. However, in the long-term, removal of the embankment fill would increase habitat area near the southern levee by approximately 0.34 acres (300 feet by 50 feet). In addition, removal of the embankment fill would allow the termination of maintenance of the channel and culverts transporting agricultural run-off to the downstream side of the existing road crossing. This would permanently increase habitat quality for western spade-foot toad. Impacts to western spade-foot toad may include direct mortality (if present during construction) and short-term habitat loss and are considered significant.

**Western Pond Turtle**. Construction within the riverbed would be limited to periods when the riverbed is dry, or surface flow is directed away from work areas using berms (or similar methods). Approximately 1.6 acres of suitable habitat (associated with agricultural run-off) occurs within the PIA, and construction-related impacts to western pond turtle may occur, including direct mortality and short-term habitat loss, and are considered significant. In the long-term, no loss of habitat for this species would occur as a result of project implementation because agricultural run-off would continue to provide pool habitat in the riverbed.

**Coast Horned Lizard**. This species may occur within the PIA, and project construction will result in the temporary disturbance of about 7.9 acres of suitable habitat in the riverbed (*Lupinus albifrons* Shrubland Alliance, active riverbed, riparian scrub). In the long-term, removal of the embankment fill would increase suitable habitat area by approximately 1.9 acres. Impacts to coast horned lizard may include direct mortality (if present during construction) and short-term habitat loss and are considered significant.

**California Condor**. Due to the very low potential for this species to be present during project construction and the very small amount of temporary habitat disturbance (about 21 acres) of riverbed foraging habitat as compared to that available in the region, impacts are considered less than significant.

**Loggerhead Shrike**. *Lupinus albifrons* Shrubland Alliance within the PIA is considered potential breeding habitat for this species. Avoidance and minimization efforts and the small amount of temporary habitat loss (2.5 acres; *Lupinus albifrons* Shrubland Alliance, riparian scrub) will prevent substantial direct and indirect impacts. In the long-term, removal of the embankment fill would increase potential foraging and breeding habitat area by approximately 1.9 acres. Construction-related loss of active nests of this species may occur and is considered a significant impact.

**Burrowing Owl**. Construction activities have the potential to disturb foraging burrowing owls within the PIA. Due to the large area of adjacent wintering habitat (~30,000 acres of surrounding agricultural areas) loss of foraging opportunities would be minimal and not affect the local population. Therefore, impacts to burrowing owl are considered less than significant.

**American Badger**. Although evidence of this species was not observed during biological surveys, suitable badger foraging habitat occurs within the PIA. This species is highly mobile and would leave the project site when earthwork is initiated. Therefore, impacts to American badger are considered less than significant.

**b.** The proposed project would result in the temporary loss of approximately 2.2 acres of riparian vegetation including *Salix lasiolepis* Shrubland Alliance, *Salix exigua* Shrubland Alliance, *Salix laevigata scrub* and riparian scrub. In the long-term, these riparian communities would become reestablished in the riverbed and supported by irrigation run-off from adjacent agricultural fields. However, the temporal loss of riparian vegetation until these plant communities become reestablished is considered a significant impact.

**c.** The proposed project would result in the temporary disturbance of 5.4 acres of sandy riverbed wetlands and temporary loss of 2.2 acres of riparian wetlands which are considered State and County-defined wetlands. The riparian wetlands would become reestablished in the riverbed and supported by irrigation run-off from adjacent agricultural fields. However, the temporal loss of riparian wetlands until these plant communities become reestablished is considered a significant impact.

**d.** Although wildlife movement is not constrained by development or topographic features in the project area, the Santa Maria River may be used by wildlife moving through the area. As compared to the existing Bonita School Road crossing, the proposed free span bridge would be elevated and allow for free passage of wildlife. Construction activities may restrict wildlife movement within the PIA during the construction period due to heavy equipment activity and barriers (K-rail) proposed to be placed along the existing roadway when Bonita School Roads remains open (only during bridge pile installation). However, large wildlife (deer, coyote) can jump the 20-inch-tall K-rail, and smaller mammals and other less mobile wildlife can cross the barriers using existing drainage culverts.

The Santa Maria River is a potential movement corridor for steelhead migrating from the Pacific Ocean to spawning areas in the Sisquoc River. Surface flow diversion would occur prior to the arrival of storm flows such that steelhead migration would not be affected by flow diversion activities. The proposed project would result in the removal of the existing 2,100-foot-long embankment fill (flow constriction) of the 2,400-foot-wide floodplain, which will allow for meandering of the active flow channel and likely improve conditions for steelhead migrating through the PIA. Impacts to wildlife movement are considered less than significant.

**e.** The proposed project would not conflict with any local policies or ordinances protecting biological resources. Oak trees protected under Santa Barbara County ordinances would not be affected.

**f.** The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or similar plan as none have been adopted that affect the project area.

**Mitigation and Residual Impact:**

**BIO-1: Riparian Habitat and Wetlands Restoration, and Specimen Tree Replacement**. An approximately 5-acre mitigation area comprised of the riverbed within the PIA along the southern levee shall be restored, including the following actions:

- Restoring or improving pre-project drainage patterns and topography.
- When feasible, root crowns of arroyo willow trees located in temporary impact areas shall be left in place and allowed to re-grow (crown sprout) following construction.
- Specimen arroyo willow trees removed during construction shall be replaced at a 3:1 ratio.
- Planting willow and mulefat (*Baccharis salicifolia*) cuttings to enhance existing riparian habitat within the mitigation area.
- Removal of invasive plant species within the mitigation area focusing on poison hemlock (*Conium maculatum*).
- Maintenance of the plantings for up to 5 years.
- Monitoring the success of the restoration/enhancement effort for 5 years.

Plan Requirements and Timing: A habitat mitigation and monitoring plan shall be prepared and submitted to CDFW and RWQCB for review, approved prior to the initiation of construction and fully implemented. MONITORING: The County project manager shall ensure compliance with these measures.

**BIO-2: Avoidance and Minimization of Impacts to Arroyo Chub and Steelhead**. To avoid conflicts with fish, construction activities within the riverbed shall be conducted when the project site is dry or surface flow is directed away from work areas using berms. The following measures, subject to approval during acquisition of regulatory permits shall be fully implemented to prevent impacts to arroyo chub and steelhead:

1. A qualified biologist shall provide construction worker awareness training prior to the start of construction.
2. A qualified biologist shall monitor installation of the surface flow diversion (if required) and initial dewatering activities.
3. Prior to any work within surface water, a qualified fisheries biologist shall complete a survey for steelhead and arroyo chub.
4. If steelhead are found in the work area, all work affecting the Santa Maria River flow channel shall cease and Caltrans shall be notified.

5. If authorized by the NMFS, any steelhead found in the work area shall be recaptured and relocated by a qualified biologist to suitable habitat downstream.
6. If instream construction must be conducted when surface water is present, surface flow diversion shall be implemented such that diverted surface flow is returned to suitable habitat within the Santa Maria River immediately downstream of the project site.
7. If pumps are used to dewater aquatic habitat, the intake will be screened with a wire mesh not larger than 0.2 inches (5 mm) to prevent steelhead from entering the pump system.
8. The diversion berm and pipeline (if needed) shall be in place prior to beginning diversion of surface flow.
9. Non-erosive materials (e.g., sandbags, sheet pile, rubber/plastic tubes) shall be used to construct the diversion berm.
10. An energy dissipater and sediment trap (hay bales, or equivalent) shall be used at the diversion pipeline outlet.
11. Excavated material shall be stored away from the low-flow channel to prevent incidental discharge.
12. Any riverbed access points shall be stabilized using a pad of coarse aggregate underlain by filter cloth, crane mats or equivalent materials to reduce erosion and tracking of sediment.
13. Disturbed areas of the river channel shall be re-compacted to pre-construction conditions prior to restoring flow to the active channel.
14. Silty or turbid water produced from dewatering or other activities shall not be discharged to the Santa Maria River until filtered or allowed to settle prior to discharge.
15. Use of heavy equipment in flowing water shall be prohibited.
16. The bed of the Santa Maria River shall be restored immediately following the completion of instream construction work.
17. Riparian habitat removed by the project shall be restored and/or enhanced to improve fish habitat.

Plan Requirements and Timing: A steelhead avoidance compliance plan shall be prepared and submitted to NMFS and 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 these measures.

**BIO-3: Avoidance and Minimization of Impacts to California Red-legged Frog**. The following measures have been approved by the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (8-8-10-F-58) (USFWS, 2011) and will be implemented.

1. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF. Biologists authorized under this biological opinion do not need to re-submit their qualifications for subsequent projects conducted pursuant to this biological opinion, unless we have revoked their approval at any time during the life of this biological opinion.
2. Ground disturbance will not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work, unless the individual(s) has/have been approved previously and the USFWS has not revoked that approval.
3. A USFWS-approved biologist will survey the project site no more than 48 hours before the onset of work activities. If any life stage of CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The USFWS-approved biologist will relocate CRLF the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Santa Barbara County will coordinate with the USFWS on the relocation site prior to the capture of any CRLF.
4. Before any activities begin on a project, a USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

5. A USFWS-approved biologist will be present at the work site until all CRLF have been relocated out of harm's way, workers have been instructed, and disturbance of habitat has been completed. After this time, Santa Barbara County will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this monitor receives the training outlined in measure 4 above and in the identification of CRLF. If the monitor or the USFWS-approved biologist recommends that work be stopped because CRLF would be affected in a manner not anticipated by Santa Barbara County and the USFWS during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, the USFWS will be notified as soon as possible.
6. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
7. All refueling, maintenance, and staging equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Santa Barbara County will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. Habitat contours will be returned to their original configuration at the end of project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the USFWS and Santa Barbara County determine that it is not feasible or modification of original contours would benefit the CRLF.
9. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to CRLF habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

10. Santa Barbara County will attempt to schedule work activities for times of the year when impacts to CRLF would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain CRLF through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and coordination between Santa Barbara County and the USFWS during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.
11. To control sedimentation during and after project implementation, Santa Barbara County will implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, Santa Barbara County will attempt to remedy the situation immediately, in coordination with the USFWS.
12. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh no larger than 0.2 inch to prevent CRLF from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any imported material will be removed from the stream bed upon completion of the project.
13. Unless approved by the USFWS, water will not be impounded in a manner that may attract CRLF.
14. A USFWS-approved biologist will permanently remove any individuals of non-native species, such as bullfrogs (*Lithobates catesbeianus*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
15. If Santa Barbara County demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for CRLF, these areas will not be included in the amount of total habitat permanently disturbed.
16. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.

17. The Project Impact Area will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the maximum extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. Prior to the onset of construction, a Habitat Mitigation and Monitoring Plan will be prepared and submitted to regulatory agencies for approval. This measure will be implemented in all areas disturbed by activities associated with the project, unless the USFWS and Santa Barbara County determine that it is not feasible or practicable.

18. Santa Barbara County will not use herbicides as the primary method used to control invasive, exotic plants. However, if Santa Barbara County determines the use of herbicides is the only feasible method for controlling invasive plants at a specific site, it will implement the following additional protective measures for CRLF:

    a. Santa Barbara County will not use herbicides during the breeding season for the CRLF.

    b. Santa Barbara County will conduct surveys for CRLF immediately prior to the start of any herbicide use. If found, CRLF will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur.

    c. Giant reed or other invasive plants will be cut and hauled out by hand and painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®.

    d. Licensed and experienced Santa Barbara County staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands of invasive plants occur at the project site.

    e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

    f. Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).

    g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 miles per hour.

    h. No herbicides will be applied within 24 hours of forecasted rain.

i. Application of all herbicides will be done by a qualified Santa Barbara County staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from the riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Santa Barbara County will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Santa Barbara County will ensure that a spill plan is in place for prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

19. Upon completion of any project for which this programmatic consultation is used, the County of Santa Barbara will submit a Project Completion Report to Caltrans, who is ensure the Project Completion Report is provided to the USFWS.

Plan Requirements and Timing: A California red-legged frog avoidance compliance plan shall be prepared and submitted to USFWS and 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 these measures.

**BIO-4: Avoidance and Minimization of Impacts to Least Bell's Vireo**. The following conservation measures provided by USFWS in the Biological Opinion prepared for the proposed project shall be implemented.

1. All vegetation removal shall be completed prior to embankment fill removal and other ground disturbance and conducted between August 31 and February 14 to avoid the least Bell's vireo breeding season.

2. Prior to any vegetation removal or ground disturbance, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the least Bell's vireo and its habitat, the specific measures that are being implemented to conserve the least Bell's vireo for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

3. Environmentally sensitive areas shall be delineated to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to least Bell's vireo habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas. All staging areas shall be located in recently disturbed or agricultural areas.

4. Prior to the onset of work activities, a comprehensive plan shall be in place for the prompt and effective response to any accidental or unexpected spills. All construction personnel that would be working in the vicinity of the stream shall be informed of the importance of spill prevention and instructed on the appropriate course of action to take should an accidental spill occur. A qualified biologist shall monitor initial ground disturbance and vegetation removal within and immediately adjacent to the Santa Maria River and associated riparian habitat and shall ensure that all the stream-related Best Management Practices are being followed in an effective manner. The monitor shall remain on-site until all of the initial disturbance in the immediate vicinity of the Santa Maria River, including riparian habitat, has been completed and all personnel have received instructions on implementation of the measures used for spill prevention and what to do if an accidental spill occurs.

5. All construction-related debris and solid waste generated during project implementation shall be contained and secured in sealed refuse bins, picked up regularly, removed from all construction areas, and disposed of properly at an appropriate refuse site.

6. Access routes, staging, and construction areas shall be limited to the minimum area necessary to achieve the project goals and minimize potential impacts to non-wetland waters including locating access routes and construction areas outside of jurisdictional areas to the maximum extent feasible. All refueling, equipment maintenance, and staging areas for materials, equipment, and vehicles shall occur at least 60 feet away from riparian habitat and the stream channel and situated in a location where a potential spill would not drain directly toward aquatic habitat (i.e., on a slope that drains toward a stream) or within a containment structure.

Plan Requirements and Timing: Environmentally sensitive areas shall be shown on the construction plans or other map provided to the construction contractor. A spill response plan shall be prepared by the contractor and submitted to the County project engineer for review and approval. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with these measures.

**BIO-5: Avoidance and Minimization of Impacts to Western Spade-foot Toad**. The following measures shall be implemented to minimize impacts to western spade-foot toad:

1. Western spade-foot toad relocation sites shall be identified prior to the initiation of any project construction activities affecting the riverbed or aquatic habitat.

2. The limits of the project site adjacent to suitable western spade-foot toad habitat shall be fenced to exclude this species from the work area using Ertec$^{tm}$ E-fence (or equivalent).
3. Field surveys shall be conducted by a qualified biologist no more than one week prior to the initiation of any project-related disturbance of suitable aquatic habitat, and any western spade-foot toads found within the project site relocated to suitable relocation sites.
4. Flow of agricultural run-off shall be maintained through the project site to ensure downstream western spade-foot toad habitat is maintained throughout the construction period.
5. If any life stage of the western spade-foot toad is detected in the project site during construction, work shall cease immediately, and a qualified biologist shall relocate any western spade-foot toads found in harm's way to a suitable relocation site.
6. Measures to be implemented to protect California red-legged frog (see BIO-3) would also benefit western spade-foot toad.

Plan Requirements and Timing: A western spade-foot toad avoidance compliance plan shall be prepared prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with these measures.

**BIO-6: Avoidance and Minimization of Impacts to Western Pond Turtle**. The following measures shall be implemented to minimize impacts to western pond turtle:

1. Western pond turtle relocation sites shall be identified prior to the initiation of any project construction activities affecting the riverbed or aquatic habitat.
2. The limits of the project site adjacent to suitable western pond turtle habitat shall be fenced to exclude this species from the work area using Ertec$^{tm}$ E-fence (or equivalent).
3. Field surveys shall be conducted by a qualified biologist no more than one week prior to the initiation of any project-related disturbance of suitable aquatic habitat, and any western pond turtles found within the project site relocated to suitable relocation sites.
4. Flow of agricultural run-off shall be maintained through the project site to ensure downstream western pond turtle habitat is maintained throughout the construction period.
5. If western pond turtle is detected in the project site during construction, work shall cease immediately, and a qualified biologist shall relocate any western pond turtles found in harm's way to a suitable relocation site.
6. Measures to be implemented to protect California red-legged frog (see BIO-3) will also benefit western pond turtle.

Plan Requirements and Timing: A western pond turtle avoidance compliance plan shall be prepared prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with these measures.

**BIO-7: Avoidance and Minimization of Impacts to Coast Horned Lizard**. Field surveys shall be conducted within one week prior to the initiation of construction-related floodplain disturbance. These surveys shall be conducted during peak diurnal activity periods (midday in the spring and fall, morning and late afternoon during summer) to increase the potential to encounter coast horned lizard. All coast horned lizards encountered shall be relocated to suitable habitat at least 1,000 feet away from the PIA.

Plan Requirements and Timing: A coast horned lizard survey and relocation plan shall be prepared prior to the initiation of construction. MONITORING: The County project engineer and designated construction inspector shall ensure compliance with this measure.

**BIO-8: Avoidance and Minimization of Impacts to Yellow Warbler, Loggerhead Shrike and other Breeding Birds**. The following measures shall be implemented to minimize impacts to breeding birds:

1. If feasible based on the construction schedule, vegetation within the project site 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. In addition, any unoccupied nests (excluding raptors) found within the project site shall be removed to discourage nesting.
2. A breeding bird survey shall be conducted prior to construction and all active nests shall be identified. 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.

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

Mitigation measures provided above would reduce impacts to biological resources to a level of less than significant.

## 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.** Cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in Section 15064.5 of the State CEQA Guidelines? | | | | X | |
| **b.** Cause a substantial adverse change in the significance of a prehistoric or historic archeological resources pursuant to Section 15064.5 of the State CEQA Guidelines? | | | | X | |
| **c.** Disturb any human remains, including those located outside formal cemeteries? | | | | X | |
| **Tribal Cultural Resources** | | | | | |
| **d.** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California native American tribe, and that is:<br>1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020(k), or<br>2. A resource determined by the lead agency, at its discretion and supported by substantial evidence, to be significant according to the criteria set forth in Public Resources Code Section 5024.1c? In applying the criteria set forth in Section 5024.1c for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe. | | | | X | |

**Setting:**

The following discussion is based on an Archeological Survey Report prepared for the project by Ms. Rachael Letter of Padre Associates, Inc. dated March 2019.

**Regional Prehistoric Overview**. Archaeologists working in central California have generally recognized six major prehistoric periods of cultural adaptation within the last 10,000 years. Previous research in San Luis Obispo County has tended to assume that the Santa Barbara sequence developed by Chester King (1982) would be largely replicated in this northern extension of ethnographic Chumash territory (Fitzgerald and Jones, 1998). However, the absence of major offshore islands and rich fisheries in northern Santa Barbara County led to the development of a distinct cultural sequence (Fitzgerald and Jones, 1998). Jones (1993) has suggested that, despite ethnographic affiliations with the Santa Barbara Channel, archaeologists should consider northern Santa Barbara County and San Luis Obispo County an archaeological district within the central California Coastal Region. The present understanding of archaeology of the project region is largely based on the available archaeological record of the greater Central Coast region.

Paleo-Indian Period (~25,000 to 9950 years ago). The Paleo-Indian period represents the earliest human occupation in North America, beginning no earlier than 40,000 years ago and perhaps as recently as 25,000 to 20,000 years ago. This period coincides with the entry of people into the Americas during the latter part of the Wisconsin glaciation. At the end of this glacial period, the sea level began rising, submerging and eroding the flat coastal terraces at a rate of up to two meters per year (Barter et al., 1995).

Conclusive evidence of human occupation during the Paleo-Indian Period has been found at several coastal sites dating to the early Holocene, at least 8450 years ago. At Diablo Canyon, Greenwood (1972) reported two multi-component sites with basal dates of 9320 and 8410 years ago. Two isolated fluted projectile points of the Paleo-Indian Period have been reported from Santa Margarita and Nipomo (Gibson, 1996; Mills et al., 2005). The paucity of sites and materials from this time, termed the “Paleocoastal” by Moratto (1984), suggests that population density was low, and settlements were impermanent. People used relatively simple technology to procure plant foods, shellfish, and a limited variety of vertebrate species (Greenwood, 1972; Jones and Waugh, 1995; Jones et al., 1994; King, 1982; 1990).

Millingstone Period (~9950 to 5450 years ago). Appropriately named, the Millingstone Period is defined by the predominance of hand stones and milling slabs in the archaeological record, indicating a reliance on hard seeds and other plant foods. A variety of flaked stone tools including leaf-shaped bifaces, oval bifacial knives, choppers, and scrapers is also present. This period was a time of rising sea levels that created additional lagoons and estuaries (Glassow et al., 2007). Although deer are represented in the archaeological record, hunting and fishing contributed little to the diet, with the faunal diet relying heavily on mussels and Pismo clams. Bone gorges occur and Olivella spp. spire-lopped shell beads appear in burials (Glassow et al., 2007). Residential bases are presumed to have been comprised of extended families during this period.

Early Period (~5450 to 2550 years ago). Cultural changes about 5450 years ago are thought to be a response to environmental shifts, rising sea levels, and an increase in population. Diagnostic artifacts of the Early Period include large side-notched, square stem, and contracting stem projectile points, as well as Olivella spp. beads. Although milling slabs and hand stones continued as the primary plant processing tools, mortars and pestles were added to the tool kit, probably indicating the systematic use of acorns (Glassow and Erlandson, 1988). In response to climactic changes, local residential sites appear more settled, but not permanent, with an increase in logistical organization of economic activities (Jones et al., 1994). The greater diversity of site types during this period reflects an increasing number of short-term occupations near labor-intensive resources. Trade and exchange also increased in importance as population mobility decreased, as evidenced by exotic shell beads and obsidian materials in midden deposits (Jones et al., 1994).

Middle Period (~2550 to 950 years ago). Prehistoric technology and economy became markedly more complex about 2550 years ago. The artifact assemblage contains shellfish hooks and other fishing gear, saucer-type Olivella spp. beads, and contracting-stemmed projectile points. Subsistence practices emphasized fish and acorns, with a greater use of seasonal resources and the first attempts at food storage (Glassow et al., 1988; King, 1990). Continuation of trade relationships is evident in the increased number and diversity of obsidian items and beads associated with this period. Settlement patterns were similar to those of the prior period. Sites were occupied on an extensive basis, but not as permanent settlements. These residential bases functioned in conjunction with short-term, smaller occupations at specialized resource processing areas (Jones and Ferneau, 2002).

Middle to Late Transition Period (~950 to 700 years ago). Around 950 years ago the Medieval Climatic Anomaly, a 300-year period of warmer temperatures and drier climate, caused consequential, adverse environmental conditions, particularly intermittent droughts (Rabb and Larson, 1997). This transition period was a time of emergent political complexity, development of social ranking, and the rapid development of craft specialization. In northern Santa Barbara County, settlement appears to have shifted away from the coast, perhaps reflecting adaptations to warmer temperatures and changes in available resources on the coast (Jones et al., 1994). Artifact assemblages contain a mixture of earlier artifact types such as stemmed projectile points, milling slabs, hand stones, bowl mortars, and Olivella spp. beads. Moreover, the absence of imported obsidian after 950 years ago suggests a change in trade relationships, likely associated with the shift in settlement patterns (Jones et al., 1994). The prehistoric population may have decreased during this time, as villages became temporary hunting camps and native inhabitants increasingly relied on terrestrial mammals for subsistence.

Late Period (~700 to 181 years ago). The Late Period is poorly understood in northern Santa Barbara County as prehistoric occupations from this period do not exhibit well-defined cultural stratigraphy. The few intact Late Period sites have produced artifact assemblages containing small side-notched, triangular, contracting stem, and leaf shaped projectile points, some groundstone, and late prehistoric bead types (Hoover and Sawyer, 1977). The conversion to concave based projectile points led to the abandonment of asphaltum, which had been used for hafting. Shellfish remained the principal protein food. A ranked society with hereditary elite was established. Population growth and socioeconomic complexity transpires, along with environmental change (Glassow et al., 2007).

**Ethnography**. The project site is located within the ethnographic territory of the Chumash, who inhabited the Coast Ranges between San Simeon and Malibu (Kroeber, 1925). The Chumash have been divided into several geographic groups, each associated with a distinct language dialect (Hoover, 1986). The Chumash living in northern Santa Barbara County formed the *Purisimeño* dialect group of the Chumash language family (Golla, 2007). This group was named for their association with the Spanish mission of *La Purísima Concepción*, founded in 1787 (Greenwood, 1978).

The *Purisimeño* occupied the region extending from the western Santa Barbara Channel northward to Lompoc and Vandenberg Air Force Base, with a north boundary near the Santa Maria River (Glassow, 1996). Their territory contained 22 villages, the largest of which were home to about 200 individuals. Archaeological sites directly linked to the *Purisimeño* Chumash include *Nocto* near Point Arguello, and *Lompoc* established west of modern-day Lompoc (Glassow, 1996).

The Chumash were a non-agrarian culture and relied on hunting and gathering for their sustenance. Archaeological evidence indicates that the Chumash exploited marine food resources from the earliest occupation of the coast at least 9,000 years ago (Greenwood, 1978). Much of their subsistence was derived from pelagic fish, particularly during the late summer and early fall (Hoover, 1986). Shellfish were also exploited, including mussel and abalone from rocky shores and cockle and clams from sandy beaches. Acorns were a food staple; they were ground into flour using stone mortars and pestles and then leached to remove tannic acid. In addition, a wide variety of seeds, including *chia* from various species of sage, was utilized. The Chumash harvested several plants for their roots, tubers, or greens (Hoover, 1986).

In this area, as elsewhere in California, basketry served many of the functions that pottery did in other places. The Chumash used baskets for cooking, serving, storage, and transporting burdens. Some basket makers wove baskets so tightly that they could hold water while others waterproofed their baskets by lining them with pitch or asphaltum (Chartkoff and Chartkoff, 1984).

The coastal Chumash practiced a regular seasonal round of population dispersal and aggregation in response to the location and seasonal availability of different food resources (Landberg, 1965). In this way, large coastal villages would have been fully populated only in the late summer when pelagic fishing was at its peak. Through winter, the Chumash depended largely on stored food resources. During the spring and summer, the population dispersed through inland valleys to harvest wild plant resources (Landberg, 1965).

The Chumash lived in large, hemispherical houses constructed by planting willows or other poles in a circle and bending and tying them together at the top. These structures were then covered with tule mats or thatch. Structures such as this housed 40 to 50 individuals, or three-to-four-member family groups. Dance houses and sweathouses are also reported for the Chumash (Kroeber, 1925). Archaeological evidence supports observations that twin or split villages existed on opposite sides of streams or other natural features, possibly reflecting the moiety system of native California (Greenwood, 1978).

Chumash political organization was typified by small-scale chiefdoms (Hoover, 1986). Chiefs were associated with villages or segments of larger villages. Higher status chiefs controlled entire regions containing several villages. The chiefly offices were normally inherited through the male line with a primogeniture rule, i.e., the custom of the firstborn inheriting the office, in effect (Hoover, 1986). Chiefs had several bureaucratic assistants to help in political affairs and serve as messengers, orators, and ceremonial assistants. Several status positions were associated with specialized knowledge and rituals such as weather prophet, ritual poisoner, herbalist, etc. (Bean, 1974).

The protohistoric culture of the Chumash, defined as the time when intermittent trade and contact was experienced between Native Americans and Spanish trading vessels enroute to Asia, was disrupted by the arrival of the Spanish expedition led by Gaspar de Portolá in 1769. Historical accounts from the Portolá expedition and subsequent Juan Bautista de Anza expedition in 1774, as well as archaeological evidence, indicate that both expeditions passed through Santa Barbara County, south of the proposed conservation easement, and stopped at principal *Purisimeño* Chumash settlements along the way (Bolton, 1926; Browning, 1992; Priestley, 1937).

The establishment of the Spanish missions of *La Purísima Concepción* and *Santa Inés* further disrupted Chumash culture in Santa Barbara County. Archaeological evidence verifies not only that the native population was rapidly decimated by missionization, but also that the culture itself disintegrated rapidly (Greenwood, 1978). Chartkoff and Chartkoff (1984) note that Spanish settlement barred many Native Americans from traditionally important resources including clamshell beads, abalone shells, Catalina steatite, shellfish, and asphaltum.

**Records Search**. A records search was completed on June 9, 2016 at the Central Coast Information Center at the University of California, Santa Barbara. The purpose of this records search was to compile information about previously recorded cultural resources and prior cultural resources studies within a 0.5-mile radius and that inform the cultural resources sensitivity of the project site. No previously recorded prehistoric or historic archaeological sites are located within the project site. In addition, no previously recorded prehistoric or historic resources are located within a 0.5-mile radius of the project site.

**Native American Consultation**. As part of the tribal consultation process with Native American groups and individuals, as per 36 CFR Part 800.3, the initiation of the Section 106 process, Ms. Letter contacted the Native American Heritage Commission (NAHC) on June 8, 2016 with a request for information about sacred lands that may be located within the project site. The NAHC responded on June 9, 2016 with a list of interested Native American groups and individuals who might have information regarding resources within or near the project site. The NAHC also reported that a search of the sacred lands file did not indicate the presence of sacred sites within the project site. On June 13, 2016, Padre mailed letters to the following Native American contacts listed for San Luis Obispo County to initiate consultation: Mona Olivas Tucker, Kenneth Kahn, Freddie Romero, Mark Vigil, Xielolixii, Fred Collins, Patti Dunton, Antonia Flores, Mia Lopez, Gino Altamirano, Kathleen Pappo, Raudel Joe Banuelos, Jr., Fred Segobia, and Julie Lynn Tumamait-Stennslie.

On June 27, 2016, Ms. Letter received a phone call from Freddie Romero of the Santa Ynez Tribal Elders Council. Mr. Romero commented that he visited the project site and didn't observe any cultural resources. He stated that the proposed project would likely impact subsurface deposits and recommended monitoring during ground disturbance. No additional correspondence was received from Native American groups.

On August 5, 2021, the Santa Barbara County Transportation Division formally notified three tribal contacts of the decision to undertake the proposed project to allow the tribe to request consultation in compliance with Section 21080.3.1(d) of the Public Resources Code:

- Julie-Lynn Tumamait-Stenslie, Barbareno/Ventureno Band of Mission Indians
- Mia Lopez, Coastal Band of the Chumash Nation
- Kenneth Kahn, Santa Ynez Band of Chumash Indians

The Santa Barbara County Transportation Division received one response to these notifications on August 18, 2021, comprised of a letter from the Santa Ynez Band of Chumash Indians requesting formal consultation. Mr. Morgan Jones with the Santa Barbara County Transportation Division requested a tribal consultation meeting by email and received no response.

**Field Survey**. Padre Staff Archaeologist Christopher Letter conducted an archaeological survey of the project site on August 6 and November 23, 2016. The survey area consisted of a 1.2-mile segment of Bonita School Road with a width of approximately 400 feet. As the project site crossed the Santa Maria River, the width of the survey area was expanded to 2,000 feet. Mr. Letter examined the project site with parallel transects spaced at 10-meter (33 foot) intervals and inspected bare patches of soil to assess the potential for subsurface cultural soils or artifacts. Visibility ranged from 15 to 100 percent. Vegetation such as planted agricultural crops, willow trees, cypress trees, eucalyptus trees, shrubs, and non-native grasses were dominant. The entire PIA was surveyed with the exception of man-made levee dikes that run parallel to both sides of the Santa Maria River throughout the project site, dense tree rows, and planted wind break tree rows along a nursery. No cultural resources were identified as a result of the field survey.

**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 survey and the project location within or adjacent to the Santa Maria River, ground disturbance associated with project implementation would not alter the significance of any known or potential historic resource.

**b.** Based on the results of the record search, the project-specific field survey and the project location within or adjacent to the Santa Maria River, ground disturbance associated with project implementation would not alter the significance any known or potential archeological resource. Unreported buried archaeological artifacts are not anticipated to be present with the PIA due to past and ongoing disturbance of the riverbed by flood flows and in agricultural areas by over 80 years of tilling and cultivation.

**c.** Based on the results of the record search, the project-specific field survey and the project location within or adjacent to the Santa Maria River, ground disturbance associated with project implementation would not disturb any human remains.

**d.** No tribal cultural resources were identified during the record search and Native American consultation conducted for the proposed project. Therefore, no change in the significance of any tribal cultural resources would occur.

**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, standard conditions for County projects would be implemented:

- In the unexpected event that potentially significant archaeological resources are exposed during project construction, all earth disturbing work within 100 feet 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.** Result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources, during project construction or operation? | | | | X | |
| **b.** Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | | X | |

**Impact Discussion:**

**a.** The proposed project would consume non-renewable energy in the form of fuels by vehicles and equipment used for demolition of the existing river crossing and construction the new bridge. This energy use would not be wasteful, inefficient or unnecessary.

**b.** The project would not result in any long-term increase in energy or fuel use and does not conflict with the County's Energy and Climate Action Plan.

**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 | |

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **e.** Development of structures beyond safe Fire Dept. response time? | | | | X | |

**Setting:**

The project site consists of the existing Bonita School Road crossing, the adjacent riverbed, levees, access roads and surrounding irrigated agricultural fields. The project site has been mapped as a non-very high fire hazard severity zone by the California Department of Forestry and Fire Protection. Fire hazard is low to moderate, primarily associated with grass and scattered shrubs and trees located within the riverbed. Santa Barbara County Fire Station 21 serves the Orcutt area and is located approximately 11.5 road miles from the project site. The northern portion of the project site is served by the San Luis Obispo County Fire Department from the Nipomo Station located approximately 5.3 road miles from 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 the sparsely vegetated riverbed and surrounded by irrigated row crops. Therefore, a substantial increase in fire hazard is not anticipated.

**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:**

Significant impacts were not identified; therefore, mitigation is not required. The project would not result in significant impacts to fire protection or substantially contribute to cumulative impacts.

## 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 | | |
| **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 Preliminary Geologic Map of Santa Maria 30’ x 60’ Quadrangle, California (Tennyson, 1992), the project site is underlain by surficial sediments (gravel, sand, mud) composed of alluvium (Holocene-age). The Natural Resources Conservation Service soil survey indicates the River channel supports Corducci-Typic Xerofluvents, while areas away from the levees support Metz loamy sand (0 to 2 percent slopes), Tujunga loamy sand (0 to 2 percent slopes) and Sorrento loam (0-2 percent slopes).

The nearest mapped fault is the Santa Maria Fault located approximately 4 miles east of the project site, which is considered inactive (Santa Barbara County, 1979). The nearest Alquist-Priolo fault hazard zone is the San Andreas Fault system. The project area is considered to be a moderate hazard area for seismically-induced liquefaction and compressible-collapsible soils, and a low hazard area for expansive soils and soil creep (Santa Barbara County, 1979).

**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.** The project site does not include any slopes, and would not be subject to landslides, soil creep, mudslides or other slope stability concerns. The proposed bridge would be designed to withstand anticipated seismic stresses (including liquefaction) 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 increased geologic hazards.

**b.** Earthwork associated with the proposed project would be limited to removal of the existing roadway embankment fill, abutment construction and minor changes to the grade of the approach roadways. Cut and fill slopes would be less than 10 feet high and would not be subject to substantial soil displacement or disruption.

**c.** Changes in topography would be limited to removal of the existing embankment fill and minor changes to the approach roadways. These changes would not result in any geological hazards, or affect bluff retreat or sea level elevations.

**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 the Pleistocene-age California tapir from the Santa Maria area, and three Pliocene-age fishes (*Isurus, Galeocerdo, Carcharodon*) and unidentified Pliocene-age whale fossils from the

Orcutt area. Project-related ground disturbance would occur in previously disturbed soils and recent alluvium, such that intact paleontological resources would not be present. No impacts to unique geologic, paleontological, 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 4.15. Construction activities would avoid surface flows in the Santa Maria River to the extent feasible, ensuring increased water-related erosion is minimized.

**f.** Bridge construction would generally not occur within surface flow of the Santa Maria River. However, temporary diversion of flows would be required using berms to avoid storm damage to the construction work area. Such berms would function similarly to the existing embankment fill such a substantial increase in siltation, deposition or erosion in the riverbed is not anticipated.

**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 sufficient to result in any geologic hazards or substantially affect adjacent land uses. Therefore, vibration impacts are considered less than significant.

**l.** Any excess earth material generated by removal of the embankment fill or other earthwork would be removed from the site and used for beneficial uses to the extent feasible. No spoils, tailings or overburden would be generated.

**Mitigation and Residual Impact:**

Mitigation for potentially significant erosion and siltation impacts are addressed under Water Resources (Section 4.15). 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 | | |

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **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 following discussion is based on the results of an Initial Site Assessment prepared for the project (available for review upon request), which included record searches and sampling of materials from the existing bridge for asbestos and lead-based paint. Record searches identified two underground gasoline storage tanks adjacent to the project site, with no records or any leakage. Asbestos analysis of six samples of concrete, concrete coatings and hose material from the existing bridge did not detect any asbestos in concentrations above the laboratory analytical reporting limits. Lead analysis of four paint samples from the existing bridge detected lead above the California construction standard of 600 parts per million in two of the samples (northwest guardrail, underside of the bridge deck).

**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 Santa Maria 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.** No risk of explosion or release of hazardous substances is expected as a result of project-related activities. The potential for accidental spillage of fuels is addressed above.

**d.** The proposed project would not interfere with any emergency response plan. In the long-term, the proposed project would improve emergency response by replacing the embankment fill with a full span bridge that is not susceptible to wash-out during major storm events. Although the Bonita School Road crossing would be closed during most of the construction period, alternate access is available for land uses north and south of the Santa Maria 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. However, demolition of the existing bridge may result in significant public exposure to lead-based paint.

**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:**

**HAZ-1: Minimization of Public Exposure to Lead-based Paint**. All paint on the existing bridge, guard rails, pipe coatings and striping paint shall be stabilized prior to bridge demolition activities. Loose and flaking paint shall be removed within a containment area and containerized for subsequent disposal, prior to demolition activities. A lead-based paint encapsulant (L-B-C Industrial Lead Encapsulant by Fiberlock Technologies, or equivalent) shall be applied to all painted surfaces prior to demolition activities. During demolition activities, containment shall be maintained at all times to prohibit the release of lead-based paint to the environment. The demolition and/or abatement contractor shall comply with all components of California Code of Regulations (CCR) Title 8, Section 1532.1, as well as the accreditation, licensing, training and work practices in 17 CCR Division 1, Chapter 8. Additionally, the demolition and/or abatement contractor shall comply with Santa Barbara County APCD regulations, including no visible dust emissions.

Plan Requirements and Timing: Areas affected by lead-based paint to be stabilized and/or removed shall be shown on the demolition plans. MONITORING: The County project engineer and designated construction inspector shall ensure lead-based paint is removed by a qualified demolition and/or abatement contractor in compliance with AOCD regulations.

The mitigation measure provided above would reduce hazardous materials impacts to a level of less than significant.

## 4.10 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 | |
| **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 along Bonita School Road, and on the parcels described in Section 3.1.

Land uses of the project site (including construction staging areas) are comprised of the Bonita School Road right-of-way, row crops to the east and west, and temporary greenhouse operations to the northeast. The remainder of the project site (River channel) is undeveloped and supports mostly native vegetation. An agricultural truck-loading operation is located approximately 1.2 miles to the south at the Bonita School Road/Bonita Lateral Road intersection. Bonita School is located approximately 1.4 miles to the south at the Bonita School Road/SR 166 intersection.

The nearest residences are caretaker dwellings, including one located immediately adjacent to the project impact area within the greenhouse operation. The nearest residential areas include Nipomo (1.4 miles to the north), Guadalupe (3.2 miles to the southwest) and Santa Maria (3.3 miles to the east).

**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 existing 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, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, HAZ-1, NOISE-1 and WR-1.

**c.** The proposed project is limited to the replacement 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 Bonita School 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 5.4 miles northwest of the Santa Maria Municipal 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, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, HAZ-1, NOISE-1 and WR-1. Incorporation of these mitigation measures would reduce land use impacts to a level of less than significant.

## 4.11 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 Bonita School Road, SR 166 (1.5 miles to the south) and U.S. Highway 101 (4.5 miles to the east). Note that Bonita School Road carries a high proportion of heavy truck traffic and is occasionally used by farm equipment (wheeled and rubber tracked tractors) to cross the River. Traffic volumes on Bonita School Road were measured as over 4,000 average daily trips south of the River in May 2013 and 3,389 average daily trips north of the River on June 3, 2012. 2021 highway traffic volumes provided by Caltrans indicate the number of average annual daily trips on nearby SR 166 is 8,600 west of Bonita School Road and 15,000 east of Bonita School Road. Other local noise sources include the greenhouse operation located immediately northeast of the project site and farm equipment used for cultivation of adjacent croplands. Noise sensitive receptors in the vicinity of the project site are limited to caretaker residences:

1. Immediately east of Bonita School Road, 1,000 feet north of the existing bridge (adjacent to the project site).
2. 3,100 feet northeast of the project site.
3. Immediately east of Bonita School Road, 3,000 feet north of the existing bridge.
4. Immediately east of Bonita School Road, 2,100 feet south of the Santa Maria River.

Noise measurements were taken at the caretaker residence located adjacent to proposed improvements to the northern bridge approach on April 18, 2019 using a Larson-Davis LXT precision integrating noise meter. Noise measurements (15-minute averages, Leq) were taken between 2:45 p.m. and 5 p.m. to represent typical daytime traffic noise at the residence. Noise measurements were also taken between 7 p.m. and 8:15 p.m. to represent typical evening noise at the residence. These values were used to calculate the existing Community Noise Equivalent Level (CNEL) (24-hour) at the residence of 62.9 dBA CNEL.

**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 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 roadway crossing (bridge and embankment fill in the River channel) at the same location. The project would not affect traffic volumes on Bonita School Road. A 20 mph caution sign is posted at the northern approach to the existing bridge, and the narrow bridge and uneven surface of the unpaved embankment fill limits travel speeds over the River crossing to about 25 mph. Based on direct observation, the existing travel speed adjacent to the caretaker residence is about 40 mph. Although the new bridge has a design speed of 60 mph, narrow approach roadways and the curve north of the bridge would reduce actual travel speeds. The proposed project would result in an increase in travel speed at the residence adjacent to the project site from about 40 to 50 mph. Based on a 15-minute p.m. peak hour traffic count and observed noise levels, trucks constitute 16 percent of the traffic on Bonita School Road and are the dominant source of noise. Heavy truck noise increases by 2.0 dBA as speed increases from 40 to 50 mph (Figure 4-1 in Caltrans, 2013). As a conservative assumption, this value was added to existing hourly noise levels to estimate post-project 24-hour traffic noise at the residence. The post-project traffic noise level at the caretaker residence is estimated as 65.0 dBA CNEL, which would not exceed the 65 dBA threshold. Therefore, long-term noise increases associated with increased travel speeds are considered less than significant.

**b.** Construction-related noise generation would occur at various times within the project site over the anticipated 24-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 adjacent to the nearest residence (northern approach roadway earthwork). The estimated noise level at this residence is 77.3 dBA Leq. 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, 2021). As this residence is located approximately 40 feet from proposed embankment slope construction, construction noise impacts are considered significant.

**c.** See a. and b. above.

**Mitigation and Residual Impact:**

**NOISE-1**. To minimize potentially significant construction-related noise impacts to adjacent residences, the following measure shall be implemented:

- Construction activities involving heavy equipment or heavy-duty truck traffic shall be limited to 7 a.m. to 4 p.m., with no work on weekends or holidays.

Plan Requirements/Timing: This condition shall be included in the project specifications. MONITORING: The County-appointed inspector shall ensure the measure is fully implemented.

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

## 4.12 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 | |
| **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 railroad flat car bridge and removal of the embankment fill in the riverbed which would generate solid waste. The railroad flat cars would be sold intact or provided to a metal recycler. Any excess earth material resulting from removal of the embankment fill would be made available to local farmers, construction projects needing clean fill, or offered as daily cover at the Santa Maria Regional Landfill. Overall, project-related construction would generate some solid waste requiring landfill disposal but would be less than 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 drains or water quality control facilities.

**Mitigation and Residual Impact:**

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

## 4.13 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. Recreational facilities in the project area include Jack O'Connell Park and Leroy Park in Guadalupe, and Grogan Park, Oakley Park, Priesker Park and River Oaks Park in Santa Maria. The nearest park is Grogan Park, located approximately 3.3 miles east 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 bike lanes and 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.

### 4.14 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 | |

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **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:**

Bonita School Road is a north-south oriented two-lane rural roadway that begins at its junction with SR 166, and extends approximately 3.3 miles north to its terminus at Division Road in San Luis Obispo County. The Bonita School Road crossing of the Santa Maria River is an important transportation connection between agricultural operations in Santa Barbara County and San Luis Obispo County. Traffic volumes on Bonita School Road were measured as over 4,000 average daily trips south of the River in May 2013 and 3,389 average daily trips north of the River on June 3, 2012. 2021 highway traffic volumes provided by Caltrans indicate the number of average annual daily trips on nearby SR 166 is 8,600 west of Bonita School Road and 15,000 east of Bonita School Road. The 2016 Congestion Management Plan prepared by the Santa Barbara County Association of Governments indicates p.m. peak hour trips on SR 166 in 2014 were 240 westbound and 500 eastbound of Bonita School Road.

**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.

SB 743 changed transportation impact analysis under the CEQA Guidelines by requiring the use of vehicle miles traveled (VMT) rather than LOS or similar measures of vehicle capacity or traffic congestion to evaluate transportation impacts. The County has therefore developed: 1) new methodologies and metrics for estimating VMT; 2) screening criteria for projects assumed to have a less than significant impact on VMT; 3) thresholds of significance; and 4) feasible mitigation measures to reduce VMT. On September 15, 2020, the Board of Supervisors updated the County's Environmental Thresholds and Guidelines Manual to shift from LOS to VMT-based metrics. Specifically, Chapter 18, Thresholds of Significance for Transportation Impacts, of the Environmental Thresholds and Guidelines Manual now contains standardized VMT metrics, VMT screening criteria, VMT thresholds of significance, and VMT mitigation measures tailored to the unincorporated areas of Santa Barbara County. The screening criteria and thresholds of significance are now in effect for Projects that are subject to CEQA and located within the unincorporated areas of Santa Barbara County.

**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 60 average daily one-way trips (30 heavy-duty trucks, 30 worker vehicles). Construction worker trips would occur mostly prior to peak hour, and heavy-duty truck trips (mostly materials 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 SR 166 via U.S. Highway 101. Based on level of service data provided by the 2016 Congestion Management Plan, no intersections operating at LOS D, E or F would be affected, and project-related construction traffic would not result in congestion on SR 166.

According to a technical advisory on evaluating transportation impacts from the State of California Governor's Office of Planning and Research (OPR), "[a]bsent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant transportation impact" (Governor's Office of Planning and Research 2017). Therefore, because the proposed construction activities would generate fewer trips than the screening threshold of 110 trips per day, impacts related to VMT would be less than significant.

**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 repairs to the embankment fill following major storm events would no longer be required.

**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 Bonita School Road crossing would be closed for most of the construction period, and signage would be provided to direct traffic to use the SR 1 or U.S. Highway 101 river crossings. Standard traffic controls (including signage and flagmen, as needed) would be used to minimize any traffic hazards to motorists. In the long-term, the proposed bike lanes and pedestrian walkway on the bridge would improve safety for pedestrians and bicyclists currently crossing the river on the unpaved shoulder of the embankment fill and the narrow bridge.

**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 Bonita School 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.** In the long-term, emergency access to land uses along Bonita School Road would not change. The Bonita School Road crossing would be closed for most of the construction period, and signage would be provided to direct traffic to use the SR 1 or U.S. Highway 101 river crossings. Therefore, emergency access would be maintained to land uses on both sides of the Santa Maria River 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. In any case, the Santa Barbara County Association of Governments' Board approved a resolution in January 2019 exempting the region from the State Congestion Management Program statute.

**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.

### 4.15 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 | | | |
| **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 | |

| Will the proposal result in: | Potentially Significant | Less than Significant with Mitigation | Less than Significant | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **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 Santa Maria City Hall indicates the average annual rainfall in the project area is 13.22 inches (1906-2022 data). Rainfall recorded at City Hall during the 2022-2023 rainy season (25.56 inches) was 193 percent of normal, while rainfall recorded between 2019 and 2022 was below normal.

**Surface Waters**. The project site is located along the Santa Maria River approximately eight miles upstream of its confluence with the Pacific Ocean. The 1,741 square mile Santa Maria River watershed includes two primary tributaries; the Cuyama River to the northeast and the Sisquoc River to the southeast.

Based on 2007 through 2017 data collected at the U.S. Geological Survey gauging station at the Suey Road crossing (approximately 7.2 miles upstream of the project site), surface flow in the Santa Maria River varies from no flow in the summer months to a monthly mean of 76 cubic feet/second (cfs) in February. Recent peak flows recorded at this station include 24,700 cfs on December 19, 2010, 15,700 cfs on February 17, 2017 and 19,600 cfs on January 9, 2023. The highest peak flow recorded in the River was 33,600 cfs on March 1, 1983 at the Garey gauging station.

Irrigation and storm run-off from agricultural fields southeast of the existing River crossing flows through two drainage ditches, one parallel to and immediately east of Bonita School Road, and a second parallel to and adjacent to the southern levee (see agricultural ditches on Figure 1). These two ditches pass through the southern levee in two adjacent reinforced concrete culverts to the riverbed, where they come together into an earthen channel that turns west and crosses under the embankment fill in culverts. This agricultural run-off channel extends up to 1,500 feet west of the embankment fill, where it percolates into the riverbed.

**Floodplain**. National Flood Insurance Program Flood Insurance Rate Map panel 06083C0160F indicates the river channel and agricultural areas south of the southern levee within the project site are located within the 1% annual chance flood hazard area.

**Groundwater**. The project site lies within the Santa Maria River Valley Groundwater Basin, which comprises 288 square miles in Santa Barbara and San Luis Obispo counties. In 2010, groundwater supplied 98,650 acre-feet of the region's water demand of 109,100 acre-feet. Imported water from the State Water Project supplied the balance. Usable groundwater in storage is estimated as 1,100,000 acre-feet.

Groundwater levels declined from historically high to historically low levels from the 1920's to the late 1960's. Since then, groundwater levels have fluctuated over alternating 5 to 15-year periods. From 2002 through 2008, groundwater levels in both shallow and deep zones have gradually declined. Water quality concerns in the Basin are elevated total dissolved solids and nitrate concentrations. Assessment of hydrogeologic conditions in 2010 showed groundwater levels and general mineral quality in the shallow and deep aquifer zones to be within historic levels. The recent declining trend in shallow groundwater levels was slowed or reversed during years 2005-2006, 2010-2011, late 2017, and 2019. During these years, releases from Twitchell Reservoir, as well as discharge in the Sisquoc River, were near or above average following above-average rainfall periods. Shallow and deep groundwater levels across the great majority of the Basin remained slightly above or at historical low levels in 2021. The Santa Maria River Valley Groundwater Basin is managed and not believed to be in a state of overdraft.

The 2014 Sustainable Groundwater Management Act requires the formation of groundwater sustainability agencies and development of a sustainable groundwater management plan in high- and medium-priority groundwater basins and sub-basins. The Santa Maria River Valley Groundwater Basin is a very low priority basin and formation of a groundwater sustainability agency or development of a sustainable groundwater management plan is not required to manage groundwater in this basin.

**Water Quality Regulation**. The Regional Water Quality Control Board (RWQCB) has developed a Water Quality Control Plan for the Central Coast Region (Basin Plan) (updated 2019) 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 Santa Maria River include municipal water supply, agricultural water supply, industrial service supply, groundwater recharge, water contact recreation, non-water contact recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, aquatic migration habitat, rare species habitat, freshwater replenishment, and commercial and sport fishing habitat.

The Santa Maria River upstream of the estuary has been listed as impaired (beneficial uses not fully supported) under Section 303(d) of the Clean Water Act for elevated levels of arsenic, benthic community effects, chloride, chlorpyrifos, cyhalothrin, cypermethrin, DDD, DDE, DDT, diazinon, dieldrin, endrin, imidacloprid, lead, linuron, malathion, manganese, nitrate, oxyfluorfen, prometryn, selenium, sodium, specific conductivity, temperature, total dissolved solids, toxaphene, toxicity and turbidity.

**Construction Storm Water National Pollutant Discharge Elimination System (NPDES) Permit**. The Federal Clean Water Act requires discharges of construction stormwater to waters of the United States to be regulated by a NPDES permit. The State Water Resources Control Board adopted a statewide NPDES Construction Stormwater General Permit in 2009 to regulate stormwater discharges associated with construction activities disturbing one or more acres of land or less than one acre but are part of a larger common plan of development or sale that totals one or more acres of land disturbance. The statewide General Permit expired on September 2, 2014 and was replaced by Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022). The new General Permit Order includes:

- New requirements to implement existing total maximum daily loads adopted by Regional Water Quality Control Boards into applicable basin plans.
- New requirements to address discharges from passive treatment technology uses and dewatering activities.
- New eligibility criteria for permit enrollment through a Notice of Non-Applicability.
- Updates to the existing Notice of Termination process.
- Requirements to implement the California Ocean Plan and amendments to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries, including the statewide Trash Provisions.
- Updated requirements for demolition activities.
- Updated water quality sampling requirements per the federal Sufficiently Sensitive Test Methods Rule.
- Updated monitoring and reporting requirements.
- Antidegradation findings that comply with federal and state antidegradation policies.
- New programmatic permit enrollment options for linear utility construction projects.

**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 groundwater usage exceeds the 25 acre-feet/year threshold set for the Santa Maria Groundwater Basin.

**Impact Discussion:**

**a.** Bridge construction activities within the Santa Maria River channel would require surface flow diversion to allow work to continue during the rainy season and prevent damage to work areas. This change in the course of water movements would be temporary and limited to a small portion of the river channel. In the long-term, the proposed removal of the existing embankment fill would benefit water movements in the Santa Maria River.

**b.** Removal of the embankment fill would remove an impediment to storm flows but would not alter the course or drainage pattern of the Santa Maria River. Overall, no 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 Santa Maria River. The improved bridge approaches may result in a small increase in impervious surfaces. The increase in impervious surfaces would be more than offset by removal of the road oil-covered embankment fill which would increase the riverbed percolation area. In addition, storm water detention basins are proposed to prevent a project-related increase in storm water run-off. Overall, these changes would not result in substantial changes in storm water run-off patterns or percolation rates or require new storm drain systems.

**c.** As discussed in a. and b. above, partial diversion of surface flows in the Santa Maria River would be required during the construction period but no long-term change in drainage 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 water 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 Santa Maria River surface flows generated by 100-year storm event with a minimum of five feet of freeboard (distance between the predicted water surface elevation and bridge deck). Therefore, the proposed bridge would not alter the course or flow of floodwaters. The proposed bridge would accommodate the existing levees, and no 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 proposed project would reduce the flood hazard to persons crossing the Santa Maria River as the existing embankment fill would be replaced with an elevated bridge. In addition, removal of the embankment fill would eliminate a source of flooding of nearby agricultural fields. The project site is not located within a tsunami hazard area and would not have any effect on sea level rise and seawater intrusion. The project does not include any habitable structures; such that an increase in the exposure of people or property to existing flood-related hazards would not occur.

**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 extraction of groundwater, excavation of aquifers or interference with recharge.

**i.** The project would not involve groundwater pumping but would consume some potable water during the construction period for soil compaction, dust control and concrete mixing. Some of this water would originate as groundwater. As the local groundwater basin (Santa Maria) is not overdrafted, the proposed project would not contribute to overdraft of any 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 water run-off from Bonita School Road and adjacent land uses likely contributes pollutants to the Santa Maria River. Vehicle-related pollutants (fuel, lubricants, brake dust, coolant, fugitive dust) are currently discharged to the riverbed by users of the existing river crossing. These same pollutants would be discharged to the bridge deck and enter the Santa Maria River as a result of storm water 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 Santa Maria River.

**Mitigation Measures and Residual Impacts:**

**WR-1: Storm Water Pollution Prevention**. The project would require coverage under the Construction Stormwater General Permit Order 2022-0057-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 Santa Maria 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 Santa Maria River. All trash, waste and debris shall be disposed of regularly.
- All fueling and maintenance of equipment and vehicles shall occur in a designated area removed from the Santa Maria 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.

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 |
| X | Land Use | X | Agricultural Element |

## 5.3 OTHER SOURCES (CHECK THOSE SOURCES USED):

| | | | |
|---|---|---|---|
| X | Field work | X | Ag Preserve maps |
| | Calculations | X | Flood Control maps |
| X | Project plans | X | Other technical references |
| X | Traffic studies | | (reports, survey, etc.) |
| X | Records | | Planning files, maps, reports |
| X | Grading plans | X | Zoning maps |
| X | 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 |
| | | | Project hydraulic analysis |

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# 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 the following significant impacts:

- Construction-related loss of 17 specimen native trees (arroyo willow).
- Potential mortality of special-status fish species (endangered southern California steelhead, arroyo chub) during surface flow diversion activities.
- Temporary habitat loss and potential mortality of the threatened California red-legged frog.
- Temporary habitat loss and potential mortality of the endangered least Bell's vireo.
- Temporary habitat loss and potential mortality of yellow warbler.
- Temporary habitat loss and potential mortality of western spade-foot toad, western pond turtle and coast horned lizard.
- Temporary loss of potential breeding habitat for loggerhead shrike.

**Hazardous Materials**. The proposed project may result in:

- Public exposure to lead-based paint during demolition of the existing bridge.

**Noise**. The proposed project may result in:

- Excessive construction-related noise at the caretaker residence adjacent to the project site.

**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 (Santa Maria 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

Oil development projects requiring feed water for steam production and residential projects listed in Section 3.4 would result in an increase groundwater usage and may adversely affect public water supplies. The proposed project would not require a water supply and would not contribute to this impact. Cumulative development would increase pollutant concentrations in storm water 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 may result in inadvertent spills of fuel or lubricants during construction 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

Oil development projects located in Cat Canyon may adversely affect California red-legged frog, western spade-foot toad, coast horned lizard, American badger and loggerhead shrike. 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 may adversely affect archeological resources. The proposed project would not impact cultural resources and would not incrementally contribute to a cumulative impact.

### 6.3.5 Hazardous Materials

Oil development projects listed in Section 3.4 may result in public exposure to hazardous materials, including demolition of facilities coated with lead-based paint. 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 hazardous materials impacts would not be considerable.

### 6.3.6 Noise

The cumulative projects listed in Section 3.4 would generate construction noise and may adversely affect nearby 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, but would not incrementally contribute to cumulative noise impacts as other projects would not affect the same land uses. 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-8 would ensure impacts to fish and wildlife habitat would be minimized and offset through construction monitoring and habitat restoration, and prevent fish or wildlife populations from dropping below self-sustaining levels. Due to the small scale and temporary nature 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 a reliable, low maintenence crossing of the Santa Maria 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 HAZ-1, NOISE-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 County Comprehensive Plan and the Energy and Climate Action Plan is provided in Table 9 below. The proposed project, with mitigation, would be consistent with all existing land use and development policies.

**Table 9. Policy Consistency Analysis**

| Applicable Policy Number | Issue | Consistency Discussion |
|---|---|---|
| **Comprehensive Plan - Land Use Element** | | |
| Hillside & Watershed Protection 1 | Plans for development shall minimize cut and fill operations | The proposed project would be located in level areas, and involve minimal cut and fill operations: **consistent** |
| Hillside & Watershed Protection 2 | All development shall be designed to fit site topography, soils, geology and hydrology to minimize grading | The proposed project has been designed to suit site topography (Sant Maria River), and would require minimal grading: **consistent** |
| Hillside & Watershed Protection 4 | Sediment basins shall be installed during initial grading operations and maintained to remove sediment | A water pollution control plan would be developed and would include sediment basins: **consistent** |
| Hillside & Watershed Protection 5 | Temporary vegetation, seeding, mulching or other soil stabilization method shall be used to protect soils from erosion | A water pollution control plan would be developed and would include temporary soil stabilization measures: **consistent** |
| Hillside & Watershed Protection 6 | Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Water runoff shall be retained onsite whenever possible to facilitate groundwater recharge. | The proposed project would include drainage facilities to prevent erosion from stormwater run-off and stormwater retention basins to prevent increases in off-site stormwater run-off and allow for groundwater recharge: **consistent** |
| Hillside & Watershed Protection 7 | Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste, shall not be discharged into or alongside coastal streams or wetlands either during or after construction. | Implementation of mitigation measure WR-1 (stormwater pollution prevention) would minimize the potential for inadvertent discharge of pollutants to the Santa Maria River during the construction period: **consistent** |

| Applicable Policy Number | Issue | Consistency Discussion |
|---|---|---|
| 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 | Mitigation measures (WR-1) have been provided to minimize discharge of sediment and reduce erosion during construction: **consistent** |
| Flood Hazard 1 | All development, including construction, excavation and grading, except flood control projects shall be prohibited in the floodway. | By its very nature (bridge), the proposed project must be located within the floodway. Removal of the embankment fill would eliminate a source of flooding of nearby agricultural fields: **consistent** |
| Flood Hazard 2 | Permitted development shall not cause or contribute to flood hazards or lead to expenditure of public funds for flood control works, i.e., dams, stream channelizations, etc. | The proposed project would reduce flood hazards by removal of the embankment fill in the riverbed, and eliminate the need for future maintenance of the existing roadway crossing (replacement of the embankment fill following major storm events): **consistent** |
| Historical & Archeological Sites 2 | When developments are proposed for parcels where archeological sites are located, project design shall be required which avoids impacts if possible | No known archeological sites are located near the project site and cultural materials were not found during the archeological survey: **consistent** |
| Visual Resource Policy 2 | In areas designated as rural on the land use plan maps, the height, scale, and design of structures shall be compatible with the character of the surrounding natural environment, except where technical requirements dictate otherwise. Structures shall be subordinate in appearance to natural landforms; shall be designed to follow the natural contours of the landscape; and shall be sited so as not to intrude into the skyline as seen from public viewing places. | The new bridge would be of a design and scale consistent with the rural environment, and public views would be limited to motorists on Bonita School Road. The visual character of the site (agricultural, rural) would be modified by the large concrete bridge structure, but the rural character would be largely preserved, as loss of agricultural land would be minimal and the removal of the embankment fill would return the riverbed to a more natural state. The replacement of the existing bridge constructed of railroad flat cars with a modern highway bridge may be considered an improvement in the visual quality of the site by some viewers: **consistent** |
| **Comprehensive Plan - Agricultural Element** | | |
| Policy II.D | Conversion of highly productive agricultural lands whether urban or rural, shall be discouraged. The County shall support programs which encourage the retention of highly productive agricultural lands. | The project has been designed to minimize loss of agricultural lands. However, a total of 0.35 acres of farmland would be removed. These areas are narrow strips adjacent to the existing roadway, and project-related removal would not hamper adjacent agricultural operations. The proposed project would virtually eliminate fugitive dust produced by vehicle traffic on the existing unpaved embankment fill and terminate the associated reduction in agricultural productivity: **consistent**. |

## Table 9. Continued

| Energy and Climate Action Plan |
| --- |
| The project would implement applicable greenhouse gas emissions reduction strategies of the ECAP. 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 4.12). |

## 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:** N/A
**PROJECT EVALUATOR**: Matt Ingamells, Padre Associates, Inc.
**DATE:** December 22, 2023

## 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:_____

SIGNATURE:_____ DRAFT MND DATE: 1/25/24

SIGNATURE:_____ REVISION DATE: _____

SIGNATURE:_____ FINAL MND DATE: 3/29/24

# 12.0 ATTACHMENTS

Appendix A Vascular Plant Flora Observed within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

Appendix B Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

# APPENDIX A
## Vascular Plant Flora Observed with the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Scientific Name | Common Name | Habit | Family | Wetland Status | Invasiveness Rating |
|---|---|---|---|---|---|
| *Acmispon glaber var. glaber* | Deerweed, California broom | PH | Fabaceae | * | |
| *Amaranthus blitoides* | Amaranth | AH | Amaranthaceae | FACW | |
| *Ambrosia acanthicarpa* | Annual bursage | AH | Asteraceae | * | |
| *Ambrosia psilostachya* | Western ragweed | PH | Asteraceae | FACU | |
| *Amsinckia menziesii var. intermedia* | Fiddleneck | AH | Boraginaceae | * | |
| *Anagallis arvensis** | Scarlet pimpernel | AH | Myrsinaceae | * | |
| *Anthemis cotula** | May-weed | AH | Asteraceae | FACU | |
| *Argemone munita* | Prickly poppy | PH | Papaveraceae | * | |
| *Artemisia californica* | California sagebrush | S | Asteraceae | * | |
| *Artemisia douglasiana* | Mugwort | PH | Asteraceae | FAC | |
| *Artemisia dracunculus* | Wild tarragon | PH | Asteraceae | * | |
| *Astragalus nuttallii var. virgatus* | Nuttall's milkvetch | S | Fabaceae | * | |
| *Atriplex polycarpa* | All-scale saltbush | S | Chenopodiaceae | FACU | |
| *Atriplex suberecta** | Sprawling saltbush | PH | Chenopodiaceae | FACU | |
| *Avena barbata** | Slender wild oats | AG | Poaceae | * | Moderate |
| *Baccharis pilularis* | Coyote brush | S | Asteraceae | * | |
| *Baccharis salicifolia* | Mule fat, seep-willow | S | Asteraceae | FAC | |
| *Brassica nigra** | Black mustard | AH | Brassicaceae | * | Moderate |
| *Brassica rapa** | Field mustard | AH | Brassicaceae | FACU | Limited |
| *Bromus catharticus** | Rescue grass | AG | Poaceae | * | |
| *Bromus diandrus** | Ripgut grass | AG | Poaceae | * | Moderate |
| *Bromus hordeaceus** | Soft chess | AG | Poaceae | FACU | Limited |
| *Bromus madritensis ssp. rubens** | Red brome | AG | Poaceae | UPL | High |
| *Calystegia macrostegia ssp. cyclostegia* | Chaparral morning glory | PV | Convolvulaceae | * | |
| *Camissonia strigulosa* | Evening primrose | AH | Onagraceae | * | |
| *Camissoniopsis bistorta* | Evening primrose | AH | Onagraceae | * | |
| *Camissoniopsis cheiranthifolia ssp. cheiranthifolia* | Beach evening primrose | PH | Onagraceae | * | |
| *Capsella bursa-pastoris** | Shepherd's purse | AH | Brassicaceae | * | |
| *Carduus pycnocephalus** | Italian thistle | AH | Asteraceae | * | Moderate |
| *Carpobrotus edulis** | Freeway iceplant | PH | Aizoaceae | * | High |
| *Centaurea benedicta** | Blessed thistle | AH | Asteraceae | * | |
| *Centaurea melitensis** | Tocalote | AH | Asteraceae | * | Moderate |
| *Euphorbia maculata** | Spotted spurge | AH | Euphorbiaceae | * | |
| *Chenopodium murale** | Nettle-leaf goose-foot | AH | Chenopodiaceae | FACU | |
| *Chorizanthe angustifolia* | Narrow-leaf spineflower | AH | Polygonaceae | * | |
| *Conium maculatum** | Poison hemlock | PH | Apiaceae | FACW | Moderate |
| *Corethrogyne filaginifolia* | California aster | PH | Asteraceae | * | |
| *Crassula connata* | Pygmy weed | AH | Crassulaceae | FAC | |
| *Croton californicus* | Croton | PH | Euphorbiaceae | * | |
| *Cryptantha intermedia ssp. intermedia* | Large-flowered Cryptantha | AH | Boraginaceae | * | |

# APPENDIX A
## Vascular Plant Flora Observed with the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Scientific Name | Common Name | Habit | Family | Wetland Status | Invasiveness Rating |
|---|---|---|---|---|---|
| *Cryptantha microstachys* | Tejon cryptantha | AH | Boraginaceae | * | |
| *Cynodon dactylon** | Bermuda grass | PG | Poaceae | FACU | Moderate |
| *Cyperus eragrostis* | Tall flat-sedge | PH | Cyperaceae | FACW | |
| *Cyperus odoratus* | Flat-sedge | PH | Cyperaceae | FACW | |
| *Datura stramonium** | Jimsonweed | AH | Solanaceae | * | |
| *Datura wrightii* | Jimsonweed | PH | Solanaceae | UPL | |
| *Descuriana pinnata* | Tansy mustard | AH | Brassicaceae | * | |
| *Distichlis spicata* | Salt grass | PG | Poaceae | FAC | |
| *Ehrharta calycina** | Perennial veldt grass | PG | Poaceae | * | High |
| *Elymus triticoides* | Creeping wild rye | PG | Poaceae | * | |
| *Epilobium ciliatum ssp. ciliatum* | Willow-herb | PH | Onagraceae | FACW | |
| *Ericameria ericoides* | Mock heather | S | Asteraceae | * | |
| *Erigeron canadensis* | Horseweed | AH | Asteraceae | * | |
| *Eriodictyon traskiae var. smithii* | Smith's yerba santa | S | Boraginaceae | * | |
| *Eriogonum fasciculatum var. fasciculatum* | California buckwheat | S | Polygonaceae | * | |
| *Eriogonum gracile var. gracile* | Slender buckwheat | AH | Polygonaceae | * | |
| *Erodium botrys** | Storks-bill | AH | Geraniaceae | FACU | |
| *Erodium cicutarium** | Redstem filaree | AH | Geraniaceae | * | Limited |
| *Eucalyptus camaldulensis** | Red gum | T | Myrtaceae | FAC | Limited |
| *Euphorbia lathyris** | Caper spurge | BH | Euphorbiaceae | * | Watch |
| *Festuca microstachys* | Vulpia | AG | Poaceae | * | |
| *Festuca perennis** | Italian rye-grass | AG | Poaceae | * | Moderate |
| *Foeniculum vulgare** | Sweet-fennel | PH | Apiaceae | * | High |
| *Gnaphalium palustre* | Cud-weed | AH | Asteraceae | FACW | |
| *Hazardia squarrosa var. grindelioides* | Sawtooth goldenbush | S | Asteraceae | * | |
| *Heliotropium curassavicum var. oculatum* | Sea-side heliotrope | PH | Boraginaceae | FACU | |
| *Helminthotheca echioides** | Bristly ox-tongue | AH | Asteraceae | FACU | Limited |
| *Heterotheca grandiflora* | Telegraph weed | PH | Asteraceae | * | |
| *Hirschfeldia incana** | Summer mustard | BH | Brassicaceae | * | Moderate |
| *Hordeum murinum** | Barley | AG | Poaceae | FACU | Moderate |
| *Hypochaeris glabra** | Smooth cat's ear | AH | Asteraceae | * | Limited |
| *Juncus bufonius* | Toad rush | AH | Juncaceae | FACW | |
| *Lamium amplexicaule** | Henbit | AH | Lamiaceae | * | |
| *Lepidium draba** | Hoary cress | AH | Brassicaceae | * | Moderate |
| *Lepidospartum squamatum* | Scalebroom | PH | Asteraceae | FACU | |
| *Leptochloa fusca ssp. uninervia* | Mexican sparangletop | AG | Poaceae | * | |
| *Lessingia pectinata var. pectinata* | Lessingia | AH | Asteraceae | * | |
| *Logfia gallica** | Narrow-leaf cottonrose | AH | Asteraceae | * | |
| *Lupinus albifrons var. douglasii* | Silvery bush lupine | S | Fabaceae | * | |
| *Malva parviflora** | Cheese-weed | AH | Malvaceae | * | |

# APPENDIX A
## Vascular Plant Flora Observed with the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Scientific Name | Common Name | Habit | Family | Wetland Status | Invasiveness Rating |
|---|---|---|---|---|---|
| *Marrubium vulgare** | Horehound | PH | Lamiaceae | FACU | Limited |
| *Matricaria discoidea** | Pineapple weed | AH | Asteraceae | FACU | |
| *Melilotus indicus** | Sour-clover | BH | Fabaceae | FACU | |
| *Mimulus cardinalis* | Red monkey flower | PH | Phrymaceae | FACW | |
| *Mimulus guttatus* | Creek monkey flower | AH | Phrymaceae | OBL | |
| *Myoporum laetum** | Myoporum | T | Scrophulariaceae | FACU | Moderate |
| *Nasturtium officinale* | Water-cress | PH | Brassicaceae | OBL | |
| *Nicotiana glauca** | Tree tobacco | S | Solanaceae | FAC | Moderate |
| *Oenothera biennis** | Common evening primrose | BH | Onagraceae | FACU | |
| *Oenothera californica ssp. californica* | California evening primrose | PH | Onagraceae | * | |
| *Opuntia ficus-indica** | Mission Prickly Pear | S | Cactaceae | * | |
| *Opuntia littoralis* | Coast prickly-pear | S | Cactaceae | * | |
| *Persicaria lapathifolia* | Willow weed | AH | Polygonaceae | FACW | |
| *Physalis philadelphica** | Tomatillo | AH | Solanaceae | UPL | |
| *Plantago lanceolata** | English plantain | PH | Plantaginaceae | FAC | Limited |
| *Plantago major** | Common plantain | PH | Plantaginaceae | FAC | |
| *Polygonum aviculare** | Knot-weed | AH | Polygonaceae | FACU | |
| *Polypogon monspeliensis** | Annual beard grass | AG | Poaceae | FACW | Limited |
| *Populus fremontii* | Fremont cottonwood | T | Salicaceae | * | |
| *Pseudognaphalium luteoalbum** | Weedy cudweed | BH | Asteraceae | FAC | |
| *Pseudognaphalium microcephalum* | White everlasting | BH | Asteraceae | * | |
| *Raphanus sativus** | Radish | BH | Brassicaceae | * | Limited |
| *Ricinus communis** | Castor bean | S | Euphorbiaceae | FACU | Limited |
| *Rumex obtusifolius* | Bitter dock | PH | Polygonaceae | FAC | |
| *Rumex crispus** | Curly dock | PH | Polygonaceae | FAC | Limited |
| *Rumex hymenosepalus* | Wild rhubarb | PH | Polygonaceae | * | |
| *Rumex salicifolius* | Willow dock | PH | Polygonaceae | FACW | |
| *Salix exigua var. hindsiana* | Hind's willow | S | Salicaceae | FACW | |
| *Salix laevigata* | Red willow | T | Salicaceae | FACW | |
| *Salix lasiolepis* | Arroyo willow | T | Salicaceae | FACW | |
| *Salsola tragus** | Russian thistle | AH | Chenopodiaceae | FACU | Limited |
| *Sambucus nigra ssp. caerulea* | Blue elderberry | T | Adoxaceae | FAC | |
| *Schismus barbatus** | Mediterranean grass | AG | Poaceae | * | Limited |
| *Schoenoplectus californicus* | California bulrush | PH | Cyperaceae | OBL | |
| *Senecio blochmaniae* | Blochman's ragwort | S | Asteraceae | * | |
| *Senecio vulgaris** | Common groundsel | AH | Asteraceae | FACU | |
| *Silybum marianum** | Milk thistle | AH | Asteraceae | * | Limited |
| *Sisymbrium altissimum** | Tumble mustard | AH | Brassicaceae | FACU | |
| *Sisymbrium irio** | London rocket | AH | Brassicaceae | * | Moderate |
| *Sisybrium orientale** | Sisymbrium | AH | Brassicaceae | * | |

# APPENDIX A
## Vascular Plant Flora Observed with the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Scientific Name | Common Name | Habit | Family | Wetland Status | Invasiveness Rating |
|---|---|---|---|---|---|
| *Solanum americanum* | American nightshade | AH | Solanaceae | * | |
| *Solanum douglasii* | White nightshade | AH | Solanaceae | FAC | |
| *Solanum xanti* | Chaparral nightshade | PH | Solanaceae | * | |
| *Sonchus asper** | Prickly sow thistle | AH | Asteraceae | FAC | |
| *Sonchus oleraceus** | Common sow thistle | AH | Asteraceae | UPL | |
| *Stephanomeria virgata ssp. pleurocarpa* | Twiggy wreath plant | AH | Asteraceae | * | |
| *Stipa miliacea var. miliacea** | Smilo grass | PG | Poaceae | * | Limited |
| *Toxicodendron diversilobum* | Poison oak | S | Anacardiaceae | FACU | |
| *Urtica urens** | Dwarf nettle | AH | Urticaceae | * | |
| *Veronica anagallis-aquatica** | Water speedwell | PH | Plantaginaceae | OBL | |
| *Xanthium spinosum* | Spiny cockle-bur | AH | Asteraceae | FACU | |
| *Xanthium strumarium* | Cockle-bur | AH | Asteraceae | FAC | |

Notes:
Scientific nomenclature follows The Jepson Manual Second Edition (Baldwin et al., 2012), including supplements (old names in brackets).
An "*" indicates non-native species which have become naturalized or persist without cultivation.
An "**" indicates species which have been planted and may not persist without cultivation.

Habit Definitions:
- AF = annual fern or fern ally.
- AG = annual grass.
- AH = annual herb.
- BH = biennial herb.
- PF = perennial fern or fern ally.
- PG = perennial grass.
- PH = perennial herb.
- PV = perennial vine.
- S = shrub.
- T = tree.

Invasiveness Rating from the online database of the California Invasive Plant Council

Wetland Status from Arid West 2020 Regional Wetland Plant List
- OBL - Obligate wetland: almost always occurs in wetlands (>99% probability)
- FACW - Facultative-Wetland: usually occurs in wetlands (67-99% probability)
- FAC - Facultative: equally likely to occur in wetlands or non-wetlands (34-66% probability)
- FACU - Facultative-Upland: usually occurs in non-wetlands (1-33% probability)
- UPL - Upland: almost always occurs in non-wetlands (>99% probability)
- *: not addressed in the wetland plant list, non-wetland species

# APPENDIX B

## Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Family<br>Common Name | Scientific Name | Protected Status | Habitat Use |
|---|---|---|---|
| **FISH** | | | |
| **Cyprinidae** | | | |
| Arroyo chub | *Gila orcuttii* | CSC | B/F |
| **Gasterosteidae** | | | |
| Three-spined stickleback | *Gasterosteus aculeatus microcephalus* | | B/F |
| **Poeciliidae** | | | |
| Mosquitofish | *Gambusia affinis* | | B/F |
| **Salmonidae** | | | |
| Southern California steelhead | *Oncorhynchus mykiss* | | M |
| **AMPHIBIANS** | | | |
| **Plethodontidae** | | | |
| Ensatina | *Ensatina eschscholtzi* | | B/F |
| Black-bellied slender salamander | *Batrachoseps nigriventris* | | B/F |
| Arboreal salamander | *Aneides lugubris* | | B/F |
| **Bufonidae** | | | |
| California toad* | *Anaxyrus boreas halophilus* | | B/F |
| **Hylidae** | | | |
| Baja California treefrog* | *Pseudacris hypochondriaca* | | B/F |
| **Ranidae** | | | |
| California red-legged frog* | *Rana aurora draytonii* | FT, CSC | B/F |
| **REPTILES** | | | |
| **Emydidae** | | | |
| Western pond turtle* | *Emys marmorata* | CSC | F |
| **Iguanidae** | | | |
| Western fence lizard* | *Sceloporus occidentalis* | | B/F |
| Side-blotched lizard* | *Uta stansburiana* | | B/F |
| **Scincidae** | | | |
| Western skink | *Eumeces skiltonianus* | | B/F |
| **Anguidae** | | | |
| Southern alligator lizard | *Gerrhonotus multicarinatus* | | B/F |
| **Colubridae** | | | |
| Ring-neck Snake | *Diadophis punctatus vandenburghi* | | B/F |
| Racer | *Coluber constrictor mormon* | | B/F |
| California whipsnake | *Masticophis lateralis lateralis* | | B/F |
| Gopher snake* | *Pituophis melanoleucus annectens* | | B/F |
| Common kingsnake | *Lampropeltis getulus californiae* | | B/F |
| **Natricidae** | | | |
| Terrestrial garter snake | *Thamnophis elegans terrestris* | | B/F |
| Santa Cruz garter snake* | *Thamnophis atratus atratus* | | B/F |
| **Viperidae** | | | |
| Western rattlesnake | *Crotalus viridis helleri* | | B/F |

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## Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Family<br>Common Name | Scientific Name | Protected Status | Habitat Use |
|---|---|---|---|
| **BIRDS** | | | |
| **Phalacrocoracidae** | | | |
| Great blue heron | *Ardea herodias* | CSC (nest), M | F |
| Great egret | *Casmerodius albus* | CSC (nest), M | F |
| **Cathartidae** | | | |
| Turkey vulture* | *Cathartes aura* | M | B/F |
| **Accipitridae** | | | |
| Red-shouldered hawk | *Buteo lineatus* | M | B/F |
| Red-tailed hawk* | *Buteo jamaicensis* | M | B/F |
| **Falconidae** | | | |
| American kestrel* | *Falco sparverius* | M | B/F |
| **Laridae** | | | |
| Western gull | *Larus occidentalis* | M | F |
| Herring gull | *Larus argentatus* | M | F |
| **Phasianidae** | | | |
| California quail* | *Callipepla californica* | M | B/F |
| **Charadriidae** | | | |
| Killdeer* | *Charadrius vociferus* | M | B/F |
| **Columbidae** | | | |
| Rock pigeon* | *Columba livia* | | B/F |
| Eurasian collared dove* | *Streptopelia decaocto* | -- | B/F |
| Mourning dove* | *Zenaida macroura* | M | B/F |
| **Cuculidae** | | | |
| Greater roadrunner | *Geococcyx californianus* | M | B/F |
| **Tytonidae** | | | |
| Barn owl* | *Tyto alba* | M | B/F |
| **Strigidae** | | | |
| Great horned owl* | *Bubo virginianus* | M | B/F |
| **Caprimulgidae** | | | |
| Common poorwill | *Phalaenoptilus nuttallii* | M | B/F |
| **Apoidae** | | | |
| White-throated swift | *Aeronautes saxatalis* | M | B/F |
| **Trochilidae** | | | |
| Anna's hummingbird* | *Calypte anna* | M | B/F |
| Black-chinned hummingbird | *Archilochus alexandri* | M | F |
| Allen's hummingbird | *Selasphorus sasin* | M | B/F |
| **Picidae** | | | |
| Downy woodpecker* | *Dryobates pubescens* | M | B/F |
| Nuttall's woodpecker | *Picoides nuttallii* | SA (nest), M | B/F |
| Acorn woodpecker | *Melanerpes formicivorus* | M | B/F |
| Northern flicker | *Colaptes auratus* | M | B/F |

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## Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Family<br>Common Name | Scientific Name | Protected Status | Habitat Use |
|---|---|---|---|
| **Tyrannidae** | | | |
| Say's phoebe | *Sayornis saya* | M | F |
| Black phoebe | *Sayornis nigricans* | M | B/F |
| Ash-throated flycatcher | *Myiarchus cinerascens* | M | B/F |
| **Polioptilidae** | | | |
| Blue-gray gnatcatcher* | *Poliptila caerulea* | M | B/F |
| **Hirundinidae** | | | |
| Violet-green swallow | *Tachycineta thalassina* | M | B/F |
| Northern rough-winged swallow | *Stelgidopteryx serripennis* | M | B/F |
| Cliff swallow* | *Hirundo pyrrhonota* | M | B/F |
| Barn swallow* | *Hirundo rustica* | M | B/F |
| **Corvidae** | | | |
| Western scrub-jay* | *Aphelocoma californica* | M | B/F |
| American crow* | *Corvus brachyrhynchos* | M | B/F |
| Common raven | *Corvus corax* | M | B/F |
| **Aegithalidae** | | | |
| Bushtit* | *Psaltriparus minimus* | M | B/F |
| **Regulidae** | | | |
| Ruby-crowned kinglet* | *Regulus calendula* | M | F |
| **Parulidae** | | | |
| Wilson's warbler | *Cardellina pusilla* | M | B/F |
| Yellow warbler* | *Setophaga petechia* | CSC (nest) | B/F |
| Common yellowthroat* | *Geothlypis trichas* | M | B/F |
| **Troglodytidae** | | | |
| Bewick's wren* | *Thryomanes bewickii* | M | B/F |
| House wren | *Troglodytes aedon* | M | B/F |
| **Vireonidae** | | | |
| Least Bell's vireo* | *Vireo bellii pusillus* | SE, FE | B/F |
| **Muscicapidae** | | | |
| Ruby-crowned kinglet | *Regulus calendula* | M | F |
| Western bluebird | *Sialia mexicana* | M | B/F |
| **Mimidae** | | | |
| Northern mockingbird* | *Mimus polyglottos* | M | B/F |
| California thrasher* | *Toxostoma redivivum* | M | B/F |
| **Laniidae** | | | |
| Loggerhead shrike | *Lanius ludovicianus* | CSC (nest), M | B/F |
| **Sturnidae** | | | |
| European starling* | *Sturnus vulgaris* | | B/F |
| **Emberizidae** | | | |
| Yellow-rumped warbler | *Dendroica coronata* | M | F |
| Spotted towhee* | *Pipilo maculatus* | M | B/F |

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## Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Family<br>Common Name | Scientific Name | Protected Status | Habitat Use |
|---|---|---|---|
| California towhee* | *Pipilo crissalis* | M | B/F |
| Song sparrow* | *Melospiza melodia* | M | B/F |
| Lark sparrow | *Chondestes grammacus* | M | B/F |
| White-crowned sparrow* | *Zonotrichia leucophrys* | M | B/F |
| Red-winged blackbird* | *Agelaius phoeniceus* | M | B/F |
| Western meadowlark | *Sturnella neglecta* | M | B/F |
| Brewer's blackbird* | *Euphagus cyanocephalus* | M | B/F |
| Brown-headed cowbird | *Molothrus ater* | M | B/F |
| Northern oriole | *Icterus galbula* | M | B/F |
| **Fringillidae** | | | |
| House finch* | *Carpodacus mexicanus* | M | B/F |
| Lesser goldfinch* | *Carduelis psaltria* | M | B/F |
| Lawrence's goldfinch | *Carduelis lawrencei* | M, BCC | B/F |
| American goldfinch | *Carduelis tristis* | M | B/F |
| **Passeridae** | | | |
| House sparrow | *Passer domesticus* | | B/F |
| **MAMMALS** | | | |
| **Didelphidae** | | | |
| Virginia opossum* | *Didelphis virginiana* | | B/F |
| **Talpidae** | | | |
| Broad-footed mole* | *Scapanus latimanus* | | B/F |
| **Vespertilionidae** | | | |
| California myotis | *Myotis californicus* | | F |
| Western pipistrelle | *Pipistrellus hesperus* | | F |
| Big brown bat | *Eptesicus fuscus* | | F |
| **Molossidae** | | | |
| Brazilian free-tailed bat | *Tadarida brasiliensis* | | F |
| **Leporidae** | | | |
| Black-tailed jackrabbit* | *Lepus californicus californicus* | | B/F |
| Brush rabbit | *Sylvilagus bachmani* | | B/F |
| Desert cottontail* | *Sylvilagus audubonii* | | B/F |
| **Sciuridae** | | | |
| California ground squirrel | *Spermophilus beecheyi* | | B/F |
| **Geomyidae** | | | |
| Botta's pocket gopher* | *Thomomys bottae* | | B/F |
| **Heteromyidae** | | | |
| Heerman's kangaroo rat* | *Dipodomys heermanni arenae* | | B/F |
| **Cricetidae** | | | |
| Western harvest mouse | *Reithrodontomys megalotis* | | B/F |
| California mouse | *Peromyscus californicus* | | B/F |
| Deer mouse | *Peromyscus maniculatus* | | B/F |

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## Vertebrate Animal Species Observed or Expected within the BSA of the Bonita School Road Crossing over the Santa Maria River, Santa Barbara and San Luis Obispo Counties, California

| Family<br>Common Name | Scientific Name | Protected Status | Habitat Use |
|---|---|---|---|
| Brush mouse | *Peromyscus boylii* | | B/F |
| Dusky-footed woodrat* | *Neotoma fuscipes* | | B/F |
| California vole | *Microtus californicus* | | B/F |
| **Muridae** | | | |
| House mouse | *Mus musculus* | | B/F |
| Black rat | *Rattus rattus* | | B/F |
| **Canidae** | | | |
| Coyote* | *Canis latrans* | | B/F |
| Gray fox | *Urocyon cinereoargenteus* | | B/F |
| Domestic dog | *Canis familiaris* | | B/F |
| **Procyonidae** | | | |
| Raccoon* | *Procyon lotor* | | B/F |
| **Mustelidae** | | | |
| Long-tailed weasel | *Mustela frenata* | | B/F |
| Western spotted skunk | *Spilogale gracilis* | | B/F |
| **Felidae** | | | |
| Mountain lion | *Felis concolor* | | B/F |
| Bobcat | *Lynx rufus* | | B/F |
| Feral cat | *Felis catus* | | B/F |
| **Cervidae** | | | |
| Black-tailed deer* | *Odocoileus hemionus* | | B/F |

*Observed during one or more field surveys conducted for the project by Padre Associates in August 2016, April 2017, December 2018, May 2021 and June 2023, and least Bell's vireo surveys conducted by Griffith Wildlife Biology in 2020 and 2021

**[1]Habitat Use**
B – Breeding
F – Foraging
M – Migration only

**[2]Protected Status**
BCC – Birds of conservation concern (USFWS)
CP – Protected under California Fish and Game Code
CSC – California Species of Special Concern
WL – Watch List (CDFG)
SA – California Special Animal
FE – Federal-listed Endangered Species
FT – Federal-listed Threatened Species
SE – State-listed Endangered Species
ST – State-listed Threatened Species
M – Migratory Bird Treaty Act Species

Fish nomenclature after Miller and Lea (1972); Moyle (1976); and Swift et al. (1993)
Amphibian and reptile nomenclature based on Thompson et al. (2016)
Bird nomenclature after American Ornithologists Union (2023)
Mammal nomenclature after Hall (1981)