4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

4.11.1 Impact Analysis

Refer to Section 3.0, Environmental Factors Potentially Affected and Determination.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.1 Impact Analysis

Refer to Section 3.0, Environmental Factors Potentially Affected and Determination.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The information in this section is based on the *Technical Noise Memorandum* prepared for the Project in February 2021, provided in Appendix F.

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-term (construction) and long-term (operational) noise impacts of the proposed project are described below.

Two types of short-term noise impacts would occur during project construction: (1) equipment delivery and construction worker commutes; and (2) project construction operations. The first type of short-term construction noise would result from transport of construction equipment and materials to the project site and construction worker commutes. These transportation activities would incrementally raise noise levels on access roads leading to the site. It is expected that larger trucks used in equipment delivery shall generate higher noise impacts than trucks associated with worker commutes. As shown in Table 4.C, the single-event noise from equipment trucks passing at a distance of 50 ft from a sensitive noise receptor would reach a maximum level of 84 A-weighted decibels (dBA) maximum instantaneous sound level (L_{max}). However, the pieces of heavy equipment for grading and construction activities would be moved on site just one time and would then remain for the duration of each construction phase. This one-time trip, when heavy construction equipment is moved on and off site, would not add to the daily traffic noise in the project vicinity. Furthermore, the projected traffic from the construction worker commutes would be minimal when compared to existing traffic volumes on Panoche Road and other affected streets, and its associated long-term noise level change would not be perceptible. Therefore, equipment transport noise and construction-related worker commute impacts would be short-term and would not be substantial.

Table 4.C: Typical Construction Equipment Noise Levels

Equipment Description	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	80
Compactor (ground)	80
Cranes	85
Dozers	85
Dump Trucks	84
Excavators	85
Flat-Bed Trucks	84
Front-end Loaders	80
Graders	85
Impact Pile Drivers	95
Jackhammers	85
Pick-up Truck	55
Pneumatic Tools	85
Pumps	77
Rock Drills	85
Rollers	85
Scrapers	85
Tractors	84

Source: *Federal Highway Administration Roadway Construction Noise Model* (January 2006).
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
Note: Noise levels reported in this table are rounded to the nearest whole number.
L_{max} = maximum instantaneous sound level

The second type of short-term noise impact is related to noise generated during project construction. Construction is performed in discrete steps, each having its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated, as well as the noise levels in the study area as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 4.C lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments based on a distance of 50 ft between the equipment and a noise receptor.

Normal construction operations, specifically during the site preparation phase, which includes excavation and grading, may generate high noise levels from an active construction area. Earthmoving equipment includes excavating machinery such as excavators, bulldozers, and front-end loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

Noise associated with the use of earthmoving construction equipment is estimated between 55 and 85 dBA L_{max} at a distance of 50 ft from each piece of equipment. As seen in Table 4.C, the maximum noise level generated by each excavator, bulldozer, and pick-up truck is assumed to be

approximately 85 dBA L_{max}, 85 dBA L_{max}, and 55 dBA L_{max} at 50 ft, respectively. Each piece of construction equipment operates as an individual point source. The conservative composite noise level during this phase of construction would be 88 dBA L_{max} at a distance of 50 ft from an active construction area.

The proposed project is located in a rural area. The closest residential unit, the single-family home on parcel APN 0271500030, would be 140 ft from the nearest general construction activity. The results of the equations above show that this residential unit may be subject to short-term noise reaching 79.1 dBA L_{max} generated by general construction activities. The short-term construction-related noise levels that the single-family residential unit would be exposed to do not exceed Caltrans construction noise thresholds and would be exempt from the San Benito County Code based on Section 19.39.051(H) as long as construction activities occur only between 7:00 a.m. and 7:00 p.m., Monday through Saturday. **Compliance Measure NOI-1** would require construction to occur only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. **Compliance Measure NOI-2** would require all internal combustion engines to be used with the manufacturer-recommended muffler. Implementation of **Compliance Measures NOI-1 and NOI-2** would ensure that the construction-related noise impacts would comply with San Benito County Code. As such, impacts would be less than significant, and no mitigation would be required.

The proposed project is a bridge replacement project. Implementation of the proposed project would not generate additional vehicular traffic on the bridge or roadway approaches compared to existing conditions. Operation of the proposed project would not result in any long-term changes in noise sources or noise levels in the project area beyond the existing conditions. Operation of the proposed project would not expose people to or generate noise levels in excess of established County or Caltrans standards. As such, impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures:

Compliance Measure NOI-1 **Construction Hours.** During construction, the construction contractor shall ensure that construction activities on the project site occur Monday through Saturday between the hours of 7:00 a.m. and 7:00 p.m. to comply with construction noise exemptions set forth by San Benito County Code Chapters 19.39 and 25.37. No construction activity may occur on the project site outside of these hours, on a Sunday, or on a federal/State holiday.

Compliance Measure NOI-2 **Muffler Compliance.** During construction, the contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Groundborne noise in buildings and structures is produced when interior surfaces such as walls and floors are "excited" into motion by groundborne vibrations transmitted into a given structure. In general, groundborne vibrations from standard construction practices are only a potential structural damage issue when within 25 ft of sensitive structures. Because construction is not proposed within 25 ft of any sensitive or fragile structures, the potential impact of groundborne vibration on sensitive structures in the project vicinity is considered less than significant. No mitigation is required.

The proposed project is a bridge rehabilitation project, and implementation of the proposed project would not generate additional vehicular traffic. Operation of the proposed project would not be a source of substantial groundborne vibration and would not expose persons to excessive levels of groundborne noise or vibration. The proposed project would not result in long-term operational impacts associated with groundborne vibration or noise levels. As such, impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The proposed project is not located in an airport land use plan or within 2 mi of a public airport. Implementation of the proposed project would not expose people residing or working in the project area to excessive noise levels. No impact would occur, and no mitigation is required.

Significance Determination: No Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: No Impact

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 Impact Analysis

Refer to Section 3.0, Environmental Factors Potentially Affected and Determination.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

4.15.1 Impact Analysis

Refer to Section 3.0, Environmental Factors Potentially Affected and Determination.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 Impact Analysis

Refer to Section 3.0, Environmental Factors Potentially Affected and Determination.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The proposed project is an infrastructure rehabilitation project that would involve the replacement of the existing 87 ft long and 16 ft wide bridge structure with a 132 ft long and 35 ft wide bridge that would be approximately 5 to 6 ft higher than the existing bridge deck to allow for adequate freeboard. Additionally, RSP would be placed along the banks of the creek, a retaining wall would be installed against the hillside east of the creek and south of the roadway, and roadway improvements would be completed.

Construction of the proposed project would last approximately 13 months in duration and there would be an average of 5 to 10 workers per day on the construction site. During this period, temporary and intermittent transportation impacts would result from additional vehicle trips to the project site from workers and equipment deliveries. The existing bridge which will be used to maintain traffic by keeping one lane open during construction. Demolition of the existing bridge would not be completed until after the proposed bridge is completed and functional. Roadway work consists of realigning the roadway downstream (southerly) of the existing bridge to allow construction of the new bridge in one stage, and a temporary crash cushion and railing would be installed between the construction area and the existing bridge which will be used to maintain traffic by keeping one lane open during construction. Access to driveways off of Panoche Road would also be maintained throughout the duration of construction. Therefore, construction of the proposed project would not conflict with any adopted program, plan, or adopted ordinance and impacts would be considered less than significant. No mitigation is required.

The proposed project would not result in changes to local transportation patterns, would not impede normal traffic flows or circulation in the area, and would not conflict with a program, plan, ordinance, or policy addressing the circulation system. There are no bicycle or pedestrian facilities on Panoche Road, and public transit does not operate along Panoche Road. Overall, project operations would not alter current transportation uses, traffic volumes, or circulation at the project site. Therefore, operation of the proposed project would not conflict with a program, plan,

ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and impacts would be less than significant. No mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to "more appropriately balance the needs of congestion management with Statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions."

In December 2018, the State Office of Planning and Research (OPR) completed an update to the *CEQA Guidelines* to implement the requirements of SB 743. The *CEQA Guidelines* state that vehicle miles traveled (VMT) must be the metric used to determine significant transportation impacts. The *CEQA Guidelines* require all Lead Agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 1, 2020. *CEQA Guidelines* Section 15064.3, subdivision (b), states that "Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact."

OPR's Technical Advisory provides a list of transportation project types that would not likely result in a substantial or measurable increase in vehicle travel and, therefore, generally should not require an induced travel analysis. Included on this list are rehabilitation, maintenance, replacement, safety, and repair projects that are designed to improve the condition of existing transportation assets and do not add additional motor vehicle capacity (OPR 2018). As previously discussed, the proposed project would involve the replacement of the existing 87 ft long and 16 ft wide structure with a 132 ft long and 35 ft wide structure that would be approximately 5 to 6 ft higher than the existing bridge deck to allow for adequate freeboard. Additionally, RSP would be placed along the banks of the creek, a retaining wall would be installed against the hillside east of the creek and south of the roadway, and roadway improvements would be completed. Therefore, because the project would involve the rehabilitation, maintenance, and replacement of the existing bridge and roadways and would not increase the existing roadway and bridge capacity, it can be presumed that the proposed project would have a less than significant impact related to VMT and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would involve replacement of the existing bridge and completion of other roadway improvements. The existing bridge has a 16 ft travel width, no shoulders, and a slight "S" curve to accommodate the angle of the bridge crossing and does not meet current AASHTO design standards for minimum design speed or width. In addition, the existing roadway approaches have no shoulders and thus do not meet the AASHTO 3 ft minimum shoulder width standard for a Local Road. The new bridge would be 132 ft long and 35 ft wide and would raise the bridge deck by approximately 5 to 6 ft to allow for adequate freeboard. The slight "S" curve over the existing bridge would be eliminated, and the driveway intersection at Panoche Road would be shifted west by up to 40 ft in order to improve truck turning access. Other roadway work would consist of realigning the roadway downstream (southerly) of the existing bridge to allow the existing bridge to remain open during stage construction.

These elements would result in a slightly altered roadway design compared to current conditions. However, said elements would not result in any substantial changes to the roadway. Furthermore, the proposed project would bring the facility up to current AASHTO bridge and road design standards; enhance overall traffic safety; comply with County, Caltrans, and AASHTO design standards; and improve the seismic resistance of the structure. Therefore, the proposed project would not substantially increase hazards due to a design feature. Impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

d. Would the project result in inadequate emergency access?

Emergency services in the proposed project area are provided by CAL FIRE for fire and emergency services and by the San Benito County Sheriff's Office for police services. The proposed project is an infrastructure rehabilitation project and would not result in the construction of any structures for occupancy that would require additional emergency services. The project would result in the replacement of an existing bridge that is 16 ft wide with no shoulders. The new bridge would be approximately 132 ft long by approximately 35 ft wide with two equal 12 ft spans and 4 ft wide concrete shoulders along each side of the travel lanes. Additionally, the slight "S" curve over the existing bridge would be eliminated and the driveway intersection at Panoche Road would be shifted west by up to 40 ft in order to improve truck turning access. Therefore, after the completion of construction, implementation of the proposed project would improve both emergency access and truck turning access.

Project construction would occur year-round between June 2025 and October 2026, lasting approximately 13 months, and would not require any road closures or detours. The replacement bridge would be constructed south of the existing bridge, and the existing bridge would be demolished after the completion of new bridge construction. Emergency access on the road would be maintained during construction by keeping one lane open on the existing bridge. Demolition of the existing bridge would not be completed until after the proposed bridge is completed and functional. Access to driveways off of Panoche Road would also be maintained throughout the duration of construction. To address impacts on travel times for emergency vehicles, the County would be required to implement **Mitigation Measure TR-1. Mitigation Measure TR-1** would require the development of a TMP in coordination with emergency service providers, Caltrans, and the County to address lane closures and traffic control, including flagging. The TMP would also require the County to provide regular communication to Caltrans, emergency service providers, and property owners in the project vicinity throughout the construction period in order to minimize disruption associated with lane closures. With implementation of **Mitigation Measure TR-1,** temporary impacts of project construction associated with emergency access would be less than significant. Therefore, impacts to emergency services would be less than significant.

Significance Determination: Potentially Significant Impact

Mitigation/Compliance Measures:

Mitigation Measure TR-1 **Transportation Management Plan (TMP).** As part of the project final design, the County of San Benito (County), in coordination with emergency service providers and the California Department of Transportation (Caltrans), shall prepare a TMP to determine the traffic control approach (e.g., flagging and signage) and notify neighboring property owners of the lane closure. During construction, the County shall require the construction contractor to adhere to all requirements of the TMP.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. 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 5020.1(k)? Or	☐	☐	☐	☒
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

AB 52, a law signed by then-Governor Jerry Brown in 2014, amended CEQA to require tribal cultural resources to be considered as potentially significant cultural resources under the CEQA environmental review process. The procedures under AB Bill 52 offer tribes an opportunity to take an active role in the CEQA process in order to protect tribal cultural resources. Pursuant to AB 52, if a Native American identifies tribal cultural resources within a project site, the Native American shall contact the local Lead Agency.

As discussed in Section 4.5, Cultural Resources, the findings of the HPSR support a finding that there are no known historical resources in the project site. To address tribal cultural resources, the NAHC was contacted on May 16, 2022, to conduct a Sacred Lands File search and provide a Native American Consultation List for the project. The NAHC responded on June 26, 2022, that the Sacred Lands File search was negative for the presence of tribal cultural resources and provided a list of Native American contacts to be sent project notification letters per AB 52.

a. Would the project 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:

i. 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 5020.1(k)? Or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As discussed in Section 4.5, Cultural Resources, record searches were conducted on August 26, 2011, and April 10, 2020, at the Northwest Information Center of the California Historical Resources Information System and did not identify any previously recorded cultural resources within the project site or the 0.5 mi search radius. Field surveys conducted on November 2, 2011, April 2, 2011, and July 10, 2012, did not identify any archaeological artifacts or sites. An updated intensive pedestrian survey of the project site conducted on April 2, 2020, resulted in the identification of one precontact-period bedrock milling station archaeological site (LSA-PRB-001) and two isolated artifacts (PRB-ISO-001, a cryptocrystalline core, and PRB-ISO-002, a hopper mortar). The proposed project has been designed to avoid bedrock milling feature LSA-PRB-001, and this archaeological resource would not be affected by the proposed project. As isolated artifacts with no informational potential, no special or particular qualities, and no direct association with scientifically recognized prehistoric or historic events or persons, archaeological resources PRB-ISO-001 and PRB-ISO-002 do not qualify as historical or unique archaeological resources. Per PRC Section 21083.2(h), non-unique archaeological resources warrant no additional consideration under CEQA other than recording of the resource, which has been conducted.

Native American consultation was conducted in compliance with AB 52. On July 1, 2022, AB 52 consultation letters were sent to all Native American contacts identified by the NAHC on June 26, 2022. No responses or requests for consultation were received as a result of the AB 52 consultation letters.

As such, there are no known significant archaeological or tribal cultural resources within the project site and the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as 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 listed or eligible for listing in the California Register of or in a local register of historical resources as defined in PRC Section 5020.1(k).

Additionally, there are no tribal cultural resources within the project site that have been determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as 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 listed or eligible for listing in the California Register of or in a local register of historical resources as defined in PRC Section 5020.1(k).

No impacts would occur to tribal cultural resources, and no mitigation is required.

Significance Determination: No Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: No Impact

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project is an infrastructure rehabilitation project that would involve the replacement of the existing 87 ft long and 16 ft wide bridge structure with a 132 ft long and 35 ft wide bridge that would be approximately 5 to 6 ft higher than the existing bridge deck to allow for adequate freeboard. Additionally, RSP would be placed along the banks of the creek, a retaining wall would be installed against the hillside east of the creek and south of the roadway, and roadway improvements would be completed.

During construction, nominal amounts of water would be used for dust control purposes and other construction activities. Water would be trucked in from locations within San Benito County and would not require the relocation or construction of new expanded water facilities. Portable bathroom facilities would be maintained on site during construction and would be taken off site to local wastewater treatment facilities to be disposed of. The estimated amount of wastewater generated by construction workers on site would be nominal and would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. Utilities such as natural gas lines and telecommunication infrastructure are not located within the project footprint and would not require relocation. Project construction may require the relocation of existing power poles/power lines. Any poles that are in conflict would be relocated and the overhead line would be shifted to the new relocated poles. The relocation of any power poles/power lines would occur with coordination between the construction contractor and the electricity service provider that owns and

maintains the lines to ensure relocation is completed safely and with minimal impacts to existing conditions.

Overall, implementation of the proposed project would not require or result in the relocation or construction of utility infrastructure that may cause significant environmental effects. Impacts would be less than significant, and no mitigation is necessary.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed project would likely require water during construction for dust control and other construction activities. Water would be trucked in from pre-determined water haulers in San Benito County and would be stored on site in water trucks through the duration of construction. The amount of water that would be needed during project construction would be nominal compared to the water supplies available within San Benito County. After the completion of construction, project operation would not require the use or consumption of any water resources. Overall, considering the minimal amount of water needed for project construction, there would be sufficient water supplies during normal, dry, and multiple dry years for implementation of the proposed project. Impacts would be less than significant, and no mitigation would be required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project is a bridge replacement and roadway improvement project and, as such, does not involve uses requiring significant wastewater treatment. Any wastewater generated during construction of the proposed project would be temporary and would be disposed of properly by the project contractor as required by the Construction General Permit. Portable toilets would be maintained on site throughout the construction period and would be serviced regularly by a service provider. Construction of the proposed project would last approximately 13 months, and the anticipated average number of workers per day on the construction site would be 5 to 10 persons. Therefore, the amount of wastewater estimated to be generated during project construction activities would be nominal and within the available capacity of existing service providers.

Operation of the proposed project would be similar to the existing use and would not include any uses that require wastewater treatment. The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities. Impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The proposed project includes the demolition of the existing bridge on Panoche Road spanning Tres Pinos Creek. Construction demolition debris is anticipated to be collected and transferred to John Smith Road Landfill located at 2650 John Smith Road in Hollister. John Smith Road Landfill has a maximum daily throughput of 1,000 tons and a total permitted capacity of 9,797,000 cy. As of April 30, 2021, the landfill has a remaining capacity of 1,921,000 cy and an anticipated closing date of August 1, 2025 (CalRecycle n.d.). Construction debris generated by the proposed project is anticipated to be nominal and well below the 1,000 tons per day that the nearest landfill can accommodate. Additionally, California law requires 50 percent of all solid waste to be diverted from landfills through source reduction, recycling, and composting. The proposed project, once operational, would not generate solid waste as it is a transportation (bridge replacement) project. As such, the proposed project would not generate an amount of solid waste in excess of State or local standards, or in excess of the capacity of John Smith Road Landfill. Impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would only generate construction debris, which would be recycled as appropriate and consistent with federal, State, and local management and solid waste reduction statutes. Per California law, 50 percent of the construction debris that would be generated during project construction would be diverted from John Smith Road Landfill through source reduction, recycling, and composting. The proposed project is a bridge replacement project and does not include uses that generate a substantial amount of solid waste during project operations. Operation of the proposed project would not increase the demand for solid waste disposal compared to baseline conditions. Therefore, the proposed project would comply with federal, State, and local

management and reduction statues and regulations related to solid waste. No impact would occur, and no mitigation is required.

Significance Determination: No Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: No Impact

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

CAL FIRE has mapped areas of significant fire hazards in the State through its Fire and Resources Assessment Program (FRAP). These maps place areas of California into different Fire Hazard Severity Zones (FHSZs) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban brushfire could result in catastrophic losses. As part of this mapping system, land where CAL FIRE is responsible for wildland protection and that is generally located in unincorporated areas is classified as an SRA. Where local fire protection agencies are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA). CAL FIRE currently identifies the project site as an SRA High FHSZ. (CAL FIRE n.d.) CAL FIRE would be responsible for wildfire attenuation within the project area.

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The proposed project is located in a rural portion of San Benito County along Panoche Road between Paicines and Llanda, California. Panoche Road is a main access road for the region, but it has not been officially designated as an emergency evacuation route by the County.

Construction of the proposed project would last approximately 13 months; during this period, temporary and intermittent transportation impacts would result from additional vehicle trips to the project site from workers and equipment deliveries. Emergency access on the road would be maintained during construction by keeping one lane open on the existing bridge. Demolition of the existing bridge would not be completed until after the proposed bridge is completed and functional. Implementation of **Mitigation Measure TR-1** would ensure that temporary impacts of project construction associated with emergency access would be less than significant by requiring the development of a TMP.

Roadway work consists of realigning the roadway downstream (southerly) of the existing bridge and would be completed to allow construction of the new bridge in one stage, and a temporary crash cushion and railing would be installed between the current construction and the temporary traffic realignment. Access to driveways off of Panoche Road would also be maintained throughout the duration of construction. After the completion of construction, emergency access on the new bridge and updated access roads would be improved compared to baseline conditions. Therefore, implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant, and no mitigation is required.

Significance Determination: Potentially Significant Impact

Mitigation/Compliance Measures: Refer to **Mitigation Measure TR-1** in Section 4.17.

Significance Determination after Mitigation/Compliance: Less than Significant

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

During project construction, BMPs would be implemented to reduce potential ignition of fires. BMPs would include installing spark arrestors on construction equipment, reducing construction activities that may create sparks during windy weather, ensuring availability of fire extinguishers on site, and ensuring staged equipment is secure. Additionally, construction activities would be monitored by the construction foreman to ensure that activities that may generate sparks are not allowed on windy days.

Upon completion of construction, the proposed project would not alter the risk or impacts of wildland fires to residences as compared to the existing conditions. The project itself would not exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, with standard conditions in place, impacts would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The proposed project includes the realignment of an existing access road and may require the relocation of power poles/power lines. The relocation of any power poles/power lines would occur with coordination between the construction contractor and the electricity service provider that

owns and maintains the lines. Prior to relocation, electricity on the lines would be shut off to reduce fire risk as well as electrical shock risks. The relocation area of the power lines would be cleared of tall vegetation that may come in contact with the power lines once they are charged and operational.

Implementation of the proposed project may exacerbate fire risk during construction activities; however, these would be temporary in nature and standard conditions (e.g., spark arrestors on construction equipment, fire extinguisher availability, reduction in spark-generating construction activity on windy days) would be implemented during project construction to reduce fire risk. Once operational, the project would not pose an ongoing fire risk. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. This impact would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed project would involve the replacement of the existing bridge and the completion of other roadway improvements. The new bridge deck would be approximately 5 to 6 ft higher to allow for adequate freeboard over 3.5 ft, which would improve drainage at the bridge and prevent potential flooding. As detailed in **Compliance Measure WQ-1**, a variety of Erosion Control BMPs would be implemented in accordance with the Construction General Permit to prevent erosion at the project site that may contribute to downstream landslides or flooding. Additionally, a retaining wall would be constructed at the cut at the hillside near the southern abutment and RSP would be installed on both sides of the creek banks to protect the abutment from hydraulic scour. These measures would prevent erosion of the creek banks during the operational period of the project after construction is complete.

Overall, the aforementioned improvements would not increase exposure of local residents and/or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. This impact would be less than significant, and no mitigation is required.

Significance Determination: Less than Significant

Mitigation/Compliance Measures: Refer to **Compliance Measure WQ-1** in Section 4.10.a.

Significance Determination after Mitigation/Compliance: Less than Significant

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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, substantially 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?	☐	☒	☐	☐
b. 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.)	☐	☒	☐	☐
c. Does the project have environmental effects which shall cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

4.21.1 Environmental Setting

The Mandatory Findings of Significance section discusses the potential of the proposed project to degrade the quality of the environment and any biological habitats. Impacts on a cumulative basis are also discussed, as well as the project having any environmental impacts that would cause substantial direct or indirect adverse impacts on human beings.

4.21.2 Impact Analysis

a. 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, substantially 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?

The proposed project would include the demolition of an existing bridge over Tres Pinos Creek along Panoche Road and development of a replacement bridge. Implementation of the proposed project would have the potential to adversely impact sensitive natural communities, special-status animals, and previously undiscovered cultural resources and/or human remains. With implementation of the mitigation measures recommended in this IS/MND, compliance with County requirements, and application of compliance measures, development of the proposed project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of fish or wildlife species; (3) cause a fish or wildlife population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal species; or (6) eliminate important examples of the major periods of California history or prehistory.

Significance Determination: Potentially Significant Impact

Mitigation/Compliance Measures: Refer to **Mitigation Measures BIO-1 through BIO-14** in Section 4.4; **GEO-1 and GEO-2** in Section 4.7; **HAZ-1 through HAZ-7** in Section 4.9; and **TR-1** in Section 4.17, and **Compliance Measures CUL-1** in Section 4.5; **WQ-1 and WQ-2** in Section 4.10; and **NOI-1 and NOI-2** in Section 4.13.

Significance Determination after Mitigation/Compliance: Less than Significant Impact with Mitigation Incorporated

b. 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)?

The impacts of the proposed project would be individually limited and would not be cumulatively considerable. The project is located in a rural area of San Benito County; as such, the proposed project is matching existing conditions and is localized and confined to the immediate project area. There are no other planned or reasonably foreseeable projects being developed in the immediate area that would generate an increase in cumulative impacts. The proposed project includes the demolition of an existing bridge and development of a replacement bridge over Tres Pinos Creek along Panoche Road. All environmental impacts that could occur as a result of the proposed project would be reduced to a less than significant impact level with implementation of the mitigation measures recommended throughout this environmental document. When viewed in conjunction with other related past, present, or reasonably foreseeable future projects, development of this project would not cumulatively contribute to impacts.

Significance Determination: Less than Significant Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

c. Does the project have environmental effects which shall cause substantial adverse effects on human beings, either directly or indirectly?

The purpose of the proposed project is to replace the existing bridge over Tres Pinos Creek on Panoche Road with a new longer and wider bridge on an improved roadway alignment. Once completed, the new bridge shall meet current AASHTO standards for design speed and road/bridge width. As described in this environmental document, implementation of the proposed project could result in temporary air quality, biology, cultural, GHG, hazardous waste, hydrology, and noise impacts during the construction period. Implementation of the mitigation measure recommended in this IS/MND, compliance with County regulations, and application of standard construction practices would ensure that the proposed project would not result in environmental impacts that would cause substantial direct or indirect adverse impacts on human beings.

Significance Determination: Potentially Significant Impact

Mitigation/Compliance Measures: Refer to **Mitigation Measures BIO-1 through BIO-14** in Section 4.4; **GEO-1 and GEO-2** in Section 4.7; **HAZ-1 through HAZ-7** in Section 4.9; and **TR-1** in Section 4.17, and **Compliance Measures CUL-1** in Section 4.5; **WQ-1 and WQ-2** in Section 4.10; and **NOI-1 and NOI-2** in Section 4.13.

Significance Determination after Mitigation/Compliance: Less than Significant Impact with Mitigation Incorporated

4.22 FISH AND WILDLIFE ENVIRONMENTAL DOCUMENT FEES

4.22.1 Assessment of Fee

The State Legislature, through the enactment of SB 1535, revoked the authority of Lead Agencies to determine that a project subject to CEQA review had a "*de minimis*" (minimal) effect on fish and wildlife resources under the jurisdiction of CDFW. Projects that were determined to have a *de minimis* effect were exempt from payment of the filing fees.

SB 1535 has eliminated the provision for a determination of *de minimis* effect by the Lead Agency; consequently, all land development projects that are subject to environmental review are now subject to the filing fees unless CDFW determines the project would have no effect on fish and wildlife resources.

To be considered for determination of "no effect" on fish and wildlife resources, development applicants must submit a form requesting such determination to CDFW. Forms may be obtained by contacting the agency by telephone at (916) 631-0606 or through its website at www.dfg.ca.gov.

4.22.2 Conclusion

The project would be required to pay the Fish and Wildlife Assessment fee.

4.22.3 Evidence

The project is required to pay the Fish and Wildlife Assessment fee based on the record as a whole as embodied in the Planning Department files pertaining to County Project No. 3853 and the attached IS/MND.

5.0 REFERENCES

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6.0 MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) is formulated based on the findings of the IS/MND. The MMRP, which is found in Table 6.A, lists mitigation measures prescribed in the IS/MND prepared for the Panoche Road Bridge Replacement Project and identifies mitigation monitoring requirements.

This MMRP has been prepared to comply with the requirements of State law (PRC Section 21081.6). State law requires the Lead Agency to adopt an MMRP when mitigation measures are required to avoid significant impacts. The MMRP is intended to ensure compliance with the mitigation measures identified in the IS/MND during implementation of the project.

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure BIO-1: Nesting Cooper's Hawk and Other Migratory Birds Measures	The County of San Benito (County) or County contractor shall implement the following measures prior to construction: 1. If possible, all trees that shall be impacted by project construction shall be removed during the nonnesting season (September 16 to January 31), to avoid take of a nest or bird. If work must begin during the nesting season (February 1 to September 15), a survey for nesting Cooper's hawks and other migratory birds shall be conducted within 500 feet of the Biological Study Area (BSA) by a qualified biologist. The survey shall be conducted a maximum of 10 days prior to the start of construction. The survey area may be decreased due to property access constraints, etc. 2. If nesting Cooper's hawks or other birds are found within 500 ft of the BSA, a qualified biologist shall evaluate the potential for the proposed project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the BSA, and line of sight between the nest and the BSA. a. The California Department of Fish and Wildlife (CDFW) and the California Department of Transportation (Caltrans) shall be contacted to review the evaluation and determine if the	Prior to Construction	Qualified biologist	County of San Benito	Prior to Construction	Successful pre-construction monitoring for migratory birds and nesting activities; avoidance of impacts to any discovered nesting sites

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

<table>
<tr><th>Mitigation/ Compliance Measure</th><th>Avoidance and Minimization Measure</th><th>Timing</th><th>Implementing Party</th><th>Monitoring Party</th><th>Frequency and Duration of Monitoring</th><th>Performance Criteria</th></tr>
<tr><td></td><td>project can proceed without adversely affecting nesting activities.
b. If work is allowed to proceed, a qualified biologist shall be on site weekly during construction activities that occur during breeding season to monitor nesting activity. The biologist shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Mitigation Measure BIO-2: Revegetation and Restoration to Preconstruction Contours</td><td>Following completion of the new bridge, the County or County contractor shall ensure all areas that are temporarily disturbed shall be restored to preconstruction contours. All disturbed areas including new fill slopes shall be revegetated with the native seed mix specified in Table 4.B.
Table 4.B: Native Species Mix
<table>
<tr><th>Scientific Name</th><th>Common Name</th><th>Rate (pounds per acre)</th><th>Minimum Percent Germination</th></tr>
<tr><td>Artemisia douglasiana</td><td>Mugwort</td><td>2.0</td><td>50</td></tr>
<tr><td>Bromus carinatus</td><td>California brome</td><td>5.0</td><td>85</td></tr>
<tr><td>Elymus trachycaulus</td><td>Slender wheatgrass</td><td>2.0</td><td>60</td></tr>
<tr><td>Eschscholzia californica</td><td>California poppy</td><td>2.0</td><td>70</td></tr>
<tr><td>Festuca microstachys</td><td>Small fescue</td><td>10.0</td><td>80</td></tr>
<tr><td>Hordeum brachyantherum</td><td>California barley</td><td>2.0</td><td>80</td></tr>
<tr><td>Lupinus bicolor</td><td>Bicolored lupine</td><td>4.0</td><td>80</td></tr>
</table></td><td>After Construction</td><td>County contractor</td><td>County of San Benito</td><td>After Construction</td><td>Restoration of disturbed areas to preconstruction contours and revegetation of disturbed areas</td></tr>
</table>

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure BIO-3: Special-Status Preconstruction Surveys	Prior to the start of construction, initial ground disturbance, or vegetation clearing in the Tres Pinos Creek channel or surrounding areas, a qualified biologist shall conduct a preconstruction survey of the work area for special-status species. If special-status species are found, they shall be allowed to leave the work area on their own or, if approved by the United States Fish and Wildlife Service (USFWS) and/or CDFW, the special-status species shall be relocated by the biologist to a safe place outside the work area.	Prior to and During Construction	Qualified biologist	County of San Benito	Prior to and During Construction	Completion of pre-construction surveys for special-status species; successful relocation of any discovered special-status species
Mitigation Measure BIO-4: Invasive Plant Species Measures	During final design, the County or County's engineer shall prepare specifications to avoid the introduction of invasive plant species into the BSA during project construction. At a minimum, this shall include the following measures: 1. All earthmoving equipment to be used during project construction shall be thoroughly cleaned before arriving on the project site. 2. All seeding equipment (i.e., hydroseed trucks) shall be thoroughly rinsed prior to beginning seeding work. 3. To avoid spreading any nonnative invasive species already existing on site to off-site areas, all equipment shall be thoroughly cleaned before leaving the site. 4. To avoid introducing additional nonnative species to the site, all fill dirt brought onto the site must be weed-free.	Prior to Construction	County of San Benito/County Engineer	County of San Benito	Prior to and During Construction	Successful prevention of the introduction of invasive plant species

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure BIO-5: California Red-Legged Frog Measures	Prior to construction, the County shall implement the following measures, which implement the provisions of the CRLF "Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (8-8-10-F-58)": 1. Only USFWS-approved biologists shall 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 the USFWS has revoked their approval at any time during the life of this biological opinion. 2. Ground disturbance shall not begin until written approval is received from the USFWS that the biologist(s) is/are 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 shall survey the project site 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The USFWS-approved biologist shall relocate the CRLF the shortest distance possible to a location that contains suitable habitat and shall not be affected by	Prior to and During Construction	County contractor/Qualified Biologist	County of San Benito	Prior to and During Construction	Successful monitoring and implementation of avoidance measures for California Red-Legged Frogs.

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Caltrans shall coordinate with the USFWS on the relocation site prior to the capture of any CRLF. The USFWS-approved biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining whether translocated animals are returning to the original point of capture. 4. Before any activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall 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 shall 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, the State or local sponsoring agency shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	that this monitor receives the training outlined in number 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 the USFWS during review of the proposed action, they shall notify the resident engineer (the engineer who is directly overseeing and in command of construction activities) immediately. The resident engineer shall either resolve the situation by eliminating the effect immediately or require that all actions causing these effects be halted. If work is stopped, the USFWS shall be notified as soon as is reasonably possible. 6. During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas. 7. All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 ft from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the County shall provide Caltrans with a plan for prompt and effective response to any accidental spills. All workers shall be					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. 8. The number of access routes, size of staging areas, and total area of the activity shall be limited to the minimum necessary to achieve the project goal. Environmentally Sensitive Areas (ESAs) shall 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. 9. The County shall 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 informal consultation between Caltrans and the USFWS during project planning should be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	10. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.2 inch to prevent CRLF from entering the pump system. Water shall 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 shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed shall be minimized to the maximum extent possible; any imported material shall be removed from the stream bed upon completion of the project. 11. Unless approved by the USFWS, water shall not be impounded in a manner that may attract CRLF. 12. A USFWS-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), 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 shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code. 13. If the County demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for CRLF,					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	these areas shall not be included in the amount of total habitat permanently disturbed. 14. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologists, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force shall be followed at all times. 15. Project sites shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project unless the USFWS determine that it is not feasible or practical. 16. The County shall not use herbicides as the primary method used to control invasive, exotic plants. However, if the County determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it shall implement the following additional protective measures for the CRLF: a. The County shall not use herbicides during the breeding season for CRLF. b. The County shall conduct surveys for CRLF immediately prior to the start of any					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	herbicide use. If found, CRLF shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur. c. Giant reed and other invasive plants shall be cut and hauled out by hand and then painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®. d. Licensed and experienced County staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site. e. All precautions shall be taken to ensure that no herbicide is applied to native vegetation. f. Herbicides shall not be applied on or near open-water surfaces (no closer than 60 ft from open water). g. Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour. h. No herbicides shall be applied within 24 hours of forecasted rain. i. Application of all herbicides shall be done by qualified County staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and that all					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	required and reasonable safety measures are implemented. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the United States Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins. j. All herbicides, fuels, lubricants, and equipment shall be stored, poured, or refilled at least 60 ft from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, the County shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.					
Mitigation Measure BIO-6: Rock Slope Protection Installation	During construction, the County or County contractor shall ensure that placement of rock slope protection (RSP), native topsoil from the channel shall be incorporated within the RSP to provide a seeding and planting medium. Areas of RSP above the ordinary high water mark (OHWM) shall be revegetated with the seed mix specified in Table 4.B. In addition, locally obtained willow cuttings/poles shall be installed within the lower sections of the RSP near the OHWM.	During Construction	County Contractor	County of San Benito	During Construction	Proper placement of RSP and revegetation of disturbed areas

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure BIO-7: Live Channel Work Period	Work in the live channel of Tres Pinos Creek (consisting of placement of RSP, a support pier, and falsework) shall be limited to the period of June 15 through October 15. If any work within the live channel of Tres Pinos Creek is not completed by October 15, the County or County contractor shall request a written approval/ extension from the National Marine Fisheries Service (NMFS) to allow work past October 15. Revegetation activities are excluded from this requirement with the stipulation that no heavy equipment be used in the channel.	During Construction	County Contractor	County of San Benito	During Construction	Completion of work in the live channel during allowable time period
Mitigation Measure BIO-8: South Central California Coast Steelhead	During construction, the County or County contractor shall implement the following measures: 1. Prior to project implementation, a qualified biologist shall conduct a worker environmental awareness training for all construction personnel and monitoring biologists on the terms and conditions being implemented to protect SCCC steelhead during construction. The biological monitor shall have the full authority to halt work as necessary for the purpose of minimizing adverse effects on SCCC steelhead. 2. The work area for placement of the RSP, support pier, and falsework shall be dewatered prior to the start of work. Dewatering shall consist of installation of a flow diversion to separate the live channel from the area where in-stream work shall occur. The flow diversion shall consist of a corrugated metal pipe (CMP) sized to accommodate the flows expected during the	Prior to and During Construction	County Contractor/ Qualified Biologist	County of San Benito	Prior to and during Construction	Completion of appropriate monitoring and minimization measures for South Central California Coast Steelhead

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	diversion period. The CMP shall be placed along the low-flow invert of the natural creek and a small earthen berm shall be installed at each end of the pipe to direct water into the pipe. Clean sand and gravel shall be used at the base of the berm to protect the existing creek channel. Both the berms and CMP shall be completely removed at the completion of project construction. A qualified biologist shall be on site during installation and removal of the flow diversion. 3. Prior to installation of the flow diversion, a qualified biologist shall determine the need for a temporary fish seine around the area to be isolated. If a seine is needed, the qualified biologist shall oversee the installation. A weighted fish seine shall be stretched across the length of the bank where work shall be conducted and shall extend a minimum of 3.3 ft beyond the upstream and downstream limits of the work. With the upstream and downstream ends of the seine remaining on the bank, the remainder of the seine shall be extended into the channel to approximately 3.3 ft beyond the limits of the area to be dewatered. The seine shall be temporarily staked into place in such a way that no fish may enter the isolated area. The purpose of this method is to direct the fish out of the area to be dewatered.					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	4. After the seine is in place, the qualified biologist shall visually survey the waters isolated behind the seine for the presence of any fish. If any fish are encountered within the isolated area, the fish seining process must be repeated until all fish are driven from the area to be isolated, as determined by the fisheries biologist. The qualified biologist shall capture any fish that remain in the areas to be dewatered. Electrofishing may be implemented to ensure that all of the fish are removed from the work area. 5. Once all of the fish have been removed from the work area, the flow diversion shall be installed in the isolated area. The qualified biologist shall be on site during installation and removal of the flow diversion. *6.* All construction shall be conducted during daylight hours.					
Mitigation Measure BIO-9: Environmentally Sensitive Area Fencing	Prior to construction activities, the qualified biologist shall identify locations for the placement of ESA fencing to protect sensitive habitat areas (i.e., jurisdictional areas, arroyo willow and mulefat riparian habitat, oak woodland habitat, the Tres Pinos Creek channel) adjacent to the construction area and to delineate a protection zone beyond which construction activities are prohibited. The construction contractor, with the assistance of the qualified biologist, shall install the ESA fencing prior to construction activities. The qualified biologist shall verify the correct placement and installation of the ESA fences before work begins in the area.	Prior to Construction	County Contractor/ Qualified Biologist	County of San Benito/ Qualified Biologist	Prior to Construction	Successful placement of ESA fencing

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure BIO-10: Protective Structure Use During Bridge Demolition	During demolition of the existing bridge, the County or County contractor shall ensure that a heavy tarp, temporary decking, or equivalent structure be placed beneath the bridge to collect debris falling from the bridge and prevent it from entering Tres Pinos Creek. The tarp shall be left in place until the bridge is removed. This measure may also apply during construction of the new bridge deck. This measure only applies prior to stream diversion.	During Construction	County Contractor	County of San Benito	During Construction	Successful installation of tarp or temporary decking
Mitigation Measure BIO-11: Staging, Access, and Construction Area Placement	The County shall ensure that the contractor's staging areas, access routes, and construction areas are located outside of wetland, riparian, and oak woodland areas to the maximum extent practicable.	Prior to and During Construction	County of San Benito	County of San Benito	Prior to and During Construction	Appropriate placement of staging areas, access routes, and construction areas
Mitigation Measure BIO-12: Regulatory Permits	Prior to issuance of a grading permit or other authorization to proceed with project construction, the County shall obtain any regulatory permits that are required from the United States Army Corps of Engineers (ACOE), CDFW, and/or Regional Water Quality Control Board (RWQCB).	Prior to Construction	County of San Benito/County contractor	County of San Benito	Prior to Construction	Obtainment of required regulatory permits
Mitigation Measure BIO-13: Arroyo Willow Riparian Vegetation, Mulefat Riparian Vegetation, and Mixed Oak Vegetation Compensatory Mitigation	Prior to construction, the County shall approve the compensatory habitat mitigation plan for arroyo willow riparian vegetation, mulefat riparian vegetation, and mixed oak vegetation based on the requirements of the ACOE, CDFW, and RWQCB as specified in the approved regulatory permits. Mitigation shall be accomplished using one of the following methods, or by using a combination of the methods, contingent upon approval by the ACOE, CDFW, and RWQCB:	Prior to Construction	County of San Benito/County contractor	County of San Benito	Prior to Construction	Approval of compensatory habitat mitigation plan for arroyo willow riparian vegetation, mulefat riparian vegetation, and mixed oak vegetation

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	• Preservation, creation, and/or restoration of the impacted resources per permit requirements. This work would occur solely within the project impact area. • Purchase of credits at an approved mitigation bank per permit requirements.					
Mitigation Measure BIO-14: Riverine and Riverine Wetlands Compensatory Mitigation	Prior to construction, the County shall ensure that permanent impacts to riverine and riverine wetlands be mitigated using the following method, contingent upon approval by the ACOE, CDFW, and/or RWQCB: • Purchase of credits at an approved mitigation bank at a minimum 1:1 mitigation ratio.	Prior to Construction	County of San Benito	County of San Benito	Prior to Construction	Purchase of credits at an approved mitigation bank at a minimum 1:1 mitigation ratio
Mitigation Measure CUL-1: Prehistoric or Historic Archaeological Discovery Protocols	If deposits of prehistoric or historical archaeological materials are discovered during nonmonitored project activities, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted, if one is not present, to assess the situation, consult with the agencies as appropriate, and make recommendations for the treatment of the discovery. The Director of Planning at the San Benito County Building and Planning Department shall also be notified. Project personnel shall not collect or move any archaeological materials. Any adverse impacts to the finds shall be avoided by project activities. If avoidance is not feasible, the archaeological deposits shall be evaluated to determine if they qualify as a historical resource or unique archaeological resource, or as historic property. If the deposits do not so qualify, avoidance is not necessary. If the deposits do so qualify, adverse impacts on the deposits shall be avoided, or such impacts shall be mitigated.	During Construction	County Contractor/ Qualified Archaeologist/ County of San Benito	Qualified Archaeologist / County of San Benito	During Construction	Completion of appropriate protocol upon the discovery of any archaeological resources

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	Mitigation may consist of, but is not limited to, recovery and analysis of the archaeological deposit; recording the resource; preparing a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Educational public outreach may also be appropriate. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the County of San Benito for approval.					
Compliance Measure CUL-2: Discovery of Human Remains	In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the San Benito County Coroner notified immediately, consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours, which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of being granted access to the project site. The MLD may recommend scientific removal and	During Construction	County Contractor/ San Benito County Coroner	County of San Benito	During Construction	Completion of appropriate protocol upon the discovery of human remains

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	nondestructive analysis of human remains and items associated with Native American burials.					
Mitigation Measure GEO-1: Final Geotechnical Report	During final design, a detailed geotechnical investigation shall be conducted by qualified geotechnical personnel to assess the geotechnical conditions at the project site. The geotechnical investigation shall include drilled borings and/or cone penetration tests to confirm and extend site-specific subsurface site conditions for final design. The project-specific findings and recommendations of the geotechnical investigation shall be incorporated into the final design of the proposed project and shall be summarized in the Final Geotechnical Report to be submitted to the County of San Benito for review and approval.	Prior to Construction	Qualified Geotechnical Personnel	County of San Benito	Prior to Construction	Approval of the Final Geotechnical Report
Mitigation Measure GEO-2: Paleontological Resources	In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the County of San Benito (County) determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and	During Construction	Qualified Paleontologist	County of San Benito	During Construction	Completion of appropriate protocol upon the discovery of any paleontological resources

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	such plan shall be implemented. The plan shall be submitted to the County for review and approval.					
Mitigation Measure HAZ-1: Emergency Response and Cleanup Plan	Prior to commencement of construction activities, the construction contractor shall prepare an emergency response and cleanup plan. The construction contractor shall implement the plan during construction. The plan shall detail the methods to be used to contain and clean up a spill of petroleum products or other hazardous materials in the work area.	Prior to Construction	County Contractor	County of San Benito	Prior to Construction	Approval of emergency response and cleanup plan
Mitigation Measure HAZ-2: Construction Equipment Maintenance, Refueling, and Washing Activities	During construction, the construction contractor shall ensure that all equipment maintenance, refueling, and storage are conducted on level ground outside the Tres Pinos Creek channel, away from concentrated flows of stormwater and drainage courses. Drip pans or absorbent pads shall be used during equipment refueling and maintenance activities. Adequate quantities of absorbent spill clean-up material and spill kits shall be kept in the refueling and maintenance area and on fuel trucks. Spill clean-up and materials shall be disposed of immediately after use.	During Construction	County Contractor	County Contractor/ County of San Benito	During Construction	Proper equipment maintenance, refueling, and storage
Mitigation Measure HAZ-3: Paint Striping Protocol	During construction, if the contractor is required to remove yellow striping from existing pavement, the waste generated shall be sampled, handled, and disposed of as a hazardous waste. Processes and requirements for removal or grinding of traffic striping shall be conducted in compliance with the current (2018) California Department of Transportation Standard Special Provisions (Caltrans SSPs).	During Construction	County Contractor	County Contractor/ County of San Benito	During Construction	Completion of the proper processes and requirements for removal or grinding of traffic striping

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure HAZ-4: Lead Based Paint Abatement Program	During construction, the construction contractor shall comply with federal Occupational Safety and Health Administration (OSHA) Standard 1926.6 related to lead abatement, and all other applicable State and federal requirements for handling and disposal of lead-based paint (LBP), asbestos-containing materials (ACM), and universal wastes. Prior to demolition of the existing bridge, LBP and ACM surveys shall be performed by a qualified environmental professional retained by the County of San Benito (County). ACM inspections in California are required to be conducted by a Certified Asbestos Consultant (CAC) or a Certified Site Surveillance Technician (CSST) working under a CAC. The LBP inspection should be conducted by a California Department of Public Health Certified Lead Inspector/Assessor as defined in Title 17 California Code of Regulations (CCR), Division 1, Chapter 8. If any LBP or ACM is identified, it shall be abated and removed from the site in accordance with all applicable regulations, including OSHA requirements. The County shall verify that the surveys and abatement or removal, as necessary, have been completed prior to any demolition and construction activities on the project site.	During Construction	County Contractor	County Contractor/ County of San Benito	During Construction	Completion of proper surveys and requirements for handling and disposal of LBP, ACM, and universal wastes

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure HAZ-5: Soil Investigation	Prior to the initiation of project construction, a soil investigation shall be performed by a licensed professional to evaluate whether ADL or other potentially hazardous constituents are present in shallow soils that would be disturbed. Chemical analyses for soil shall be performed by an analytical laboratory certified by the California Department of Public Health Environmental Laboratory Accreditation Program. A licensed professional shall review the results of the soil investigation and provide recommendations on additional investigation activities, if any, and soil management recommendations shall be implemented during project construction, if applicable. The analytical results of the soil investigation shall be compared to hazardous waste criteria and health and safety thresholds for construction workers. If the analytical results exceed thresholds for construction workers, the County shall oversee that provisions for soil handling and disposal comply with the Caltrans Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils.	Prior to Construction	Licensed Professional/ County of San Benito	County of San Benito	Prior to and During Construction	Completion of soil investigation and appropriate soil management recommendations
Mitigation Measure HAZ-6: Risk Management Plan	Based on the results of the preconstruction soil characterization, the construction contractor shall implement a Risk Management Plan (RMP) that shall identify special soil management and disposal procedures and/or construction worker health and safety procedures to be implemented during project demolition and construction activities to reduce exposure to hazardous materials. The RMP shall include all necessary procedures to ensure that excavated soils are stored, tested, managed, and disposed of in a manner that is protective of human health and in	Prior to and During Construction	County Contractor/ County of San Benito	County of San Benito	During Construction	Approval and implementation of RMP

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria

	accordance with applicable laws and regulations. The County shall ensure that the RMP includes available data from any pre-project construction soil sampling activities. The County shall provide the RMP to the construction contractor and ensure that the contractor follows the RMP. The RMP shall consider and include the following requirements:
	• Excavation, transportation, and placement operations shall result in no visible dust.
	• A construction "Exclusion Zone" shall be identified where hazardous materials may be stored. A temporary security fence shall be installed to surround and secure the exclusion zone.
	• Air quality shall be monitored during excavation of soils contaminated with hazardous constituents.
	• Staging of hazardous materials shall comply with the requirements in CCR Title 22, Sections 6626.250 to 66265.260.
	• If temporary stockpiling of hazardous materials is necessary, the construction contractor shall:
	  ○ Cover the stockpile with plastic sheeting or tarps;
	  ○ Install a berm around the stockpile to prevent runoff from leaving the area; and
	  ○ Locate the stockpile away from the unnamed tributary and the Tres Pinos Creek watershed area.					

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Mitigation Measure HAZ-7: Fire Prevention Best Management Practices	During construction, the construction contractor shall ensure the following Best Management Practices (BMPs) to address fire prevention are implemented: installation of spark arrestors on construction equipment; storage of flammable materials in areas away from natural vegetation; limiting of construction activities that could generate sparks on windy days; posting of "No Smoking" signs in the construction area; and providing fire extinguishers in construction areas.	During Construction	County Contractor	County of San Benito	During Construction	Implementation of fire prevention BMPs
Compliance Measure WQ-1: Construction General Permit	Prior to commencement of construction activities, the proposed project shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ, NPDES No. CAS000002) (Construction General Permit) or any other subsequent permit. This shall include submission of Permit Registration Documents (PRDs), including a Notice of Intent (NOI) for coverage under the permit to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained from SMARTS. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to affect water quality. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater and include Best	Prior to Construction	County of San Benito/ Project Engineer	County of San Benito	Prior to, During, and After Construction	Preparation and implementation of SWPPP; submission of NOT

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
	Management Practices (BMPs) to ensure that the potential for soil erosion, sedimentation, and spills is minimized and to control the discharge of pollutants in stormwater runoff as a result of construction activities. Upon completion of construction, a Notice of Termination (NOT) shall be submitted via SMARTS.					
Compliance Measure WQ-2: Postconstruction Construction General Permit Requirements	Final design of the proposed project shall comply with the postconstruction requirements of the Construction General Permit. A Postconstruction Water Balance Calculator shall be submitted as part of the PRDs that are submitted to the SWRCB via SMARTS. In compliance with the postconstruction requirements of the Construction General Permit, the project engineers shall design the proposed project so that postconstruction runoff is equal to or less than pre-project runoff for the 85th percentile storm event or the smallest storm event that generates runoff, whichever is larger. Additionally, the project engineer shall design the proposed project to preserve the preconstruction drainage density of Tres Pinos Creek.	Prior to Construction	Project Engineers/ County of San Benito	County of San Benito	Prior to, During, and After Construction	Preparation and submission of Postconstruction Water Balance Calculator; project design in compliance with the Construction General Permit
Compliance Measure NOI-1: Construction Hours	During construction, the construction contractor shall ensure that construction activities on the project site occur Monday through Saturday between the hours of 7:00 a.m. and 7:00 p.m. to comply with construction noise exemptions set forth by San Benito County Code Chapters 19.39 and 25.37. No construction activity may occur on the project site outside of these hours, on a Sunday, or on a federal/State holiday.	During Construction	County Contractor	County of San Benito	During Construction	Compliance with applicable construction noise exemptions

Table 6.A: Panoche Road Bridge Replacement Project Mitigation Monitoring and Reporting Program

Mitigation/ Compliance Measure	Avoidance and Minimization Measure	Timing	Implementing Party	Monitoring Party	Frequency and Duration of Monitoring	Performance Criteria
Compliance Measure NOI-2: Muffler Compliance	During construction, the contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without its appropriate muffler.	During Construction	County Contractor	County Contractor/ County of San Benito	During Construction	Installation and use of appropriate mufflers on any internal combustion engines
Mitigation Measure TR-1: Transportation Management Plan (TMP)	As part of the project final design, the County of San Benito (County), in coordination with emergency service providers and the California Department of Transportation (Caltrans), shall prepare a TMP to determine the traffic control approach (e.g., flagging and signage) and notify neighboring property owners of the lane closure. During construction, the County shall require the construction contractor to adhere to all requirements of the TMP.	Prior to Construction	County Contractor/ County of San Benito	County of San Benito	During Construction	Preparation of a TMP and adherence to all requirements

APPENDIX A

VISUAL IMPACT ASSESSMENT

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CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: July 12, 2021

TO: Caltrans D5: Environmental Stewardship Branch
Kelso Vidal, Environmental Planner

FROM: Chris Graham
LSA Senior Environmental Planner

SUBJECT: Panoche Road Bridge (No. 43C0027) Replacement at Tres Pinos Creek Scenic Resources Evaluation and Visual Impact Assessment

San Benito County (County), with Federal Highway Administration (FHWA) funding, and in conjunction with the California Department of Transportation (Caltrans), proposes to replace the Panoche Road Bridge (43C-0027) over Tres Pinos Creek (herein referred to the "proposed Project" or "Project") with a longer and wider bridge (43C-0070).

The purpose of this Visual Impact Assessment Memorandum is to document potential visual impacts that may be generated due to implementation of the proposed Project. Visual impacts are demonstrated by identifying visual resources in the Project study area, measuring the amount of change that would occur as a result of the Project, and predicting how the affected public would respond to or perceive those changes. The *Questionnaire to Determine Visual Impact Assessment (VIA) Level* was prepared and the outcome indicated that a VIA Memorandum is the appropriate level of documentation for this Project.

PROJECT DESCRIPTION

The proposed Project is located on Panoche Road in a rural portion of San Benito County. The Project site is located approximately 9.5 miles east of State Route 25 and 23 miles west of Interstate 5. **Figure 1**: **Regional Location** and **Figure 2: Project Vicinity** shows the location of the proposed Project on a regional and local basis, respectively.

Actions associated with the proposed Project includes the following: existing bridge demolition; channel rock slope protection (RSP) in Tres Pinos Creek; new bridge construction; approach roadway work; metal beam guard rail installation; bridge railing installation; various construction activities; temporary traffic control during construction activities; right-of-way acquisition and temporary construction easement acquisition; and, utility relocation. The total length of the proposed Project will be approximately 685 feet, which includes approximately 550 feet of roadway work beyond the bridge abutments. The Project area will total approximately 3.2 acres.

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The existing three span bridge along Panoche Road is 87 feet long, 15.75 feet wide, with non-standard bridge barriers between 27 and 32 inches in height consisting of a combination of side-mounted metal beam guard railing and steel grating. The new two-span bridge will be approximately 132 feet long with two equal spans, by 35.5 feet wide (two 12-foot wide lanes with adjacent 4-foot wide paved shoulders on each side), and will include solid concrete Manual for Assessing Safety Hardware (MASH) approved Caltrans Standard Type 836 barriers approximately 36-inches in height. A shorter length alternative crash cushion system will be installed at the northwest corner of the new bridge to maintain access to a residential gated driveway located adjacent to the Project boundary. A stream diversion will be implemented during construction of the bridge pier, as water in this section of Tres Pinos Creek generally flows year-round, fed mostly by underground springs in the summer months. The new bridge type is a cast-in-place (CIP) pre-stressed concrete slab with a structure depth of 2 feet. Bridge construction will require falsework in the Tres Pinos Creek channel spanning over the wetted creek area.

Roadway work would consist of realigning the roadway downstream (southerly) of the existing bridge to allow construction of the new bridge in one stage while maintaining traffic flow on the existing alignment during construction. The proposed shifted roadway alignment would improve roadway geometry by eliminating the slight "S" curve over the existing bridge.

Demolition of the existing bridge will require construction of a temporary decking or other system over the creek channel to avoid dropping debris into the water. The existing bridge will be removed after construction of the new bridge is completed. Scour countermeasures will be used leaving either all or a portion of the existing east abutment in place and removing the west abutment. The creek bank will be re-graded to remove a portion of the artificial fill material that was placed during construction of the existing bridge.

An unnamed tributary channel runs east to west on the west bank of Tres Pinos Creek adjacent to the existing bridge. This tributary discharges into Tres Pinos Creek. The channel currently runs between the southern edge of Panoche Road and the toe of a steep hillside adjacent to the road, past the existing east bridge abutment and into the creek. Because the alignment of the roadway is shifting to the south, this channel will be covered by the construction of the new road bed; as such, a new channel will be graded along the south edge of the realigned road. A portion of the realigned channel will be rectangular in shape, and bound between the vertical wing wall of the bridge (at the southeast corner of the bridge) and a vertical retaining wall that will retain a new cut slope in the adjacent hillside. The portion of channel realignment will be approximately 130 feet long. A retaining wall will be constructed against the hillside east of the creek and south of the roadway to minimize excavation into the hillside. The wall will allow the unnamed tributary to remain as an open channel and minimize biological impacts by allowing for wildlife passage. The wall length is estimated to be 140 feet long.

A natural spring located on the private parcel, east of the Project site, provides significant water supply for a large ranch operation. The landowner has a spring box and pump house located approximately 80 feet northeast of the Project site. Construction activities at the Project site will be monitored to avoid impacts to the property owner's natural spring and the supplying aquifer. Rock

slope protection will be placed on the banks of Tres Pinos Creek to protect the abutment from hydraulic scour. The rock slope protection blanket will continue upstream on the east bank to mitigate for increased channel velocities (in the vicinity of the natural spring) that result from removing the existing bridge and widening the channel with the longer bridge. The rock slope protection blanket will be placed on the existing bank surface, without excavating into the bank, in order to avoid affecting the natural spring.

VISUAL SETTING

The proposed Project is located in a rural portion of San Benito County approximately 25 miles from Hollister. The Project area is mostly surrounded by open space occupied by natural vegetation; however, two rural single-family residential units on a large parcel are located east of the Project site. The Project spans over the perennial Tres Pinos Creek whose banks are occupied by natural vegetation and trees. The Project is consistent with the land uses within the Project corridor and study area. The proposed Project and adjacent land have no federal or locally designated scenic resources and Panoche Road is not designated as a Scenic Highway or Scenic Resource, nor is it located within a Scenic Corridor.

Visual sensitive receptors in the Project area include people traveling in vehicles along Panoche Road and residents at the two residential units east of the Project site.

ASSESSMENT METHODOLOGY

To determine the potential effects of the proposed Project improvements on the visual environment and sensitive receptors, photographs of the site and surrounding area were taken in April 2020 during a site visit. The site visit and representative photographs are used to establish the scenic character and quality of the Project area. **Figure 3: Representative Photographs** shows photographs of the existing conditions in the Project area.

VISUAL RESOURCE CHANGE

Review of the Project corridor and the Project design plans indicate that the new bridge would not result in substantial adverse impacts to the visual character of the Project area. Construction activities have the potential to change the visual character of the site from the perspective of sensitive receptors; however, such changes would be temporary during the construction period of the Project. Some vegetation and trees may have to be removed to accommodate development of the new bridge; however, the minimization measure discussed below will require revegetation to conserve the visual character of the site, once the Project is complete and operational. Rock slope protection will be installed within the creek bed which would change the visual characteristics of the creek bed; however, views of the creek where the rock slope will be installed will be partially obstructed with vegetation.

The Project would replace the existing Panoche Road Bridge with a new longer and wider bridge on an improved roadway alignment to improve safety and meet current American Association of State and Highway Transportation Official's standards for design speed and/or bridge width. Overall these improvements will not alter the existing visual resources of the area and is consistent with the visual

context for the area. This analysis concludes that the proposed Project will not adversely affect any designated scenic resource as defined by CEQA statutes or guidelines, or by Caltrans policy.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The proposed Project will implement the following minimization measure to ensure that revegetation of disturbed areas will occur:

- During rock slope protection (RSP) installation, native topsoil from the channel will be incorporated within the RSP to provide a seeding and planting medium. Areas of RSP above the Ordinary High Water Mark (OHWM) will be revegetated with the seed mix specified below in **Table A: Native Species Mix**. In addition, locally-obtained willow cuttings/poles will be installed within the lower sections of the RSP near the OHWM.

Table A: Native Species Mix

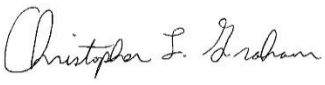
Scientific Name	Common Name	Rate (pounds per acre)	Minimum Percent Germination
Artemisia douglasiana	Mugwort	2.0	50
Bromus carinatus	California brome	5.0	85
Elymus trachycaulus	Slender wheatgrass	2.0	60
Eschscholzia californica	California poppy	2.0	70
Festuca mirostachys	Small fescue	10.0	80
Hordeum brachyantherum	California	2.0	80
Lupinus bicolor	Bicolored lupine	4.0	80

Source: LSA, Natural Environment Study, Panoche Road Bridge (No. 43C0027) Replacement, November 2020.

- Following completion of the new bridge, all fill slopes, temporary impact and/or otherwise disturbed areas shall be restored to preconstruction contours (as appropriate) and revegetated with the native seed mix species above in **Table A**. Invasive exotic plants shall be controlled to the maximum extent possible.

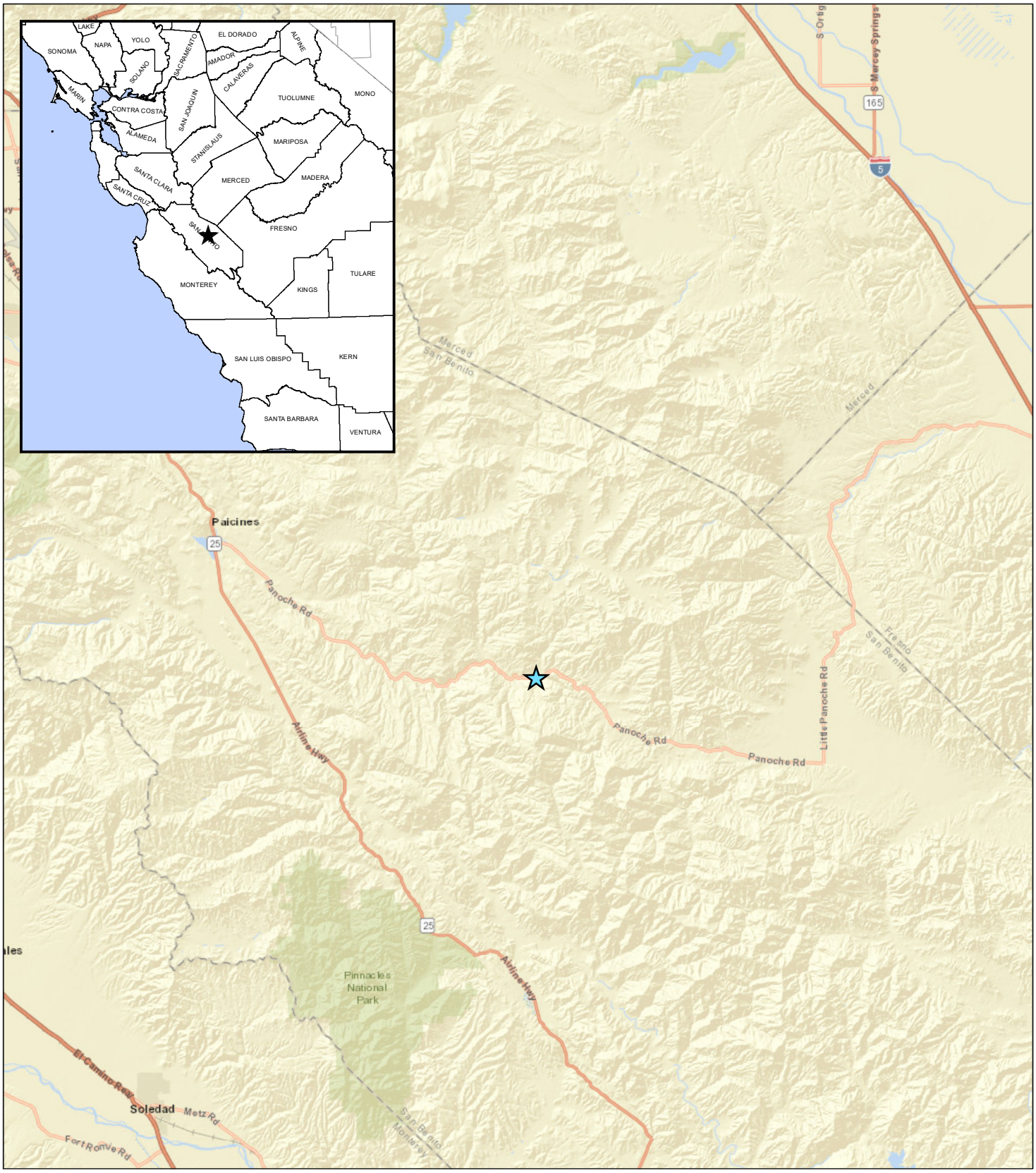
Implementation of these minimization measures will restore the visual character of the Project site (to near pre-construction conditions) once construction activities are complete and the Project is operational.

LSA Associates, Inc.



Christopher Graham
Senior Environmental Planner
Attachments:

Attachments: Figure 1: Regional Location



LEGEND

Project Location

FIGURE 1

Panoche Road Bridge (No. 43C0027) over
Tres Pinos Creek Replacement Project
San Benito County, California; Caltrans District 5
Federal Project No. BRLO-5943(056)

Regional Location

N

0 2.5 5

Miles

SOURCE: ESRI World Street Map (05/2020)

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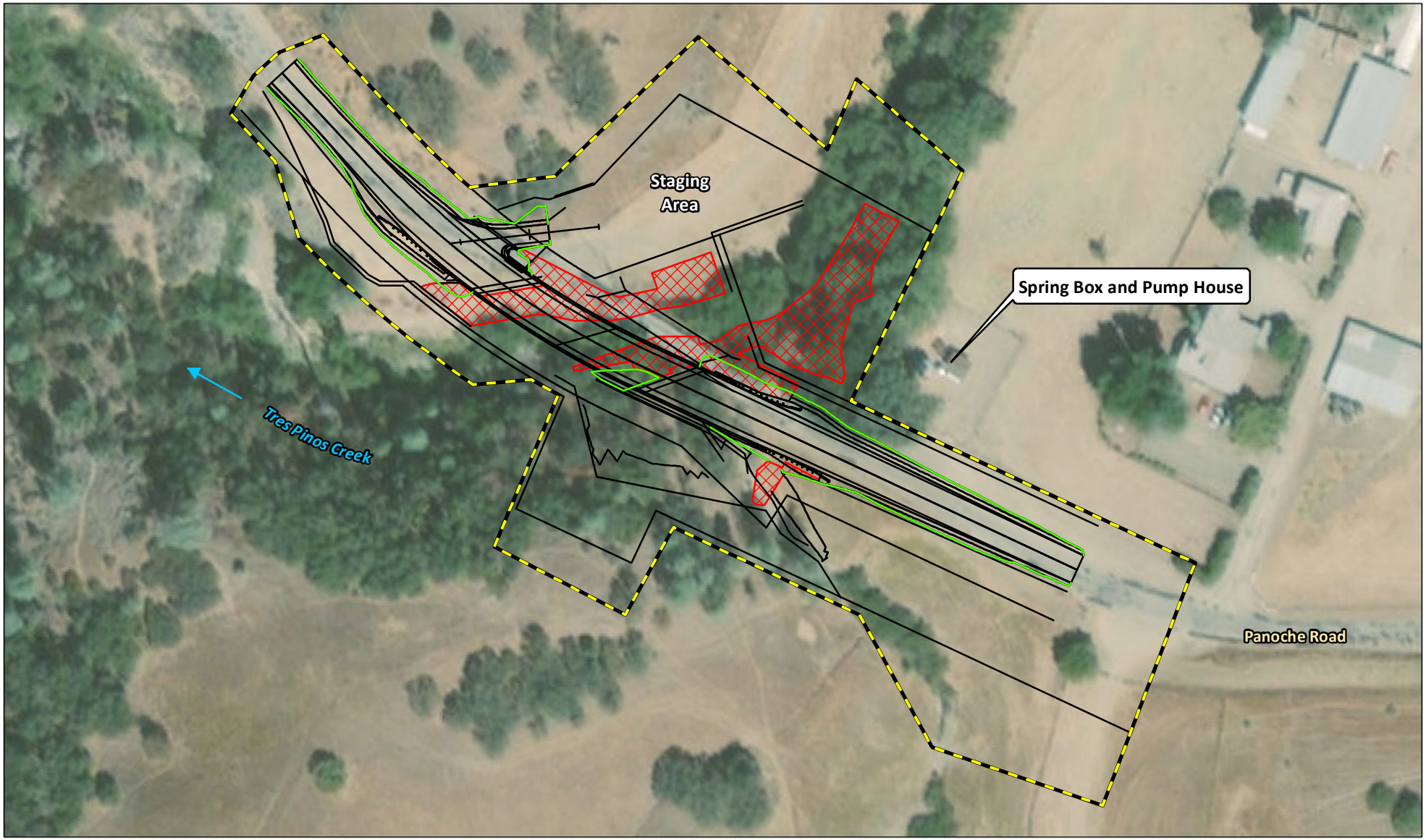

LEGEND

- Biological Study Area - (3.66 ac)
- Project Design
- Rock Slope Protection
- Cut and Fill

0 50 100
FEET

SOURCE: Basemap - ESRI World Imagery (10/2018); Design - Quincy Engineering (03/2020)

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FIGURE 4

Panoche Road Bridge (No. 43C0027) over
Tres Pinos Creek Replacement Project
San Benito County, California; Caltrans District 5
Federal Project No. BRLO-5943(056)

Biological Study Area and Project Design

On Panoche Road, looking east toward the Project site.

On Panoche Road, looking west toward the Project site.

On parcel 0271500030, looking southwest toward the pump house and Project site.

On parcel 0271500030, looking south-southwest toward the Project site.

LSA

Figure 3

Panoche Road Bridge Replacement Project
San Benito County, California

Representative Photos

Source: LSA (4/2020)

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APPENDIX B

CALEEMOD AIR QUALITY CALCULATIONS

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Road Construction Emissions Model
Data Entry Worksheet

Version 9.0.0

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	Panoche Road Bridge	
Construction Start Year	2025	Enter a Year between 2014 and 2040 (inclusive)
Project Type	3	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	13.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the Ione formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	0.13	miles
Total Project Area	3.20	acres
Maximum Area Disturbed/Day	3.20	acres
Water Trucks Used?	1	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing	20.00		40.00
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing			
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving			

Mitigation Options

On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation		Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		1.30		1/1/2025
Grading/Excavation		5.20		2/10/2025
Drainage/Utilities/Sub-Grade		4.55		7/19/2025
Paving		1.95		12/5/2025
Totals (Months)		13		

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		2	60.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Grading/Excavation (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Paving (grams/mile)	0.03	0.41	3.08	0.11	0.05	0.02	1,661.43	0.00	0.26	1,739.28
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.05	0.42	0.01	0.01	0.00	221.28	0.00	0.03	231.65
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.01	0.00	0.00	0.00	3.16	0.00	0.00	3.31
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.01	0.00	0.00	0.00	3.16	0.00	0.00	3.31

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		0	0.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Grading/Excavation (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Paving (grams/mile)	0.03	0.41	3.08	0.11	0.05	0.02	1,661.43	0.00	0.26	1,739.28
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions User Input	User Override of Worker Commute Default Values	Default Values		
Miles/ one-way trip		20	Calculated	Calculated
One-way trips/day		2	Daily Trips	Daily VMT
No. of employees: Grubbing/Land Clearing	10	5	20	400.00
No. of employees: Grading/Excavation	10	28	20	400.00
No. of employees: Drainage/Utilities/Sub-Grade	10	18	20	400.00
No. of employees: Paving	10	8	20	400.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.01	0.78	0.06	0.05	0.02	0.00	295.84	0.00	0.01	297.52
Grading/Excavation (grams/mile)	0.01	0.78	0.06	0.05	0.02	0.00	295.84	0.00	0.01	297.52
Draining/Utilities/Sub-Grade (grams/mile)	0.01	0.78	0.06	0.05	0.02	0.00	295.84	0.00	0.01	297.52
Paving (grams/mile)	0.01	0.75	0.05	0.05	0.02	0.00	290.23	0.00	0.01	291.84
Grubbing/Land Clearing (grams/trip)	0.93	2.56	0.25	0.00	0.00	0.00	63.73	0.06	0.03	73.77
Grading/Excavation (grams/trip)	0.93	2.56	0.25	0.00	0.00	0.00	63.73	0.06	0.03	73.77
Draining/Utilities/Sub-Grade (grams/trip)	0.93	2.56	0.25	0.00	0.00	0.00	63.73	0.06	0.03	73.77
Paving (grams/trip)	0.90	2.51	0.24	0.00	0.00	0.00	62.53	0.06	0.03	72.27
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.05	0.80	0.06	0.04	0.02	0.00	263.69	0.01	0.01	265.62
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.00	0.00	0.00	0.00	3.77	0.00	0.00	3.80
Pounds per day - Grading/Excavation	0.05	0.80	0.06	0.04	0.02	0.00	263.69	0.01	0.01	265.62
Tons per const. Period - Grading/Excavation	0.00	0.05	0.00	0.00	0.00	0.00	15.08	0.00	0.00	15.19
Pounds per day - Drainage/Utilities/Sub-Grade	0.05	0.80	0.06	0.04	0.02	0.00	263.69	0.01	0.01	265.62
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.04	0.00	0.00	0.00	0.00	13.20	0.00	0.00	13.29
Pounds per day - Paving	0.05	0.77	0.06	0.04	0.02	0.00	258.69	0.00	0.01	260.55
Tons per const. Period - Paving	0.00	0.02	0.00	0.00	0.00	0.00	5.55	0.00	0.00	5.59
Total tons per construction project	0.01	0.11	0.01	0.01	0.00	0.00	37.60	0.00	0.00	37.88

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values	Calculated	User Override of	Default Values	Calculated

User Input	Default # Water Trucks	Number of Water Trucks	Round Trips/Vehicle/Day	Round Trips/Vehicle/Day	Trips/day	Miles/Round Trip	Miles/Round Trip	Daily VMT
Grubbing/Land Clearing - Exhaust		1		5	5		8.00	40.00
Grading/Excavation - Exhaust		1		5	5		8.00	40.00
Drainage/Utilities/Subgrade		1		5	5		8.00	40.00
Paving		1		5	5		8.00	40.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Grading/Excavation (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Draining/Utilities/Sub-Grade (grams/mile)	0.03	0.41	3.06	0.11	0.05	0.02	1,672.88	0.00	0.26	1,751.28
Paving (grams/mile)	0.03	0.41	3.08	0.11	0.05	0.02	1,661.43	0.00	0.26	1,739.28
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.04	0.32	0.01	0.00	0.00	147.52	0.00	0.02	154.44
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	2.11	0.00	0.00	2.21
Pounds per day - Grading/Excavation	0.00	0.04	0.32	0.01	0.00	0.00	147.52	0.00	0.02	154.44
Tons per const. Period - Grading/Excavation	0.00	0.00	0.02	0.00	0.00	0.00	8.44	0.00	0.00	8.83
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.04	0.32	0.01	0.00	0.00	147.52	0.00	0.02	154.44
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.02	0.00	0.00	0.00	7.38	0.00	0.00	7.73
Pounds per day - Paving	0.00	0.04	0.32	0.01	0.00	0.00	146.51	0.00	0.02	153.38
Tons per const. Period - Paving	0.00	0.00	0.01	0.00	0.00	0.00	3.14	0.00	0.00	3.29
Total tons per construction project	0.00	0.01	0.05	0.00	0.00	0.00	21.07	0.00	0.00	22.06

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing		3.20	32.00	0.46	6.66	0.10
Fugitive Dust - Grading/Excavation		3.20	32.00	1.83	6.66	0.38
Fugitive Dust - Drainage/Utilities/Subgrade		3.20	32.00	1.60	6.66	0.33

Off-Road Equipment Emissions

Grubbing/Land Clearing

Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Crawler Tractors	0.37	2.10	3.96	0.15	0.14	0.01	758.27	0.25	0.01	766.45
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Excavators	0.33	6.52	2.44	0.12	0.11	0.01	1,000.68	0.32	0.01	1,011.46
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment — If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing	pounds per day		0.77	8.92	6.76	0.29	0.27	0.02	1,808.26	0.57	0.02	1,827.48
Grubbing/Land Clearing	tons per phase		0.01	0.13	0.10	0.00	0.00	0.00	25.86	0.01	0.00	26.13

Grading/Excavation

Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
	0.00		Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Cranes	0.31	1.74	3.17	0.13	0.12	0.01	558.83	0.18	0.01	564.85
	2		Model Default Tier	Crawler Tractors	0.75	4.21	7.92	0.31	0.28	0.02	1,516.54	0.49	0.01	1,532.89
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4		Model Default Tier	Excavators	0.67	13.04	4.89	0.24	0.22	0.02	2,001.35	0.65	0.02	2,022.93
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Graders	0.62	3.19	6.91	0.22	0.20	0.01	1,280.48	0.41	0.01	1,294.28
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3		Model Default Tier	Rollers	0.41	5.54	4.33	0.22	0.20	0.01	762.19	0.25	0.01	770.40
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3		Model Default Tier	Rubber Tired Loaders	0.69	4.41	5.58	0.19	0.17	0.02	1,816.87	0.59	0.02	1,836.49
	4		Model Default Tier	Scrapers	2.69	21.52	25.48	1.00	0.92	0.06	5,872.59	1.90	0.05	5,935.90
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.26	4.46	2.67	0.11	0.10	0.01	604.11	0.20	0.01	610.61
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment — If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab

Number of Vehicles	Equipment Tier	Type		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grading/Excavation	pounds per day		6.46	58.41	61.30	2.44	2.24	0.15	14,462.27	4.67	0.13	14,617.90
Grading/Excavation	tons per phase		0.37	3.34	3.51	0.14	0.13	0.01	827.24	0.27	0.01	836.14

Drainage/Utilities/Subgrade

Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Air Compressors	0.23	2.41	1.53	0.07	0.07	0.00	375.26	0.02	0.00	376.62

			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Generator Sets	0.27	3.66	2.40	0.10	0.10	0.01	623.04	0.02	0.00	625.01
	2		Model Default Tier	Graders	0.62	3.19	6.91	0.22	0.20	0.01	1,280.48	0.41	0.01	1,294.28
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Plate Compactors	0.04	0.21	0.25	0.01	0.01	0.00	34.48	0.00	0.00	34.65
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Pumps	0.29	3.72	2.43	0.10	0.10	0.01	623.04	0.03	0.00	625.06
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Rough Terrain Forklifts	0.10	2.29	1.28	0.04	0.03	0.00	333.72	0.11	0.00	337.31
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4		Model Default Tier	Scrapers	2.69	21.52	25.48	1.00	0.92	0.06	5,872.59	1.90	0.05	5,935.90
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.26	4.46	2.67	0.11	0.10	0.01	604.11	0.20	0.01	610.61
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	4.55	41.75	43.31	1.66	1.55	0.10	9,796.03	2.69	0.09	9,889.00
	Drainage/Utilities/Sub-Grade		tons per phase	0.23	2.09	2.17	0.08	0.08	0.01	490.29	0.13	0.00	494.94

Paving	Default Number of Vehicles	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Mitigation Option Default Equipment Tier		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*			Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Pavers	0.17	2.90	1.58	0.07	0.07	0.00	454.99	0.15	0.00	459.90
	1		Model Default Tier	Paving Equipment	0.15	2.55	1.26	0.06	0.06	0.00	394.32	0.13	0.00	398.57
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Rollers	0.14	1.85	1.44	0.07	0.07	0.00	254.06	0.08	0.00	256.80
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.26	4.46	2.67	0.11	0.10	0.01	604.11	0.20	0.01	610.61
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving		pounds per day	0.78	12.05	7.32	0.33	0.31	0.02	1,756.80	0.56	0.02	1,775.45
	Paving		tons per phase	0.02	0.26	0.16	0.01	0.01	0.00	37.68	0.01	0.00	38.08
Total Emissions all Phases (tons per construction period) =>				0.62	5.82	5.93	0.23	0.22	0.01	1,381.07	0.42	0.01	1,395.30

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Panoche Road Bridge

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.82	9.81	7.56	32.35	0.35	32.00	6.95	0.29	6.66	0.03	2,440.76	0.58	0.08	2,479.19
Grading/Excavation	6.51	59.24	61.68	34.49	2.49	32.00	8.92	2.26	6.66	0.15	14,873.49	4.67	0.16	15,037.96
Drainage/Utilities/Sub-Grade	4.60	42.59	43.69	33.71	1.71	32.00	8.23	1.57	6.66	0.11	10,207.25	2.70	0.12	10,309.06
Paving	0.83	12.85	7.70	0.38	0.38	0.00	0.33	0.33	0.00	0.02	2,162.01	0.56	0.04	2,189.37
Maximum (pounds/day)	6.51	59.24	61.68	34.49	2.49	32.00	8.92	2.26	6.66	0.15	14,873.49	4.67	0.16	15,037.96
Total (tons/construction project)	0.63	5.94	5.99	4.13	0.24	3.89	1.03	0.22	0.81	0.01	1,442.91	0.42	0.02	1,458.55

Notes:

Project Start Year ->	2025
Project Length (months) ->	13
Total Project Area (acres) ->	3
Maximum Area Disturbed/Day (acres) ->	3
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	40	0	60	0	400	40
Grading/Excavation	0	0	0	0	400	40
Drainage/Utilities/Sub-Grade	0	0	0	0	400	40
Paving	0	0	0	0	400	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Panoche Road Bridge

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.14	0.11	0.46	0.01	0.46	0.10	0.00	0.10	0.00	34.90	0.01	0.00	32.16
Grading/Excavation	0.37	3.39	3.53	1.97	0.14	1.83	0.51	0.13	0.38	0.01	850.76	0.27	0.01	780.34
Drainage/Utilities/Sub-Grade	0.23	2.13	2.19	1.69	0.09	1.60	0.41	0.08	0.33	0.01	510.87	0.14	0.01	468.08
Paving	0.02	0.28	0.17	0.01	0.01	0.00	0.01	0.01	0.00	0.00	46.38	0.01	0.00	42.60
Maximum (tons/phase)	0.37	3.39	3.53	1.97	0.14	1.83	0.51	0.13	0.38	0.01	850.76	0.27	0.01	780.34
Total (tons/construction project)	0.63	5.94	5.99	4.13	0.24	3.89	1.03	0.22	0.81	0.01	1442.91	0.42	0.02	1,323.19

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

APPENDIX C

NATURAL ENVIRONMENTAL STUDY (NES) AND BIOLOGICAL ASSESSMENT (BA)

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Natural Environment Study

Panoche Road Bridge (No. 43C0027) Replacement at Tres Pinos Creek

San Benito County, California

05-SBT-0-CR

Federal Project No. BRLO-5943 (056)

September 2021

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Natural Environment Study

Panoche Road Bridge (No. 43C0027) Replacement at Tres Pinos Creek

San Benito County, California

05-SBT-0-CR

Federal Project No. BRLO-5943 (056)

September 2021

STATE OF CALIFORNIA

Department of Transportation

San Benito County Department of Public Works

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Summary

San Benito County (County), with Federal Highway Administration (FHWA) funding, and in conjunction with the California Department of Transportation (Caltrans), proposes to replace the Panoche Road Bridge (No. 43C0027) over Tres Pinos Creek with a longer and wider bridge (No. 43C0070). The bridge is located in a rural area approximately 25 miles (mi) southeast of Hollister.

The existing one-lane bridge does not meet current design standards for minimum design speed or width. The purpose of the proposed project is to replace the existing bridge with a longer, wider structure, and to shift the location of the new bridge to match a straightened roadway alignment. The new bridge will provide two 12-foot (ft) traffic lanes with adjacent 4-ft shoulders meeting current design standards.

Activities associated with the proposed Project would include: existing bridge demolition; channel rock slope protection (RSP); approach roadway work; new bridge construction; metal beam guard rail installation; bridge railing installation; temporary traffic control during construction; right-of-way acquisition and temporary construction easements; and utility relocation.

Work will be required in the live channel of Tres Pinos Creek during project construction and will include construction of a support pier, placement of rock slope protection (RSP), installation of temporary falsework, and removal of the existing bridge structure. To conduct these activities, a flow diversion (dewatering) will be required. Dewatering will consist of a corrugated metal pipe (CMP) appropriately sized for expected flows to direct the flow of water through the project work area. The CMP will be placed along the low-flow invert of the natural creek and a small earthen berm will be installed at each end of the pipe to direct water into the pipe. Clean sand and gravel will be used at the base of the berm to protect the existing creek channel. Both berms and CMP will be completely removed at the completion of project construction.

Project construction, including removal of the existing bridge and construction of the new bridge, will last for two construction seasons. Work within the live channel of Tres Pinos Creek will be limited to the period of June 15 through October 15.

The Biological Study Area (BSA) defined for the project comprises 3.66 acres (ac). Undeveloped natural areas within the BSA consist of Tres Pinos Creek, its associated riparian corridor, and outlying areas. Natural lands in the BSA include: California annual grassland series, arroyo willow series, mixed oak series, mulefat series, riverine, and riverine wetlands. Natural communities within the BSA total 3.02 ac. One other vegetation community not considered natural is also present: pasture, totaling 0.01 ac. The remainder of the BSA, totaling 0.63 ac, consists of developed areas. The area in which the BSA lies is mainly privately owned and undeveloped; developed areas consist of roads, a concrete low water crossing, and part of a rural residence.

Approximately 0.64 ac of California annual grassland series, arroyo willow series, mixed oak series, mulefat series, riverine, and riverine wetland vegetation will be

permanently impacted; temporary impacts to these same vegetation communities total approximately 0.76 ac.

Special status wildlife species that may occur in the BSA include Cooper's hawk, western burrowing owl, prairie falcon, Pacific pond turtle, San Joaquin whipsnake, coast horned lizard, California red-legged frog (CRLF), and South Central California Coast steelhead (SCCC steelhead). Nesting birds are also likely to be present on or under the bridge, or in vegetation within the BSA.

Several of the species listed above are federally listed species under the Federal Endangered Species Act (FESA). The proposed project may affect, and is likely to adversely affect, CRLF and SCCC steelhead; both species are listed as threatened under FESA. A Biological Assessment will be submitted to both the Unites States Fish and Wildlife Service and the National Marine Fisheries Service in support of consultation pursuant to Section 7 of FESA. It is anticipated that both agencies will concur with the above determinations and, with incorporation of the proposed avoidance and minimization efforts, the project will not jeopardize the continued existence of these species.

The project will result in minor permanent and temporary impacts to riparian, wetland, and aquatic habitat. The proposed project includes numerous avoidance and minimization measures for special status species and habitats to reduce the potential for adverse effects.

The project is likely to require an Army Corps of Engineers Nationwide Permit, a California Department of Fish and Wildlife Lake and Streambed Alteration Agreement, and a Water Quality Certification from the Regional Water Quality Control Board.

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List of Abbreviated Terms

ac	acre(s)
ACOE	Army Corps of Engineers
BMP	best management practices
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
Caltrans	California Department of Transportation
CMP	corrugated metal pipe
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
County	San Benito County
CRLF	California red-legged frog
CTS	California tiger salamander
CWA	Clean Water Act
EFH	Essential Fish Habitat
EO	Executive Order
ESA	Environmentally Sensitive Area
FESA	Federal Endangered Species Act
ft	foot/feet
LSA	LSA Associates, Inc.
MBTA	Migratory Bird Treaty Act
mi	mile(s)
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit
OHWM	ordinary high water mark
RSP	Rock slope protection
RWQCB	Regional Water Quality Control Board
SCCC	South Central California Coast (steelhead)
U.S.	United States
USFWS	United States Fish and Wildlife Service
WPCP	Water Pollution Control Program

Chapter 1. Introduction

San Benito County (County), with Federal Highway Administration funding, and in conjunction with the California Department of Transportation (Caltrans), proposes to replace the Panoche Road Bridge (No. 43C0027) over Tres Pinos Creek with a longer and wider bridge (No. 43C0070). The bridge is located in a rural area approximately 25 miles (mi) southeast of Hollister (Figures 1 through 3).

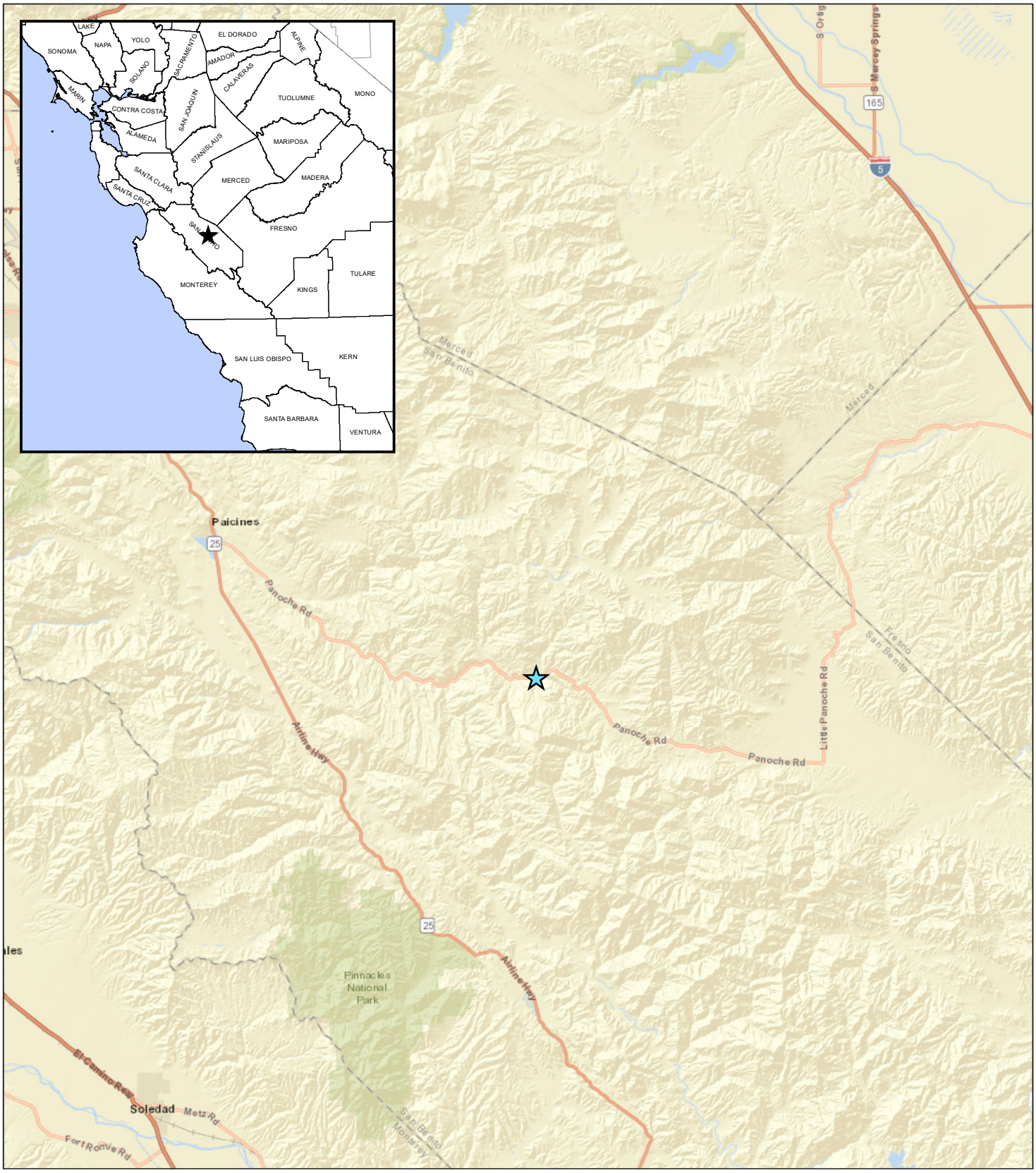
1.1. Project History

Panoche Road is classified as a 'Rural Major Collector' with an average daily traffic volume of approximately 150 vehicles. The road is situated roughly east to west, connecting State Route 25 and Interstate 5. Where Panoche Road crosses Tres Pinos Creek, the roadway alignment has a slight "S" curve to accommodate the angle of the bridge crossing, and does not meet current design standards for minimum design speed or width. East of the Project site, the condition of Panoche Road degrades, and, consequently, the resulting design speed hinders drivers from using the road as a preferred alternate route to Interstate 5.

The purpose of the proposed project is to replace the bridge with a longer, wider structure, and to shift the location of the new bridge to match a straightened roadway alignment. The new bridge will provide two 12-foot (ft) traffic lanes with adjacent 4 ft shoulders meeting current design standards.

The environmental document for this project was originally circulated for public review in June 2015. During the review period the California Department of Fish and Wildlife (CDFW) identified two concerns they had for the project: 1) The proposed rock weir in the channel and 2) the proposed culvert at the un-named channel that flows to Tres Pinos Creek. Subsequently, the County, consultant team, CDFW and Caltrans had several phone conversations to work through the concerns and discuss alternative designs that would have less impact than what had been proposed with no immediate resolution.

The design was revisited in 2019. The weir was removed in favor of a rock slope protection (RSP) "blanket" that would be placed up to 225 feet upstream of the proposed bridge on the existing bank. The design was also revised to realign the unnamed tributary so that it would remain as an open channel, and would run between the road and proposed retaining wall on the south side of the road.



LEGEND

Project Location

FIGURE 1

Panoche Road Bridge (No. 43C0027) over
Tres Pinos Creek Replacement Project
San Benito County, California; Caltrans District 5
Federal Project No. BRLO-5943(056)

Regional Location

N

0 2.5 5

Miles

SOURCE: ESRI World Street Map (05/2020)

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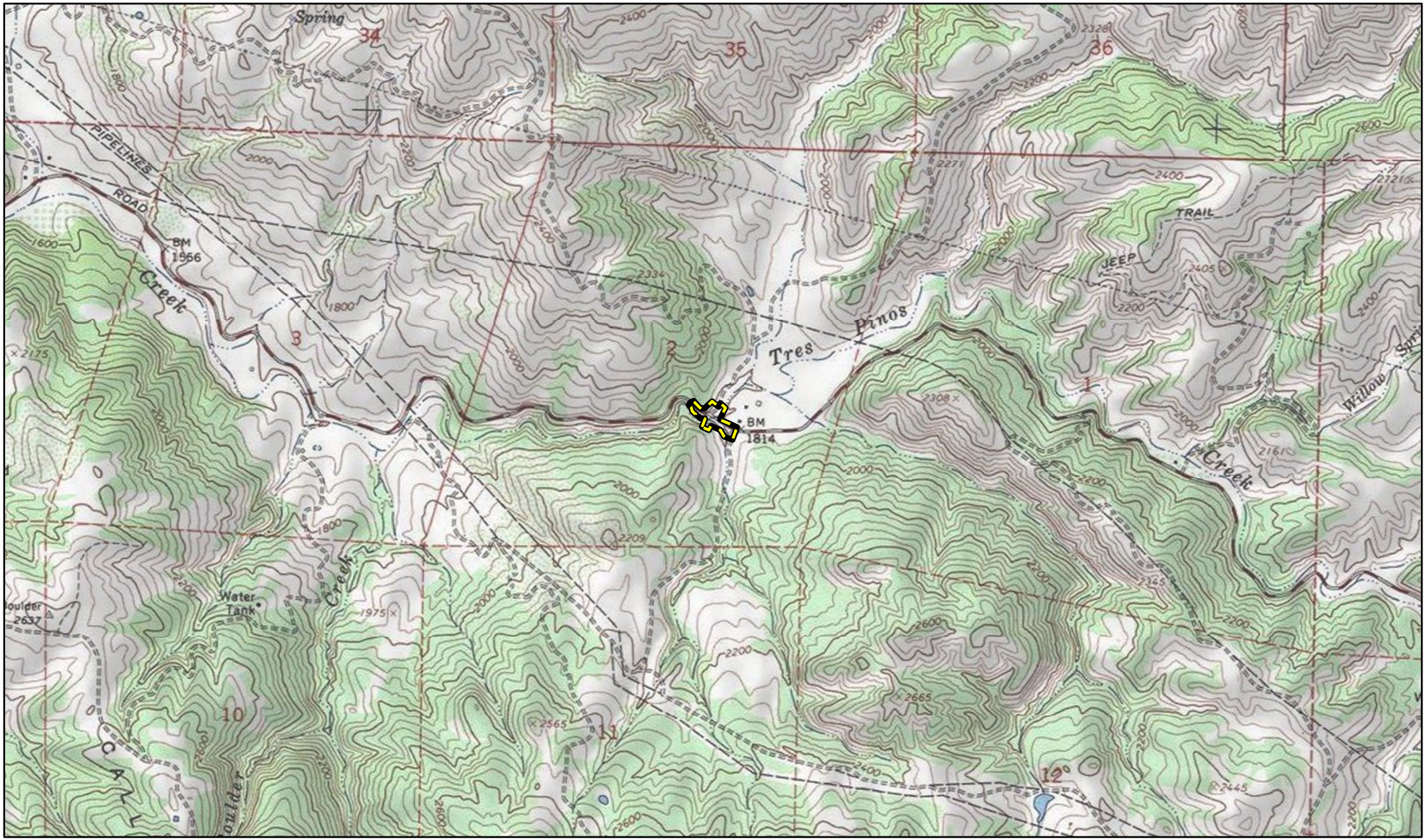

LEGEND

Biological Study Area - (3.66 ac)

FIGURE 2

Panoche Road Bridge (No. 43C0027) over
Tres Pinos Creek Replacement Project
San Benito County, California; Caltrans District 5
Federal Project No. BRLO-5943(056)

Biological Study Area on Topographic Base

0 1000 2000
FEET

SOURCE: USGS 7.5-minute topographic quadrangle Panoche Pass, CA (1968, 1971 ed.)

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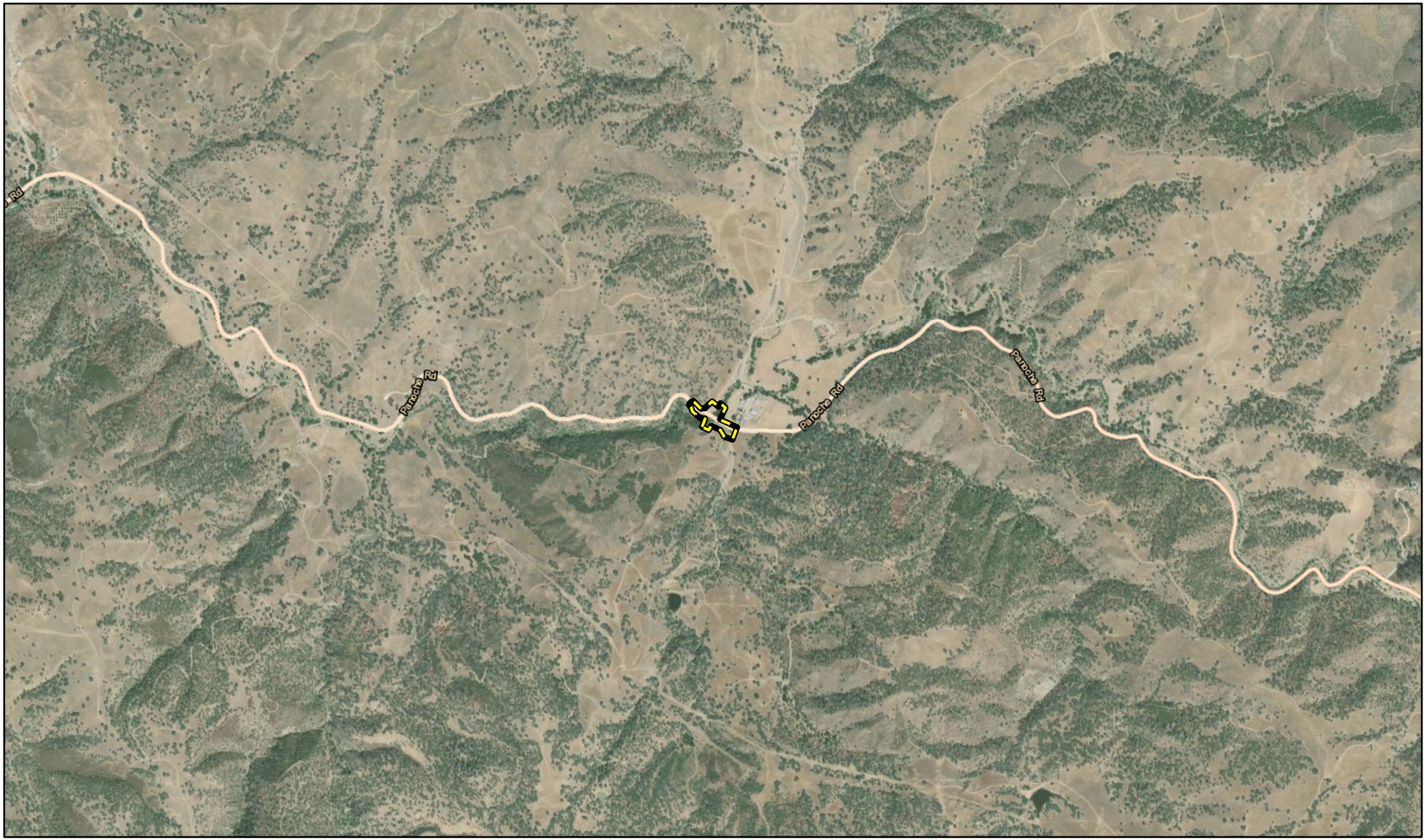

LEGEND

Biological Study Area - (3.66 ac)

FIGURE 3

0 1000 2000
FEET

SOURCE: ESRI World Imagery (10/2018)

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Panoche Road Bridge Replacement Project
San Benito County, California
Bridge No. 43C0027; Caltrans District 5
Federal Project No. BRLO-5943(056)

Biological Study Area on Aerial Base

1.2. Project Description

Activities associated with the proposed Project would include: existing bridge demolition; channel RSP; approach roadway work; new bridge and retaining wall construction; metal beam guard rail installation; bridge railing installation; temporary traffic control during construction; right-of-way acquisition and temporary construction easements; and utility relocation.

Prior to construction activities, the Tres Pinos Creek channel will be clearly delineated by environmentally sensitive area (ESA) fencing and barrier fencing to keep construction equipment and personnel out of non-work areas. All necessary Best Management Practices (BMPs) will be implemented to ensure that no soil or other materials are discharged into Tres Pinos Creek. BMPs will include the used of wattles and silt fences along access roads and around staging and equipment storage areas.

The total length of the proposed Project would be approximately 685 ft, which includes approximately 550 ft of roadway work beyond the bridge abutments. Roadway work would consist of realigning the roadway downstream (southerly) of the existing bridge to allow for construction of the new bridge in one stage while maintaining traffic flow on the existing alignment during construction. The proposed shifted alignment would improve roadway geometry by eliminating the slight “S” curve over the existing bridge.

The proposed bridge would be approximately 132 ft long with two equal spans supported by a pier, by approximately 35 ft wide. The bridge foundation type is expected to be spread footings at the abutments and piers. The footings would be buried below the channel flowline. The draft plans in Appendix A show preliminary design of the structure (Foundation Plan, Abutment Plans and Pier Details). The footings would be protected from hydraulic scour with RSP. The size and extent of the RSP expected is shown in the draft plans in Appendix A (Construction Details Sheets C-4 and C-5. The proposed structure type is a cast-in-place pre-stressed concrete slab with a structure depth of approximately 2.0 ft. Bridge construction would require falsework in the Tres Pinos Creek channel spanning over the wetted creek area.

The new bridge would have adequate freeboard to address the expected drift material and allow for drift in the channel. The new bridge would provide two 12-ft traffic lanes with adjacent 4-ft wide paved shoulders on either side. The approach rail type at the northwest corner of the bridge would be selected in order to maintain access to a gated driveway located adjacent to the Project boundary. The driveway intersection at Panoche Road would be shifted west by up to 40 ft to improve truck turning access.

A flow diversion will be required during construction of the pier, as water in this section of Tres Pinos Creek generally flows year-round, fed mostly by underground springs in the summer months. The flow diversion will consist of a corrugated metal pipe (CMP) appropriately sized for expected flows. The CMP will be placed along the low-flow invert of the natural creek and a small earthen berm will be installed at each end of the pipe to direct water into the pipe. Clean sand and gravel will be used at the base of the berm to protect the existing creek channel. Both berms and CMP will be completely removed at the completion of project construction.

Demolition of the existing bridge would involve constructing a temporary decking or other system over the creek channel to avoid dropping debris into the water. The existing bridge would be removed after construction of the new bridge is completed. Scour countermeasures would be used leaving either all or a portion of the existing east abutment in place and removing the west abutment, depending on its condition after further examination. For the purposes of the impact analysis, it was conservatively assumed that the east abutment will be removed. The creek bank would be re-graded to remove a portion of the artificial fill material that was placed during construction of the existing bridge.

An unnamed tributary is located south of the bridge crossing and flows east to west, discharging into Tres Pinos Creek on the west bank adjacent to the existing bridge. The tributary channel currently flows between the southern edge of Panoche Road and the toe of a steep hillside adjacent to the road, past the existing east bridge abutment and into the creek. Because the alignment of the roadway is shifting to the south, this channel would essentially be covered by the construction of the new road bed. The proposed solution is to grade a new channel located along the south edge of the realigned road. A portion of the realigned channel will be rectangular in shape, and bound between the vertical wing wall of the bridge (at the southeast corner of the bridge) and a vertical retaining wall that will retain a new cut slope in the adjacent hillside. The wall length is estimated to be approximately 140 ft long.

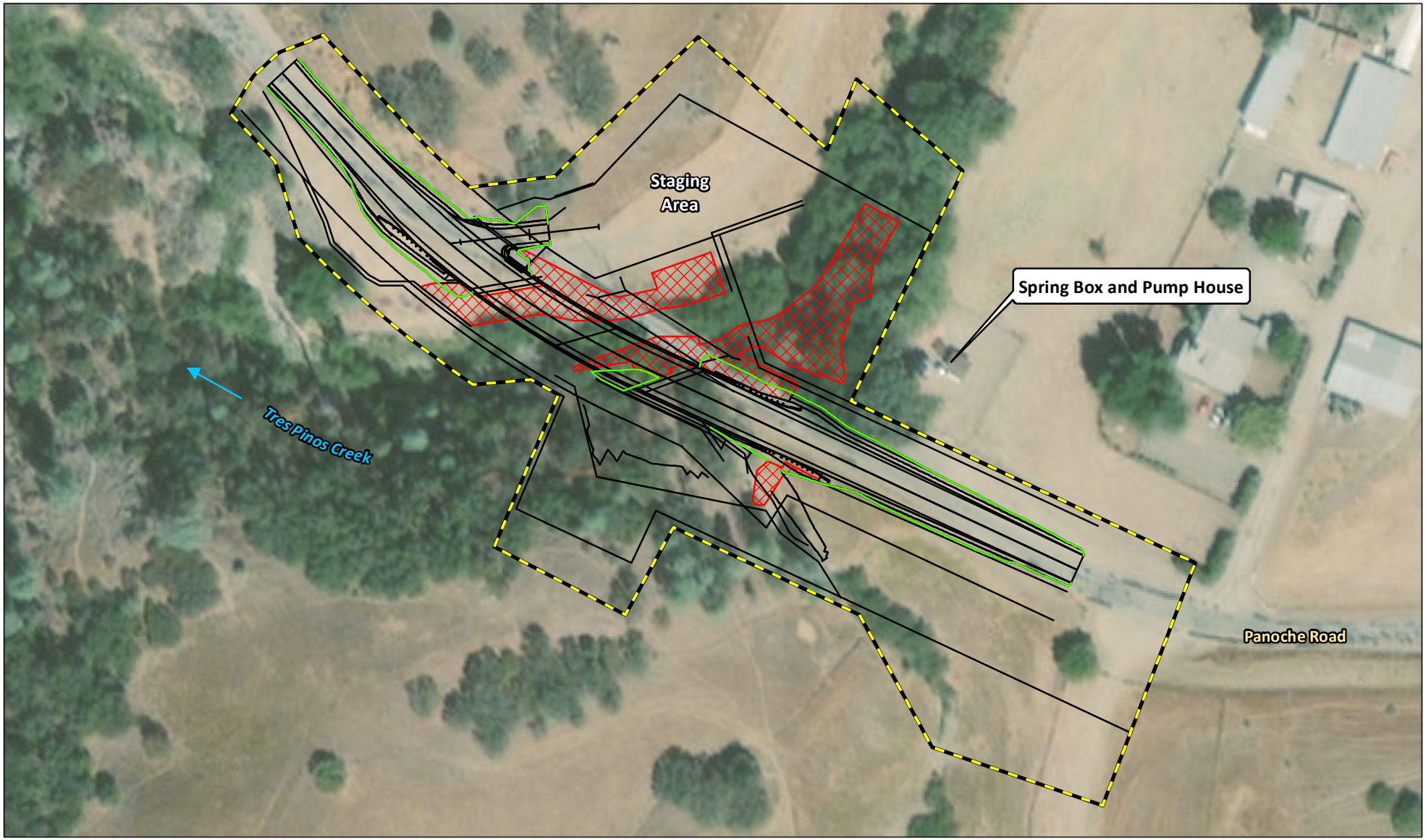
One individual owns all the property surrounding the Project site. Panoche Road is maintained by the County of San Benito through a prescriptive easement. A natural spring located on the private parcel provides significant water supply for a large ranch operation. Engineering studies have been conducted and completed by the land owner identifying soil layers and the approximate extent of the aquifer supplying the natural spring. The landowner has a spring box and pump house located approximately 80 ft northeast of the Project site. Construction activities at the Project site will be monitored to

avoid impacts to the property owner's natural spring and the supplying aquifer.

RSP will be placed on the banks of the creek to protect the abutment from hydraulic scour. The RSP blanket will continue upstream on the east bank to mitigate for increased channel velocities (in the vicinity of the natural spring) that result from removing the existing bridge and widening the channel with the longer bridge. The RSP blanket will be placed on the existing bank surface, without excavating into the bank, in order to avoid affecting the natural spring.

Temporary impacts to native vegetation communities would be mitigated through on-site, like-kind revegetation. All temporary barriers, fencing, and erosion control materials would be removed following the completion of project construction or revegetation activities, where applicable.

Figure 4 shows the project design and Biological Study Area (BSA) overlaid on an aerial photo base. Design plans are located in Appendix A.



LEGEND

- Biological Study Area - (3.66 ac)
- Project Design
- Rock Slope Protection
- Cut and Fill

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SOURCE: Basemap - ESRI World Imagery (10/2018); Design - Quincy Engineering (03/2020)

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FIGURE 4

Panoche Road Bridge (No. 43C0027) over
Tres Pinos Creek Replacement Project
San Benito County, California; Caltrans District 5
Federal Project No. BRLO-5943(056)

Biological Study Area and Project Design

Chapter 2. Study Methods

2.1. Regulatory Requirements

2.1.1. Special Status Species

Special status species include plants and animals that are: 1) listed as rare, threatened, or endangered by United States Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW) under State or federal endangered species acts; 2) are on formal lists as candidates for listing as threatened or endangered; 3) are on formal lists as species of concern; or 4) are otherwise recognized at the State, federal, or local level as sensitive.

2.1.1.1. Federal and California Endangered Species Acts

Under the Federal Endangered Species Act (FESA), it is unlawful to "take any species listed as threatened or endangered". "Take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." An activity is defined as "take" even if it is unintentional or accidental. Take provisions under FESA apply only to listed fish and wildlife species under the jurisdiction of the USFWS and/or the National Oceanic & Atmospheric Administration, National Marine Fisheries Service (NMFS). Consultation with USFWS or NMFS is required if a project "may affect" a listed species.

When a species is listed, the USFWS and/or the NMFS, in most cases, must officially designate specific areas as critical habitat for the species. Consultation with USFWS and/or the NMFS is required for projects that include a federal action or federal funding if the project may affect designated critical habitat.

Under the California Endangered Species Act (CESA), it is unlawful to "take" any species listed as rare, threatened, or endangered. Under CESA, "take" means to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". CESA take provisions apply to fish, wildlife, and plant species. Take may result whenever activities occur in areas that support a listed species. Consultation with CDFW is required if a project will result in "take" of a listed species.

2.1.1.2. Magnuson-Stevens Fishery Conservation and Management Act

Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Essential Fish Habitat (EFH) must be designated in every fishery management plan.

Public Law 104-297, the Sustainable Fisheries Act of 1996, amended the MSA to establish new requirements for EFH descriptions in federal fishery management plans. In addition, the MSA established procedures designed to identify, conserve, and enhance EFH for those species regulated under a federal fisheries management plan. Pursuant to the MSA:

- Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;

- NMFS must provide conservation recommendations for any federal or state action that would adversely affect EFH;

- Federal agencies must provide a detailed response in writing to the NMFS within 30 days after receiving EFH conservation recommendations. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the effect of the activity on EFH. In the case of a response that is inconsistent with the NMFS' EFH conservation recommendations, the federal agency must explain its reasons for not following the recommendations.

EFH has been defined for the purposes of the MSA as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NMFS has further added the following interpretations to clarify this definition:

- **"Waters"** include aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate;

- **"Substrate"** includes sediment, hard bottom, structures underlying the waters, and associated biological communities;

- **"Necessary"** means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and

- **"Spawning, breeding, feeding, or growth to maturity"** covers the full life cycle of a species.

Adverse effect means any effect that reduces quality and/or quantity of EFH, and may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), or site-specific or habitat-wide effects, including individual, cumulative, or synergistic consequences of actions.

EFH consultation with the NMFS is required regarding any federal agency action that may adversely affect EFH, including actions that occur outside EFH, such as certain upstream and upslope activities.

The objectives of this EFH consultation are to determine whether the Proposed Action would adversely affect designated EFH and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH. The Magnuson-Stevens Act requires consultation for all federal agency actions that may adversely affect EFH. EFH consultation with NMFS is required by federal agencies undertaking, permitting, or funding activities that may adversely affect EFH, regardless of its location. Under Section 305(b)(4) of the MSA, NMFS is required to provide EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. Wherever possible, NMFS utilizes existing interagency coordination processes to fulfill EFH consultations with federal agencies. For the proposed action, this goal is being met by incorporating EFH consultation into the environmentally sensitive area (ESA) Section 7 consultation.

2.1.2. Waters of the United States and Other Jurisdictional Waters

2.1.2.1. Army Corps of Engineers

Under Section 404 of the Clean Water Act (CWA), the Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill material into waters of the United States (U.S). Waters of the U.S. are those waters that have a connection to interstate commerce, either direct via a tributary system

or indirect through a nexus identified in the ACOE regulations. In non-tidal waters, the lateral limit of jurisdiction under Section 404 extends to the ordinary high water mark (OHWM) of a waterbody or, where adjacent wetlands are present, beyond the OHWM to the limit of the wetlands. The OHWM is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area” (33 Code of Federal Regulations 328.3). In tidal waters, the lateral limit of jurisdiction extends to the high tide line or, where adjacent wetlands are present, to the limit of the wetlands.

Wetlands

Wetlands are defined as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for a life in saturated soil conditions”.

Nonwetland Waters

Nonwetland waters essentially include any body of water, not otherwise exempted, that displays an OHWM.

Isolated Waters

As discussed above, the ACOE regulatory jurisdiction under Section 404 is founded on a connection between the water body in question and its connectivity to navigable waters. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters, or may be indirect, through a nexus identified in the USACE regulations.

2.1.2.2. Regional Water Quality Control Board

Under Section 401 of the CWA, the State Water Resources Control Board must certify all activities requiring a 404 permit. The Regional Water Quality Control Board (RWQCB) regulates these activities and issues water quality certifications for those activities requiring a 404 permit. In addition, the RWQCB has authority to regulate the discharge of “waste” into waters of the State pursuant to the Porter-Cologne Water Quality Control Act.

2.1.2.3. California Department of Fish and Wildlife

CDFW, through provisions of Section 1602 of the California Fish and Game Code, is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be substantially adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an ephemeral or intermittent flow of water. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

CDFW generally includes, within the jurisdictional limits of streams and lakes, any riparian habitat present. Riparian habitat includes willows, cottonwoods, and other vegetation typically associated with the banks of a stream or lake shoreline. In most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFW jurisdiction based on riparian habitat will automatically include any wetland areas. Riparian communities may not fall under Corps jurisdiction unless they are below the OHWM or classified as wetlands.

2.1.2.4. Executive Order 11990: Protection of Wetlands

Executive Order (EO) 11990 mandates leadership on the part of federal agencies to reduce loss and degradation of wetlands and to preserve and enhance the beneficial values and functions of wetlands. Each federal agency "shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that (1) there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

2.1.3. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits actions that will result in "take" of migratory birds, their eggs, feathers, or nests. "Take" is defined in the MBTA as any means or any manner to hunt, pursue, wound, kill, possess, or transport, any migratory bird, nest, egg, or part thereof.

Migratory birds are also protected, as defined in the MBTA, under Section 3513 of the California Fish and Game Code.

2.1.4. California Fish and Game Code (Breeding Birds)

Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or other regulation.

2.1.5. California Public Resources Code 21083.4: Impacts to Oak Woodlands

Counties are required to evaluate impacts to oak woodlands as part of the environmental analysis conducted in compliance with California Environmental Quality Act (CEQA). If a County determines a proposed project may result in the conversion of oak woodlands that will have a significant effect on the environment, the County must require the project to comply with one or more of the oak woodlands mitigation measures set forth in the Code.

2.1.6. Executive Order 13112: Invasive Species

Under EO 13112, an invasive species is defined as “an alien species (a species not native to a particular ecosystem) whose introduction does or is likely to cause economic and environmental harm or harm to human health”. Invasive species are determined by the Invasive Species Council.

In addition to other mandates, EO 13112 mandates federal agencies whose actions may affect the status of invasive species to “not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species”.

2.2. Studies Required

Prior to conducting any field studies, the limits of the BSA were established, as shown in Figure 4. The BSA, totaling approximately 3.66 ac, consists of the project footprint, existing roadways, cut/fill slopes, and access and staging areas. The BSA also includes lands beyond the footprint that could potentially be affected by project construction and/or were determined necessary to inventory in order to perform an adequate analysis of project impacts.

The studies required to fully document the environmental conditions of the BSA included a general biological survey, vegetation mapping, preliminary jurisdictional waters delineation, a habitat assessment for California red-legged frog (CRLF) and California tiger salamander (CTS), and focused surveys for special status plants.

2.2.1. Literature Review

A list of sensitive wildlife and plant species potentially occurring within the BSA and vicinity was compiled to evaluate potential impacts resulting from project construction. Sources used to compile the list include the California Natural Diversity Data Base (CNDDB), the USFWS IPaC Trust Resources Report, and the California Native Plant Society (CNPS) Online Inventory referencing the Quien Sabe Valley, Ruby Canyon, Ortigalita Peak, Cherry Peak, Panoche Pass, Cerro Colorado, Bickmore Canyon, San Benito, and Llanada United States Geological Survey 7.5-minute quadrangles. All lists are included in Appendix B.

The special status species lists obtained from the CNDDB, CNPS, and USFWS were reviewed to determine which species could potentially occur within the vicinity of the BSA. The cumulative list (included in Section 3.2) includes numerous species representing a variety of habitat types. The list includes each species' protection status, habitat information, status in the BSA, and supporting comments as necessary.

Two fish species, the Sacramento sucker (*Catostomus occidantalis*) and California roach (*Hesperoleucus symmetricus*), appear on the lists but have no special status. Since these species have no status, they are not included in Table 4.

Additionally, two invertebrate species, the San Benito harvestman (*Calicina arida*) and the Pinnacles optioservus riffle beetle (*Optioservus canus*), appear on the lists but have no special status. Because little to no information is available about these species, and they have no status, they are not included in Table 4.

The determination of whether a species could potentially occur within the BSA was based on the availability of suitable habitat within and adjacent to the BSA, as well as known occurrences of the species in or adjacent to the BSA according to the CNDDB. Species requiring specific habitat not present in the vicinity of the project (e.g., bogs or fens) were eliminated as potentially occurring and are not discussed further. Those species that could potentially occur in the BSA from habitat suitability or on known occurrences in or within the vicinity of the BSA are discussed in Sections 4.2 and 4.3.

2.2.2. Field Surveys

Field surveys conducted for the project included a general survey to map vegetation communities, a preliminary jurisdictional delineation, a site assessment for CRLF (*Rana draytonii*) and CTS (*Ambystoma californiense*), and a focused plant survey.

2.2.2.1. General Biological Survey/Vegetation Mapping

A general biological survey and vegetation mapping of the BSA was conducted by LSA Associates, Inc., (LSA) biologist Mike Trueblood on May 11, 2011. A follow-up survey to document any changes in field conditions was conducted by LSA biologist Anna Van Zuuk on April 16, 2020. Naturally occurring vegetation in the BSA was classified according to *A Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf, and Evans 2008), as appropriate. Managed or developed areas were classified according to their dominant plant species. The names of the plant species are consistent with *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin, B. G., et. al., editors 2012) and the Jepson Online Interchange for California Floristics (Jepson eFlora 2020).

Wildlife species observed during the survey were identified and recorded. During this survey, the BSA was also surveyed for potential habitat to support special status plants.

2.2.2.2. Potential Jurisdictional Waters Determination and Delineation

A delineation of potential waters of the United States (U.S.) potentially subject to regulation by the ACOE was conducted on July 6, 2011 by LSA biologist Mike Trueblood. Additional data points were added during the follow-up survey by LSA biologist Anna Van Zuuk on April 16, 2020 to document changes in field conditions.

All potential waters of the U.S. in the BSA were delineated in accordance with the 1987 ACOE Wetland Delineation Manual, the September 2008 Regional Supplement - Arid West Region, and the ACOE Regulatory Guidance Letter 16-01 regarding Preliminary Jurisdictional Delineations (October 2016). Both field investigations were conducted in accordance with the ACOE Routine Approach for small areas (i.e., equal to or less than 5 acres). At each point, a pit was dug and soils and hydrology examined; vegetation was also

characterized at each data point. Data sheets are included in Appendix C. The limits of CDFW jurisdiction were also delineated.

2.2.2.3. California Red-Legged Frog and California Tiger Salamander Habitat Assessment

A field survey for the CRLF and CTS site assessment was conducted by LSA biologist Mike Trueblood on May 11, 2011. A follow-up survey was conducted by LSA biologist Anna Van Zuuk on April 16, 2020. A combined site assessment was prepared in accordance with USFWS Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (*Rana draytonii*), dated August 2005, and with the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander, dated October 2003. The assessment is included in Appendix D.

The follow-up survey in April 2020 did not find any changes to habitat conditions noted in the CRLF and CTS site assessment. Tres Pinos Creek within the Action Area flows too swiftly to provide suitable aquatic breeding habitat for CTS, even in the slower moving sections of the creek, and the California annual grasslands and pasture communities are generally rocky with few areas for fossorial mammals to burrow or are actively grazed. No suitable burrows or other suitable openings were observed in the Action Area during the follow-up survey.

2.2.2.4. Focused Plant Survey

LSA biologist Ali Summers conducted a focused plant survey of the BSA on May 18, 2011. The survey was conducted during the normal blooming period of most special status plants that had potential to occur in the BSA based on the habitat present. The surveys were not conducted during the normal blooming period of two special status plants, Munz's tidy tips (*Layia munzii*), which blooms March to April, and chaparral ragwort (*Senecio aphanactis*), which blooms January to April. A follow-up survey was conducted by LSA botanist Anna Van Zuuk on April 16, 2020 for these two species as well as marsh sandwort (*Arenaria paludicola*). All plant species observed were identified to a sufficient taxonomic level to determine if they were the target species.