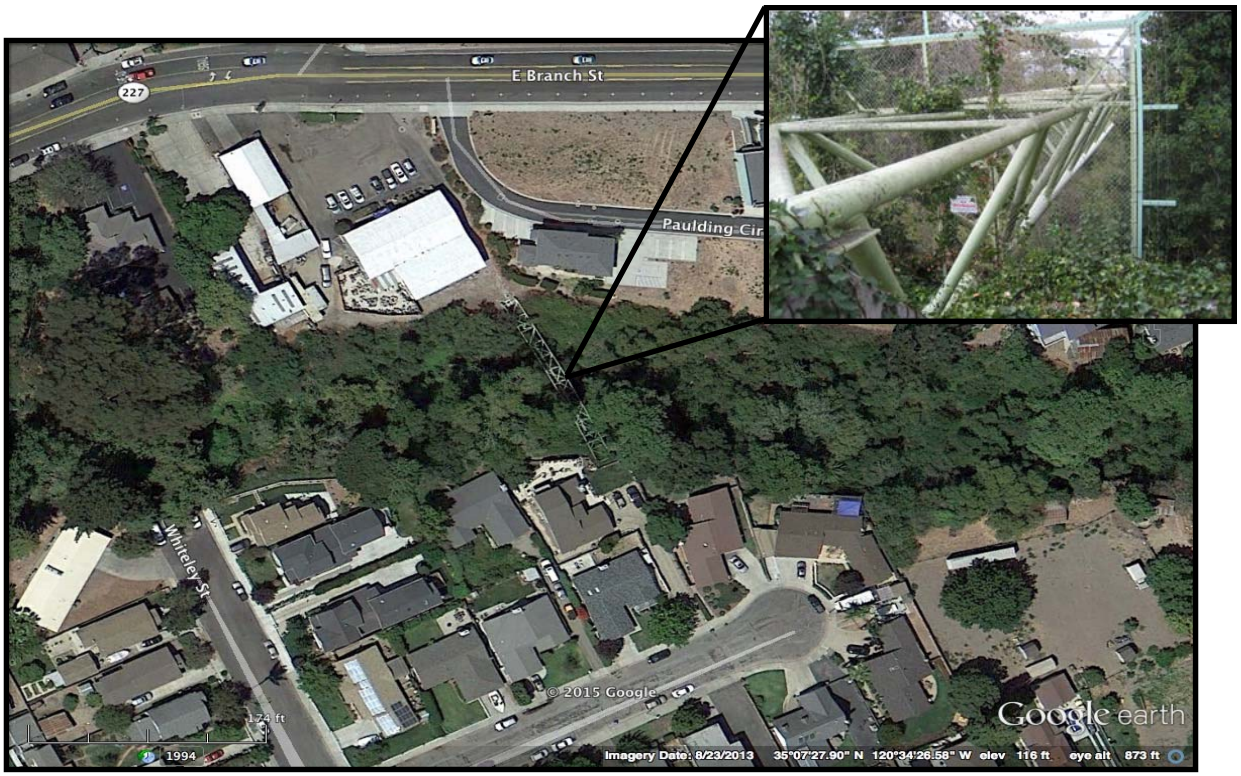
South San Luis Obispo County Sanitation District

Cherry Avenue Pipe Bridge Maintenance Project
Initial Study and Mitigated Negative Declaration



Prepared for:
South San Luis Obispo County Sanitation District
1600 Aloha Place / P.O. Box 339
Oceano, CA 93475

Prepared by:
Kevin Merk Associates, LLC
PO Box 318
San Luis Obispo, CA 93406
805.748.5837; kmerk@kevinmerkassoicates.com
www.kevinmerkassociates.com

July 2016

KEVIN MERK ASSOCIATES

Table of Contents

Section **Page**

Attachments:
Attachment A: Figure 1, Site Location. Figure 2, Project Site Plan/Aerial Overlay
Attachment B: Project Biological Assessment

SOUTH SAN LUIS OBISPO COUNTY
SANITATION DISTRICT
INITIAL STUDY SUMMARY - ENVIRONMENTAL CHECKLIST

Proposed Project: Cherry Avenue Pipe Bridge Maintenance Project

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for at least one of the environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☐ Aesthetics	☐ Geology and Soils	☐ Recreation
☐ Agricultural Resources	☐ Hazards/Hazardous Materials	☐ Transportation/Circulation
☒ Air Quality	☒ Noise	☐ Wastewater
☒ Biological Resources	☐ Population/Housing	☐ Water
☒ Cultural Resources	☐ Public Services/Utilities	☐ Land Use

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the South San Luis Obispo County Sanitation District finds that:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kevin Merk	Kevin Merk	7/13/16
Prepared by (Print)	Signature	Date
Gerhardt J Hubner	Gerhardt J Hubner	7/13/16
District Rep. (Print)	Signature	Date

Project Environmental Analysis: The South San Luis Obispo County Sanitation District (SSLOCSD) environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. The SSLOCSD uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the SSLOCSD, 1600 Aloha Place, Oceano, CA 93445 (805-489-6666; FAX 805-489-2765).

1. PROJECT DESCRIPTION: The Cherry Avenue pipe bridge currently spans Arroyo Grande Creek between Branch Street to the north and the Nelson Street cul-de-sac to the south in the City of Arroyo Grande, San Luis Obispo County, California. The pipe bridge maintenance project will involve the removal of existing paint and debris from the bridge, followed by replacing anti-corrosion coatings on the bridge. The anti-corrosion coating systems to be applied include a 3-layer inorganic zinc/epoxy/urethane coating system, a wax tape and fiberglass outer wrap system and a 3-layer modified polyamidoamine epoxy/aliphatic acrylic polyurethane coating system. The South San Luis Obispo County Sanitation District (District) proposed to utilize a containment system for the purpose of containing all material and debris from the existing pipe bridge and support structure for proper disposal at a licensed facility. The containment system will contain all water, resulting debris, and visible dust produced when the existing coating system is disturbed.

No placement of fill in or permanent disturbance to the Arroyo Grande Creek channel bottom will occur. Native vegetation in the approximate 25-foot pipe bridge easement area would be selectively pruned to provide access to the structure, no vegetation removal is proposed. English ivy will be removed from existing trees located adjacent to the pipe bridge to ensure dying trees do not pose a threat to the pipe bridge from falling. Minor soil disturbance (up to 18 cubic yards, maximum) would occur where the existing pipe penetrates both banks to inspect the integrity of the pipe. This would be done with hand tools.

All equipment will be staged within the approximate 25-foot wide access easement area at the top of the northern bank of the creek. In addition, scaffolding would be hung from the bridge to allow the installation of a containment system and worker access to the bridge. Removal of invasive non-native plants would also occur within the easement area, and would be completed under the direction of a qualified biologist. All disturbed areas would be stabilized and revegetated with an assemblage of native plants and appropriate erosion controls at the direction of the project engineer.

Please refer to Figure 2, Site Plan/Aerial Overlay, for a detailed depiction of the proposed project.

2. PROJECT LOCATION: The Cherry Avenue pipe bridge currently spans Arroyo Grande Creek between Branch Street to the north and the Nelson Street cul-de-sac to the south in the City of Arroyo Grande, San Luis Obispo County, California. Please refer to Figure 1, Project Location/Site Vicinity. The project site is bounded on the north by mixed residential and commercial development along Branch Street (zoning designation = Village Mixed Use), and single family residential development to the south (zoning designation = Single Family). The project site has the following approximate latitude/longitude coordinates: North: 35.1244°, West: -120.5741°.

3. EXISTING SETTING: The subject site consists of a pipe bridge spanning the Arroyo Grande creek, within an easement owned by the SSLOCSD. The northern pipe bridge abutment is located just south of the Paulding Circle/Branch Street intersection and is dominated by mixed use commercial and residential development. The southern pipe bridge abutment is located just north of the Nelson Street cul-de-sac, within an easement between single family residential development. Site elevation is approximately 124 feet above mean sea level, measured at the top of bank. The surrounding area adjacent to existing development to the north and south of the creek consists of residential and commercial land uses, with associated landscaping and ornamental plantings. Native habitat present in the Arroyo Grande Creek corridor at the site consists of a riparian overstory of arroyo willow and black cottonwood trees, with smaller arroyo willow shrubs and associated understory vegetation along the lower banks and the active channel. The creek banks are fairly incised and steep in the project vicinity.

4. ENVIRONMENTAL ANALYSIS: During the Initial Study process, several issues were identified as having potentially significant environmental effects (see following Initial Study). Impacts identified as "Impact can & will be mitigated" are considered to be significant but mitigable impacts. Those potentially significant items associated with the proposed uses can be minimized to less than significant levels.

INITIAL STUDY CHECKLIST

I.	**AESTHETICS** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Create an aesthetically incompatible site open to public view?***	☐	☐	☒	☐
b)	***Introduce a use within a scenic view open to public view?***	☐	☐	☒	☐
c)	***Change the visual character of an area?***	☐	☐	☒	☐
d)	***Create glare or night lighting, which may affect surrounding areas?***	☐	☐	☒	☐
e)	***Impact unique geological or physical features?***	☐	☐	☒	☐
f)	***Other:*** _____	☐	☐	☐	☒

Setting. The project site consists of the existing Cherry Avenue pipe bridge which currently spans Arroyo Grande Creek between Branch Street to the north and the Nelson Street cul-de-sac to the south in the City of Arroyo Grande, San Luis Obispo County, California**.** The City of Arroyo Grande is the southernmost portion of a continuous urban area within the County of San Luis Obispo made up of the nearby communities of Grover Beach, Oceano, Pismo Beach, and Shell Beach, known as the "Five Cities".

The northern pipe bridge abutment is located just south of the Paulding Circle/Branch Street intersection and is dominated by mixed use commercial and residential development. The southern pipe bridge abutment is located just north of the Nelson Street cul-de-sac, within an easement between single family residential development.

Site elevation is approximately 124 feet above mean sea level (msl), measured at the top of bank. The surrounding area adjacent to existing development to the north and south of the creek consists of residential and commercial land uses, with associated landscaping and ornamental plantings. Native habitat present in the Arroyo Grande Creek corridor at the site consists of a riparian overstory of arroyo willow and black cottonwood trees, with smaller arroyo willow shrubs and associated understory vegetation along the lower banks and the active channel. The creek banks are fairly incised and steep in the project vicinity.

Being in general proximity to an arterial roadway and located on generally level topography, the project site can be seen from public vantage points near the Nelson Street cul-de-sac and Paulding Circle near the Branch Street intersection. However, views of the existing pipe bridge are for the most part blocked by intervening buildings and the relatively dense riparian vegetation surrounding the site. Views from public vantage points are considered sparse and intermittent.

Although the project will be intermittently visible from public roadways, it is important to note that the proposed project is limited to the maintenance of an existing pipe bridge and would not result in any changes to the current structure or abutments. The project would result in the cleaning, re-painting and re-coating of the existing pipe bridge structure. The proposed project would not obstruct or silhouette against any ridgelines as viewed from public vantage points.

Please refer to the attached "Biological Resource Assessment for the Cherry Avenue Pipe Bridge Maintenance Project, Arroyo Grande Creek, San Luis Obispo County, California" (Kevin Merk Associates, LLC. November 16, 2015) for a photo-plate including detailed photos of the project site and existing pipe bridge facility.

Impact. As the overarching policy document guiding development in the City, the Arroyo Grande General Plan contains policies to ensure that development is compatible with the existing visual context. The Agriculture, Conservation and Open Space Element includes policies to minimize visual impacts on surrounding natural landscapes and scenic views. In addition, the City's Design Guidelines provides guidance on structural design requirements to ensure compatibility with surrounding land uses.

The proposed project consists of the maintenance of the existing Cherry Avenue pipe bridge and is limited to the stripping of the existing facility coating and re-application of coating and paint. No new facilities are proposed, and no structural changes would occur that would have the potential to alter the existing pipe bridge. Construction scaffolding and equipment are temporary in nature and will be removed upon completion of the proposed maintenance. As such, the proposed project would not result in a change in the visual character of the project site or vicinity. Impacts to visual resources are considered less than significant.

Mitigation/Conclusion. No mitigation measures are necessary.

II. AGRICULTURAL RESOURCES - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Convert prime agricultural land to non-agricultural use?	☐	☐	☒	☐
b) Impair agricultural use of other property or result in conversion to other uses?	☐	☐	☒	☐
c) Conflict with existing zoning or Williamson Act program?	☐	☐	☐	☒
d) Other: _____	☐	☐	☐	☒

Setting. The City of Arroyo Grande is located in the southern portion of San Luis Obispo County and the Central Coast Region, both of which are important key agricultural centers within the State of California. The region's agricultural industry is an important part of the local economy. It provides employment and income directly for those in agriculture, and it helps drive growth in the tourism industry, which in turn generates further economic activity and consumer spending.

The closest active agricultural production is located approximately ¼-mile to the south of the project site, along East Cherry Avenue, and consists of row crop production.

Impact. The proposed project consists of the maintenance of the existing Cherry Avenue pipe bridge and is limited to the stripping of the existing facility coating, spot repair of the existing pipe, and re-application of coating and paint. No new facilities are proposed, and no structural development is proposed. The project site is located entirely within the City limits and is not designated as Prime or Unique Farmland or Farmland of Statewide Importance on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, the proposed project would not result in conversion of these agricultural resources to nonagricultural use.

The project site is not located on farmland, nor is it under a Williamson Act contract. The project site is surrounded by developed properties and public streets. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

The proposed maintenance of the existing pipe bridge will not contribute to conversion of farmland. No impacts to existing agricultural resources are anticipated with implementation of the project.

Mitigation/Conclusion. No mitigation measures are necessary.

III.	**AIR QUALITY** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by the applicable air quality district?***	☐	☒	☐	☐
b)	***Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?***	☐	☐	☒	☐
c)	***Create or subject individuals to air pollution emissions or objectionable odors?***	☐	☐	☒	☐
d)	***Be inconsistent with an applicable Air Quality Management Plan?***	☐	☐	☒	☐
e)	***Other:*** _____	☐	☐	☐	☒

Setting. Air quality in the Arroyo Grande region of San Luis Obispo County is characteristically different than other regions of the County (i.e., the Upper Salinas River Valley and the East County Plain), although the physical features that divide them provide only limited barriers to transport pollutants between regions. The County is designated nonattainment for the one-hour California Ambient Air Quality Standards (CAAQS) for ozone and the CAAQS for respirable particulate matter (PM_{10}). The County is designated attainment for national ambient air quality standards (NAAQS).

Both the US Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. As mentioned above, Arroyo Grande is currently designated as nonattainment for the state and federal ambient air quality standards for ground-level ozone and $PM_{2.5}$ as well as the state standards for PM_{10}.

Greenhouse Gas Emissions: The San Luis Obispo County Air Pollution Control District (APCD) is the agency primarily responsible for ensuring that NAAQS and California ambient air quality standards (CAAQS) are not exceeded and that air quality conditions are maintained in the region. The County of San Luis Obispo APCD adopted the Clean Air Plan in January 1992; the Plan was updated in 1998, and again in 2001. The Clean Air Plan is a comprehensive planning document designed to reduce emissions from traditional industrial and commercial sources, as well as from motor vehicle use. The purpose of the County's Clean Air Plan is to address the attainment and maintenance of state and federal ambient air quality standards by following a comprehensive set of emission control measures within the Plan.

The City of Arroyo Grande Climate Action Plan (CAP) includes goals and policies for implementing reductions in GHG emissions. The CAP includes the City's emissions inventory (2005), and identifies GHG reductions, including implementation measures and monitoring procedures. The CAP is consistent with CEQA Guidelines Section 15183.5(b) for mitigating emissions and climate change impacts and serves as a Qualified GHG Reduction Strategy through the APCD. As such, project-specific analysis of GHG emissions is only required if GHG emissions from a project would be cumulatively significant regardless of CAP implementation.

Impact. Temporary impacts from the project, including but not limited to excavation and construction activities, vehicle emissions from heavy duty equipment, have the potential to create dust and emissions that exceed air quality standards during construction for temporary and intermediate periods.

Construction activities can generate fugitive dust, which could be a nuisance to local residents and businesses in close proximity to the proposed construction site. The proposed project is expected to generate construction emissions in excess of the thresholds approved by the APCD [Ozone Precursors ($ROG + NO_x$) = 137 lbs/day or 2.5 tons for projects lasting up to one quarter; Diesel Particulate Matter (DPM) = 7 lbs/day or 0.13 tons for projects lasting up to one quarter; Fugitive Particulate Matter (PM_{10}) = 2.5 tons for projects lasting up to one quarter]. Because the project is within 1,000 feet of sensitive receptors, impacts related to fugitive dust emissions during proposed construction activities are considered significant but mitigable.

Construction equipment itself can be the source of air quality emission impacts, and may be subject to California Air Resources Board or APCD permitting requirements. This includes portable equipment, 50 horsepower (hp) or greater or other equipment listed in the APCD's 2012 CEQA Handbook, Technical Appendices. Truck trips associated with the materials that will be cut from the site may also be a source of emissions subject to APCD permitting requirements, subject to specific truck routing selected. Impacts related to vehicle and heavy equipment emissions are considered significant but mitigable.

Operational Impacts: The proposed project consists of the maintenance of the existing Cherry Avenue pipe bridge structure and would not result in operational impacts. Air quality impacts are expected to be limited to construction related emissions.

Application of Coating: The pipe bridge maintenance project will involve the removal of existing paint and debris from the bridge followed by replacing anti-corrosion coatings on the bridge and pipe. The anti-corrosion coating consists of a 3-layer inorganic zinc/epoxy/urethane coating system, a wax tape and fiberglass outer wrap system, and a 3-layer modified polyamidoamine epoxy/aliphatic acrylic polyurethane coating system to be applied after the pipes are stripped. According to the District, any work that disturbs the existing coating system may expose project workers to health hazards. All debris produced when the existing coating system is disturbed must be contained. As such, the District proposes to use a containment system designed to contain all debris resulting from the stripping of the existing pipe bridge. The containment system will contain all water, resulting debris, and visible dust produced when the existing coating system is disturbed. No temporary structures are proposed for construction in the stream channel bottom. Impacts related from coating application are considered less than significant with implementation of the proposed containment system.

Greenhouse Gas Emissions: As discussed above, the City of Arroyo Grande CAP is designed as a Qualified GHG Reduction Plan, consistent with CEQA Guidelines Section 15183.5(b). According to the CAP, the City's GHG emissions are estimated at 93,513 MT CO2e by 2020. The City will need to reduce its GHG emissions by 3,914 MT CO2e by 2020 to meet the 15% reduction target. Implementation of the GHG reduction measures in the Climate Action Plan are estimated to reduce the City's GHG emissions by 5,371 MT CO2e by 2020. It is important to note that the proposed maintenance project does not include an operational phase and would not result in a cumulative increase in operational emissions and would not result in an increase in traffic or vehicle miles traveled. Air quality impacts are limited to the construction phase of the maintenance project. As such, the proposed project is consistent with the CAP and impacts from greenhouse gas emissions are considered to be less than significant.

Mitigation/Conclusion. In addition to the proposed dust control measures discussed in Section 7 of the District's Special Provisions document, the following mitigation shall be required in order to reduce impacts to less than significant levels:

AQ-1. To mitigate fugitive dust emissions related to project construction, the following shall be implemented as feasible:

a) Reduce the amount of the disturbed area where possible;
b) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
c) All dirt stock pile areas should be sprayed daily as needed;
d) Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
e) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;

f) All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
g) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
h) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
i) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
j) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
k) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
l) The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-2. The required mitigation measures for reducing nitrogen oxides (NO_x), reactive organic gases (ROG), and diesel particulate matter (DPM) emissions from construction equipment are listed below:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation;
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;

- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

IV.	**BIOLOGICAL RESOURCES** - *Will the project:*	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Result in a loss of unique or special status species or their habitats?***	☐	☒	☐	☐
b)	***Reduce the extent, diversity or quality of native or other important vegetation?***	☐	☒	☐	☐
c)	***Impact wetland or riparian habitat?***	☐	☒	☐	☐
d)	***Introduce barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife?***	☐	☐	☒	☐
e)	***Other:*** _____	☐	☐	☐	☒

Setting: To accurately characterize the biological resources present at the project site and to support the project permitting through the California Department of Fish and Wildlife (CDFW) Section 1600 process, a biological assessment of the project site and anticipated project impacts has been prepared by a qualified biologist (Kevin Merk Associates, November 16, 2016). Please refer to the attached biological assessment for additional details.

Results of the Biological Assessment: Upon field visits and site inspection by the KMA team, the study area was determined to consist of the bridge location, the adjacent channel area approximately 25 feet upstream and downstream of the bridge, and the access areas from Branch and Mason Streets. Site elevation is approximately 124 feet above msl, measured at the top of bank. The surrounding area consists of residential and commercial land uses, with associated landscaping and ornamental plantings.

Please refer to the attached biological assessment for a detailed habitat map and a photo plate with a series of photographs taken during the field visit for the purpose of showing the existing site conditions.

Habitat Types: The following project site habitat conditions were observed as part of the project biological investigation:

Central Coast Arroyo Willow Riparian Forest

The drainage channel contained a sparse to dense willow canopy, consistent with the Central Coast Arroyo Willow Riparian Forest and Scrub plant communities described by Holland (1986) and the red and arroyo willow thickets described by Sawyer et al. (2009). The riparian habitat onsite consisted primarily of arroyo willow, with several large cottonwood trees scattered along the lower banks. Gaps in the canopy were dominated by poison oak with scattered occurrences of coyote brush (*Baccharis pilularis*), ripgut brome (*Bromus diandrus*), perennial mustard (*Hirschfeldia incana*), stinging nettle (*Urtica dioica* ssp. *holosericea*), virgin's bower (*Clematis ligusticifolia*), garden nasturtium (*Tropaeolum majus*), Kikuyu grass (*Pennisetum clandestinum*), and pampas grass (*Cortaderia jubata*). Two large cottonwood trees on or near the south bank were almost completely covered with English ivy, and exhibited low vigor and reduced canopy and leaf cover as a result of the ivy infestation.

Riparian forest communities are important for many wildlife species because the abundance of moisture and associated vegetation provides structure, materials, and food sources for nesting and roosting activities. Many species forage within the understory and use riparian habitat as cover and as a corridor for movement along the edges of open areas. Common inhabitants of riparian woodland habitats include amphibians and reptiles such as the Pacific chorus frog (*Pseudacris regilla*) and western fence lizard (*Sceloporus occidentalis*). Mammals such as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and shrews (*Sorex* spp.) are also expected to occur in the riparian corridor within the project site. Riparian woodland habitat typically supports a diverse number of resident and migratory bird species and can provide roosting and foraging habitat for several raptors as well as bats.

Riverine

Riverine habitat conditions within Arroyo Grande Creek in the project area consisted of a wetted active channel bounded by incised earthen banks. The creek in this urban area is severely incised due to a restricted flow regime and is dominated by non-native plants. Several species of fish are expected to occur within riverine habitat of Arroyo Grande Creek, including the federally threatened southern steelhead (*Oncorhynchus mykiss irideus*), speckled dace (*Rhinichthys osculus*), three-spined stickleback (*Gasterosteus aculeatus*), and Pacific lamprey (*Lampetra tridentata*). Great blue heron (*Ardea herodias*) and snowy egret (*Egretta thula*) are common predators within local riverine habitats, and numerous bird species are expected to use the creek and associated riparian forest for foraging and nesting.

Riverine habitat is seasonally variable, and often includes open water components (active, flowing channel), unvegetated sandbars (riverwash, active floodplain), pools, and seasonally emergent wetlands (Holland 1986). Even though the creek is steeply incised from down-cutting, the small floodplain was well developed with vegetation.

Developed/Ruderal

Developed/ruderal conditions are common in abandoned fields, along roadsides, in un-maintained areas adjacent to development, and areas that have been altered by construction, agriculture,

landscaping, or other types of regular human activity that constrains plant growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species.

Plant species observed within and adjacent to developed areas of the site included English ivy, ripgut brome, slender wild oats (*Avena barbata*), bur-clover (*Medicago polymorpha*), sweet fennel (*Foeniculum vulgare*), and a variety of ornamental plantings associated with landscaping of neighboring development. The developed/ruderal portions of the study area would typically attract common wildlife species adapted to human disturbance, and are not expected to provide significant habitat values for native species.

Special Status Biological Resources: The Arroyo Grande region and Arroyo Grande Creek corridor in particular support numerous special status, or rare, plant communities and species of plants and animals. This assessment did not include focused surveys to determine presence or absence of special status wildlife, but did include direct observation of onsite and offsite conditions, knowledge of the particular species biology, and review of biological reports completed in the general area to determine if a particular species could be expected to occur within the study area, and ultimately affected by the proposed project.

Special Status Natural Communities

The site-specific field work identified the special status plant community Central Coast Arroyo Willow Riparian Forest as present along the Arroyo Grande Creek corridor in the study area. In addition, elements of Coastal and Valley Freshwater Marsh, which is also a special status natural community, were present within the bed of the channel.

Special Status Plants

The CNDDB identified the following four special status plant species as present within one mile of the project area.

- Hoover's bent grass (*Agrostis hooverii*);
- Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*);
- Santa Margarita manzanita (*Arctostaphylos pilosula* formerly *A. wellsii*); and
- Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*).

These four special status plant species have specialized habitat requirements, and are not typically found in association with ruderal, riverine, or willow riparian forest habitats. In addition, Santa Margarita manzanita is a perennial shrub that would have been in identifiable condition if it was observed during the site visit. As such, these species are not expected to occur within the project area or be affected by the proposed maintenance project.

Additional plant species not listed in the CNDDB search, but that are known to occur in riparian habitats in coastal San Luis Obispo County area include:

- Marsh sandwort (*Arenaria paludicola*);
- Gambel's water cress (*Rorippa gambelii*); and
- Black-flowered figwort (*Scrophularia atrata*).

Habitat quality for these species within the surveyed section of Arroyo Grande Creek would be considered low due to the steeply cut banks, and the presence of flowing water in a confined channel without more extensive pools and floodplain areas of emergent wetland plants. Furthermore, black-flowered figwort typically occurs on shaly, calcareous and rocky soils that are not present in the study area. These species are unlikely to occur onsite based on the lack of suitable habitat.

Special Status Animals

The CNDDB identified four special status animal species present within a one-mile radius of the project area. In addition, Arroyo Grande Creek is listed as critical habitat for the federally protected southern steelhead and this species is expected to be present year round with the project area.

- California red-legged frog (*Rana draytonii*; CRLF);
- Obscure bumble bee (*Bombus caliginosus*);
- Southern steelhead; and
- Western pond turtle (*Emys marmorata*).

Additional species not listed in the CNDDB search, but that are known to occur in riparian habitat in the upper Arroyo Grande Creek area include:

- Coast Range newt (*Taricha torosa torosa*);
- Two-striped garter snake (*Thamnophis hammondii*); and
- Bats.

The species listed above could be present in the creek channel within and adjacent to the project area. As stated above, the evaluation of potential for special status animals did not include definitive surveys for the presence or absence of these species in Arroyo Grande Creek, but did include direct observation of onsite conditions, and review of biological reports and the CNDDB records. No bumblebees were observed, but it is possible that the species could be present in the vicinity at some point in time during the year. None-the-less, it is unlikely that bees or other insects would be significantly impacted by the proposed project which includes minimal disturbance and is limited to the pipe bridge maintenance

A number of avian species are known from the general area and could potentially utilize the riparian corridor as foraging habitat. Riparian habitat dependent species such as yellow warbler *(Dendroica petechia brewsteri)* or western yellow-billed cuckoo *(Coccyzus americanus occidentalis)* could utilize the corridor for foraging, but would be less likely to nest onsite due to the existing development and human presence in the area. No records of these species nesting in or near the study area were found during this investigation. Small songbirds could utilize the trees and shrubs onsite for nesting, but would likely only include those opportunistic species that are adapted to developed areas and

increased human presence. The project area and surrounding areas do not appear to provide adequate nesting or foraging habitat for raptor species, and raptors would be expected primarily as transients across the site on their way to higher quality foraging and nesting grounds. Moreover, no large stick nests typical of raptor nesting were observed in the immediate area during the survey.

Bat species including western red bat *(Lasiurus blossevilli),* hoary bat *(Lasiurus cinereus)* and various species of *Myotis* are known to occur in the region and have the potential to forage over the site. While there were no bats identified in the CNDDB search around the study area, the site contains suitable foraging habitat along the creek corridor, and potential night roost opportunities are present under road bridges in the general area. The pipe bridge does not provide suitable habitat conditions to support night roosts for bats.

Impact. Completion of the proposed project would temporarily disturb developed and ruderal areas adjacent to the top of the Arroyo Grande Creek bank on site. Developed and ruderal areas dominated by non-native species are not considered sensitive plant communities by the CDFW, and are common throughout the region. Therefore, any loss of the developed and ruderal habitat would be considered a less than significant impact, and no mitigation would be required. Measures required below associated with erosion and sediment control would further reduce impacts to developed or ruderal areas resulting from the project.

The project will require pruning of seven willow trees to allow access and provide clearance from the bridge structure. Branches to be removed are primarily less than three inches in diameter, but there may be several branches between four and six inches in diameter that require removal. Existing trunks and roots would not be disturbed. The willows that are pruned are expected to grow back quickly.

Two large cottonwood trees near the southern end of the bridge will also require pruning for project access, and to reduce the potential for damage to the structure if the trees were to fall down. Both trees are heavily infested with English ivy, and are in poor health. As proposed, both trees would be pruned to allow access to the bridge structure, and the ivy removed from the base of the tree trunks. Because the pruning would be a temporary impact, and no trees would be removed, no tree replanting is proposed and impacts are expected to be less than significant.

Proposed project activities would involve removing anti-corrosion coatings through mechanical methods, and recoating the structure. While a containment system is proposed around the pipe, removed coatings, chemicals, abrasives, new coating materials, and other project-related substances could enter the creek channel and flowing water. Please refer to Section VII, Hazards and Hazardous Materials, below for a discussion of the proposed project spill prevention and response details. Excavation around the pipe on both banks would disturb soils on steep banks above the active channel. In addition, disturbed soils could enter the channel during the rainy season and cause sedimentation of downstream areas. Sedimentation and erosion impacts are considered significant but mitigable.

Based on observed site conditions and the presence of flowing water in the active channel, the creek channel provides suitable habitat for steelhead trout, California red-legged frog, and other wildlife such as two-striped garter snake and pond turtle. As such, any project activity occurring within the lower banks and over/near the active stream channel could impact these species. Specific activities that will occur in the lower bed of Arroyo Grande Creek include willow and cottonwood pruning and removal of non-native vegetation. While the containment system is supposed to catch all debris and old paint removed from the pipe bridge, construction

materials could fall into the bed of the creek. Impacts to special status aquatic species are considered significant but mitigable.

Potential impacts to nesting birds could occur as a result of project activities causing noise generation and equipment operation, and increased human presence in the creek corridor. Although impacts to nesting birds are considered temporary, they are considered significant unless mitigated.

Mitigation/Conclusion. In addition to the proposed environmental compliance measures stipulated in the District's Special Provisions document, including Section 20 "Revegetation", the following mitigation measures shall be required in order to reduce impacts to less than significant levels:

BIO-1: The following measures are required to reduce impacts to biological resources in Arroyo Grande Creek resulting from tree pruning to less than significant levels:

1. All pruned materials shall be removed from the creek channel to reduce potential for blocking downstream bridge or culvert openings during high flow conditions;
2. Chainsaws used within the channel shall have internal chain oiling systems to reduce oil spray during cutting operations. Sawdust generated from large cuts on the cottonwood trees shall be contained and removed from the channel and spread on the banks as part of the erosion control plan;
3. All English ivy that is removed from within the pipe easement area shall be removed from the creek channel and disposed in a landfill; and
4. Due to the steep slopes and the need to stabilize and revegetate the site following construction, English ivy removal shall be conducted by pulling up runners as feasible, and then selective hand digging root balls in areas of low erosion potential throughout the project area. Holes created by digging shall be immediately filled and compacted by foot pressure. No loose dirt shall be left on the slopes, and all bare soils shall be seeded with the native seed mix identified below under Mitigation Measure BIO-2.

BIO-2: The following measures are required reduce potential water quality impacts as a result of project implementation to less than significant levels:

1. Prior to start of construction, the project site boundaries, access routes, and equipment/materials staging areas shall be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance;
2. Prior to start of construction, the applicant shall prepare an Erosion Control Plan. The plan shall address both temporary and permanent measures to stabilize disturbed areas and control erosion and reduce sedimentation. Erosion and soil protection, including seeding with native species, shall be provided on all disturbed soil areas prior to the onset of the rainy season (typically October 15; however, official date to be determined at the time of the first significant rain event of the season). All project plans shall show that sedimentation and erosion control measures must be installed per the engineer's requirements. The plan shall include specific measures to minimize impacts to jurisdictional habitats. For example, washing of equipment shall occur only in designated areas where polluted water and materials can be contained for

subsequent removal from the site. Washing of equipment, tools, etc. shall not be allowed in any location where the tainted water could enter storm drains or flow into the channel. The following native seed mix is recommended for application (either via hydroseed or broadcast seeding techniques) on disturbed bank areas;

Species	Application Rate (lbs./acre)
Ambrosia psilostachya (western ragweed)	2
Artemisia douglasiana (mugwort)	3
Bromus carinatus (California brome)	5
Hordeum brachyantherum (meadow barley)	3
Trifolium wildenovii (tomcat clover)	5
Vulpia microstachys (six weeks fescue)	5
Total	**23**

3. To avoid disturbance of wet soils, and limit the potential for erosion and sedimentation, work shall occur outside of the rainy season, which is typically defined from October 15 through April 15 (however, rainy season will be officially defined upon the first significant rain event of the season) , or as authorized by CDFW following approval of the project Erosion Control Plan;
4 The contractor shall implement the detailed containment measures developed by the project engineer designed to capture and remove all materials from the creek channel. Safe operation and maintenance of the containment system shall be a project priority, and the system shall be monitored for proper function during use;
5. Excavation of the top of bank to expose the pipe shall utilize the smallest equipment feasible, and may require some handwork to minimize the disturbance area. Due to the steep slopes, all loose soil must be contained during construction and incidental fall back of soils during excavation contained by installation of silt fence, straw bales, plywood or similar material below the excavation area. Erosion control measures must be cleaned and maintained daily during the project. Incidental fall back of soils shall be removed by hand and avoid impacts to native vegetation;
6. All project-related spills of hazardous materials within or adjacent to the project site shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. The staging areas shall conform to standard Best Management Practices applicable to attaining zero discharge of storm water runoff into the creek. No maintenance, cleaning or fueling of equipment shall occur within riparian areas, or within 25 feet of such areas given the tight working conditions. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills; and
7. 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 the work area.

BIO-3: The following measures are required to reduce potential impacts to aquatic species to less than significant levels.

1. Before project activities begin, a qualified biologist shall conduct preconstruction surveys for wildlife 48 hours prior to the start of any construction activity within the creek, and then again immediately prior to activity within the proposed project disturbance area. Any steelhead, CRLF, garter snake, or pond turtle occurrences within the project area shall be documented and avoided. Avoidance can be accomplished by delaying work until the animal(s) move out of the work area, or through establishment of exclusion zones, which will be the case for the active channel and areas of flowing water. All work that requires access to the creek channel such as vegetation removal shall be done under the direction of a qualified biologist to ensure these species are avoided.
2. Immediately prior to start of construction activities, a qualified biologist shall conduct an environmental education training session for all project personnel. At a minimum, the training shall include a description of the species potentially present, the specific measures required to protect those species, and the boundaries within which the project may be accomplished. The training shall include a review of all relevant permit conditions, and a question and answer session to discuss specific issues.
3. A qualified biologist shall be onsite to oversee all vegetation clearing and erosion control measures within the creek corridor. Once all initial site disturbance is done, the biologist shall visit the project site on a weekly basis to monitor compliance with all avoidance and protection measures. Monitoring shall also occur immediately prior to and following rain events to document preparedness and identify potential remedial actions needed prior to the rain event. The biologist shall have authority to temporarily stop work in consultation with the District if impacts to aquatic species or habitats potentially occur. The biologist shall also survey the site following the rain event to ensure species such as CRLF have not moved into the work area.
4. Any construction material or debris that inadvertently falls into the creek channel or on the creek banks shall be removed by hand immediately.

BIO-4: Impacts to nesting birds will be reduced to less than significant levels with the incorporation of the following mitigation measures.

1. To avoid impacts to nesting bird species, including special-status species and species protected by the Migratory Bird Treaty Act (MBTA), work within and adjacent to willow riparian forest areas shall be limited to the time period between September 1st and January 31st if feasible. Since this would place some work in the winter rain season, and project completion may not be feasible during this period, work can proceed during the bird nesting season as long as a qualified biologist conducts a pre-construction survey for active bird nests within the project area at least 48-hours prior to any disturbance activities proposed within the nesting season (February 1 through August 31). If no nesting activity is observed, project activities can proceed;
2. If active nest sites of bird species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 are observed within the immediate project vicinity, then the project shall be modified as necessary to avoid impacts to the identified nests, adults, eggs, and/or young. Potential project modifications may include establishing appropriate “no activity” buffers around the nest site as

determined by the project biologist. The buffer shall be developed in consultation with CDFW. Construction activities shall not occur in the buffer until the project biologist has determined that the nesting activity has ceased and the young are no longer reliant on the nest site;

3. If active nest sites of raptors and/or bird species of special concern are observed within the vicinity of project related disturbances, an appropriate buffer around the nest site (250 to 500 feet for raptors depending on location) shall be implemented. A reduced buffer may be feasible but will depend on vegetation, slope aspect, etc. and visual/sound separation from the nest site and construction zone. Construction activities in the buffer zone shall be prohibited until the young have fledged and are no longer reliant on the nest site; and
4. Active nests located in the project area shall be mapped and monitored by the project biologist, and a report shall be submitted to the CDFW and other appropriate agencies, documenting project compliance with the MBTA, California Fish and Game Code, and applicable project mitigation measures.

With the implementation of the mitigation measures listed above, impacts to biological resources will be reduced to less than significant levels.

V.	**CULTURAL RESOURCES** - *Will the project:*	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?***	☐	☐	☐	☒
b)	***Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?***	☐	☒	☐	☐
c)	***Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?***	☐	☐	☒	☐
d)	***Disturb any human remains, including those interred outside of formal cemeteries?***	☐	☐	☒	☐
e)	***Other:*** _____	☐	☐	☐	☒

Setting. Historical, archaeological, and paleontological resources in the project site vicinity, were evaluated as part of the Final Environmental Impact Report for the City of Arroyo Grande East Cherry Avenue Specific Plan (available for review at the following City of Arroyo Grande Planning Division web site: http://www.arroyogrande.org/569/East-Cherry-Avenue-Specific-Plan). Although the project site is not part of the Specific Plan evaluated in the FEIR, the project site is approximately 1,000 feet north of the Specific Plan site and the location was covered in the records search prepared

as part of the cultural resources evaluation (Central Coast Archaeological Research Consultants, June 2015). A copy of this evaluation can be found on the web site listed above.

As discussed in the above referenced evaluation, at the time of Spanish contact in the region speakers of the Obispeño language of the Chumash language family occupied the lands in the Arroyo Grande vicinity. The project area is located south of the boundary of the Obispeño or Northern Chumash (to the south) and speakers of the putative Playano language and Salinan groups that resided to the north near Big Sur.

The old town portion of Arroyo Grande along Branch Street east of Highway 101, was once a part of the Pismo Rancho. The Pismo Rancho was granted to Jose Ortega on November 18, 1840 and transferred to Isaac Sparks in 1846. Today's boundaries for Arroyo Grande also takes in parts of three other historic Mexican Land Grant ranchos.

The archival records research prepared as part of the above-referenced cultural resources evaluation focused on developing a general historic context and site-specific information for the immediate Specific Plan area. The records search included information on all archaeological sites within a 0.5-mile radius of the East Cherry Avenue Specific Plan area and previous cultural resource surveys conducted within a 0.25-mile radius. This study area covers the proposed Cherry Avenue Pipe Bridge project site, which is less than 0.25 miles north of the Specific Plan site. Based on the archival records search, no previously identified cultural resource sites are found within the areas proposed for disturbance as part of the proposed pipe bridge maintenance project.

In addition, it should be noted that the areas proposed for minor excavation as part of the maintenance project are limited to ground disturbance immediately adjacent to the existing pipe bride footings on the north and south banks of the Arroyo Grande Creek. These areas are comprised of fill material placed during the original construction of the pipe bridge and are void of any native or undisturbed soils.

Impact. The project site is not located within a known cultural resource site and is not located in direct proximity to known archaeological, historic or paleontological resources. Furthermore, project ground disturbance is limited to the disturbed, non-native fill material immediately adjacent to the existing pipe bridge footings. Although remote, there is a possibility of the unanticipated and accidental discovery of archaeological and/or paleontological resources and/or human remains during project implementation. As such, impacts are considered less than significant with mitigation incorporated

Mitigation/Conclusion. The following mitigation measure is required to reduce impacts to cultural resources to less than significant levels.

CR-1: In the event unforeseen archaeological resources are unearthed during any construction activities, all grading and/or excavation shall cease in the immediate area and the find left untouched. The City shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, Native American, or paleontologist, whichever is appropriate. The qualified professional shall evaluate the find and make reservations

related to the preservation or disposition archaeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the District shall notify the County Coroner. If human remains are found to be of ancient age and of archaeological spiritual significance, the District shall notify the Native American of likely descent.

With the implementation of the mitigation measure listed above, impacts to cultural resources will be reduced to less than significant levels.

VI.	**GEOLOGY AND SOILS** - *Will the project:*	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Result in exposure to or production of unstable earth conditions, such as landslides, earthquakes, liquefaction, ground failure, land subsidence or other similar hazards?***	☐	☐	☒	☐
b)	***Be within a California Geological Survey "Alquist-Priolo Earthquake Fault Zone"?***	☐	☐	☐	☒
c)	***Result in soil erosion, topographic changes, loss of topsoil or unstable soil conditions from project-related improvements, such as vegetation removal, grading, excavation, or fill?***	☐	☐	☒	☐
d)	***Change rates of soil absorption, or amount or direction of surface runoff?***	☐	☐	☒	☐
e)	***Include structures located on expansive soils?***	☐	☐	☒	☐
f)	***Change the drainage patterns where substantial on- or off-site sedimentation/ erosion or flooding may occur?***	☐	☐	☒	☐
g)	***Involve activities within the 100-year flood zone?***	☐	☐	☐	☒
h*)*	***Be inconsistent with the goals and policies of the City General Plan relating to geologic and seismic hazards?***	☐	☐	☒	☐
i)	***Preclude the future extraction of valuable mineral resources?***	☐	☐	☒	☐
j)	***Other:*** _____	☐	☐	☐	☒

Setting: San Luis Obispo County, including the City of Arroyo Grande, is located within the Coast Range Geomorphic Province, which extends along the coastline from central California to Oregon. This region is characterized by extensive folding, faulting, and fracturing of variable intensity. In general, the folds and faults of this province comprise the pronounced northwest trending ridge-valley system of the central and northern coast of California.

According to the Geologic Map of California, San Luis Obispo Sheet (California Department of Mines and Geology, 1978), the site vicinity is underlain by Middle Miocene Marine aged marine deposits.

Under the Alquilt-Priolo Special Studies Zone Act, the State Geologist is required to delineate appropriately wide special study zones that encompass all potentially and recently active fault traces deemed sufficiently active and well-defined as to constitute a potential hazard to structures from surface faulting or fault creep. In San Luis Obispo County, the Special Studies Zones (i.e., Earthquake Fault Zones) includes the San Andreas and Los Osos faults, neither of which are located in proximity to the project site.

Adjacent to the City of Arroyo Grande, the Wilmar Avenue fault is the closest potentially active fault to the project site. This fault can been seen exposed in a coastal bluff in the City of Pismo Beach, and extends inland underground in a northwest-southeast parallel to Highway 101 under portions of the City of Arroyo Grande. This fault is listed in the City's General Plan Safety Element as posing a moderate potential for fault rupture hazards. Inactive faults, like the Pismo fault, within the City are considered to pose a very low potential for fault rupture hazards.

Landslide hazards are considered potentially significant along the incised banks of Arroyo Grande Creek in the project site area.

Impact. Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely to occur along active faults. However, the potential for ground rupture also exists along potentially active faults. The project site is not located within an Earthquake Fault Zone as established in accordance with the Alquist-Priolo Earthquake Fault Zoning Act of 1972. The nearest fault line, the Wilmar Avenue fault discussed above, does not cross the project site. Furthermore, it should be noted that the proposed project is limited to the maintenance of the existing pipe bridge and no structural development is proposed that may pose a safety risk. The potential for surface rupture to occur on the site is determined to be very low, and impacts are considered less than significant.

Small to moderate earthquakes (with magnitudes less than 5.0 on the Richter Scale) are common in San Luis Obispo County. The project site is located in general proximity to active or potentially active faults and is approximately 35 miles west of the San Andreas Fault. As such, strong shaking should be expected during the lifetime of the proposed project. However, it should be noted that the proposed project is limited to the maintenance of the existing pipe bridge and no structural development is proposed that may pose a safety risk related to earthquake activity. Impacts are considered less than significant (please refer to Section VII, Hazards and Hazardous Materials, for a discussion of pipeline spill response).

Liquefaction is the loss of strength in saturated granular soils produced by seismic shaking. For this to occur, the soils must be saturated at a relatively shallow depth, of a granular (non-cohesive) nature, and be relatively loose. Based on the project site location spanning the banks of the Arroyo Grande Creek and depth to groundwater, and the analysis in the City's General Plan Safety Element, the project site has a high estimated liquefaction potential. However, it should be noted that the proposed project is limited to the maintenance of the existing pipe bridge and no structural development is proposed that may pose a safety risk related to liquefaction activity. Impacts are considered less than significant.

The project site is relatively flat and is from any nearby slopes; therefore, it is unlikely to be impacted by landslides. Impacts are considered to be less than significant.

The project site is underlain by the Mocho silty clay loam (0-2% slope) and Riverwah soil units. According to the United States Department of Agriculture-Natural Resources Conservation Service's Web Soil Survey, this soil has a minimal to slight erosion hazard. A rating of slight indicates that erosion is unlikely under ordinary conditions. Implementation of the requirements for dust abatement and air quality that require watering of loose soils and various erosion and dust control measures would ensure that any earthmoving activities would be properly mitigated for soil erosion. Therefore, project impacts related to soil erosion or the loss of topsoil are considered to be less than significant.

The project site is not located on an unstable geologic unit or expansive soil, nor would the site become unstable as a result of the project. Riverwash soils are the primary soil types in the project site and are characterized as being nearly level to gently sloping and having a high runoff rate, low shrink-swell potential, moderately rapid permeability level, and a minimal to slight erosion hazard. However, the proposed project is limited to the maintenance of the existing pipe bridge and no structural development is proposed. As such, impacts related to expansive soils are considered less than significant.

Implementation of the required mitigation measures BIO-1 and BIO-2, listed above, will reduce impacts related to erosion to less than significant levels.

Storm runoff volumes and rates will not be altered as a result of the proposed maintenance project. To adequately manage storm water runoff, and address water quality including impacts related to sedimentation and erosion, the District is proposing the drafting and implementation of a Water Pollution Control Program (WPCP) in accordance with the WPCP Preparation Manual as published by CalTrans (for more information, please refer to the "Special Provisions" publication by the South San Luis Obispo County Sanitation District, available for review and the District office listed at the beginning of this Initial Study/MND). This includes preparation of the WPCP, obtaining WPCP acceptance, amending the WPCP, and reporting on water pollution control practices at the job site.

In addition, the District-proposed construction site management includes controlling potential sources of water pollution before they come in contact with storm water systems or watercourses. Site management also includes the controlling material pollution and managing waste and non-storm water at the job site by implementing effective handling, storage, use, and disposal practices. For

information on documents under the District's Special Provisions, please refer to the Caltrans' Preparation Manual, Dewatering Guide, and BMP Manual (available at the following web site: http://www.caltrans.ca.gov/trafficops/ep/water.html). The District proposes to implement these requirements as part of the proposed project. With implementation of the WPCP and the requirements established under the Caltrans' Preparation Manual, Dewatering Guide, and BMP Manual, impacts related to stormwater runoff are considered less than significant.

Mitigation/Conclusion. Implementation of the District's proposed Special Provisions for the proposed project, including the requirements under mitigation measures BIO-1 and BIO-2 will reduce impacts to less than significant levels. No additional measures are required.

VII.	**HAZARDS & HAZARDOUS MATERIALS** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Result in a risk of explosion or release of hazardous substances (e.g. oil, pesticides, chemicals, radiation) or exposure of people to hazardous substances?***	☐	☐	☒	☐
b)	***Interfere with an emergency response or evacuation plan?***	☐	☐	☐	☒
c)	***Expose people to safety risk associated with airport flight pattern?***	☐	☐	☒	☐
d)	***Increase fire hazard risk or expose people or structures to high fire hazard conditions?***	☐	☐	☒	☐
e)	***Create any other health hazard or potential hazard?***	☐	☐	☒	☐
f)	***Other:*** _____	☐	☐	☐	☒

Setting. Hazards may include exposure to both natural and man-made hazards. A range of other types of hazards are addressed in other sections of this Initial Study/MND, including air pollution hazards and water pollution hazards, such as groundwater contamination and surface runoff. Hazardous materials are defined as substances with physical and chemical properties of ignitability, corrosivity, reactivity, or toxicity which may pose a threat to human health or the environment. The term "hazardous materials" is used in this section to describe chemical materials, such as petroleum products, solvents, pesticides, herbicides, paints, metals, asbestos, and other regulated chemical materials. The potential for future releases of hazardous materials to occur during implementation of the proposed project are discussed below. It is important to note that hazardous material impacts are limited to the project construction phase, since the project is limited to the proposed pipe bridge maintenance and no operational phase is proposed.

Impact. The pipe bridge maintenance project will involve the removal of existing paint and debris from the bridge, followed by replacing anti-corrosion coatings on the bridge. The anti-corrosion coating systems to be applied include a 3-layer inorganic zinc/epoxy/urethane coating system, a wax tape and fiberglass outer wrap system and a 3-layer modified polyamidoamine epoxy/aliphatic acrylic polyurethane coating system. According to the District, any work that disturbs the existing coating system may expose project workers to health hazards. All debris produced when the existing coating system is disturbed must be contained. As such, the District proposes to use a containment system designed to contain all debris resulting from the stripping of the existing pipe bridge. The containment system will contain all water, resulting debris, and visible dust produced when the existing coating system is disturbed. No temporary structures are proposed for construction in the stream channel bottom. Impacts related from coating application are considered less than significant with implementation of the proposed containment system.

Spill Prevention and Control Plan: In order to address accidental release of the stripped materials and/or pipe coating, the District has proposed a Spill Prevention and Control program. This includes submittal of a Spill Prevention Plan for review by the project Engineer, including a Material Data Sheet, monthly inventory records for materials used or stored, manifest forms for hazardous waste disposal and written approvals for any discharge to sanitary sewer systems. The provisions of the Spill Prevention and Control Plan include requirements for the maintenance of all vehicles and equipment used on site and checked daily for fuel, oil, and hydraulic fluid leaks or other problems.

The Spill Prevention Plan includes the requirement to keep appropriate spill control and clean up materials (e.g., oil absorbent pads) onsite in the event spills occur. As soon as it is safe, the plan will include methods to contain and clean up spills of petroleum products, including sanitary and septic waste substances listed under CFR Title 40, Parts 110, 117, and 302. All trash and debris shall be required to be confined in appropriate enclosed bins, and dispose of at an approved site regularly. In addition, the District will be required to designate a staging area for equipment and vehicle fueling and storage as far as practical, or at least 25 feet minimum, away from waterways in a location where fluids cannot flow into waterways.

The Plan also requires that in the event that a spill occurs, all project activities shall immediately cease until cleanup of the spilled materials is completed. The Engineer and CDFW shall be notified immediately of any spills and shall be consulted regarding cleanup procedures. The Plan will include procedures to contain, clean up and report minor spills, semi-significant spills, and significant or hazardous spills. Please refer to the District's Special Provisions for additional details with respect to spill protection and response for hazardous materials.

Asbestos and Lead Compliance Plan: In order to address hazards related to the potential release of asbestos containing materials and/or lead based paint, the District is required through Cal/OSHA (including 8 CCR § 1529 and 1532 and APCD regulations) to prepare an Asbestos and Lead Compliance Plan for the purpose of preventing or minimizing exposure to asbestos and lead while handling earth materials, coating system debris and residue containing asbestos and lead. The Plan will also contain provision for preventing or minimizing contamination of the project area.

The plan is required to contain the items listed in 8 CA Code of Regulations § 1529(g) and § 1532.1(e)(2)(B). In addition, the plan will contain sampling and testing requirements for work area monitoring and sampling and testing requirements for debris handling. Before submittal, a California Certified Asbestos Consultant and a person certified by the California Department of Public Health shall review and sign and seal the plan.

As part of the Plan, before starting any activity that presents the potential for asbestos or lead disturbance, the project contractor will be required to notify the San Luis Obispo County Air Pollution Control District, Enforcement Section. Before starting any activity that presents the potential for asbestos or lead exposure to employees, including District employees, the District (or their contractor) will be required to provide a safety training program that complies with 8 CA Code of Regulations § 1529 and § 1532.1 and the Asbestos and Lead Compliance Plan. This also includes the requirement to submit monitoring and inspection reports. Please refer to the District's Special Provisions for additional details with respect to asbestos and lead safety requirements.

The project is not located in an area of known hazardous material contamination. Fire protection is provided by the Five Cities Fire Authority, a Joint Powers Authority between the Cities of Arroyo Grande, Grover Beach and the Oceano Community Services District. A Five Cities Fire Authority Fire station is in close proximity to the project site (140 Traffic Way, Arroyo Grande), providing timely emergency support if needed. The project is not within a high severity risk area for fire. No airports are nearby, and as a result the project is not within an Airport Review area.

Mitigation/Conclusion. With implementation of the required project containment system and the required Spill Prevention and Control Plan and Asbestos and Lead Compliance Plan, including the details of the District's Special Provisions and required mitigation measures BIO-1 and BIO-2, hazard and hazardous material impacts are considered less than significant.

VIII.	**NOISE** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Expose people to noise levels that exceed the City Noise Element thresholds?***	☐	☒	☐	☐
b)	***Generate increases in the ambient noise levels for adjoining areas?***	☐	☐	☒	☐
c)	***Expose people to severe noise or vibration?***	☐	☐	☒	☐
d)	***Other:*** _____	☐	☐	☐	☒

Setting. The City of Arroyo Grande General Plan Noise Element requires that interior noise exposure from exterior noise sources (traffic) within residential dwellings not exceed 45 dB LDN (or CNEL), regardless of exterior noise exposure. The City of Arroyo Grande has established an exterior noise level criterion of less than 60 dB LDN (or CNEL) within transient lodging, office commercial and

residential land uses, including the yards and patios used by the residences. These are considered to be the "Normally Acceptable" levels, and may be adjusted upward to 70 dB LDN for playgrounds and neighborhood parks. Mitigation measures may be required to insure that interior spaces shall not exceed 45 dBA with the exception of playgrounds and parks.

The City of Arroyo Grande Municipal Code, Title 9, Chapter 9.16 – Noise, allows for noise sources associated with construction, provided such activities do not take place before 7:00 AM or after 10:00 PM on any day except Saturday or Sunday, or before 8:00 AM or after 5:00 PM on Saturday or Sunday.

Impact. The proposed project is located in proximity to residential land uses along the northern and southern banks of the Arroyo Grande Creek, adjacent to the existing pipe bridge. The proposed project is limited to the maintenance of the existing pipe bridge. The project would not have the potential to result in an increase in exterior or interior noise levels in the site vicinity after maintenance is completed. However, project activities will create a temporary increase in noise and potential groundbourne vibration. Construction activities would result in substantial, short-term increases in existing ambient noise levels over 65 dBA CNEL within the project vicinity during the following activities:

- construction vehicles entering and leaving the site, including workers, building materials, or construction equipment;
- activities in the construction staging areas;
- operation of temporary on-site generators and compressors;
- grading and/or earth-moving activities; and
- pipe bridge maintenance activities.

Impacts related to project noise generation are considered temporary in nature, but given the level of proposed maintenance activities, they have the potential to result in significant impacts unless mitigated.

The proposed project site is not located within an airport land use plan or within two miles of a public airport or public use airport and is not located within the vicinity of a private airstrip.

Mitigation/Conclusion. To mitigate impacts related to construction noise to less than significant levels, the following noise mitigation shall be required:

N-1: Construction activity for site preparation shall be limited to the hours of 7 AM to 7 PM, Monday through Friday and 8AM to 5PM on Saturdays. No construction shall occur on Sundays or State Holidays. Construction equipment maintenance shall be limited to the same hours. Non-noise generating construction activities without mechanical equipment (e.g., excavation using hand tools, hand painting, etc.) are not subject to these restrictions.

Stationary construction equipment that generates noise that exceeds 65 dBA at the project boundaries shall be shielded with the most modern and effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures). Impact tools (e.g., jack hammers, pavement

breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities.

IX.	**POPULATION/HOUSING** - *Will the project:*	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?***	☐	☐	☒	☐
b)	***Displace existing housing or people, requiring construction of replacement housing elsewhere?***	☐	☐	☐	☒
c)	***Create the need for substantial new housing in the area?***	☐	☐	☐	☒
d)	***Use substantial amount of fuel or energy?***	☐	☐	☒	☐
e)	***Other:*** _____	☐	☐	☐	☒

Setting/Impact. The proposed project is limited to the maintenance of the existing Cherry Avenue pipe bridge and would not induce substantial population growth in the City of Arroyo Grande either directly or indirectly. The project would not displace existing housing or necessitate the construction of replacement housing elsewhere and would not displace people or require the construction of housing elsewhere.

Mitigation/Conclusion. No significant population and housing impacts are anticipated, and no mitigation measures are necessary.

X.	**PUBLIC SERVICES/UTILITIES** - *Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:*	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Fire protection?***	☐	☐	☒	☐
b)	***Police protection (e.g., City Police, CHP)?***	☐	☐	☒	☐
c)	***Schools?***	☐	☐	☒	☐
d)	***Roads?***	☐	☐	☒	☐

X.	PUBLIC SERVICES/UTILITIES - *Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
e)	***Solid Wastes?***	☐	☐	☒	☐
f)	***Other public facilities?***	☐	☐	☒	☐
g)	***Other:*** _____	☐	☐	☐	☒

Setting. Police: Police services in the Project vicinity are provided by the Arroyo Grande Police Department (AGPD). The AGPD is staffed by 30 full-time employees who provide law enforcement and emergency response throughout the City and surrounding area. The Police Department is located at 200 North Halcyon Road, approximately 1.5 mile from the project site. The department is organized into two major divisions: Patrol Services and Support Services, each led by a Commander. In addition to the 30 full-time employees, the department has six part-time employees, two Reserve Offices, two Neighborhood Services Technicians, one Fleet and Equipment Technician, on Training Manager, and 52 community volunteers. Provision of police protection services are regulated under the *General Plan Safety Element*, which requires adequate provision of these services.

Fire: Fire protection is provided by the Five Cities Fire Authority, a Joint Powers Authority between the Cities of Arroyo Grande, Grover Beach and the Oceano Community Services District. A Five Cities Fire Authority Fire station is in close proximity to the project site (140 Traffic Way, Arroyo Grande), providing timely emergency support if needed.

Schools: The Project site is located within the Lucia Mar Unified School District (School District) (K-12), which encompasses the communities of Arroyo Grande, Grover Beach, Nipomo, Oceano, Pismo Beach, and Shell Beach (Lucia Mar Unified School District 2016a). The School District is the largest school district in San Luis Obispo County, and serves over 10,700 students. The School District consists of 19 schools: eleven elementary schools, three middle schools, four high schools, and one continuation high school.

Solid Waste: South County Sanitary is the service provider for the City of Arroyo Grande, including the project vicinity, and offers curbside solid waste and recyclable collection services. South County Sanitary is a municipal waste hauling company supported by the Cold Canyon Landfill, and is owned by Waste Connections, Inc. (South County Sanitary 2015). The Cold Canyon Landfill is the primary Landfill for the Five Cities area, as well as for the City of San Luis Obispo, and is projected to reach its capacity around 2018. The landfill has been approved for the expansion of the facilities capacity from 1,620 to 2,500 tpd, extending the landfill's projections to reach capacity in approximately 30 years in order adequately service current and anticipated district needs (County of San Luis Obispo 2012).

Impact. The proposed project is limited to the maintenance of the existing Cherry Avenue Pipe Bridge and would not result in an increased demand for police, fire protection or any other public services or utilities and would not result in the need for the upgrade of existing services or require the construction of new services. Impacts to public services are considered less than significant.

Senate Bill 50 (SB 50) implemented school impact fee reforms in 1998 by amending the laws governing developer fees and school mitigation. Pursuant to SB 50, future development projects would be required to pay school impact fees established to offset potential impacts on school facilities. The proposed project does not trigger school impact fees and impacts to schools are not expected. Similarly, the project is not expected to have a significant impact on parks or other public facilities. No impacts would result.

Mitigation/Conclusion. Impacts are considered less than significant, no mitigation is required.

XI.	**RECREATION** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Increase the use or demand for parks or other recreation opportunities?***	☐	☐	☒	☐
b)	***Affect the access to trails, parks or other recreation opportunities?***	☐	☐	☒	☐
c)	***Other*** _____	☐	☐	☐	☒

Setting. There are 15 public or quasi-public recreational resources and open spaces within the vicinity of the project site located within the City. This includes over 147.9-acres of active parks, sports complexes, and passive open spaces managed and maintained by the City of Arroyo Grande. The City Recreational Services Department also maintains approximately 20.4 acres of non-useable landscape areas for a total of 168.34-acres of public lands in parks, landscaped areas, and open spaces.

Impact. The proposed project does not have the potential to increase the amount of residents in the vicinity, or increase demands on local parks facilities and would not increase visitation of open spaces or other City recreational facilities. Impacts related to project development in native habitat have been discussed in detail under Section IV, Biological Resources.

Mitigation/Conclusion. Impacts are considered less than significant and no additional measures are required.

XII.	**TRANSPORTATION/ CIRCULATION** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Increase vehicle trips to local or areawide circulation system?***	☐	☐	☒	☐
b)	***Reduce existing "Levels of Service" on public roadway(s)?***	☐	☐	☒	☐

XII.	TRANSPORTATION/ CIRCULATION - *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
c)	***Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles)?***	☐	☐	☒	☐
d)	***Provide for adequate emergency access?***	☐	☐	☒	☐
e)	***Result in inadequate parking capacity?***	☐	☐	☒	☐
f)	***Result in inadequate internal traffic circulation?***	☐	☐	☒	☐
g)	***Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., pedestrian access, bus turnouts, bicycle racks, etc.)?***	☐	☐	☒	☐
h)	***Result in a change in air traffic patterns that may result in substantial safety risks?***	☐	☐	☐	☒
i)	***Other:*** _____	☐	☐	☐	☒

Setting. Regional access to the City of Arroyo Grande is provided via the U.S. Highway 101, and access in the project vicinity is available via northbound and southbound ramps at Traffic Way, as well as a full interchange at East Grand Avenue. These two interchanges provide access to a limited arterial system which funnels traffic generated in this automobile-dependent area to a few key intersections. Local access to the site is provided via East Branch Street (and Paulding Circle) for the north-bank pipe bridge landing, and via Nelson Street for the south-bank pipe bridge landing.

Impact. The proposed project is limited to the maintenance of the existing Cherry Avenue Pipe Bridge. The project is limited to the construction activities discussed above in detail under the Project Description. No development is proposed that would have the potential to increase traffic on local roadways or regional transportation corridors (e.g., Highway 101). Project traffic impacts are limited to construction activities associated with the pipe bridge maintenance and operational traffic increases are not expected. Construction is anticipated to last up to 60 days maximum and as such, construction traffic generation is considered temporary. Therefore, transportation and traffic impacts are considered less than significant.

The project will not affect air traffic patterns. The project would not substantially increase hazards due to a design feature or incompatible use. Impacts are considered less than significant

The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. Project construction staging will require an encroachment permit from the City and construction staging shall not be allowed to obstruct traffic access to nearby residences. Impacts are considered less than significant.

Mitigation/Conclusion. With compliance with the anticipated City Encroachment Permit, impacts are considered less than significant. Further mitigation is not required.

XIII.	WASTEWATER - *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a)	***Violate waste discharge requirements or local criteria for wastewater systems?***	☐	☐	☒	☐
b)	***Change the quality of surface or ground water (e.g., nitrogen-loading, daylighting)?***	☐	☐	☒	☐
c)	***Adversely affect City wastewater service provider?***	☐	☐	☒	☐
d)	***Other:*** _____	☐	☐	☐	☒

Setting. The wastewater collection system for within the City limits conveys raw wastewater to trunk mains owned and operated by the District for wastewater treatment. The District serves the Cities of Arroyo Grande, Grover Beach, and the community of Oceano. The sanitary sewer system consists of nearly 73 miles of gravity sewer systems and five wastewater lift stations throughout the City. The sewer pipe collection system conveys approximately 1.20 million gallons per day (mgd) of wastewater with peak daily flows of approximately 3.16 mgd. The proposed project is part of the maintenance of the District's wastewater conveyance system.

Impact. The proposed project consists of the maintenance to the Cherry Avenue Pipe Bridge and will help ensure the continued safe conveyance of wastewater for treatment as part of the local municipal infrastructure.

Please refer to Section VII, Hazards and Hazardous Materials, for a discussion of impacts related to the removal of existing facility paint and coating and the application of new coating on the pipe bridge. The District is proposing the use of a containment system that will contain all debris (including any water used for paint removal) for proper disposal.

Mitigation/Conclusion. Mitigation measures are not required. Impacts are considered less than significant.

XIV.	WATER - *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a)	***Violate any water quality standards?***	☐	☒	☐	☐

XIV.	WATER - *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
b)	***Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, temperature, dissolved oxygen, etc.)?***	☐	☒	☐	☐
c)	***Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.)?***	☐	☐	☒	☐
d)	***Change the quantity or movement of available surface or ground water?***	☐	☐	☒	☐
e)	***Adversely affect community water service provider?***	☐	☐	☒	☐
f)	***Other:*** _____	☐	☐	☐	☒

Setting. Water use at the project site is managed under the City's Urban Water Management Plan which assesses the City water demand and water supply in regards to the proposed build-out population, and anticipates adequate supply of water upon reaching build-out of the City.

The City receives its water primarily from Lopez Reservoir via the Lopez pipeline, as well as groundwater from the Santa Maria Groundwater Basin and Pismo Formation. Lopez Reservoir water is treated at the Lopez Water Treatment Plant operation of the dam and treatment facilities is provided by the San Luis Obispo Flood Control and Water Conservation District. This constitutes the majority supply of fresh water for the Five Cities area. Total water demand for the City in 2010 equated to 3,793 afy and the City water supply availability will be approximately 3,813 afy in 2020.

Impact. The proposed project is limited to the maintenance of the existing Cherry Avenue Pipe Bridge and would not impact the water resources for the community. The project would not have the potential to change the movement of surface or ground water. The proposed project has the potential to result in water quality impacts related to sedimentation/erosion resulting from proposed earth moving activities along the steep incised creek banks. In addition, the project has the potential to result in impacts related to accidental release of hazardous materials (debris from the stripping of the pipe bridge and coating applications) into the Arroyo Grande Creek.

Please refer to the discussion under Sections IV (Biological Resources), VI (Geology and Soils) and VII (Hazards and Hazardous Materials) for a detailed analysis of impacts related to stormwater runoff, erosion/sedimentation, and the release of hazardous materials. Impacts are considered significant but mitigable.

Mitigation/Conclusion. With implementation of the proposed project containment system and the District's Spill Prevention and Control Plan and Asbestos and Lead Compliance Plan, including the

details of the District's Water Pollution Control Program (WPCP) to be prepared in accordance with the WPCP Preparation Manual as published by CalTrans, and required mitigation measures BIO-1 and BIO-2, water and water quality impacts are considered less than significant.

XV.	**LAND USE** - ***Will the project:***	**Inconsistent**	**Potentially Inconsistent**	**Consistent**	**Not Applicable**
a)	***Be potentially inconsistent with land use, policy/regulation (e.g., general plan [City General Plan and ordinance], specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects?***	☐	☐	☒	☐
b)	***Be potentially inconsistent with any habitat or community conservation plan?***	☐	☐	☒	☐
c)	***Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project?***	☐	☐	☒	☐
d)	***Be potentially incompatible with surrounding land uses?***	☐	☐	☒	☐
e)	***Other:*** _____	☐	☐	☐	☒

Setting/Impact. The project site is bounded on the north by mixed residential and commercial development along Branch Street (zoning designation = Village Mixed Use), and single family residential development to the south (zoning designation = Single Family).

The proposed project has been reviewed for consistency with policy and/or regulatory documents relating to the environment and appropriate land use (e.g., City Land Use Ordinance, General Plan, etc.) and has been determined to be in substantial conformance.

The project is not within or adjacent to a habitat or community conservation plan. The project is consistent or compatible with the surrounding uses as discussed in this Initial Study.

Mitigation/Conclusion. No inconsistencies were identified and therefore no additional measures above what will already be required are determined necessary.

XVI.	**MANDATORY FINDINGS OF SIGNIFICANCE** - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a)	***Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare***				

or endangered plant or animal or eliminate important examples of the major periods of history or prehistory?

☐ ☒ ☐ ☐

b) 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) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

☐ ☐ ☒ ☐

For further information on CEQA or the District's environmental review process, please contact the South San Luis Obispo County Sanitation District, or the California Environmental Resources Evaluation System at "http://ceres.ca.gov/topic/env_law/ceqa/guidelines/" for information about the California Environmental Quality Act.

5. REFERENCES AND RESOURCES

1. City of Arroyo Grande. *City of Arroyo Grande General Plan.*
2. City of Arroyo Grande. *Final Environmental Impact Report for the Cherry Avenue Specific Plan.* April 2016.
3. Kevin Merk Associates, LLC. *Biological Resource Assessment for the Cherry Avenue Pipe Bridge Maintenance Project, Arroyo Grande Creek, San Luis Obispo County, California.* November 16, 2015.
4. U.S. Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey.
5. City of Arroyo Grande. *City of Zoning Map*.
6. City of Arroyo Grande. *Climate Action Plan.* November 26, 2013.
7. City of Arroyo Grande. *Urban Water Management Plan.* 2012.
8. San Luis Obispo County APCD. *CEQA Air Quality Handbook. A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA*. April 2012.

9. San Luis Obispo County APCD. *Greenhouse Gas Thresholds and Supporting Evidence*. March 28, 2012.

10. Air Pollution Control District. *CEQA Air Quality Handbook, Sand Luis Obispo County*. 2012.

11. U.S. Department of Agriculture, Soil Conservation Service. *Soil Survey of San Luis Obispo County, California.* 1978.

12. California Air Resources Board. *Ambient Air Quality Standards.* As revised March 20, 2008.

13. California Department of Conservation, California Geological Survey. *Alquist-Priolo Earthquake Fault Zoning Act. California Public Resources Code, Section 2621 et seq.* 1972.

14. California Department of Conservation, California Geological Survey. *Seismic Hazards Mapping Act. California Public Resources Code. Section 2690 et seq.* 1990.

15. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Soil Candidate Listing for Prime Agricultural Farmland of Statewide Importance*. August 1995.

16. California Regional Water Quality Control Board, Central Coast Region. *Water Quality Control Plan.* As updated August 5, 2006.

17. California Resources Agency. *California Environmental Quality Act, California Public Resources Code, Division 13 Environmental Protection, Sections 21000–21777.* 2005.

18. California Resources Agency. *Guidelines for the Implementation of the California Environmental Quality Act, Title 14 California Code of Regulations. Chapter 3.* 2005.

19. Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act.*

6. MITIGATION MONITORING PLAN

AQ-1. To mitigate fugitive dust emissions related to project construction, the following shall be implemented:

a) Reduce the amount of the disturbed area where possible;
b) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
c) All dirt stock pile areas should be sprayed daily as needed;
d) Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
e) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
f) All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
g) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
h) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
i) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
j) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
k) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
l) The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

Mitigation Implementation/Monitoring

1. **Performance standard:** Dust mitigation measures shall be reviewed by the District and jurisdictional permitting agencies.
2. **Contingency Measure:** None
3. **Implementation Responsibility:** South San Luis Obispo County Sanitation District (District)
4. **Implementation Schedule:** Prior to construction, the above measures shall be clearly printed on all plans. Measures to be implemented throughout construction.
   Monitoring Method: District shall work with appropriate APCD staff to ensure implementation and monitoring per Mitigation Measure AQ-1(m).

AQ-2. The required mitigation measures for reducing nitrogen oxides (NO_x), reactive organic gases (ROG), and diesel particulate matter (DPM) emissions from construction equipment are listed below:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation;
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Mitigation Implementation/Monitoring

1. **Performance standard:** The District shall ensure compliance with the DPM avoidance measures during site construction.
2. **Contingency Measure:** As determined by environmental monitor or District official
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** throughout construction
5. **Monitoring Method:** Applicant shall consult with and apply for any appropriate permits with the San Luis Obispo Air Pollution Control District

BIO-1: The following measures are required to reduce impacts to biological resources in Arroyo Grande Creek resulting from tree pruning to less than significant levels:

1. All pruned materials shall be removed from the creek channel to reduce potential for blocking downstream bridge or culvert openings during high flow conditions;
2. Chainsaws used within the channel shall have internal chain oiling systems to reduce oil spray during cutting operations. Sawdust generated from large cuts on the trees shall be contained and removed from the channel and spread on the banks as part of the erosion control plan;
3. All English ivy and pampas grass removed from within the pipe easement area shall be removed from the creek channel and disposed in a landfill; and

4. Due to the steep slopes and the need to stabilize and revegetate the site following construction, English ivy removal shall be conducted by pulling up runners as feasible, and then selective hand digging root balls in areas of low erosion potential throughout the project area. Holes created by digging shall be immediately filled and compacted by foot pressure. No loose dirt shall be left on the slopes, and all bare soils shall be seeded with the native seed mix identified below under Mitigation Measure BIO-2.

Mitigation Implementation/Monitoring

1. **Performance standard:** Biological mitigation measures shall be printed on project contract documents and conformance shall be monitored by a qualified biologist.
2. **Contingency Measure:** As determined by environmental monitor or District official
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** Prior to commencement of construction
5. **Monitoring Method:** Environmental monitor shall report to District and CDFW as appropriate. Monitoring by the District under CDFW permits.

BIO-2: The following measures are required to reduce potential water quality impacts as a result of project implementation to less than significant levels:

1. Prior to start of construction, the project site boundaries, access routes, and equipment/materials staging areas shall be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance;
2. Prior to start of construction, the applicant shall prepare an Erosion Control Plan. The plan shall address both temporary and permanent measures to stabilize disturbed areas and control erosion and reduce sedimentation. Erosion and soil protection, including seeding with native species, shall be provided on all disturbed soil areas prior to the onset of the rainy season (October 15). All project plans shall show that sedimentation and erosion control measures must be installed per the engineer's requirements. The plan shall include specific measures to minimize impacts to jurisdictional habitats. For example, washing of equipment shall occur only in designated areas where polluted water and materials can be contained for subsequent removal from the site. Washing of equipment, tools, etc. shall not be allowed in any location where the tainted water could enter storm drains or flow into the channel. The following native seed mix is recommended for application (either via hydroseed or broadcast seeding techniques) on disturbed bank areas;

Species	Application Rate (lbs./acre)
Ambrosia psilostachya (western ragweed)	2
Artemisia douglasiana (mugwort)	3
Bromus carinatus (California brome)	5
Hordeum brachyantherum (meadow barley)	3
Trifolium wildenovii (tomcat clover)	5
Vulpia microstachys (six weeks fescue)	5
Total	**23**

3. To avoid disturbance of wet soils, and limit the potential for erosion and sedimentation, work shall occur outside of the rainy season, which is typically defined from October 15

through April 15 (rainy season to be officially defined upon the first significant rain event of the season), or as authorized by CDFW following approval of the project Erosion Control Plan;

4. The contractor shall implement the detailed containment measures developed by the project engineer designed to capture and remove all materials from the creek channel. Safe operation and maintenance of the containment system shall be a project priority, and the system shall be monitored for proper function during use;
5. Excavation of the top of bank to expose the pipe shall utilize the smallest equipment feasible, and may require some handwork to minimize the disturbance area. Due to the steep slopes, all loose soil must be contained during construction and incidental fall back of soils during excavation contained by installation of silt fence, straw bales, plywood or similar material below the excavation area. Erosion control measures must be cleaned and maintained daily during the project. Incidental fall back of soils shall be removed by hand and avoid impacts to native vegetation;
6. All project-related spills of hazardous materials within or adjacent to the project site shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. The staging areas shall conform to standard Best Management Practices applicable to attaining zero discharge of storm water runoff into the creek. No maintenance, cleaning or fueling of equipment shall occur within riparian areas, or within 25 feet of such areas given the tight working conditions. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills; and
7. 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 the work area.

Mitigation Implementation/Monitoring

1. **Performance standard:** Project contract documents shall note required elements.
2. **Contingency Measure:** To be shown on plans prior to issuance of required permits.
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** During construction.
5. **Monitoring Method:** Construction contractor report to District Official.

BIO-3: The following measures are required to reduce potential impacts to aquatic species to less than significant levels.

1. Before project activities begin, a qualified biologist shall conduct preconstruction surveys for wildlife 48 hours prior to the start of any construction activity within the creek, and then again immediately prior to activity within the proposed project disturbance area. Any steelhead, CRLF, garter snake, or pond turtle occurrences within the project area shall be documented and avoided. Avoidance can be accomplished by delaying work until the animal(s) move out of the work area, or through establishment of exclusion zones, which will be the case for the active channel and areas of flowing water. All work that requires access

to the creek channel such as vegetation removal shall be done under the direction of a qualified biologist to ensure these species are avoided.

2. Immediately prior to start of construction activities, a qualified biologist shall conduct an environmental education training session for all project personnel. At a minimum, the training shall include a description of the species potentially present, the specific measures required to protect those species, and the boundaries within which the project may be accomplished. The training shall include a review of all relevant permit conditions, and a question and answer session to discuss specific issues.
3. A qualified biologist shall be onsite to direct all vegetation clearing and erosion control measures within the creek corridor. Once all initial site disturbance is done, the biologist shall visit the project site on a weekly basis to monitor compliance with all avoidance and protection measures. Monitoring shall also occur immediately prior to and following rain events to document preparedness and identify potential remedial actions needed prior to the rain event. The biologist shall have authority to temporarily stop work in consultation with the District if impacts to aquatic species or habitats could potentially occur. The biologist shall also survey the site following the rain event to ensure species such as CRLF have not moved into the work area.
4. Any construction material or debris that inadvertently falls into the creek channel or on the creek banks shall be removed by hand immediately.

Mitigation Implementation/Monitoring

1. **Performance standard:** Project contract documents shall note required elements.
2. **Contingency Measure:** To be shown on plans prior to issuance of all required permits.
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** During construction.
5. **Monitoring Method:** Biological monitor to report to District Official and CDFW.

BIO-4: Impacts to nesting birds will be reduced to less than significant levels with the incorporation of the following mitigation measures.

1. To avoid impacts to nesting bird species, including special-status species and species protected by the Migratory Bird Treaty Act (MBTA), work within and adjacent to willow riparian forest areas shall be limited to the time period between September 1st and January 31st if feasible. Since this would place some work in the winter rain season, and project completion may not be feasible during this period, work can proceed during the bird nesting season as long as a qualified biologist conducts a pre-construction survey for active bird nests within the project area at least 48-hours prior to any disturbance activities proposed within the nesting season (February 1 through August 31). If no nesting activity is observed, project activities can proceed;
2. If active nest sites of bird species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 are observed within the immediate project vicinity, then the project shall be modified as necessary to avoid impacts to the identified nests, adults, eggs, and/or young. Potential project modifications may include establishing appropriate “no activity” buffers around the nest site as determined by the project biologist. The buffer shall be developed in consultation with CDFW. Construction activities shall not

occur in the buffer until the project biologist has determined that the nesting activity has ceased and the young are no longer reliant on the nest site;

3. If active nest sites of raptors and/or bird species of special concern are observed within the vicinity of project related disturbances, an appropriate buffer around the nest site (250 to 500 feet for raptors depending on location) shall be implemented. A reduced buffer may be feasible but will depend on vegetation, slope aspect, etc. and visual/sound separation from the nest site and construction zone. Construction activities in the buffer zone shall be prohibited until the young have fledged and are no longer reliant on the nest site; and
4. Active nests located in the project area shall be mapped and monitored by the project biologist, and a report shall be submitted to the CDFW and other appropriate agencies, documenting project compliance with the MBTA, California Fish and Game Code, and applicable project mitigation measures.

Mitigation Implementation/Monitoring

1. **Performance standard:** Project contract documents shall note required elements. Work within and adjacent to willow riparian forest areas shall be limited to the time period between September 1st and January 31st if feasible. Work can proceed during the bird nesting season as long as a qualified biologist conducts a pre-construction survey for active bird nests within the project area at least 48-hours prior to any disturbance activities proposed within the nesting season.
2. **Contingency Measure:** To be shown on contract documents prior to issuance of required permits.
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** Prior to construction.
5. **Monitoring Method:** Biological monitor to report to District and CDFW.

CR-1: In the event unforeseen archaeological resources are unearthed during any construction activities, all grading and/or excavation shall cease in the immediate area and the find left untouched. The City shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, Native American, or paleontologist, whichever is appropriate. The qualified professional shall evaluate the find and make reservations related to the preservation or disposition archaeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the District shall notify the County Coroner. If human remains are found to be of ancient age and of archaeological spiritual significance, the District shall notify the Native American of likely descent.

Mitigation Implementation/Monitoring

1. **Performance standard:** In the event of unforeseen discovery, work shall stop and the required notification shall occur prior to restarting work.
2. **Contingency Measure:** To be shown on project construction documents.
3. **Implementation Responsibility:** District, County Coroner.
4. **Implementation Schedule:** During construction
5. **Monitoring Method:** District.

N-1: Construction activity for site preparation shall be limited to the hours of 7 AM to 7 PM, Monday through Friday and 8AM to 5PM on Saturdays. No construction shall occur on Sundays or State Holidays. Construction equipment maintenance shall be limited to the

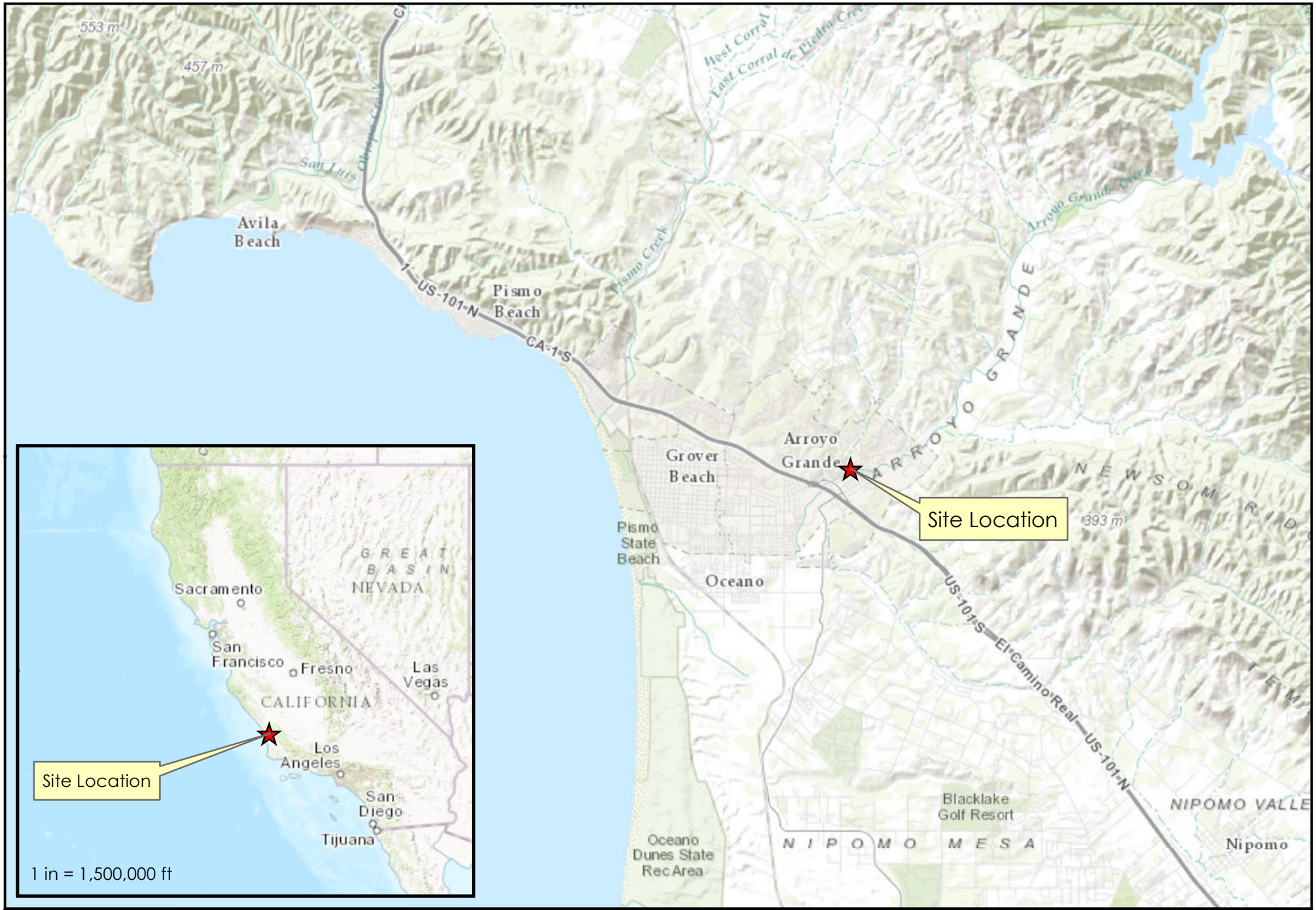
same hours. Non-noise generating construction activities without mechanical equipment (e.g., excavation using hand tools, hand painting, etc.) are not subject to these restrictions.

Stationary construction equipment that generates noise that exceeds 65 dBA at the project boundaries shall be shielded with the most modern and effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures). Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities.

Mitigation Implementation/Monitoring

1. **Performance standard:** Construction activities shall be limited to the hours prescribed above. Construction equipment and noise buffers shall conform to the requirements listed above as feasible.
2. **Contingency Measure:** To be shown on project contract documents.
3. **Implementation Responsibility:** District
4. **Implementation Schedule:** During staging and construction
5. **Monitoring Method:** District.

Attachment A:
Figure 1, Site Location. Figure 2, Project Aerial Overview



KEVIN MERK ASSOCIATES

N W E S

1 in = 12,000 ft

Cherry Avenue Pipe Bridge Maintenance Project

South San Luis Obispo County Sanitation District

Figure 1

Site Location

KEVIN MERK ASSOCIATES

N W E S

1 in = 200 ft

Cherry Avenue Pipe Bridge Maintenance Project

South San Luis Obispo County Sanitation District

Figure 2

Aerial Overview

Attachment B:
Project Biological Assessment

Kevin Merk Associates, LLC P.O. Box 318, San Luis Obispo, CA 93406 805-748-5837(o)/439-1616(f)

November 16, 2015

South San Luis Obispo County Sanitation District
c/o Mr. Malcolm McEwen, P.E.
Garing, Taylor & Associates, Inc.
141 South Elm Street
Arroyo Grande, CA 93420

Subject: Biological Resource Assessment for the Cherry Avenue Pipe Bridge Maintenance Project, Arroyo Grande Creek, San Luis Obispo County, California

Dear Mr. McEwen:

Kevin Merk Associates, LLC (KMA) conducted an assessment of biological resources for the Cherry Avenue Pipe Bridge Maintenance project to assist the South San Luis Obispo County Sanitation District with acquisition of a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The existing pipe bridge spans Arroyo Grande Creek between Branch Street to the north and Nelson Street to the south in the City of Arroyo Grande, San Luis Obispo County, California. This letter report provides the information requested by the CDFW in their incomplete notification letter to you dated June 15, 2015. Included herein are a general biological evaluation of the site and assessment of special status biological resources (i.e.: plant communities, plants and animals) that could potentially occur in the area. We have also included a quantification of proposed tree impacts, and an assessment of potential impacts to special status biological resources resulting from project implementation. The extent of area subject to CDFW jurisdiction is also provided, as well as recommended avoidance, minimization and mitigation measures to reduce potential impacts to biological resources that may occur during the course of the maintenance project.

As we understand, the existing pipe bridge maintenance project will involve the removal of existing paint and debris from the pipe and its support structure followed by replacing anti-corrosion coatings on the bridge and pipe. No placement of fill in or permanent disturbance to the Arroyo Grande Creek channel bottom will occur. Native vegetation in the approximate 25-foot easement area would be selectively pruned to provide access to the structure. Minor soil disturbance would occur around the concrete abutments on both banks to inspect the integrity of the pipe. This would be done with a small excavator and hand tools. In addition, scaffolding would be hung from the bridge to allow the installation of a containment system and worker access to the bridge. Removal of invasive non-native plants would also occur within the approximate 25-foot wide easement area, and would be completed under the direction of a qualified biologist. All disturbed areas would be stabilized and revegetated with an assemblage of native plants and appropriate erosion controls at the direction of the project engineer.

The following provides the methods and results of the assessment.

METHODS

KMA conducted a review of available background information including historic aerial photographs obtained using Google Earth (2015) and previous biological studies conducted in the region. The California Natural Diversity Database (CNDDB, updated in October 2015) was reviewed for documented special status biological resources within a one-mile radius of the site to identify those species and habitat types that could potentially occur in the project area. Due to the small size and limited habitat diversity of the project area, as well as the large number of studies conducted in the vicinity, the one-mile search radius coupled with our knowledge of the area was considered sufficient to identify special status resources with potential to occur onsite. The CNDDB was also used to evaluate nearby documented occurrences of special-status plants and animals and compare the recorded habitat attributes with those conditions present onsite to make a determination if a particular species could be expected to occur in the project area.

KMA principal biologist Kevin Merk and senior biologist Bob Sloan conducted a field investigation between 0830 and 1100 hours on October 22, 2015. The proposed work area was identified in the field by Garing Taylor & Associates in consultation with the South San Luis Obispo County Sanitation District. The pipe bridge study area was surveyed on foot during the site visit, with special attention given to the number and size of trees present, aquatic habitat features, extent of bank excavation area proposed, and access routes to the bridge location. Skies were foggy in the morning then clearing, and temperatures ranged from 66-71 degrees Fahrenheit.

Existing plant communities were mapped on an aerial photograph obtained from Google Earth (October 2015). Vegetation classification generally followed Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and was cross-referenced with *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009) for consistency. Plant taxonomy followed the *Jepson Manual, Second Edition* (Baldwin et al., 2012). The U. S. Fish and Wildlife Service's (USFWS) online National Wetland Inventory and Critical Habitat Mapper (http://www.fws.gov/wetlands/Data/Mapper.html; http://criticalhabitat.fws.gov/crithab/) were also reviewed to evaluate the extent of wetlands and designated critical habitat mapped in the region. Photos of notable features were also taken to characterize existing conditions of the site.

For the purpose of this investigation, special status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the federal Endangered Species Act (ESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW; and plants occurring on California Rare Plant Rank lists 1, 2, 3 and 4 developed by the CDFW working in concert with the California Native Plant Society. The specific code definitions are as follows:

- *List 1A = Plants presumed extinct in California;*
- *List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);*
- *List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);*

- *List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);*
- *List 2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *List 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA); and*
- *List 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened).*
- *List 4.3= Plants of limited distribution (watch list), not very endangered in California.*

In addition, sensitive natural communities are those plant communities listed in the CNDDB (California Department of Fish and Game, queried in October 2015).

The evaluation of special status plant and animal species and identification of suitable habitat that could support these species relied on our field observations and knowledge of the species biology to aid in the development of a habitat suitability analysis. This was used to make presence/absence determinations for special status species with recorded occurrences in the project area. Definitive surveys for the presence or absence of special status plants and wildlife were not conducted due to the time of year the survey was conducted or the extensive amount of field time that may be required to make those determinations.

The boundaries of CDFW jurisdictional area were identified by observing the location of the top of the bank or outer edge of the riparian canopy, whichever was greater. Since the project will not place fill material in the bed of the creek, a delineation of the extent of waters of the United States using the routine methodology as detailed in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (U.S. Army Corps of Engineers 2008) was not conducted. We reviewed a letter dated June 23, 2015 from the U.S. Army Corps of Engineers to Garing, Taylor & Associates stating that the project as proposed would not be regulated under Section 404 of the Clean Water Act since it would not involve the discharge of dredge or fill material into a water of the United States.

RESULTS

The study area consisted of the bridge location, the adjacent channel area approximately 25 feet upstream and downstream of the bridge, and the access areas from Branch and Mason Streets. Site elevation is approximately 124 feet above mean sea level, measured at the top of bank. The surrounding area consisted of residential and commercial land uses, with associated landscaping and ornamental plantings. Native habitat present in the Arroyo Grande Creek corridor at the site consisted of a riparian overstory of arroyo willow (*Salix lasiolepis*) and black cottonwood (*Populus trichocarpa*) trees, with smaller arroyo willow shrubs and California blackberry (*Rubus ursinus*), along the lower banks and the active channel. The creek is steeply incised in this location. The northern bank was dominated primarily by poison oak (*Toxicodendron diversilobum*), while the southern bank was dominated by the invasive non-native English ivy (*Hedera helix*). The active channel was approximately 10 to 20 feet wide in the study area, and contained flowing water

ranging from six (6) to 18 inches deep.

A habitat map showing the plant communities and the extent of CDFW jurisdiction is provided as Figure 1. A CNDDB map illustrating the recorded occurrences of special status species within one mile of the project site is provided as Figure 2. A photo plate with a series of photographs taken during the field visit is also included as an attachment to this report.

Habitat Types

Natural habitat types within the study area consisted of arroyo willow riparian forest associated with the bed and banks of the creek, riverine habitat within the active channel area, and developed/ruderal areas including bare soils and ornamental plantings surrounding the pipe bridge abutments. Habitat conditions observed in October 2015 are discussed further below.

Central Coast Arroyo Willow Riparian Forest

The drainage channel contained a sparse to dense willow canopy, consistent with the Central Coast Arroyo Willow Riparian Forest and Scrub plant communities described by Holland (1986) and the red and arroyo willow thickets described by Sawyer et al. (2009). The riparian habitat onsite consisted primarily of arroyo willow, with several large cottonwood trees scattered along the lower banks. Gaps in the canopy were dominated by poison oak with scattered occurrences of coyote brush (*Baccharis pilularis*), ripgut brome (*Bromus diandrus*), perennial mustard (*Hirschfeldia incana*), stinging nettle (*Urtica dioica* ssp. *holosericea*), virgin's bower (*Clematis ligusticifolia*), garden nasturtium (*Tropaeolum majus*), Kikuyu grass (*Pennisetum clandestinum*), and pampas grass (*Cortaderia jubata*). Two large cottonwood trees on or near the south bank were almost completely covered with English ivy, and exhibited low vigor and reduced canopy and leaf cover as a result of the ivy infestation. The California Invasive Plant Council (Cal-IPC), inventory rating for English ivy is High, indicating that the species is considered to have "severe ecological impacts on physical processes, plant and animal communities, and vegetation structure".

Riparian forest communities are important for many wildlife species because the abundance of moisture and associated vegetation provide structure, materials, and food sources for nesting and roosting activities. Many species forage within the understory and use riparian habitat as cover and as a corridor for movement along the edges of open areas. Common inhabitants of riparian woodland habitats include amphibians and reptiles such as the Pacific chorus frog (*Pseudacris regilla*) and western fence lizard (*Sceloporus occidentalis*). Mammals such as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and shrews (*Sorex* spp.) are also expected to occur in the riparian corridor within the project site. Riparian woodland habitat typically supports a diverse number of resident and migratory bird species including house wren (*Troglodytes aedon*), ruby-crowned kinglet (*Regulus calendula*), warbling vireo (*Vireo gilvus*), Wilson's warbler (*Wilsonia pusilla*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis nigricans*), goldfinches (*Carduelis* spp.) and can provide roosting and foraging habitat for several raptors as well as bats.

Riverine

Riverine habitat conditions within Arroyo Grande Creek in the project area consisted of a wetted active channel bounded by incised earthen banks. As stated above, the creek in this urban area is severely incised due to a restricted flow regime and is dominated by non-native plants. Several species of fish are expected to occur within riverine habitat of Arroyo Grande Creek, including the federally threatened southern steelhead (*Oncorhynchus mykiss irideus*), speckled dace (*Rhinichthys osculus*), three-spined stickleback (*Gasterosteus aculeatus*), and Pacific lamprey (*Lampetra tridentata*). Great blue heron (*Ardea herodias*) and snowy egret (*Egretta thula*) are common predators within local riverine habitats, and numerous bird species are expected to use the creek and associated riparian forest for foraging and nesting.

Riverine habitat is seasonally variable, and often includes open water components (active, flowing channel), unvegetated sandbars (riverwash, active floodplain), pools, and seasonally emergent wetlands (Holland 1986). The stream gradient of this habitat type is low and water velocities are slow for most of the year. Even though the creek is steeply incised from down-cutting, the small floodplain was well developed with vegetation. Substrate within this habitat type is variable and consisted of a mixture of fine silt and sand, with occasional small to medium-sized cobbles. Riverine habitats are considered waters of the U.S. and fall under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, the Regional Water Quality Control Board pursuant to Section 401 of the Clean Water Act and state Porter Cologne Act, and CDFW pursuant to California Fish and Game Code.

Developed/Ruderal

Developed/ruderal conditions are common in abandoned fields, along roadsides, in un-maintained areas adjacent to development, and areas that have been altered by construction, agriculture, landscaping, or other types of regular human activity that constrains plant growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species that exhibit clinging seeds, adhesive stems, and rough leaves that assist their invasion and colonization of disturbed lands, and landscape plants. This is not a native plant community, and is not described in the Manual of California Vegetation (2009) or in Holland's (1986) vegetation classification.

Plant species observed within and adjacent to developed areas of the site included English ivy, ripgut brome, slender wild oats (*Avena barbata*), bur-clover (*Medicago polymorpha*), sweet fennel (*Foeniculum vulgare*), and a variety of ornamental plantings associated with landscaping of neighboring development. The developed/ruderal portions of the study area would typically attract common wildlife species adapted to human disturbance, and are not expected to provide significant habitat values for native species.

Hydrologic Features

The pipe bridge crosses Arroyo Grande Creek, which is fed by an approximately 157 square mile watershed, and flows into the Pacific Ocean. The creek channel at the project area is steeply incised, with near vertical banks above high flow terrace features and a defined active channel area. The

10-20 foot wide active channel contained flowing water, with a shallow pool area located upstream of a small grade control structure in the channel. The ordinary high water mark (OHWM) was clearly defined at the top of the low flow channel banks containing the active flowing water. Adjacent instream areas above the active channel consisted of narrow sand bars and terraces along the bank toe. For a detailed discussion of the creek and associated watershed, please refer to the Arroyo Grande Creek Channel Waterway Management Program (Waterways Consulting, Inc., 2010).

Jurisdictional Boundary Location

CDFW jurisdictional boundaries on the site were determined based on the extent of a defined bank structure and/or the outer limits of riparian vegetation (please refer to Figure 1). Dominant vegetation within and adjacent to the channel banks consisted of arroyo willow, poison oak, English ivy, and California blackberry. Because project activities will remain outside the OHWM/active channel area, federal jurisdictional areas associated with the OHWM in the lower portion of the channel will not be affected by the project. In a letter dated June 23, 2015, the U.S. Army Corps of Engineers stated that the project "would not be regulated under Section 404 of the Clean Water Act" because it did not discharge dredge or fill material into a water of the United States.

Special Status Biological Resources

The Arroyo Grande region and Arroyo Grande Creek corridor in particular support numerous special status, or rare, plant communities and species of plants and animals. As stated in the methodology section, the evaluation of special status species occurrence onsite was based on a habitat suitability analysis, using a CNDDB one-mile search radius and our knowledge of the project area to identify special status resources that could potentially occur onsite (please refer to Figure 2). As stated in the methodology section, this assessment did not include definitive surveys to determine presence or absence of special status wildlife, but did include direct observation of onsite and offsite conditions, knowledge of the particular species biology, and review of biological reports completed in the general area. With this information, a determination was made as to whether or not a particular species could be expected to occur within the study area, and ultimately affected by the proposed bridge maintenance project.

Special Status Natural Communities

The CNDDB search did not identify any special status plant communities within the project vicinity. Our knowledge of the area and site-specific field work identified the special status plant community Central Coast Arroyo Willow Riparian Forest as present along the Arroyo Grande Creek corridor in the study area. In addition, elements of Coastal and Valley Freshwater Marsh, which is also a special status natural community, were present within the bed of the channel.

Special Status Plants

The CNDDB identified the following four special status plant species as present within one mile of the project area.

- Hoover's bent grass (*Agrostis hooverii*);
- Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*);

- Santa Margarita manzanita (*Arctostaphylos pilosula* formerly *A. wellsii*); and
- Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*).

These four special status plant species have specialized habitat requirements, and are not typically found in association with ruderal, riverine, or willow riparian forest habitats. In addition, Santa Margarita manzanita is a perennial shrub that would have been in identifiable condition if it was observed during the site visit. As such, these species are not expected to occur within the project area or be affected by the proposed maintenance project.

Additional plant species not listed in the CNDDB search, but that are known to occur in riparian habitats in coastal San Luis Obispo County area include:

- Marsh sandwort (*Arenaria paludicola*);
- Gambel's water cress (*Rorippa gambelii*); and
- Black-flowered figwort (*Scrophularia atrata*).

Habitat quality for these species within the surveyed section of Arroyo Grande Creek would be considered low due to the steeply cut banks, and the presence of flowing water in a confined channel without more extensive pools and floodplain areas of emergent wetland plants. Furthermore, black-flowered figwort typically occurs on shaly, calcareous and rocky soils that are not present in the study area. Although the survey was conducted outside the general bloom periods for these species, they are unlikely to occur onsite based on the lack of suitable habitat.

Special Status Animals

The CNDDB identified four special status animal species present within a one-mile radius of the project area (refer to Figure 2). In addition, Arroyo Grande Creek is listed as critical habitat for the federally protected southern steelhead and this species is expected to be present year round with the project area.

- California red-legged frog (*Rana draytonii*; CRLF);
- Obscure bumble bee (*Bombus caliginosus*);
- Southern steelhead; and
- Western pond turtle (*Emys marmorata*).

Additional species not listed in the CNDDB search, but that are known to occur in riparian habitat in the upper Arroyo Grande Creek area include:

- Coast Range newt (*Taricha torosa torosa*);
- Two-striped garter snake (*Thamnophis hammondii*); and
- Bats.

The six species listed above could be present in the creek channel within and adjacent to the project area. As stated above, the evaluation of potential for special status animals did not include definitive surveys for the presence or absence of these species in Arroyo Grande Creek, but did include direct observation of onsite conditions, and review of biological reports and the CNDDB records

documenting their presence in the watershed. No bumblebees were observed, but it is possible that the species could be present in the vicinity at some point in time during the year. None-the-less, it is unlikely that bees or other insects would be significantly impacted by the proposed project.

A number of avian species are known from the general area and could potentially utilize the riparian corridor as foraging habitat. Given the riparian habitat is confined to a narrow channel surrounded by development and human presence, the nesting habitat is not as high quality compared to further upstream areas away from urban development. As such, riparian habitat dependent species such as yellow warbler *(Dendroica petechia brewsteri)* or western yellow-billed cuckoo *(Coccyzus americanus occidentalis)* could utilize the corridor for foraging, but would be less likely to nest onsite due to the existing development and human presence in the area. No records of these species nesting in or near the study area were found during this investigation. Small songbirds could utilize the trees and shrubs onsite for nesting, but would likely only include those opportunistic species that are adapted to developed areas and increased human presence. The project area and surrounding areas do not appear to provide adequate nesting or foraging habitat for raptor species, and therefore, species such as Cooper's hawk (*Buteo cooperi*), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*) would be expected primarily as transients across the site on their way to higher quality foraging and nesting grounds. Moreover, no large stick nests typical of raptor nesting were observed in the immediate area during the survey.

Bat species including western red bat *(Lasiurus blossevilli),* hoary bat *(Lasiurus cinereus)* and various species of *Myotis* are known to occur in the region and have the potential to forage over the site. While there were no bats identified in the CNDDB search around the study area, the site contains suitable foraging habitat along the creek corridor, and potential night roost opportunities are present under road bridges in the general area. The pipe bridge does not provide suitable habitat conditions to support night roosts for bats.

IMPACT ANALYSIS AND RECOMMENDED MITIGATION MEASURES

The following impact analysis and avoidance and minimization measures are intended to help reduce project related impacts to biological resources onsite, and support the issuance of a Streambed Alteration Agreement for the project. Potential impacts consisting of vegetation trimming, disturbance of aquatic species and nesting birds during construction, materials spills and erosion during construction, and erosion and sedimentation following construction could occur from the proposed project. Project benefits will include removal of invasive English ivy and pampas grass occurrences within and adjacent to the work area, and revegetation of disturbed areas with native species suitable for the Arroyo Grande Creek corridor.

The project is designed to avoid pollution impacts to the creek by avoiding work in the active channel, and capturing any pipe coating materials removed from the pipe in a containment structure attached to the bridge. Access to both ends of the bridge will occur from commercial or residentially disturbed areas that do not contain native habitat. Given the steeply incised banks, erosion could occur from foot traffic should the channel need to be accessed on a regular basis. Minor trimming of seven arroyo willow trees will be required, both for access while working on the bridge, and to remove vegetation growth that could cause future damage to the structure. More extensive pruning may be required for two cottonwood trees to address ivy infestation and to

reduce the height of the trees. No trees or tree roots will be removed from the ground, and all cuttings and sawdust will be contained and removed from the channel.

Excavation of soil will occur at the abutments located at the top of both banks to expose the pipe to the concrete manhole structures to inspect its integrity. Approximately 10-15 feet of the top of each bank will be excavated to a depth of several feet below the bottom of the pipe. This excavation will occur in bare soil on the northern bank, and in areas dominated by English ivy on the southern bank. A small excavator and hand tools will be used to complete this part of the project. Temporary erosion control measures will be installed prior to start of excavation to ensure that no soil is allowed to fall down the bank and enter the channel. All excavated areas will be backfilled, stabilized, and revegetated with a native seed mix.

Bio Impact 1. Project activities would impact developed/ruderal areas adjacent to Arroyo Grande Creek. This is anticipated to be a less than significant impact.

Completion of the proposed project would temporarily disturb developed and ruderal areas adjacent to the top of bank. Developed and ruderal areas dominated by non-native species are not considered sensitive plant communities by the CDFW, and are common throughout the region. Therefore, any loss of the developed and ruderal habitat would be considered a less than significant impact, and no mitigation required. Measures presented below associated with erosion and sediment control would further reduce impacts to developed or ruderal areas resulting from the project.

Bio Impact 2. Bridge maintenance would require pruning of willow and cottonwood trees, and removal of English ivy and pampas grass. This is anticipated to be a less than significant impact with the incorporation of mitigation. Removal of English ivy and pampas grass would be considered a beneficial impact.

The project will require pruning of seven willow trees to allow access and provide clearance from the bridge structure. Branches to be removed are primarily less than three inches in diameter, but there may be several branches between four and six inches in diameter that require removal. Existing trunks and roots would not be disturbed. The willows that are pruned are expected to grow back quickly.

Two large cottonwood trees near the southern end of the bridge will also require pruning for project access, and to reduce the potential for damage to the structure if the trees were to fall down. Both trees are heavily infested with English ivy, and are in poor health. As proposed, both trees would be cut to a height below the bottom of the bridge structure, and the ivy removed. The stumps are expected to resprout and continue growing as multi-stemmed trees that could be pruned lightly for maintenance every few years similar to what is proposed for the willow trees. Because the pruning would be a temporary impact, and no trees would be removed, no tree replanting is proposed.

The following measures are recommended to avoid and minimize potential impacts to biological resources in Arroyo Grande Creek resulting from tree pruning:

1. All pruned materials should be removed from the creek channel to reduce potential for blocking downstream bridge or culvert openings during high flow conditions.

2. Chainsaws used within the channel should have internal chain oiling systems to reduce oil spray during cutting operations. Sawdust generated from large cuts on the cottonwood trees should be contained and removed from the channel and spread on the banks as part of the erosion control plan.

3. All English ivy and pampas grass from within the pipe easement area should be removed from the creek channel and disposed in a landfill.

4. Due to the steep slopes and the need to stabilize and revegetate the site following construction, English ivy removal should be conducted by pulling up runners as feasible, and then selective hand digging root balls in areas of low erosion potential throughout the project area. Holes created by digging should be immediately filled and compacted by foot pressure. No loose dirt should be left on the slopes, and all bare soils should be seeded with the native seed mix identified below under Bio Impact 3.

Implementation of the above measures would reduce pruning and inasive plant removal impacts to a less than significant level.

Bio Impact 3. Bridge maintenance activities could affect water quality. **This is anticipated to be a less than significant impact with the incorporation of mitigation.**

Maintenance activities would involve removing anti-corrosion coatings through chemical and abrasive methods, and recoating the structure. While a full containment system is proposed around the pipe, removed coatings, chemicals, abrasives, new coating materials, and other project-related substances could enter the creek channel and flowing water. Excavation around the pipe on both banks would disturb soils on steep banks above the active channel. In addition, disturbed soils could enter the channel during the rainy season and cause sedimentation of downstream areas. The following measures are recommended to avoid and minimize potential water quality impacts as a result of project implementation:

1. Prior to start of construction, the project site boundaries, access routes, and equipment/materials staging areas should be clearly flagged or fenced so that the contractor is aware of the limits of allowable site access and disturbance.

2. Prior to start of construction, the applicant should prepare an Erosion Control Plan. The plan should address both temporary and permanent measures to stabilize disturbed areas and control erosion and reduce sedimentation. Erosion and soil protection, including seeding with native species, should be provided on all disturbed soil areas prior to the onset of the rainy season (October 15). All project plans should show that sedimentation and erosion control measures must be installed per the engineer's requirements. The plan should include specific measures to minimize impacts to jurisdictional habitats. For example, washing of equipment should occur only in designated areas where polluted water and materials can be contained for subsequent removal from the site. Washing of equipment, tools, etc. should not be allowed in any location where the tainted water could enter storm drains or flow into the

channel. The following native seed mix is recommended for application (either via hydroseed or broadcast seeding techniques) on disturbed bank areas.

Species	Application Rate (lbs./acre)
Ambrosia psilostachya (western ragweed)	2
Artemisia douglasiana (mugwort)	3
Bromus carinatus (California brome)	5
Hordeum brachyantherum (meadow barley)	3
Trifolium wildenovii (tomcat clover)	5
Vulpia microstachys (six weeks fescue)	5
Total	**23**

3. To avoid disturbance of wet soils, and limit the potential for erosion and sedimentation, work should occur outside of the rainy season, which is typically defined from October 15 through April 15, or as authorized by CDFW following approval of the project Erosion Control Plan.

4 The contractor should implement the detailed containment measures developed by the project engineer designed to capture and remove all materials from the creek channel. Safe operation and maintenance of the containment system should be a project priority, and the system should be monitored for proper function during use.

5. Excavation of the top of bank to expose the pipe should utilize the smallest equipment feasible, and may require some handwork to minimize the disturbance area. Due to the steep slopes, all loose soil must be contained during construction and incidental fall back of soils during excavation contained by installation of silt fence, straw bales, plywood or similar material below the excavation area. Erosion control measures must be cleaned and maintained daily during the project. Incidental fall back of soils should be removed by hand and avoid impacts to native vegetation.

6. All project-related spills of hazardous materials within or adjacent to the project site should be cleaned up immediately. Spill prevention and cleanup materials should be on-site at all times. Cleaning and refueling of equipment and vehicles should occur only within designated staging areas. The staging areas should conform to standard Best Management Practices applicable to attaining zero discharge of storm water runoff into the creek. No maintenance, cleaning or fueling of equipment should occur within riparian areas, or within 25 feet of such areas given the tight working conditions. At a minimum, all equipment and vehicles should be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills.

7. During project activities, all trash that may attract predators should be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris should be removed from the work area.

Implementation of the above measures would reduce impacts to water quality to a less than significant level.

Impact BIO 4: **Bridge maintenance activities could impact aquatic species such as CRLF and steelhead trout present in the creek channel. This is anticipated to be a less than significant impact with the incorporation of specific avoidance measures.**

Based on observed site conditions and the presence of flowing water in the active channel, the creek channel provides suitable habitat for steelhead trout, California red-legged frog, and other wildlife such as two-striped garter snake and pond turtle. As such, any project activity occurring within the lower banks and over/near the active stream channel could impact these species. Specific activities that will occur in the lower bed of Arroyo Grande Creek include willow and cottonwood pruning and removal of non-native vegetation. While the containment system is supposed to catch all debris and old paint removed from the pipe bridge, construction materials could fall into the bed of the creek. The following measures are recommended to avoid potential impacts to aquatic species.

1. Before project activities begin, a qualified biologist should conduct preconstruction surveys for wildlife 48 hours prior to the start of any construction activity within the creek, and then again immediately prior to activity within the proposed project disturbance area. Any steelhead, CRLF, garter snake, or pond turtle occurrences within the project area should be documented and avoided. Avoidance can be accomplished by delaying work until the animal(s) move out of the work area, or through establishment of exclusion zones, which will be the case for the active channel and areas of flowing water. All work that requires access to the creek channel such as vegetation removal should be done under the direction of a qualified biologist to ensure these species are avoided.

2. Immediately prior to start of construction activities, a qualified biologist should conduct an environmental education training session for all project personnel. At a minimum, the training should include a description of the species potentially present, the specific measures required to protect those species, and the boundaries within which the project may be accomplished. The training should include a review of all relevant permit conditions, and a question and answer session to discuss specific issues.

3. A qualified biologist should be onsite to direct all vegetation clearing and erosion control measures within the creek corridor. Once all initial site disturbance is done, the biologist should visit the project site on a weekly basis to monitor compliance with all avoidance and protection measures. Monitoring should also occur immediately prior to and following rain events to document preparedness and identify potential remedial actions needed prior to the rain event. The biologist should have authority to stop work if impacts to aquatic species or habitats could potentially occur. The biologist should also survey the site following the rain event to ensure species such as CRLF have not moved into the work area.

4. Any construction material or debris that inadvertently falls into the creek channel or on the creek banks should be removed by hand immediately.

Implementation of the above avoidance measures in concert with those proposed for water quality impacts above would reduce impacts to special status aquatic species to a less than significant level.

Impact BIO 5: **Bridge maintenance could impact nesting birds if activities occur during the nesting season (February 1st through August 31st). This is anticipated to be a less than significant impact with the incorporation of mitigation.**

Potential impacts to nesting birds could occur as a result of project activities causing noise generation and equipment operation, and increased human presence in the creek corridor. Impacts to nesting birds are considered temporary since this is a maintenance project, and would be reduced with the incorporation of the following avoidance and minimization measures.

1. To avoid impacts to nesting bird species, including special-status species and species protected by the Migratory Bird Treaty Act (MBTA), work within and adjacent to willow riparian forest areas should be limited to the time period between September 1st and January 31st if feasible. Since this would place some work in the winter rain season, and project completion may not be feasible during this period, work can proceed during the bird nesting season as long as a qualified biologist conducts a pre-construction survey for active bird nests within the project area at least one week prior to any disturbance activities proposed within the nesting season (February 1 through August 31). If no nesting activity is observed, project activities can proceed.

2. If active nest sites of bird species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 are observed within the immediate project vicinity, then the project should be modified as necessary to avoid impacts to the identified nests, adults, eggs, and/or young. Potential project modifications may include establishing appropriate "no activity" buffers around the nest site as determined by the project biologist. The buffer should be developed in consultation with CDFW. Construction activities should not occur in the buffer until the project biologist has determined that the nesting activity has ceased and the young are no longer reliant on the nest site.

3. If active nest sites of raptors and/or bird species of special concern are observed within the vicinity of project related disturbances, an appropriate buffer around the nest site (250 to 500 feet for raptors depending on location) should be implemented. A reduced buffer may be feasible but will depend on vegetation, slope aspect, etc. and visual/sound separation from the nest site and construction zone. Construction activities in the buffer zone should be prohibited until the young have fledged and are no longer reliant on the nest site.

4. Active nests located in the project area should be mapped and monitored by the project biologist, and a report should be submitted to the CDFW and other appropriate agencies, documenting project compliance with the MBTA, California Fish and Game Code, and applicable project mitigation measures.

Implementation of the recommended measures would be sufficient to reduce project related impacts to nesting birds to a less than significant level.

CONCLUSION

The project would occur within the banks of Arroyo Grande Creek, within and adjacent to Arroyo Willow Riparian Forest and Riverine habitats. The riparian habitat was determined to fall under

the jurisdiction of the CDFW pursuant to California Fish and Game Code. U.S. Army Corps of Engineers jurisdictional areas are also present in the Riverine portion of the creek channel, but are restricted to the active channel bed within the plane of the ordinary high water mark that would not be affected by the project. As proposed, the project would not place fill material within the ordinary high water mark or physically impact or remove willows or other riparian vegetation by their roots from the active channel. As such, the U.S. Army Corps of Engineers determined that the project as proposed would not be regulated under Section 404 of the Clean Water Act.

Field work conducted for this study in October 2015 did not locate any special status plant species, and the observed conditions were determined to be unlikely to support the special status plants known from the area. The CNDDB search and habitat suitability analysis determined that the creek channel within and adjacent to the project area has potential to support special status wildlife such as steelhead trout, red-legged frog, southwestern pond turtle, and two-striped garter snake. These species could be affected by activities requiring foot traffic or trimming/removal of vegetation within the lower banks of the channel. In addition, these species and the habitat that supports them could be indirectly affected by erosion, sedimentation, and material spills. Furthermore, bridge maintenance activities have the potential to temporarily affect nesting birds, if work occurs during the nesting bird season. Implementation of the measures listed above would reduce project related impacts to biological resources to a less than significant level.

REFERENCES

Baldwin et al. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley.

California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.

California Department of Fish and Game. 2003. California Natural Diversity Database, Rarefind V. 3. Queried October 2015.

Dvorsky, John. 2010. Arroyo Grande Creek Channel Waterway Management Program. Waterways Consulting, Inc.

Environmental Laboratory. 1987. U.S Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Environmental Laboratory. 2008. U.S Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual; Arid West Region (Version 2.0). ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-06-16, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento.

Sawyer, J. O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA.

U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States. US Army Engineer Research and Development Center, Hanover NH.

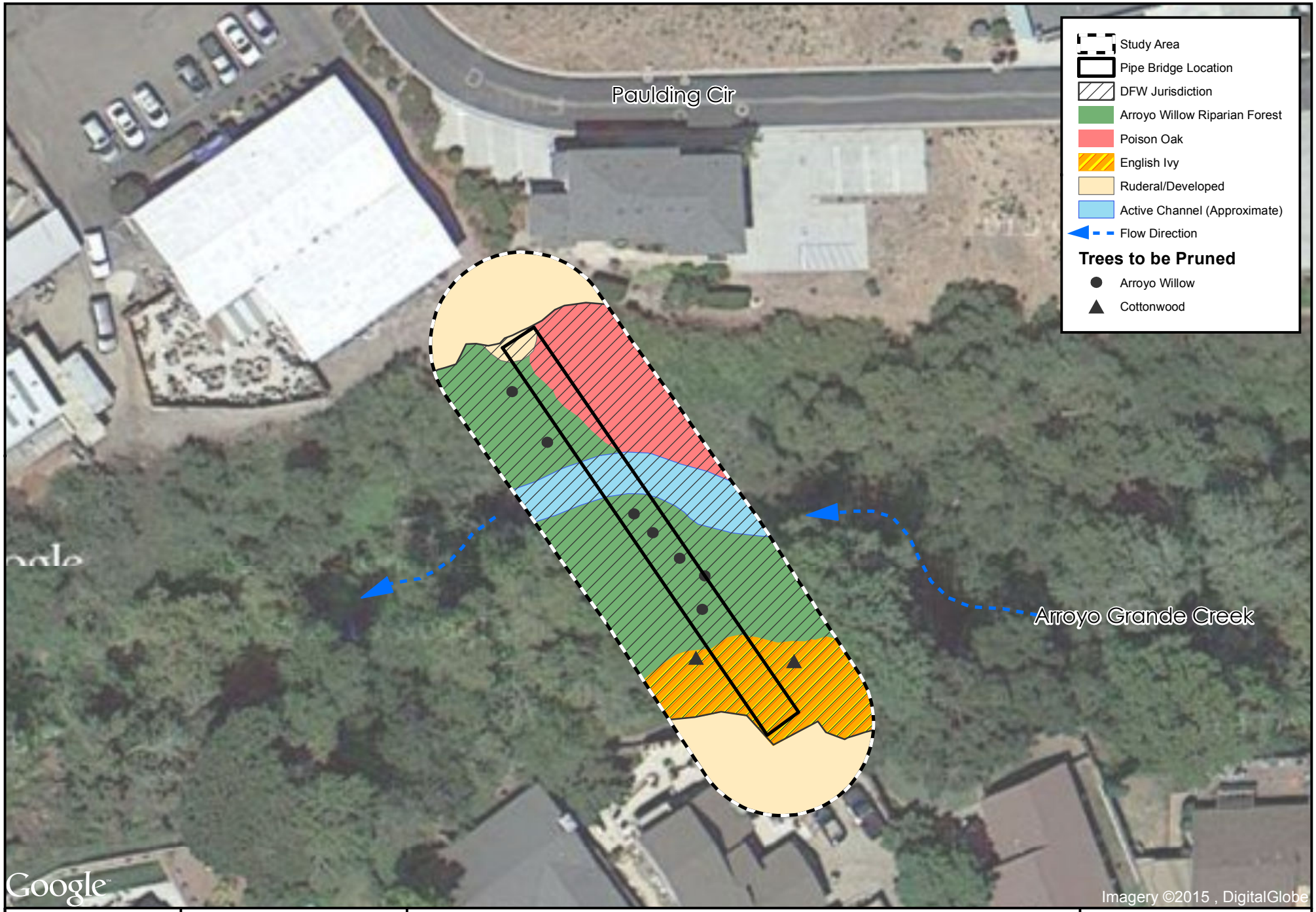
❖❖❖❖❖❖❖❖❖❖❖

Thank you for the opportunity to provide environmental consulting services for this project. If you have any questions regarding the information contained herein, please contact Kevin Merk at the phone number listed above or via email at kmerk@kevinmerkassociates.com.

Sincerely,
KEVIN MERK ASSOCIATES, LLC

Kevin B. Merk
Principal Biologist

Attachments: *Figure 1 – Habitat Map*
Figure 2 – CNDDB Map
Photo Plate



KEVIN MERK ASSOCIATES

N W E S

1 in = 50 ft

Cherry Avenue Pipe Bridge Maintenance Project

South San Luis Obispo County Sanitation District

Figure 1

Habitat Map

KEVIN MERK ASSOCIATES

N W E S 1 in = 3,000 ft

Cherry Avenue Pipe Bridge Maintenance Project

South San Luis Obispo County Sanitation District

Figure 2

CNDDB Map

Photo Plate

Photo 1. View of the northern end of the pipe bridge from the access point, looking south across Arroyo Grande Creek.

Photo 2. View of the downstream side of the bridge, and the two willow trees that will be pruned.

Photo 3. Close-up view of the northern bridge abutment. The bank area will be excavated back to the concrete structure to expose the pipeline for examination.

Photo 4. Close-up view of the southern end of the bridge looking north across the creek channel. Note dense cover of English ivy on bridge, bank, and adjacent cottonwood tree.

Photo 5. View upstream of the southern bridge creek bank area that will be excavated to expose the pipeline for examination. Vegetation on the bank consists of dense English ivy.

Photo 6. View of the large cottonwood tree immediately upstream of the pipe bridge, covered by English ivy. Cottonwoods will be pruned, and ivy removed to protect pipe bridge.

Photo 7. View of the downstream cottonwood tree also covered by English ivy that will be selectively pruned as part of the maintenance project.

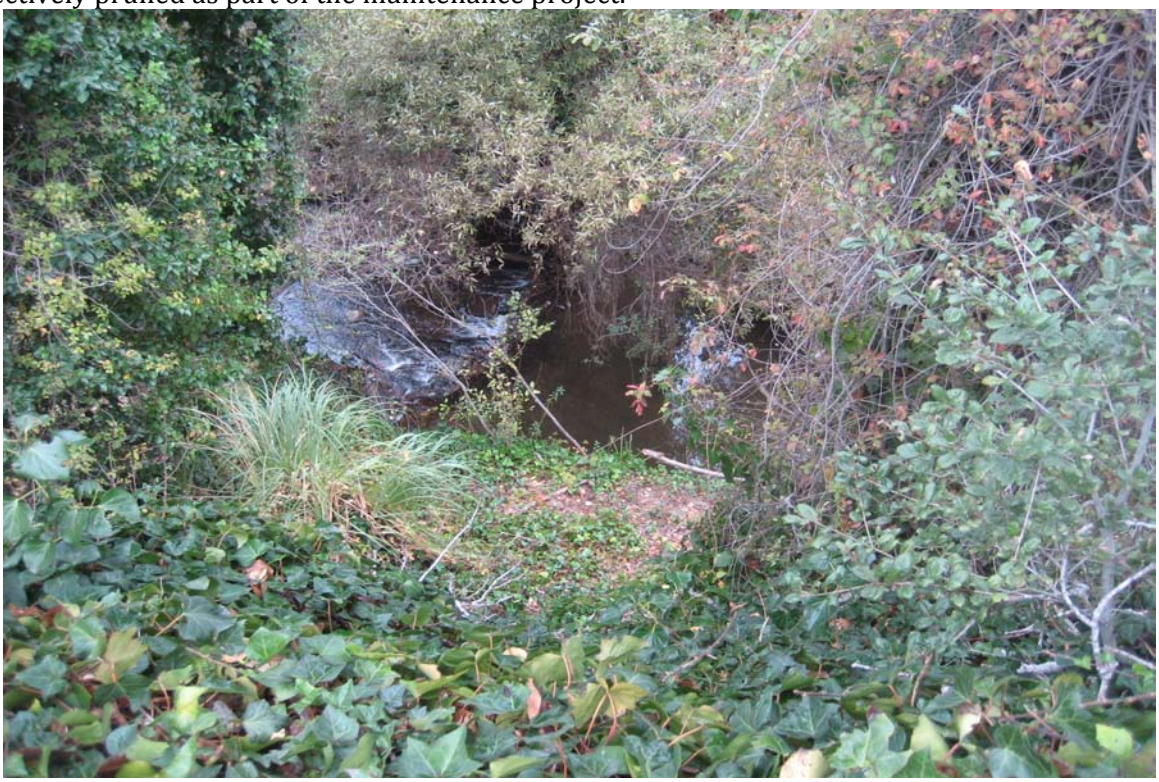


Photo 8. View of the active channel from the southern bank, just upstream of the bridge. Note English ivy on bank, pampas grass clump on lower bank, and flowing water in the active channel.