

Supplemental Environmental Assessment

Cambria Flood Mitigation

San Luis Obispo County

FEMA-1046-DR-CA, HMGP #1046-157-1003

November 2006



FEMA

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Supplemental Environmental Assessment to the Programmatic Environmental Assessment (PEA) for Typical Recurring Actions Resulting From Flood, Earthquake, Fire, Rain, and Wind Disasters in California as Proposed by the Federal Emergency Management Agency

San Luis Obispo County

Cambria Flood Mitigation Project: Storm Drain and Pump Station

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1. INTRODUCTION

San Luis Obispo County (County) has applied for funds from the Federal Emergency Management Agency (FEMA), through the State of California Governor's Office of Emergency Services (OES), to implement a flood mitigation project. FEMA is proposing to fund the project through the Hazard Mitigation Grant Program (HMGP) under a presidential disaster declaration (FEMA-DR-1046-CA) for the flood of 1995.

The project area is located in the community of Cambria, California, along the northern coast of San Luis Obispo County approximately 35 miles northwest of the City of San Luis Obispo (Figure 1, Appendix A). Cambria includes two village districts, East and West Villages. The project area is located in the West Village area.

1.1 SCOPE OF DOCUMENT

FEMA has prepared the Final Programmatic Environmental Assessment for Typical Recurring Actions Resulting From Flood, Earthquake, Fire, Rain, and Wind Disasters in California (PEA), which assesses common impacts of the action alternatives that are under consideration at the proposed project site (FEMA 2003). The PEA adequately assesses impacts from the action alternatives for some resource areas, but other resources are not fully assessed in the PEA. Therefore, for this specific project to comply with the National Environmental Policy Act of 1969 (NEPA), FEMA has prepared this Supplemental Environmental Assessment (SEA) to fully evaluate the impacts of the HMGP project. This SEA hereby incorporates the PEA by reference, in accordance with Title 40 of the Code of Federal Regulations (CFR) Part 1508.28. The SEA has been prepared according to the requirements of NEPA, the Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 CFR Parts 1500 through 1508), and FEMA's implementing regulations (Title 44 CFR Part 10).

1.2 PURPOSE OF AND NEED FOR ACTION

The objective of FEMA's HMGP is to reduce the loss of life and property due to natural disasters and to enable long-term hazard mitigation measures to be implemented during the immediate recovery from a disaster. Through this program, FEMA provides grants to state and local governments to implement long-term hazard mitigation measures after a major

disaster declaration. Therefore, the purpose of this project is to provide HMGP funding to San Luis Obispo County to reduce the long-term risks associated with potential damages to the West Village from natural hazards.

In March 1995, approximately 35 businesses, 20 homes, roadways, and utilities in the West Village were flooded causing nine million dollars worth of damage. A portion of the flooding was caused by runoff from local watersheds in addition to overflow of Santa Rosa Creek at the Highway 1 Bridge.

The West Village has been subject to recurring flooding from localized runoff. During storms of 50-year magnitude or greater, flows in Santa Rosa Creek escape the channel, flank the highway embankment, and flood the historic floodplain of the West Village. When this occurs, Highway 1 serves to contain and sustain flooding in the northern portion of the West Village by preventing flood flows from re-entering the creek. Flooding is exacerbated by the West Village storm drain system that currently includes flap gates on existing storm drain culverts under Highway 1 that discharge runoff from the West Village into Santa Rosa Creek. These flap gates become closed during high flows in Santa Rosa Creek, which traps runoff from the West Village because the water cannot pass through the storm drains.

Therefore, action is needed to reduce the threat of property damage and to reduce threats to public health and safety caused by the flooding in the West Village.

2. DESCRIPTION OF THE PROPOSED ACTIONS AND ALTERNATIVES

2.1 NO ACTION ALTERNATIVE

NEPA requires the inclusion of a No Action Alternative in the environmental analysis and documentation. The No Action Alternative is defined as maintaining the status quo with no FEMA funding for any alternative action. For projects otherwise determined eligible for FEMA funding under the HMGP, the No Action Alternative is in conflict with FEMA's mission and the purpose of the HMGP. Nonetheless, the No Action Alternative is used to evaluate the effects of not providing eligible assistance for the project, thus providing a benchmark against which "action alternatives" can be evaluated. For the purpose of this alternative, it is assumed that San Luis Obispo County would be unable to implement a project for lack of federal assistance, and the flood hazard would remain unmitigated at the project site. Property damage and the resulting economic losses would continue to occur in addition to the threat to public health and safety. Temporary re-routing of traffic from Main Street during flooding would adversely affect commerce in the project area, which is heavily dependent on tourism.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative consists of the construction and operation of three components: a detention basin to collect runoff in the hills surrounding the West Village, a gravity storm drain system to collect and transfer runoff from the hills surrounding the West

Village, and a pump station to transfer runoff from the existing storm drainage system in the West Village.

The detention basin would be constructed upstream of the end of Sheffield Street to collect runoff before it enters the West Village. Figure 2 (Appendix A) shows the proposed location of the detention basin. The basin would be constructed in the vicinity of an existing natural channel and would consist of an earthen berm approximately 40 feet long and 8 feet high perpendicular to the existing channel; the total fill required to construct the berm would be 350 cubic yards. The berm would be constructed approximately 100 feet upstream from the end of Sheffield Street. The maximum area the impounded water would encompass would be approximately 6,450 square feet (0.15 acre). This would extend approximately 195 feet upstream of the berm. The basin would be designed to have a maximum capacity of approximately 2 acre-feet and assumes an impoundment of water 6 feet above the channel. A dirt access road would be built adjacent to the existing natural channel from the end of Sheffield Street up to the berm and would be approximately 10 feet wide. Vegetation consisting of brush and grasses would be removed to construct the berm and access road. Vegetation would also be periodically cleared upstream of the berm to retain the basin's storage capacity and to maintain the access road. No trees would be removed to construct the berm, access road, or impoundment area. The basin would not hold water on a permanent basis and would likely only contain appreciable volumes of water once or twice during a normal rainfall year.

The gravity storm drain system includes installation of stormwater drainage pipes and drainage inlets in the road right-of-ways along Sheffield Street, Cornwall Street, Hillcrest Drive, Sunbury Avenue, and Croyden Lane. Along Sheffield Street, a 54-inch-diameter concrete pipe would be installed below and towards the street centerline of an existing concrete drainage channel. The new drainage pipe would run from the proposed detention basin to an existing 30-inch-diameter culvert under Highway 1. The other streets would have variable sizes of pipes installed under the street along with drainage inlets to capture and divert storm water runoff away from the West Village. Pipe sizes and locations are shown on Figure 2 (Appendix A). The pipes would be installed between 1 and 7 feet below grade depending on locations of other underground utilities.

The pump station would consist of an enclosed concrete structure and a holding pond. It would be located adjacent to Highway 1 at the north end of the West Village, as depicted in Figure 2 (Appendix A). A sump would be installed at the pump station to collect runoff from the existing storm drainage system and to provide the required submergence for the pumps. The sump would measure approximately 25 feet wide and 35 feet long with a maximum depth of 10 feet below grade. The pump station would include a system of electrically powered pumps with emergency diesel generator set back up power. The pumps would be housed inside the concrete structure and next to the holding pond. In addition, a new pipe would be constructed underneath Highway 1 from the pump station to an outlet with a flap gate on the west side of Highway 1 on the bank of Santa Rosa Creek. Approximately 15 cubic yards of riprap would be placed in an area about 10 feet wide and 30 feet long around the outlet of the new pipe to reduce flow energies and erosion at the outfall. Finally, approximately 900 feet of

an existing dirt drainage ditch between the West Village and Highway 1 would be enlarged to approximately 15 feet wide to carry flows from the western end of Sheffield Street to the proposed pump station.

2.3 OTHER ACTION ALTERNATIVES

Other alternatives to the proposed project are adequately addressed in Section 2 of the PEA.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The PEA has adequately described the affected environment and impacts of the proposed action for many resource areas, except for geology and soils; air quality; water resources; biological resources; cultural resources; transportation; noise; and visual resources. Therefore, the affected environment and environmental consequences for those resources are described in this section, which is intended to supplement the information contained in the PEA. Necessary avoidance and minimization measures, either stipulated in the PEA, or based on the results of the impact analysis in the SEA, that are appropriate for the proposed action, are discussed in Section 4.

3.1 GEOLOGY AND SOILS

The project area is located in the California Coast Range physiographic province. Locally the geology is characterized by coastal terraces, coastal beaches, and recent-to-old sand dune deposits.

The majority of soils in the project area have been altered by urban development (streets, sidewalks, homes, etc.), but a few areas of soils that have not been covered by urban development exist within the project area including the upper end of Sheffield Street, an area near the proposed pump station, and the area at the outlets to Santa Rosa Creek. The characteristics of these soils vary, but generally they have silty clay loam and sandy loam surface textures, slow-to-medium runoff rates, and slight-to-moderate susceptibility to erosion. The slopes surrounding the action area are mostly undeveloped, and because of their steepness, are more susceptible to erosion.

Soils would be temporarily impacted during the implementation of all project components by construction activities such as grading, removal of vegetation, and the use of heavy equipment. The potential impacts include compaction and increased susceptibility to water and wind erosion due to disturbance of soil structure and removal of vegetation. Areas that would be disturbed by construction activities would be stabilized with erosion control measures to reduce any erosion that might occur, as described in Section 4.1 of this SEA. With these measures, implementation of the proposed action would not significantly increase current erosion levels. Therefore, the proposed action would not result in adverse impacts to geology and soils.

3.2 AIR QUALITY

The project site is located in the South Central Coast Air Quality Management District (SCCAQMD). San Luis Obispo County is classified as being in attainment or is unclassified for all criteria pollutants by the SCCAQMD. With respect to the standards for ozone and particulate matter less than 2.5 micrometers in diameter, the attainment status has not yet been determined. The SCCAQMD does not issue permits for mobile sources such as construction vehicles and equipment. As a result, any construction activities that only involve mobile equipment (as opposed to an asphalt batch plant, for example) would not require air quality permits. The emission thresholds for General Conformity Rule Applicability [40 CFR Part 51.583(b)] are 10 tons per year for ozone precursors, 70 tons per year for particulate matter, and 100 tons per year for all pollutants for which the area is in attainment of Federal standards.

San Luis Obispo Air Pollution Control District (SLOAPCD) regulates air emissions within the County and has developed mitigation thresholds for air emissions attributable to construction activities. SLOAPCD regulates diesel generator sets with engines that exceed a combined level of 50 horsepower. The County would be responsible for obtaining any air emissions permits required by SLOAPCD and meeting the SLOAPCD air quality standards and mitigation thresholds.

Implementation of the proposed action would result in a temporary deterioration of air quality. The project-related effects to air quality would include short-term increases of fugitive dust generated by haul trucks, concrete trucks, delivery trucks, and other earthmoving vehicles. These vehicles would also release minor emissions associated with fossil fuel burning, including CO and precursors to ozone. Assuming an 80-day project duration, the proposed action would create approximately 0.2 ton per year of emissions for all pollutants. Emission estimates for PM₁₀ (particulate matter size of 10 micrometers), NO_x, CO, SO_x, and hydrocarbons fall below the threshold levels of the General Conformity Rule. Therefore, the proposed action qualifies as a General Conformity Rule exemption, and no further analysis is required to establish conformity with the State Implementation Plan. Section 4.2 of this SEA lists minimization measures to further reduce localized air quality impacts.

3.3 WATER RESOURCES

The major drainage feature in the vicinity of the project area is Santa Rosa Creek, a perennial stream that originates in Black Mountain, flows southwest through the West Village of Cambria, and crosses Highway 1 south of the project area. Santa Rosa Creek then flows northwest towards San Simeon State Beach, where the Creek discharges into the Pacific Ocean (Figure 1, Appendix A). Although the majority of the Santa Rosa Creek flows on the west side of Highway 1 in the vicinity of the project area, there is a small portion of Santa Rosa Creek that does not cross Highway 1 and remains on the east side of Highway 1. The east side split flow ponds behind the embankment formed by Highway 1. The split flow then crosses under Highway 1 and rejoins the main flow at Highway 1's intersection with Main Street.

Coastal Zone Management

The Coastal Zone Management Act (CZMA) in 1972 and the Coastal Zone Act Reauthorization Amendments in 1990 apply to all actions within a designated coastal zone and require that any federal agency whose activities directly affect the coastal zone be consistent, to the maximum extent practicable, with approved state coastal zone management programs.

The project area is located within a coastal zone as designated by the California Coastal Commission (CCC). Therefore, the CZMA applies to the project and all actions approved by FEMA are required to be in compliance with CCC policies regarding actions within a designated coastal zone. The County would be responsible for coordinating with the CCC and obtaining a federal consistency determination from the CCC to comply with the CZMA.

Executive Order 11988: Floodplain Management

Executive Order 11988 requires federal agencies to avoid, to the extent possible, the short- and long-term adverse impacts associated with the occupancy and modification of floodplains. If there is no practicable alternative to undertaking an action in a floodplain, any potential adverse impacts must be mitigated. FEMA's regulations for complying with Executive Order 11988 are found in 44 CFR Part 9.

According to the FEMA Flood Insurance Rate Map (FIRM) Community Panel Number 060304 0188C, effective date July 18, 1985, the proposed locations of the pump station, sump, pipeline under Highway 1, pipeline along Cornwall Street, culvert across Main Street, and new pipeline under Highway 1 at the end of Sheffield Street are within the floodplain of Santa Rosa Creek and the Santa Rosa Creek split flow. The FIRM indicates that the flood zone is A16, which is an area subject to inundation by the 1-percent-annual-chance flood event, as determined by detailed methods. The base flood elevations in this area range from 26 to 29 feet. The proposed project locations are just outside the floodway of Santa Rosa Creek.

According to the hydraulic study done by Questa (2005), flooding in the West Village was caused by both the split flow from Santa Rosa Creek entering the West Village and local watershed drainage that cannot drain out of the culverts to Santa Rosa Creek. The proposed action would provide an outlet for the water that is currently trapped in the West Village during flood events. The gravity storm drain system and pump station would allow the flood water to drain into Santa Rosa Creek instead of being impounded in the West Village. Therefore, catastrophic flooding in the West Village during the 100-year flood event would essentially be substantially reduced.

The proposed action is expected to benefit the floodplain and restore floodplain values. The proposed action has been found to be the best way to reduce flooding in the West Village. Alternatives to the proposed action, using different pipe sizes and locations, were found to be less effective than the proposed action. No adverse impacts to floodplain values have been identified for the proposed action. Implementation of the proposed action would not support additional development of the floodplain in the project area. Also, the proposed action would not aggravate flood hazards for others. Accordingly, the proposed action complies with

Executive Order 11988. FEMA published an Initial Public Notice at the declaration of the disaster. FEMA would ensure publication of a Final Public Notice in compliance with Executive Order 11988 before implementation of the Proposed Action.

Executive Order 11990: Protection of Wetlands

EO 11990 requires federal agencies to take action to minimize the destruction or modification of wetlands by considering both direct and indirect impacts to wetlands that may result from federally funded actions. FEMA's regulations for complying with EO 11990 are found at 44 CFR Part 9, Floodplain Management and Protection of Wetlands.

The proposed action would cause temporary and permanent loss of riparian vegetation on the east side of Santa Rosa Creek (FEMA 2005a). Approximately 100 square feet of riparian vegetation would be temporarily disturbed at each of the two proposed outfalls from under Highway 1. These two areas would be revegetated to pre-existing conditions. In addition, approximately 300 square feet of riparian vegetation would be permanently disturbed at each of the two proposed outfalls. The 600 square feet of riparian vegetation, mostly consisting of shrubs growing on the creek bank and up to the edge of the highway, would be removed and replaced by riprap.

There are no practicable alternatives to affecting wetlands: reducing flooding in the West Village requires a connection to Santa Rosa Creek, which is bordered by wetlands. The 600 square feet of wetlands that would be permanently impacted and 200 square feet of wetlands that would be temporarily impacted represent a small fraction of the wetlands that exist along Santa Rosa Creek. The project is not expected to cause further wetland destruction or modification.

Through the permitting processes discussed in the following Water Quality section and the Best Management Practices (BMPs) described in Sections 4.1 and 4.3 of this SEA, the proposed action's adverse impacts to wetlands would be minimized. Accordingly, the proposed action complies with Executive Order 11988. FEMA published an Initial Public Notice at the declaration of the disaster. FEMA would ensure publication of a Final Public Notice in compliance with Executive Order 11990 before implementation of the Proposed Action.

Water Quality

Santa Rosa Creek is designated as jurisdictional waters of the United States by the U.S. Army Corps of Engineers (USACE). Section 404 of the Clean Water Act requires that the proposed project receive a U.S. Department of the Army (DA) permit for work involving the discharge of dredged or fill materials in waters of the United States. USACE is responsible for reviewing projects for DA permits. In addition, Section 401 of the Clean Water Act (CWA) requires that applicants for federal permits or licenses that are conducting work involving any discharge into waters of the United States receive a Water Quality Certification. As project construction would disturb one or more acres of soil, a National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity would also be required.

The County would be required to obtain a Section 404 permit, Section 401 Water Quality Certification, and NPDES General Permit. The County would also be responsible for complying with all state regulations governing water quality. With the implementation of avoidance and minimization measures such as BMPs for erosion and sediment control, as described in Sections 4.1 and 4.3 of the SEA, impacts to water resources would be minimal for the proposed action.

3.4 BIOLOGICAL RESOURCES

A reconnaissance survey of the action area was conducted on July 6, 2005. Most of the pipelines for the storm drain system would run under existing roads, however, the extension of the storm drain system upstream of Sheffield Street consists of a steep drainage covered with ruderal understory vegetation and surrounded by Monterey pine (*Pinus radiata*), blue gum Eucalyptus (*Eucalyptus globulus*), and coast live oak (*Quercus agrifolia*). None of these trees would be removed as part of the proposed action. The ruderal vegetation is dominated by Himalayan blackberry (*Rubus discolor*), Pampas grass (*Cortaderia jubata*), sweet fennel (*Foeniculum vulgare*), Scotch broom (*Cytisus scoparius*), poison oak (*Toxicodendron diversilobum*), wild radish (*Raphanus sativus*), Canary grass (*Phalaris* sp.), coast wild cucumber (*Marah fabaceus*), and Italian thistle (*Carduus pycnocephalus*).

The pump house would be located on a vacant lot covered with dirt and gravel and surrounded by ornamental shrubs. The two outlet locations would drain into Santa Rosa Creek (Figure 2, Appendix A). Those areas are covered with shrub-size (less than 20 feet high) arroyo willow (*Salix lasiolepis*) and shinning willow (*S. lucida*). The understory is covered with Himalayan blackberry, cattails (*Typha* sp.), and poison oak.

Temporary and permanent loss of riparian vegetation on the east side of Santa Rosa Creek would occur as a result of the proposed action. Table 1 (Appendix B) presents the acreages for temporary and permanent losses of riparian vegetation for the two outlets to Santa Rosa Creek.

FEMA obtained information concerning species listed as endangered, threatened, proposed for listing as endangered or threatened, or candidates for listing as endangered or threatened under the Federal Endangered Species Act (ESA) that may occur in the action area. A list of special status plant and wildlife species with potential to occur in the vicinity of the action area were identified from the following sources:

- The California Department of Fish and Game (CDFG) Natural Diversity Database records within the following seven U.S. Geologic Survey (USGS) 7.5-minute quadrangles that include the action area and vicinity: Cambria, Pico Creek, San Simeon, Pebblestone Shut-In, Lime Mountain, Cypress Mountain, and Cayucos (CDFG 2005).
- A species list for San Luis Obispo County from the Ventura Field Office of the U.S. Fish and Wildlife Service (USFWS) website was also obtained.

Table 2 (Appendix B) lists the 21 listed wildlife species and 16 listed plant species identified by these sources as having potential to occur in the vicinity of the proposed action.

FEMA determined that the action area provides habitat suitable to support three federally listed species regulated under the ESA:

- Tidewater goby (*Eucyclogobius newberryi*)
- California red-legged frog (*Rana aurora draytonii*)
- South central California coast steelhead (*Oncorhynchus mykiss irideus*)

FEMA prepared two Biological Assessments for the proposed action: one for submittal to USFWS (FEMA 2005a) and one for submittal to the National Marine Fisheries Service (NMFS) (FEMA 2005b). FEMA determined that the proposed action is not likely to adversely affect the endangered tidewater goby or the steelhead trout but may adversely affect the California red-legged frog. USFWS issued a Biological Opinion on September 13, 2006; a copy is provided in Appendix C. USFWS found that the proposed project is not likely to jeopardize the continued existence of the California red-legged frog. The County must fully comply with all terms and conditions, reasonable and prudent measures, and other avoidance and minimization measures described in the BO and listed in Section 4.4 of the SEA. NMFS issued a letter of concurrence with FEMA's determination on November 30, 2005; a copy is provided in Appendix D. NMFS found that the project's impacts were discountable and insignificant.

3.5 CULTURAL RESOURCES

Cultural resource investigations were undertaken to identify both previously recorded sites and previously undiscovered sites within the action area in compliance with Section 106 (Title 16 United States Code [USC] Section 470f) of the National Historic Preservation Act of 1966 (NHPA) and the Programmatic Agreement (PA) Among FEMA, the California State Historic Preservation Office (SHPO), OES, and the Advisory Council on Historic Preservation. FEMA's archaeological consultant conducted a pedestrian survey on July 6, 2005. The results of the archaeological survey were negative for cultural resources within all areas surveyed.

FEMA contacted the California Native American Heritage Commission (NAHC) on July 7, 2005, to request a review of its Sacred Lands File and to receive a list of the individuals and groups that the NAHC believes should be contacted regarding information or concerns related to the project areas. The NAHC responded on July 15, 2005, with negative results for its search of the Sacred Lands File. On August 9, 2005, FEMA sent an informational letter to each of the Native American contacts identified by the NAHC. To date no responses from the Native American community have been received.

A cultural resources literature review was performed at the Central Coastal Information Center (CCIC) of the California Historical Resources Information System on July 20, 2005 (Invoice #3532).

FEMA prepared a cultural resources technical report (FEMA 2005c) and transmitted this to the SHPO on September 16, 2005; a copy of the transmittal letter is included as Appendix E. Based on the cultural resources evaluation, FEMA made a determination of "no historic properties affected." No response has been received from the SHPO to date. According to

Stipulation VII.C of the PA, the SHPO did not object to FEMA's findings within 21 days of receipt of FEMA's determination; therefore FEMA has concluded its Section 106 compliance responsibility. Section 4.5 of this SEA describes steps that the County must take in the event of an unanticipated discovery.

3.6 TRANSPORTATION

Construction activities would occur within areas of residential traffic flow along two-lane streets (Figure 2, Appendix A). During construction activities the County may close one lane of traffic on the street adjacent to the action area to allow equipment and construction vehicles ingress/egress to the site. Lane closure and impacts to traffic flow would be temporary. Therefore, with implementation of the avoidance and minimization measures described in Section 4.6, impacts to transportation would be minimal.

3.7 NOISE

Commonly defined as unwanted and/or unwelcome sound, noise is federally regulated by the Noise Control Act of 1972. Although the Noise Control Act tasks the USEPA to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards. By the nature of its mission, FEMA does not have statutes defining noise.

Some land uses are considered sensitive to noise. Noise-sensitive receptors are located at land uses associated with indoor and outdoor activities that may be subject to stress or significant interference from noise. These land uses often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries.

The project area typically experiences noises associated with a residential neighborhood and small-town business environment, such as sounds from vehicles, televisions, radios, barking dogs, and human voices. Highway 1, along the west side of the project area, is a significant noise producer because of vehicular traffic noises. Noise-sensitive receptors within and near the project area include residences, hotels, businesses, and a church.

The implementation of the proposed action would produce noise from the operation of equipment such as compactors, loaders, backhoes, bulldozers, scrapers, trucks, and concrete equipment. These pieces of equipment generate noise levels ranging from about 70 to 95 A-weighted decibels (dBA) at 50 feet from the source. Noise levels generated at any point source decrease at a rate of approximately 6 decibels per doubling of distance away from the source (Diehl 1973). In developed portions of the project area, buildings would further reduce noise levels through shielding.

With implementation of the avoidance and minimization measures described in Section 4.7 of this SEA, impacts to noise-sensitive receptors is expected to be minimal.

3.8 VISUAL RESOURCES

The existing visual character of the project area includes a mix of native vegetation within a residential neighborhood, an area of small businesses along Main Street, and views of the

natural riparian area of Santa Rosa Creek. The existing visual character is typical within the region, and no areas of scenic importance exist within the action area. Primary viewers adjacent to the action area consist of travelers along Highway 1 (a state scenic highway), Cambria Road, Main Street, and local residents and business employees/owners.

The proposed action would have a temporary effect on the character of the setting. During construction, existing vegetation would be removed from around the culvert on the west side of Highway 1 near Santa Rosa Creek, and construction activities would be visible from all viewing areas. The construction of the pump station would be a permanent effect to visual resources; however, the addition of the pump station would not substantially degrade or otherwise alter the existing visual character or quality of the site surroundings since it would be constructed in an urban setting. Implementation of the proposed action would not create additional viewsheds (such as opening up a view to a more populated area) or deteriorate existing views within the project areas. Therefore, implementation of the proposed action would not result in adverse impacts to visual resources, especially with implementation of the BMP measures described in Section 4.8 of the SEA.

3.9 CUMULATIVE IMPACTS

To reduce flooding in Cambria, the County is constructing a bypass channel to connect an overflow basin (on the east side of Highway 1 near Cambria Drive) to Santa Rosa Creek. The project also includes construction of an earthen berm along Cambria Drive to act as a floodwall along the northern edge of the overflow basin, and plugging a culvert under Cambria Road that drains water from the overflow basin to Main Street.

The environmental impacts of the bypass channel, earthen berm, and culvert plugging have been documented in an Environmental Assessment (EA) prepared by FEMA (2005d) – the EA includes avoidance and minimization measures to mitigate environmental impacts. The construction of the bypass channel and earthen berm, and the culvert plugging will likely be finished prior to implementation of the proposed action. Therefore, with the mitigation measures that the County will implement during construction of the bypass channel, earthen berm, and culvert plugging according to the 2005 EA and the likelihood that the proposed action will not take place concurrently, no adverse cumulative impacts are expected to occur with implementation of the proposed action.

4. MINIMIZATION AND AVOIDANCE MEASURES

The following minimization and avoidance measures have been extracted from the PEA Section 4, or from measures developed for this SEA based on site specific impacts, and are applicable for the proposed action.

4.1 GEOLOGY AND SOILS

The County would be responsible for implementing erosion protection measures including BMPs such as installing silt fences or mulching cleared soil to eliminate or reduce soil erosion

during construction. The County would implement permanent erosion control measures such as revegetation with native species when the project is completed.

4.2 AIR QUALITY

The County would be responsible for reducing potential air quality impacts from construction activities and employing minimization measures to limit fugitive dust and emissions. These measures include, but are not limited to the following: watering disturbed areas, scheduling the siting of staging areas to minimize fugitive dust, and keeping vehicles and other construction equipment tuned properly. The County would be responsible for obtaining any air emissions permits required by SLOAPCD and meeting the SLOAPCD air quality standards and mitigation thresholds.

4.3 WATER RESOURCES

The County would be responsible for obtaining a federal consistency determination from the CCC to comply with the CZMA, obtaining a Section 404 permit and Section 401 Water Quality Certification to comply with the CWA, and obtaining a NPDES General Permit. The County would also be responsible for complying with all state regulations governing water quality.

In addition, the County would be responsible for implementing BMPs to reduce potential impacts to water resources including:

- Designating vehicle parking areas on paved surfaces where possible,
- Implementing construction BMPs (such as silt fencing, hydromulching, plantings, etc.) and an erosion control plan to reduce the potential erosion and sedimentation of Santa Rosa Creek caused by construction activities such as grading.

4.4 BIOLOGICAL RESOURCES

The County would be responsible for minimizing impacts to biological resources including, but not limited to, the following measures stipulated within the USFWS biological opinion letter dated September 13, 2006:

- The County would conduct construction activities in Santa Rosa Creek and the riparian habitat during the latter part of the dry season (April 15 to October 15).
- The County would install exclusion fences at the margins of the work areas.
- A USFWS-approved biologist would conduct preconstruction surveys for California red-legged frogs. If any are found, the biologist would contact the USFWS to determine if moving them is appropriate.
- Prior to construction, a qualified biologist would conduct a training session regarding California red-legged frogs for all construction personnel.
- A USFWS-approved biologist would monitor construction activities along Santa Rosa Creek.

- The USFWS-approved biologist would follow the Declining Amphibian Populations Task Force Fieldwork Code of Practice.
- The County would revegetate the action area with native plant species.
- California red-legged frogs that are at risk of injury or death would be moved from work areas. The County would request USFWS approval of any biologist it wishes to survey for, monitor, capture and relocate California red-legged frogs. The request would be in writing and be received by USFWS at least 30 days prior to any such activities being conducted. Kate Ballantyne is authorized by USFWS to independently survey for, monitor, capture and relocate California red-legged frogs for the purposes of this biological opinion. Eric N. Wier, Richard Trevis Warner and John Farhar are authorized by USFWS to independently survey for and monitor California red-frogs, and to capture and relocate them under the direct supervision of Ms. Ballantyne.
- The County would ensure that the level of incidental take during project implementation is commensurate with the analysis contained in the USFWS biological opinion dated September 13, 2006 (Appendix C). If more than two (2) California red-legged frogs are found dead or injured in the action area, the County would contact USFWS immediately so USFWS can review the project activities to determine if additional protective measures are needed. Project activities may continue during this review period, provided that all protective measures proposed by FEMA and the terms and conditions of the USFWS biological opinion dated September 13, 2006, (Appendix C) have been and continue to be implemented.
- The County would provide USFWS with a final report describing the impacts of the project on California red-legged frogs. The report would be submitted to USFWS within 60 days following completion of the proposed project. The information and reporting requirements that are required for the final report are outlined within the USFWS biological opinion letter dated September 13, 2006.
- Upon locating a dead or injured California red-legged frog, the County would notify USFWS's Division of Law Enforcement (370 Amapola Avenue, Suite 114, Torrance, California 90501), in writing, within 3 working days of its finding. Details of the notification requirements are outlined within the USFWS biological opinion letter dated September 13, 2006 (Appendix C).

4.5 CULTURAL RESOURCES

If unanticipated resources are discovered during construction, the County would stop project activities in the vicinity of the discovery, take all reasonable measures to avoid or minimize harm to the property, and notify OES and FEMA as soon as practicable so that FEMA can initiate consultation with the SHPO, in accordance with the PA. If the discovery appears to contain human remains, the County would also contact the San Luis Obispo County Coroner immediately. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she would contact the Native American Heritage Commission by telephone within 24 hours.

4.6 TRANSPORTATION

The County would be responsible for minimizing the potential short-term impacts to transportation in the project area during construction:

- Workers would park their privately owned vehicles at designated and appropriately developed locations to reduce transportation impacts.
- A traffic plan would be implemented during mobilization of haul trucks and heavy equipment in and out of the project site to reduce the potential for accidents, slowing of public traffic flow, and street blockage. The traffic plan would include flaggers, look-outs, and barricades as necessary to reduce inconvenience and safety hazards to the public.
- Staging areas and construction activities would occur completely within County right-of-way and no public traffic routes would be fully blocked at any time.

4.7 NOISE

The County would be responsible for implementation of the following mitigation measures to reduce noise levels and their effects to the extent practicable:

- Project activities that create noise levels of above 55 dBA would not be conducted between 7:00 p.m. and 7:00 a.m., on Sundays nor on Federal holidays.
- All noise-producing project equipment and vehicles using internal combustion engines would be equipped with properly operating mufflers and air inlet silencers, where appropriate, that meet or exceed original factory specification. This measure would assure that noise emissions from vehicles and other equipment are limited to the minimum feasible levels.

4.8 VISUAL RESOURCES

The County would be responsible for minimizing the potential short-term and long-term impacts to visual resources from implementation of the proposed action. Mitigation measures, including revegetating and contouring of finished surfaces to blend with adjacent natural terrain where appropriate, would be implemented when the proposed action is completed.

5. REFERENCES

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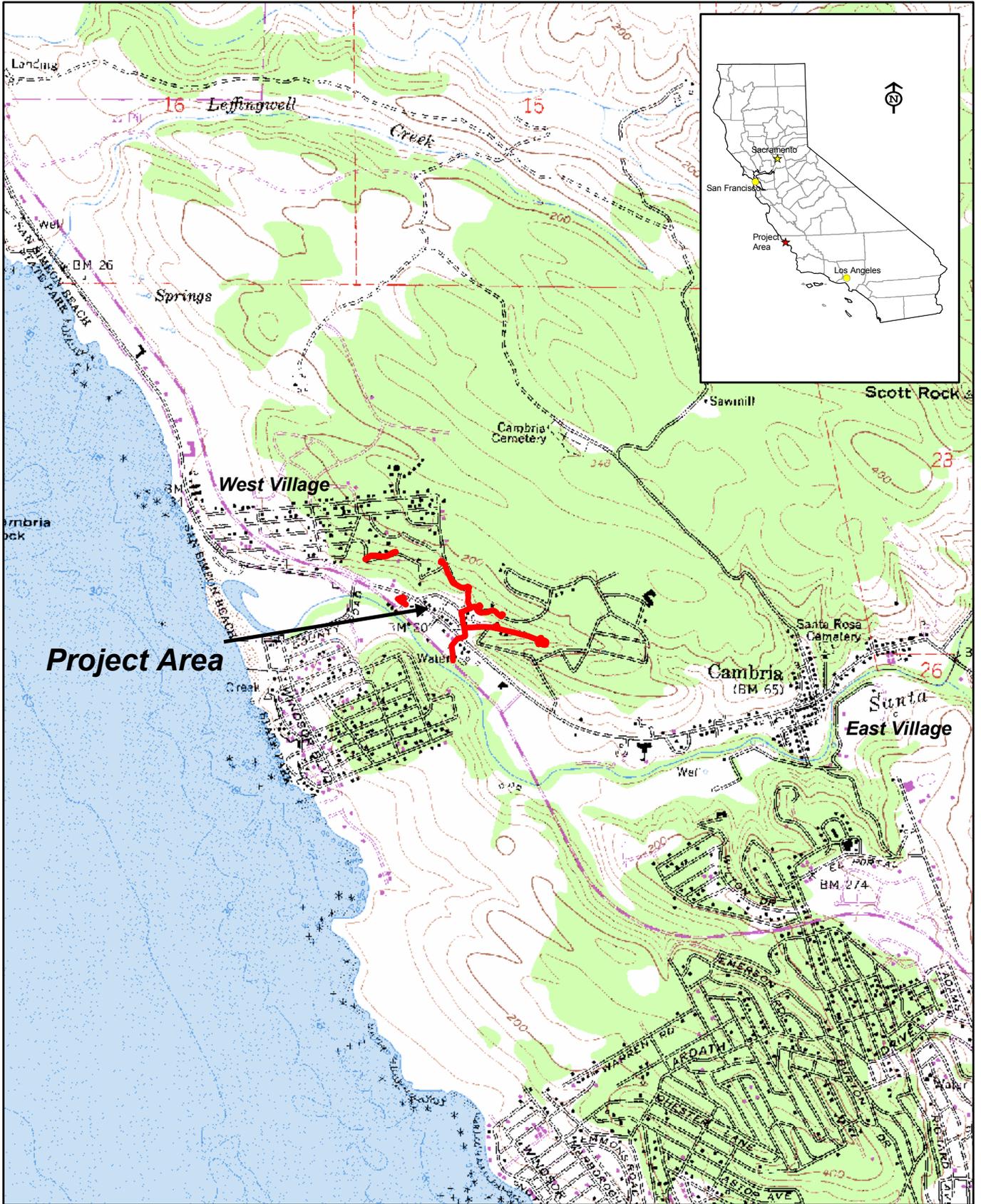
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- . 2005a. Biological Assessment for U.S. Fish and Wildlife Service for the Cambria Flood Mitigation Project. Prepared by URS Corporation for Federal Emergency Management Agency, Region IX in cooperation with the County of San Luis Obispo, September.
- . 2005b. Biological Assessment for NOAA Fisheries for the Cambria Flood Mitigation Project. Prepared by URS Corporation for Federal Emergency Management Agency, Region IX in cooperation with the County of San Luis Obispo, September.
- . 2005c. Cultural Resources Technical Report, City of Cambria Flood Control Project. Confidential: Not For Public Distribution. Prepared by URS Corporation for Federal Emergency Management Agency, Region IX in cooperation with the County of San Luis Obispo, September.
- . 2005d. Final Environmental Assessment, Cambria Flood Control Project, County of San Luis Obispo, FEMA-1046-DR-CA, HMGP-#1046-157-1003, March.
- Questa. 2005. Hydrologic & Hydraulic Analysis for FEMA CLOMR Application, Cambria, California. Prepared for: County of San Luis Obispo Public Works. September 13, 2005.

Appendix A – Figures

Figure 1 Project Location

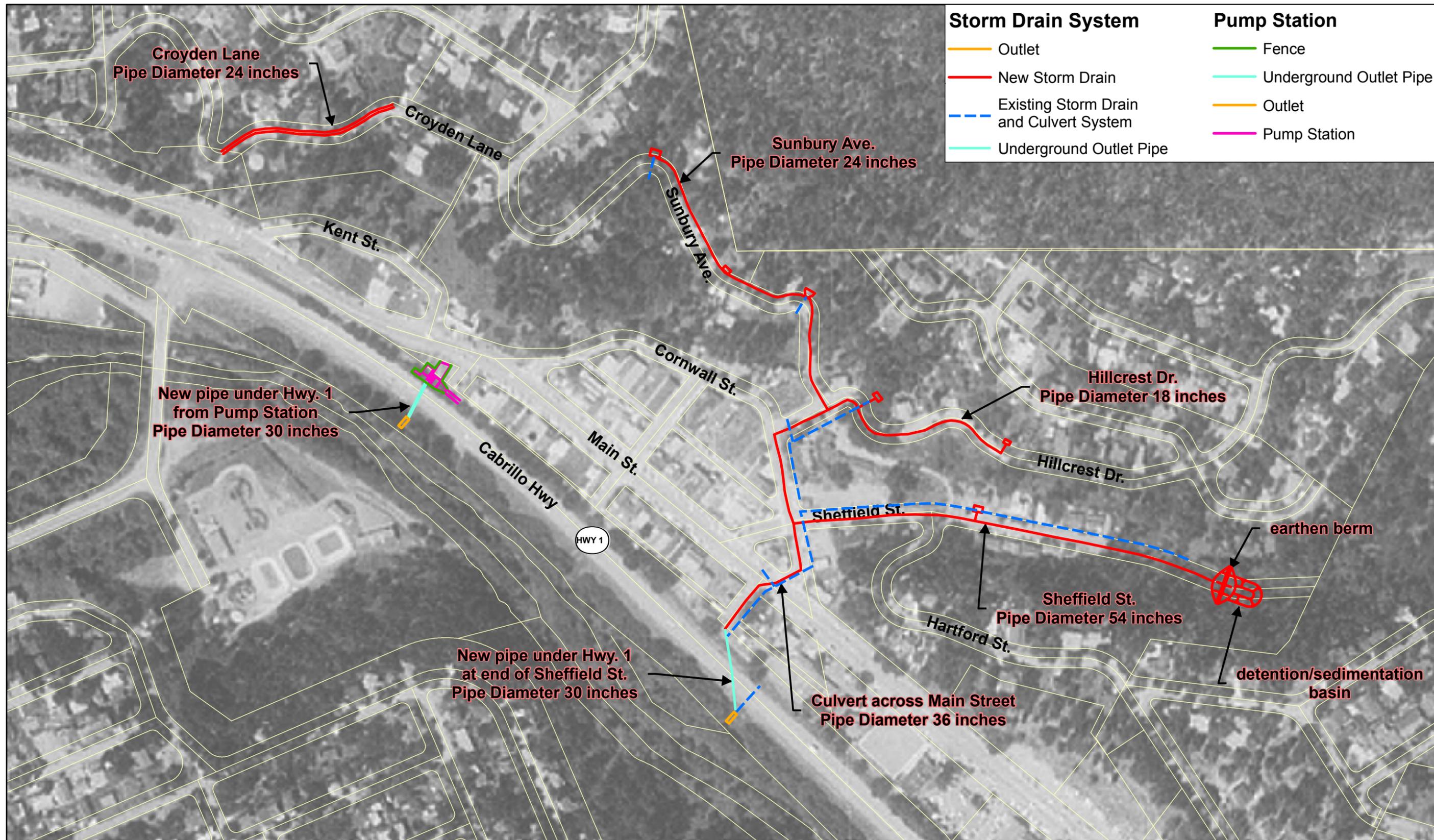
Figure 2 Action Area



URS Corporation L:\Projects\Cambria_15702235\MXD\Final\Figure 1 Regional Map for all Projects.mxd Date/Time: 8/30/2005 1:22:59 PM Name: dhwright0

	Storm Drain System and Pump Station	Project Location	Figure 1
	15702235		

Source: USGS 7.5-Minute Quadrangle DRG



250 125 0 250 Feet



Storm Drain System and Pump Station

15702235

ACTION AREA

Figure 2

Appendix B – Tables

Table 1	Temporary and Permanent Loss of Riparian Vegetation Resulting from the Proposed Action
Table 2	Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria

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Table 1
Temporary and Permanent Loss of Riparian Vegetation
Resulting from the Proposed Action

Vegetative Cover	Temporary Disturbance (square feet)	Permanent Disturbance (square feet)
Storm drain outlet	100	300
Pump house outlet	100	300
Total disturbance	200	600

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
Amphibians				
<i>Ambystoma californiense</i>	California tiger salamander	C	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges, need vernal pools, stock ponds or other seasonal water sources for breeding. The species persists in disjunct remnant vernal pool complexes in Sonoma and Santa Barbara counties, in vernal pool complexes and isolated ponds scattered mainly along narrow strips of rangeland on each side of the Central Valley from southern Colusa County south to northern Kern County, and in sag ponds and human-maintained stock ponds in the coast ranges from Suisun Bay south to the Temblor Range.	Not likely; appropriate habitat characteristics are not present in the action area. There are no vernal pools, nor stock ponds in the action area. No known occurrences where found near the action area.
<i>Bufo californicus</i>	Arroyo toad	E	Semi-arid regions near washes or intermittent streams; habitats used include valley-foothill and desert riparian as well as a variety of more arid habitats including desert wash, palm oasis, and Joshua tree, mixed chaparral and sagebrush.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Rana aurora draytonii</i>	California red-legged frog	T	Dense, shrubby riparian vegetation associated with deep (≥ 0.7 m), still or slow-moving water.	Known to occur in Santa Rosa Creek adjacent to the action area. Red-legged frogs were observed in 1999 in Santa Rosa Creek, within one mile of the beach (CDFG 2005). Action area is included in Unit 21 of the designated critical habitat for the California red-legged frog (USFWS 2001).

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
Reptiles				
<i>Gambelia</i> (= <i>Crotaphytus</i>) <i>silus</i>	Blunt-nosed leopard lizard	E	Inhabit the San Joaquin Valley region in expansive, arid areas with scattered vegetation; inhabit non-native grassland and alkali sink scrub communities of the Valley floor marked by poorly drained, alkaline, and saline soils, mainly because remaining natural land is of this type. Absent from areas of steep slopes and dense vegetation, and areas subject to seasonal flooding.	Not likely; appropriate habitat characteristics are not present in the action area. Action area is located outside of this species range.
Birds				
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	T	Habitats used by nesting and non-nesting birds include sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees and gravel bars.	Not likely; appropriate habitat characteristics are not present in the action area. Closest known occurrence is at Toro Creek Beach, approx. 2.5 miles north-northwest of Highway 41 junction with Highway 1 (CDFG 2005).
<i>Coccyzus americanus</i>	Western yellow-billed cuckoo	C	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Now, this species is likely found only along the upper Sacramento Valley portion of the Sacramento River, the Feather River in Sutter County, the south fork of the Kern River in Kern County, and along the Santa Ana, Amargosa, and lower Colorado rivers.	Not likely; action area is outside of species known range. No known occurrences where found near the action area.

Table 2
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Gymnogyps californianus</i>	California condor	E	<p>Permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Ranges from Santa Clara County south to Los Angeles County; forages over wide areas of open rangelands, roosts on cliffs and in large trees and snags; occurs mostly between sea-level and 2,700 m (0-9,000 ft), and nests from 610-1,372 m (2,000-6,500 ft).</p> <p>Total population in early 1980's estimated to be fewer than 20, and declining; occurrence in the wild now in question. Two U.S. Forest Service sanctuaries set aside within the Los Padres National Forest, primarily for nesting and roosting protection .</p>	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Haliaeetus leucocephalus</i>	Bald eagle	T	<p>Winters throughout most of California at lakes, reservoirs, river systems, and some rangelands and coastal wetlands on protected cliffs and ledges. Also nests on bridges and buildings in urban areas. Nests are normally built in the upper canopy of large trees, usually conifers.</p>	Not likely; appropriate habitat characteristics are not present in the action area. Closest known occurrence is at Las Tablas Creek territory, along Las Tablas Creek (Lake Nacimiento), approx. 5 miles northwest of Adelaida (CDFG 2005).
<i>Pelecanus occidentalis californicus</i>	California brown pelican	E	<p>Found in estuarine, marine subtidal, and marine pelagic waters along the California coast. In northern California, fairly common to uncommon June to November. Usually rests on water or inaccessible rocks (either offshore or on mainland), but also uses mudflats, sandy beaches, wharfs, and jetties.</p>	Not likely; appropriate habitat characteristics are not present in the action area.

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Rallus longirostris obsoletus</i>	California clapper rail	E	Tidal salt marshes near tidal sloughs; perennial inhabitant of tidal salt marshes of the greater San Francisco Bay	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Sterna antillarum</i> (= <i>albifrons</i>) <i>browni</i>	California least tern	E	Migratory in California; breeding colonies are located in southern California along marine and estuarine shores, and in San Francisco Bay in abandoned salt ponds and along estuarine shores; feeds in nearby shallow, estuarine waters or lagoons where small fish are abundant. After breeding, family groups regularly occur at lacustrine waters near the coast of southern California. Prefers undisturbed nest sites on open, sandy or gravelly shores near shallow-water feeding areas in estuaries.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E	Rare, local, summer resident below about 600 m (2000 ft) in willows and other low, dense valley foothill riparian habitat and lower portions of canyons mostly in San Benito and Monterey Counties; in coastal southern California from Santa Barbara County south; and along the western edge of the deserts in desert riparian habitat.	Not likely; project location is outside of species known range. No known occurrences where found near the action area.

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
Mammals				
<i>Dipodomys heermanni morroensis</i>	Morro Bay kangaroo rat	E	Inhabits coastal scrub vegetation on old sand dune substrate and is geographically isolated from other subspecies of the Heermann's kangaroo rat. Until recently, it was found only in several small areas of less than one-half square mile in total size near Los Osos in San Luis Obispo County. Currently, if it still exists, it is thought to inhabit just one small privately-owned parcel which remains in native vegetation. This species may be extinct.	Not likely; appropriate habitat characteristics are not present in the action area. Project location is outside of species known range. No known occurrences where found near the action area.
<i>Dipodomys ingens</i>	Giant kangaroo rat	E	Permanent resident occurring in scattered colonies along the western side of the San Joaquin Valley (e.g., Carrizo Plain, Panoche Valley); found on fine sandy loam soils supporting sparse annual grass/forb vegetation, and marginally found in low-density alkali desert scrub.	Not likely; appropriate habitat characteristics are not present in the action area. Project location is outside of species known range. No known occurrences where found near the action area.
<i>Enhydra lutris nereis</i>	Southern sea otter	T	Preferred habitat is kelp beds; live in narrow band along the coast, and rarely venture much more than about 1 1/2 miles (3km) offshore.	Not likely; appropriate habitat characteristics are not present in the action area.

Table 2
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	E	Inhabit grasslands and scrublands, many of which have been extensively modified. Types of modified habitats include those with oil exploration and extraction equipment and wind turbines, and agricultural mosaics of row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities also provide habitat for kit foxes.	Not likely; appropriate habitat characteristics are not present in the action area.
Fish				
<i>Eucyclogobius newberryi</i>	Tidewater goby	E (PD)	Brackish shallow lagoons and lower stream reaches where the water is fairly still but not stagnant; found in water with salinity levels from zero to 10 ppt, temperature levels from 35 to 73 degrees Fahrenheit, and water depths from 5 to 7.5 feet.	Not likely; appropriate habitat characteristics are not present in the action area. Closest known occurrence was observed in 2002 in a shallow, warm lagoon located at least half a mile from the action area (CDFG 2005).
<i>Oncorhynchus mykiss irideus</i>	South Central California coast steelhead	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Known to occur in Santa Rosa Creek adjacent to action area. Steelhead were observed in 1999 in Santa Rosa Creek, along Cambria Road, near Mammoth Rock School (CDFG 2005).
Invertebrates				
<i>Branchinecta longiantenna</i>	Longhorn fairy shrimp	E	Vernal pools. Known around the borders of Soda Lake in San Luis Obispo County in vernal pools of the Northern Claypan type (Eriksen and Belk 1999).	Not likely; appropriate habitat characteristics are not present in the action area. Project location is outside of species known range. No known occurrences where found near the action area.

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	T	Vernal pools; small swales, earth slumps, or basalt-flow depression basins with grassy or occasionally muddy bottom, in unplowed grassland (Eriksen and Belk 1999). Known in eastern San Luis Obispo County.	Not likely; appropriate habitat characteristics are not present in the action area. Project location is outside of species known range. No known occurrences where found near the action area.
<i>Helminthoglypta walkeriana</i>	Morro shoulderband snail (=banded dune snail)	E	Restricted to sandy soils of coastal dune and coastal sage scrub communities near Morro Bay.	Not likely; appropriate habitat characteristics are not present in the action area. Project location is outside of species known range. No known occurrences where found near the action area.
Plants				
<i>Arctostaphylos morroensis</i>	Morro manzanita	T	Chaparral, cismontane woodland, coastal dune and coastal scrub; 5 - 205 meters. Blooming period from December through March.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Arenaria paludicola</i>	Marsh sandwort	E	Freshwater-marsh habitats; 3 - 170 meters. Blooming period from May through August.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Caulanthus californicus</i>	California jewelflower	E	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland; 70 and 1,000 meters. Blooming period from February through May.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Chlorogalum purpureum</i> var. <i>purpureum</i>	Purple amole	T	Chaparral, cismontane woodland, valley and foothill grassland; endemic to Monterey County; often in grassy areas with blue oaks in foothill woodland; 300 - 330 meters. Blooming period from April through June.	Not likely; this species is endemic to Monterey County, no known occurrences where found near the action area, and no suitable habitat in action area.

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Chlorogalum purpureum</i> var. <i>reductum</i>	Camatta Canyon amole	T	Cismontane woodland, serpentine substrate; 600 - 630 meters. Blooming period from April through May.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	T	Coastal dunes, chaparral, cismontane woodland, coastal scrub; only known from Monterey and Santa Cruz Counties; sandy soils in coastal dunes or more inland within chaparral or other habitats; 3 - 450 meters. Blooming period from April through June.	Not likely; this species is only known in Monterey and Santa Cruz Counties and there are no known occurrences near the action area. A historical (1842) occurrence is located 6.8 miles from the action area in San Simeon (CDFG 2005).
<i>Cirsium fontinale</i> var. <i>obispoense</i>	Chorro Creek bog thistle	E	Chaparral, cismontane woodland; serpentine substrate in seep habitats; endemic to San Luis Obispo County; 35 - 365 meters. Blooming period from February through July.	Not likely; appropriate habitat characteristics are not present in the action area. Closest known occurrences is located 4.3 miles from the action area at San Simeon Creek Roak, approx. 0.2 miles downstream (along the road) of confluence of north and south forks for San Simeon Creek, 5.2 miles from Highway 1 (CDFG 2005).
<i>Cirsium loncholepis</i>	La Graciosa thistle	E	Moist conditions in brackish-marsh, coastal dunes and coastal scrub; 4 - 220 meters. Blooming period from May through August.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Clarkia speciosa</i> var. <i>immaculata</i>	Pismo clarkia	E	Chaparral, cismontane woodland, valley and foothill grassland; occurs in opening and edge habitats; 25 - 185 meters. Blooming period from May through July.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	Salt marsh bird's-beak	E	Coastal dunes, marshes and swamps, salt-marshes; 0 - 30 meters. Blooming period from May through October.	Not likely; appropriate habitat characteristics are not present in the action area.

Table 2
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area
<i>Eriastrum hooveri</i>	Hoover's woolly-star	PD	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland; 50 - 915 meters. Blooming period from March through July.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Eriodictyon altissimum</i>	Indian Knob mountainbalm	E	Chaparral, cismontane woodland, coastal scrub; 80 - 270 meters. Blooming period from March through June.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Lupinus nipomensis</i>	Nipomo Mesa lupine	E	Dunes and coastal habitats; 10 - 50 meters. Blooming period from March through May.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Monolopia</i> (= <i>Lembertia</i>) <i>congdonii</i>	San Joaquin woolly-threads	E	Chenopod scrub and valley and foothill grassland; endemic to San Joaquin Valley; alkaline or loamy plains; sandy soils, often with grasses and within chenopod scrub; 60 - 800 meters. Blooming period from February through May.	Not likely; appropriate habitat characteristics are not present in the action area. This species is endemic to San Joaquin Valley and there are no known occurrences near action area.
<i>Rorippa gambelii</i>	Gambel's watercress	E	Freshwater-marsh and brackish-marsh habitats; 5 - 330 meters. Blooming period from April through September.	Not likely; appropriate habitat characteristics are not present in the action area.
<i>Suaeda californica</i>	California seablite	E	Marshes and swamps; margins of coastal salt marshes; 0 - 5 meters. Blooming period from July through October.	Not likely; appropriate habitat characteristics are not present in the action area. Closest known occurrence is 12.2 miles southeast of the action area. This record is located in Estero Bluffs at and adjacent to confluence of San Geronimo Creek to Estero Bay (CDFG 2005).

Table 2				
Federally Listed, Proposed, and Candidate Species With Potential To Occur in the Vicinity of Cambria				
Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Action Area

Federal Endangered Species Act

E - Endangered

T- Threatened

C- Candidate for listing status

PD – Proposed for De-listing

Source: USFWS species list for San Luis Obispo County and CNDDDB search for seven quadrangles surrounding the action area.

Appendix C – USFWS Biological Opinion



United States Department of the Interior

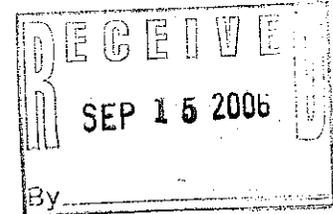


FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
PAS 2398.3675.4418

September 13, 2006

Alessandro Amaglio, Environmental Officer
Federal Emergency Management Agency
1111 Broadway, Suite 1200
Oakland, California 94607-4052



Subject: Biological Opinion for the Cambria Storm Drain and Pump Station Project, San Luis Obispo County, California (FEMA-1046-DR-CA, HMGP #1046-157-1003) (1-8-05-F-44)

Dear Mr. Amaglio:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the Federal Emergency Management Agency's (FEMA) proposed funding of the Cambria storm drain and pump station project and its effects on the federally threatened California red-legged frog (*Rana aurora draytonii*) in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). Your letter requesting formal consultation, dated September 28, 2005, was received on September 29, 2005.

This biological opinion is based on the biological assessment (URS 2005) and other information which accompanied your request for formal consultation, your letter dated February 1, 2006, additional information from your contractor (URS Corporation) and our files. A complete administrative record of this consultation is available at the Ventura Fish and Wildlife Office.

The biological assessment (URS 2005) included your determination that the proposed project is not likely to adversely affect the federally endangered tidewater goby (*Eucyclogobius newberryi*). Tidewater gobies inhabit the Santa Rosa Creek lagoon, which is approximately 230 yards downstream of the project site. The species has been observed upstream of the lagoon only once, which followed an unusual flood event in 1995. The riffles in Santa Rosa Creek just above the lagoon normally prevent tidewater gobies from moving upstream (Alley 2006). In addition, FEMA has proposed minimization measures to prevent degradation of water quality. In sum, we concur with your determination that the proposed project is not likely to adversely affect the tidewater goby.

TAKE PRIDE
IN AMERICA 

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Full details of the proposed action are contained in your letters to us dated September 28, 2005, and February 1, 2006, and the biological assessment (URS 2005). The following brief description summarizes the information in those documents.

The County of San Luis Obispo (County) has applied to FEMA for funding of a flood control project in the West Village of Cambria. The purpose of the proposed project is to reduce the threats to property, human health and safety caused by floodwaters of Santa Rosa Creek inundating the West Village of Cambria. The proposed project includes construction and operation of a series of underground pipelines, a small detention basin with an earthen berm, a pump house, and two outlets draining into Santa Rosa Creek.

The project includes work sites on both sides of Highway 1; many sites on the northeast side of Highway 1 comprising existing roads and a vacant lot, and two sites on the southwest side of Highway 1 at Santa Rosa Creek. The County would construct two new pipes (30 inch diameter) underneath Highway 1. One pipe would connect a new pump station on the northeast side of Highway 1 to a drain on the southwest side. The other would connect a pipe from a new detention basin on the northeast side of Highway 1 to another drain on the southwest side. The County would remove riparian vegetation from along the northeast bank (300 square feet per outlet) where the two drains empty into Santa Rosa Creek and replace it with rip rap. The County would temporarily disturb an additional 100 square feet of riparian vegetation along each drain.

The County will implement many protective measures to avoid and reduce adverse effects to California red-legged frogs and their habitat, including the following.

1. The County will conduct construction activities in Santa Rosa Creek and the riparian habitat during the latter part of the dry season (April 15 to October 15).
2. The County will install exclusion fences at the margins of the work areas.
3. A Service-approved biologist will conduct preconstruction surveys for California red-legged frogs. If any are found, the biologist will contact the Service to determine if moving them is appropriate.
4. Prior to construction, a qualified biologist will conduct a training session regarding California red-legged frogs for all construction personnel.
5. A Service-approved biologist will monitor construction activities along Santa Rosa Creek.

6. The Service-approved biologist will follow the Declining Amphibian Populations Task Force Fieldwork Code of Practice.
7. The County will revegetate the action area with native plant species.

STATUS OF THE SPECIES

The California red-legged frog was federally listed as threatened on May 23, 1996 (61 *Federal Register* 25813). The Service has published a recovery plan for the species (Service 2002). We designated critical habitat for the California red-legged frog on March 13, 2001 (66 *Federal Register* 14626); however, this rule was vacated and we proposed a revised critical habitat designation on April 13, 2004. Based on public comments we received together with our own re-evaluation of the selection criteria and primary constituent elements of essential California red-legged frog habitat, we further revised critical habitat for the California red-legged frog. Our re-proposed critical habitat was published in November 2005 (70 *Federal Register* 66906). We designated final critical habitat for the California red-legged frog on April 13, 2006 (71 *Federal Register* 19244).

Detailed information on the biology of California red-legged frogs can be found in the recovery plan. This species is the largest native frog in the western United States, ranging from 1.5 to 5.1 inches in length. The abdomen and hind legs of adults are largely red; the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background color. Dorsal spots usually have light centers, and dorsolateral folds are prominent on the back. Tadpoles range from 0.6 to 3.1 inches in length and are dark brown and yellow with dark spots.

California red-legged frogs spend most of their lives in and near sheltered backwaters of ponds, marshes, springs, streams, and reservoirs. Deep pools with dense stands of overhanging willows and an intermixed fringe of cattails are considered optimal habitat. Eggs, larvae, transformed juveniles, and adults also have been found in ephemeral creeks and drainages and in ponds that do not have riparian vegetation. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting population numbers and distribution. Some California red-legged frogs have moved long distances over land between water sources during winter rains. Adult California red-legged frogs have been documented to move more than 2 miles in northern Santa Cruz County "without apparent regard to topography, vegetation type, or riparian corridors" (Bulger in litt. 2000 in 66 *Federal Register* 14625). Most of these overland movements occur at night.

California red-legged frogs breed from November through March with earlier breeding records occurring in southern localities. California red-legged frogs are often prolific breeders, typically laying their eggs during or shortly after large rainfall events in late winter and early spring. Embryos hatch 6 to 14 days after fertilization and larvae require 3.5 to 7 months to attain metamorphosis. Tadpoles probably experience the highest mortality rates of all life stages, with less than 1 percent of eggs laid reaching metamorphosis. Sexual maturity normally is reached at

3 to 4 years of age; California red-legged frogs may live 8 to 10 years. Juveniles have been observed to be active diurnally and nocturnally, whereas adults are mainly nocturnal.

The diet of California red-legged frogs is highly variable. Invertebrates are the most common food items, although vertebrates such as Pacific chorus frogs (*Pseudacris regilla*) and California mice (*Peromyscus californicus*) can constitute over half of the prey mass eaten by larger frogs (Hayes and Tennant 1985). Larvae likely eat algae.

The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range. Historically, this species was found throughout the Central Valley and Sierra Nevada foothills. At present, California red-legged frogs are known to occur in 243 streams or drainages from 22 counties, primarily in central coastal California. The most secure aggregations of California red-legged frogs are found in aquatic sites that support substantial riparian and aquatic vegetation and lack non-native predators. Over-harvesting, habitat loss, non-native species introduction, and urban encroachment are the primary factors that have negatively affected the California red-legged frog throughout its range (Jennings and Hayes 1985, Hayes and Jennings 1988). Ongoing causes of decline include direct habitat loss due to stream alteration and disturbance to wetland areas, indirect effects of expanding urbanization, and competition or predation from non-native species.

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) of the Act define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 *Code of Federal Regulations* 402.02). For the purposes of this biological opinion, we identify the action area as the two work sites along the northeast bank of Santa Rosa Creek, approximately 230 yards and 535 yards upstream of the lagoon. The two work sites include the 300-square foot area where each of the two drains empties into Santa Rosa Creek, and the 100-square foot area along each of the two drains where riparian vegetation would be temporarily disturbed.

Santa Rosa Creek in the vicinity of the action area has a wide channel with riparian forest, wetland habitat and open pools of water. Arroyo willows (*Salix lasiolepis*), California blackberry (*Rubus ursinus*), and poison oak (*Toxicodendron diversilobum*) are prominent in the riparian forest. Cattails (*Typha* spp.) are prominent in the wetland habitat.

Julie Schneider (biological consultant, Cambria) surveyed 0.7 mile of Santa Rosa Creek, which included the action area, for California red-legged frogs in September, 2003 (Service 2003). She sighted at least 12 California red-legged frogs along with other frogs that could not be identified. Based upon Ms. Schneider's information, we believe that California red-legged frogs breed in this reach of the creek. In addition, your biological assessment refers to two records for California red-legged frogs in Santa Rosa Creek adjacent to and 0.5 mile from the action area.

The recovery plan for the California red-legged frog describes eight recovery units that are based on the level of threat to the species and the stability of the existing populations. Santa Rosa Creek is in the Central Coast Recovery Unit, which generally includes the coastal portions of Santa Cruz, Monterey and San Luis Obispo Counties. This recovery unit contains the greatest number of drainages currently occupied by the California red-legged frog (Service 2002).

EFFECTS OF THE ACTION

The County would remove 600 square feet of riparian vegetation from the northeast bank of Santa Rosa Creek and temporarily disturb another 200 square feet in two drains. The impact of this habitat loss and disturbance will be temporary because the County will revegetate the areas with native plant species. Because the County would conduct the proposed work in Santa Rosa Creek and the riparian habitat during the latter part of the dry season, effects to breeding California red-legged frogs will be avoided. In addition, because the County would implement best management practices and erosion control measures, effects to water quality by sedimentation will be minor.

Construction activity in the action area may cause any California red-legged frogs in the action area to temporarily leave. The affected California red-legged frogs would likely move along the creek to nearby suitable habitat in the creek. While dispersing and living in unfamiliar habitat, the affected California red-legged frogs would be at greater risk of predation and desiccation.

The County will install exclusion fences at the margins of the work sites. These fences will prevent workers and equipment from encroaching into adjacent habitat. Workers may intentionally or unintentionally disturb, injure or kill California red-legged frogs during project activities. The potential for this impact to occur will be reduced by informing workers of the presence and protected status of the subspecies and the measures being implemented to protect it during the proposed project.

Workers will keep food-related trash in closed containers, which the County will regularly remove from the work sites. These actions will prevent attracting predators of California red-legged frogs to the area.

The proposed capture and handling of California red-legged frogs to move them from work sites may result in injury or mortality by improper handling, containment, transport of individuals, or releasing them into unsuitable habitat. This impact will be reduced or prevented by use of a Service-approved biologist. California red-legged frogs that are not detected and relocated from the work sites may be crushed by equipment, materials and worker foot traffic.

Chytrid fungus (*Batrachochytrium dendrobatidis*) could be spread if infected California red-legged frogs are relocated and introduced into areas with healthy California red-legged frogs or vice-versa. Chytrid fungus is a water-borne fungus that can be spread through direct contact between aquatic animals and by a spore that can move short distances through the water. The fungus only attacks the parts of the frog's skin that have keratin (thickened skin), such as the

mouthparts of tadpoles and the tougher parts of adults' skin, such as the toes. The fungus can decimate amphibian populations, causing fungal dermatitis, which usually results in death in one to two weeks. Infected animals may spread the fungal spores to other streams and pools before they die. Once a pool has become infected with chytrid fungus, the fungus stays in the water for an undetermined amount of time. It is possible that during the relocation of California red-legged frogs, infected individuals or equipment could introduce chytrid fungus into areas where it did not previously occur. If this occurs, many California red-legged frogs could be killed. This risk will be reduced by the Service-approved biologist following the Declining Amphibian Populations Task Force Fieldwork Code of Practice.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We are not aware of any non-federal actions that are reasonably certain to occur in the action area.

CONCLUSION

After reviewing the current status of the California red-legged frog, the environmental baseline for the action area, the effects of the proposed project, and the cumulative effects, it is the Service's biological opinion that FEMA's proposed funding of the Cambria Storm Drain and Pump Station Project is not likely to jeopardize the continued existence of the California red-legged frog.

We have reached this conclusion because:

1. Only 600 square feet of California red-legged frog habitat along Santa Rosa Creek would be removed by the project, and only 200 square feet would be temporarily disturbed.
2. FEMA has proposed measures to reduce the adverse effects of the proposed activities on the California red-legged frog.
3. Few, if any, California red-legged frogs are likely to be killed or injured during project activities.
4. Opportunities for California red-legged frogs in Santa Rosa Creek to forage, shelter and breed will remain after construction is complete.

INCIDENTAL TAKE STATEMENT

Section 9 and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. The Act defines take as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. The Service defines harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. The Service defines harass as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering. The Service defines incidental take as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and must be undertaken by FEMA so that they become binding conditions of its funding to the County for the exemption in section 7(o)(2) to apply. FEMA has a continuing duty to regulate the activity covered by this incidental take statement. If FEMA fails to require the County to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, FEMA or the County must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [*50 Code of Federal Regulations* 402.14(i)(3)].

We anticipate the following level of take may result from the proposed activities.

All California red-legged frogs in the action area are likely to be taken as a result of project activities. Most of these will be the result of capture and relocation, during which some may be killed or injured. Few are likely to be directly killed or injured as a result of construction activities due to capture and relocation efforts. Because of the relatively small size of the action area and the low number of California red-legged frogs recorded in the vicinity of the action area during the most recent survey, we anticipate that few, if any, California red-legged frogs will be taken.

This incidental take statement does not exempt any activity from the prohibitions against take contained in section 9 of the Act that is not incidental to the action as described in this biological opinion. California red-legged frogs may be taken only within the defined boundaries of the action area as described in the Environmental Baseline section of this biological opinion.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the California red-legged frog.

1. California red-legged frogs that are at risk of injury or death must be moved from work areas.
2. FEMA and the County must ensure that the level of incidental take during project implementation is commensurate with the analysis contained in this biological opinion.

The Service's evaluation of the effects of the proposed action includes consideration of the measures developed by FEMA and repeated in the Description of the Proposed Action section of this biological opinion to minimize the adverse effects of the project on the California red-legged frog. Any subsequent changes in the measures proposed by FEMA may constitute a modification of the proposed action and may warrant reinitiation of formal consultation, as specified at 50 *Code of Federal Regulations* 402.16. These reasonable and prudent measures are intended to supplement the protective measures that were proposed by FEMA as part of the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, FEMA must ensure that the County complies with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The following terms and conditions implement reasonable and prudent measure 1.
 - a. California red-legged frogs that are captured must be relocated to nearby suitable habitat in Santa Rosa Creek.
 - b. FEMA or the County must request our approval of any biologist it wishes to survey for, monitor, capture and relocate California red-legged frogs. The request must be in writing and be received by us at least 30 days prior to any such activities being conducted. Kate Ballantyne is hereby authorized to independently survey for, monitor, capture and relocate California red-legged frogs for the purposes of this biological opinion. Eric N. Wier, Richard Trevis Warner and John Farhar are hereby authorized to independently survey for and monitor California red-frogs, and to capture and relocate them under the direct supervision of Ms. Ballantyne.
2. The following term and condition implements reasonable and prudent measure 2.

If more than two (2) California red-legged frogs are found dead or injured in the action area, FEMA or the County must contact our office immediately so we can review the

project activities to determine if additional protective measures are needed. Project activities may continue during this review period, provided that all protective measures proposed by FEMA and the terms and conditions of this biological opinion have been and continue to be implemented.

REPORTING REQUIREMENTS

FEMA must provide us with a final report describing the impacts of the project on California red-legged frogs. The report must provide the results of biological surveys and sighting records, and also document the following: the number of California red-legged frogs relocated from the action area or killed or injured during the project; the dates and times of capture, mortality or injury; specific locations of capture, mortality or injury; approximate size and age of individuals; and a description of relocation sites. We request that the report also contain a discussion of the problems encountered in implementing the terms and conditions and other protective measures, recommendations for modifying the terms and conditions to enhance the conservation of California red-legged frogs, and any other pertinent information. The report will assist us in evaluating future measures for the protection of California red-legged frogs during construction projects while enhancing the County's abilities to undertake its activities. The report must be submitted to us within 60 days following completion of the proposed project

DISPOSITION OF DEAD OR INJURED SPECIMENS

Upon locating a dead or injured California red-legged frog, the Service's Division of Law Enforcement (370 Amapola Avenue, Suite 114, Torrance, California 90501) must be notified, in writing, within 3 working days of its finding. This notification may be provided by facsimile (310/328-6399). You must also notify the Ventura Fish and Wildlife Office (2493 Portola Road, Suite B, Ventura, California, 93003; 805/644-1766) by telephone and in writing. The report must include the date, time, location, a photograph, cause of injury or death if known, and any other pertinent information.

Dead California red-legged frogs must be preserved in the best possible manner. FEMA must ensure that the County places the remains of California red-legged frogs with educational or research institutions holding the appropriate State and Federal permits per their instructions. For the Santa Barbara Natural History Museum, contact: Paul Collins, Santa Barbara Natural History Museum, Vertebrate Zoology Department, 2559 Puesta Del Sol, Santa Barbara, California 93105; 805/682-4711, extension 321.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. FEMA and the County should work towards the implementation of recovery actions identified in the California red-legged frog recovery plan (Service 2002).

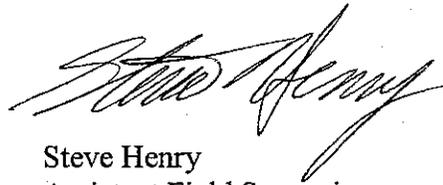
The Service requests notification of the implementation of any conservation recommendation so we may be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats.

REINITIATION NOTICE

This concludes formal consultation on your proposed funding of the Cambria storm drain and pump station project. As provided in 50 *Code of Federal Regulations* 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions, please contact Chris Kofron of my staff at (805) 644-1766, extension 303.

Sincerely,



Steve Henry
Assistant Field Supervisor
San Luis Obispo/Northern Santa Barbara

REFERENCES

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- URS. 2005. Biological assessment for USFWS. Storm drain/pump station, County of San Luis Obispo Department of Public Works, FEMA-1046-DR-CA, HMGP #1046-157-1003. Oakland, California.
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- U.S. Fish and Wildlife Service. 2003. Biological opinion for the cross town trail project, Cambria, San Luis Obispo County, California (HDA-CA, File #05-SLO-01, Cambria cross town trail, document #P46767) (1-8-03-F-40). Ventura, California.

Appendix D – NMFS Concurrence Letter



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

NOV 30 2005

151422SWR2005PR00740:MRM

Mr. Alessandro Amaglio
U.S. Department of Homeland Security
Federal Emergency Management Agency
1111 Broadway, Suite 1200
Oakland, California 94607-4052

Dear Mr. Amaglio:

Thank you for your September 28, 2005, letter concerning the flood-control project in the West Village of Cambria, San Luis Obispo County. NOAA's National Marine Fisheries Service (NMFS) understands this project is necessary to increase the drainage efficiency of storm-water runoff in the project area to reduce the threat of property damage and reduce threats to public health and safety caused by inundation of portions of the West Village by floodwaters of Santa Rosa Creek. Project activities include construction and operation of a series of underground pipelines, a small detention basin with an earthen berm, a pump house, and two outlets draining into Santa Rosa Creek. The construction area for this project is isolated and outside of the wetted channel, and will include best management practices to reduce the likelihood of sediment inputs (i.e., sand and smaller particles) into Santa Rosa Creek such that any potential impacts from this project will be discountable and insignificant. Therefore, NMFS concurs with the Federal Emergency Management Agency's determination that the proposed action is not likely to adversely affect the South Central California Coast Evolutionarily Significant Unit of Federally threatened steelhead (*Oncorhynchus mykiss*) or critical habitat for this species.

This concludes the informal section 7 consultation for this proposed action. Consultation must be reinitiated where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and: (1) if new information becomes available revealing effects of the action on listed species in a manner or to an extent not previously considered, (2) if the agency action is subsequently modified in a manner that causes an effect to listed species that was not considered, or (3) if a new species or critical habitat is designated that may be affected by this action. Please call Matt McGoogan at (562) 980-4026 if you have any question concerning this letter or if you require additional information.

Sincerely,

for Rodney R. McInnis
Regional Administrator

cc: Lorena Solorzano-Vincent, FEMA contractor (URS Corporation)



Appendix E – SHPO Consultation Letter



FEMA

September 16, 2005

Mr. Milford Wayne Donaldson
State Historic Preservation Officer
Office of Historic Preservation
1416 9th Street, Room 1442-7
Sacramento, California 95814

Re: Cambria Stormwater System and Pump Station, San Luis Obispo County,
FEMA-1046-DR-CA, HMGP # 1046-157-1003

Dear Mr. Donaldson:

The purpose of this letter is to transmit the enclosed technical report and summarize the results of an archaeological field review of lands potentially affected by a project proposed in San Luis Obispo County, California. San Luis Obispo County (County) proposes to implement a flood mitigation project in the town of Cambria. Construction would consist of installing a detention basin to collect runoff in the hills surrounding Cambria's West Village, a gravity storm drain system to collect runoff at high elevations in the hills surrounding the village, and a pump station to collect runoff from the existing storm drainage system. The County has applied to FEMA through the State of California Governor's Office of Emergency Services (OES) for assistance with this flood control project. The Federal Emergency Management Agency (FEMA) is proposing to fund the project under the Hazard Mitigation Grant Program, as part of the recovery from the flooding that occurred in 1995, which was a Presidentially declared disaster (FEMA-DR-1046-CA).

The enclosed report was prepared by URS Corporation (URS), as a consultant to FEMA, to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Programmatic Agreement (PA) among FEMA, the California State Historic Preservation Officer (SHPO), OES, and the Advisory Council on Historic Preservation. In summary, a field review of the project area (conducted on July 6, 2005, by URS) was supplemented by a cultural resources records review conducted at the Central Coast Information Center (CCIC) of the California Historical Resources Information System. In addition to the literature review, the California Native American Heritage Commission (NAHC) was contacted for a review of its Sacred Lands File as well as a list of Native American groups and individuals it believes should be contacted. The Sacred Lands File search was negative. FEMA sent letters to those groups and individuals listed by the NAHC. To date no responses have been received. The results of the literature review and field survey indicate that there are no archeological or historic built environment sites within, or adjacent to, the project area.

FEMA requests an expedited consultation pursuant to 36 CFR 800.3(g).

Project Description

The proposed project is located in Cambria, approximately 35 miles northwest of the City of San Luis Obispo and 30 miles west of the City of Paso Robles (see Figure 1 in the enclosed report). Cambria is divided into two village districts, the East Village and the West Village. The proposed project is located near the West Village. A fill berm created for the construction of Highway 1 in the 1960s separated the West Village portion of the historic floodplain from the main channel of Santa Rosa Creek, resulting in flooding in the West Village under certain storm conditions. The proposed project would reduce the risk of flooding from Santa Rosa Creek in the West Village.

The proposed project consists of three main components: a detention basin upstream of the end of Sheffield Street; a gravity storm drain system to collect runoff at high elevations in the hills surrounding the West Village; and a pump station to collect runoff from the existing storm drainage system. Project areas for all three components are shown in Figure 2 in the enclosed report.

The detention basin would be constructed upstream from the end of Sheffield Street to detain runoff before it enters the West Village. Figure 2 in the enclosed report shows the proposed location of the detention basin. The basin would be constructed in the vicinity of an existing natural channel and would consist of an earthen berm approximately 40 feet long and 8 feet high lying perpendicular to the existing channel. The berm would be constructed approximately 100 feet upstream from the end of Sheffield Street. A dirt access road would be built adjacent to the existing natural channel from the end of Sheffield Street up to the berm and would be approximately 10 feet wide.

The gravity storm drain system includes installation of storm water drainage pipes and drainage inlets in the road right-of-ways along Sheffield Street, Cornwall Street, Hillcrest Drive, Sunbury Avenue, and Croyden Lane. Along Sheffield Street, a 54-inch-diameter concrete pipe would be installed below and towards the street centerline of an existing concrete drainage channel. The new drainage pipe would run from the proposed detention basin to an existing 30-inch-diameter culvert under Highway 1. The other streets would have variable sizes of pipes installed under the street along with drainage inlets to capture and divert storm water runoff away from the West Village. Pipe sizes and locations are shown in Figure 2 in the enclosed report.

The pump station would consist of an enclosed concrete structure and a holding pond. It would be located adjacent to Highway 1 at the north end of the West Village as depicted in Figure 2 in the enclosed report. In addition, a new pipe would be constructed underneath Highway 1 from the pump station to an outlet with a flap gate on the west side of Highway 1 on the bank of Santa Rosa Creek. Approximately 15 cubic yards of rip-rap would be placed in an area about 10 feet wide and 30 feet long around the outlet of the new pipe to reduce flow energies and erosion at the outfall. Finally, approximately 900 feet of an existing dirt drainage ditch between the West Village and Highway 1 would be enlarged to a width of approximately 15 feet to carry flows from the western end of Sheffield Street to the pump station.

FEMA, in accordance with revised implementing regulations of the NHPA (May 18, 1999) found at 36 CFR 800.3(a), has determined that the proposed project is an undertaking.

Area of Potential Effects (APE) Determination

The APE for this project includes all areas of proposed construction activity and ancillary activities such as construction staging, as shown in Figure 2 of the enclosed report. The APE includes:

- areas along Sunbury Avenue, Cornwall Street, and Hillcrest Drive to accommodate storm water pipes and drainage inlets in the road rights-of-way;
- the length of Sheffield Street, from the proposed location of the detention basin to the intersection with Cornwall Street;
- an area along Croyden Lane to accommodate storm water pipes and drainage inlets in the road right-of-way;
- an area adjacent to Highway 1 at the north end of the West Village for the pump station; and
- the proposed discharge locations on Santa Rosa creek west of Highway 1.

Pursuant to the revised implementing regulations of the NHPA found at 36 CFR 800.4(a)(1), FEMA seeks your concurrence with its determination of the APE.

Literature Review

Pursuant to the revised implementing regulations of the NHPA found at 36 CFR 800.4(a)(2), the project area was subject to a cultural resources literature review. The enclosed report provides a complete description of the literature review.

Natural Setting

The enclosed report provides a complete description of the natural setting.

Prehistory, Ethnohistory, and History

The enclosed report provides a complete description of the prehistory, ethnohistory, and history of the project area.

Cultural Resources Inventory Methods and Results

Mr. Brian W. Hatoff of URS, qualified as an archaeologist under the Secretary of the Interior's Professional Qualification Standards, served as Principal Investigator for the cultural resources survey conducted in July 2005. The enclosed report provides a complete description of survey methods and results.

Findings and Conclusions

The results of the archaeological survey were negative for cultural resources within all areas surveyed. The proposed detention basin will be constructed upslope from the terminus of Sheffield Road. A dirt access road will be constructed to the base of the detention basin. The route of the dirt

Mr. Wayne Donaldson
September 16, 2005
Page 4

road was subjected to a pedestrian survey. No evidence of cultural materials or archaeological deposits was present in the exposed surfaces. The location of the detention basin itself is within a steep walled drainage that is currently covered in poison oak and blackberry plants. Although the area of the detention basin was not available for survey, the potential for archaeological deposits to be present within this location is low. The narrow and steep drainage is subject to significant overflow during storm events and would be periodically scoured by such high-energy events. The drainage sidewalls immediately below the location of the proposed detention basin berm were also inspected, and there was no evidence of subsurface deposits in these exposures. All other portions of the APE have been previously disturbed by development. No historic built environment features were found within the APE.

Pursuant to the revised implementing regulations of the NHPA found at 36 CFR 800.11(d), this letter and enclosed report provides a description of the undertaking, an APE determination, relevant maps, and a description of the steps FEMA has taken under Section 800.4(b) to identify historic properties. As described above, no properties eligible for the National Register of Historic Places (NRHP) were identified through a literature review or pedestrian survey of the project area. Therefore, the proposed project is not expected to have any effect on historic properties.

There is always the possibility that previously recorded or previously unidentified archaeological resources could be discovered during project construction. In accordance with Stipulation X of the PA, FEMA will require the County to stop work in the event of an unexpected discovery and will comply with the steps outlined in Stipulation X.

In accordance with Stipulation VII of the PA, FEMA has conducted the Standard Project Review. FEMA made a determination of "no historic properties affected" and, in accordance with the PA, is submitting for review the enclosed report supporting that determination. In accordance with Stipulation VII, FEMA may authorize funding for the project unless you object to this determination within 21 days of your receipt of this documentation.

If you have questions, you can contact me at (510) 627-7284 or Mr. Hatoff at (510) 874-3195.

Sincerely,



Alessandro Amaglio, AIA
Environmental Officer

Enclosure

cc: Dennis Castrillo, OES
Marcia Rentschler, OES
Dean Benedix, County
Bonnie Yoshida, CCIC