Supplemental Environmental Assessment

City Hall Parking Lot

City of Paso Robles

FEMA-1505-DR-CA

June 2007

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

City of El Paso de Robles

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1. INTRODUCTION

The City of El Paso de Robles (Paso Robles or City) has applied to the Federal Emergency Management Agency (FEMA), through the California Governor's Office of Emergency Services (OES), for assistance with the repair to pre-disaster condition of the damaged parking lot that serves the City Hall and library, and assistance with the long-term disposal of spring water that surfaced after the San Simeon Earthquake of December 2003. FEMA proposes to fund the project under the Public Assistance (PA) Program as part of the recovery from the San Simeon Earthquake.

The exposed spring and damaged parking lot are located at the intersection of 10th and Spring Streets in Paso Robles, San Luis Obispo County, California (Figure 1, Appendix A).

1.1 SCOPE OF DOCUMENT

FEMA has prepared a 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 for the specific actions of this particular project, some resources are not fully assessed in the PEA.

For the proposed project, FEMA has prepared this Supplemental Environmental Assessment (SEA) to evaluate the impacts of the proposed project. The SEA tiers from the PEA, supplementing information relevant to the proposed project. The SEA hereby incorporates the PEA by reference. The SEA has been prepared according to the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500–1508), and FEMA's implementing regulations (Title 44 CFR Part 10).

1.2 PURPOSE OF AND NEED FOR ACTION

Under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, and Title 44 CFR Part 206, the PA Program provides supplemental Federal disaster grant assistance for the repair, replacement, or restoration of

disaster-damaged, public owned facilities and the facilities of certain private non-profit organizations. Specifically, the PA Program provides assistance for removal of debris, the implementation of emergency protective measures, and the permanent restoration of public infrastructure. The program also encourages protection from future damage by providing assistance for mitigation measures during the recovery process. The purpose of this project is to provide funding to the City to implement a cost-effective recovery project.

As a result of the San Simeon Earthquake of December 2003, a hot spring surfaced in the parking lot serving the City Hall and library in Paso Robles. Initially, the spring water emanated from the surface rupture and flowed southeast across the parking lot onto 10th Street. The water flowed east along 10th Street until it entered the City's stormwater system and eventually was released to a braid of the Salinas River near the City Water Yard via a California Department of Transportation (Caltrans) culvert under U.S. Highway 101 (U.S. 101). This natural path of the spring water is shown in Figure 2, Appendix A. This scenario is referred to as the "without project" scenario, as this is the route that the spring water would follow without intervention from the City or FEMA.

The City has conducted a number of investigations to control the flow and otherwise monitor the event. Several monitoring wells have been installed to document the conditions of the spring. After conducting geotechnical studies, the City determined that the spring water emanates from an elongated fissure. The City excavated a large portion of the parking lot to expose the water source. As a temporary measure, the City installed a pump and 6-inch-diameter pipeline to collect and convey the water. The geothermal spring water was collected at the fissure and conveyed beneath City streets, along a Union Pacific Railroad (UPRR) easement, through a UPRR culvert, and to the same Caltrans culvert described above. This path is also shown in Figure 2, Appendix A. Thus, the City's temporary solution results in the water being released in the same location as would occur under the without project scenario, but without the undesirable constituents that would be collected if the water were to flow along the surface of City streets. This scenario is referred to as the "current condition" scenario, as this is the route that the spring water currently follows.

The parking lot has remained damaged and unusable since the 2003 earthquake. The damaged pavement and uncontrolled water source present a safety hazard and a liability for the City, the community complains of the smell of sulfur that comes from the spring water, and the business community is concerned about the economic impact that the damaged parking lot and sulfur smell may be having on the downtown commercial district. The City has identified the parking lot restoration project as one of its highest priorities. By repairing the parking lot, the threat to property and public health and safety posed by exposure to the uncontrolled spring water flow would be diminished. Therefore, action is needed to repair the parking lot and safely convey the natural spring discharge to the Salinas River.

2. DESCRIPTION OF THE PROPOSED ACTIONS AND ALTERNATIVES

FEMA reviewed a range of alternatives to meet the purpose and need. The alternatives described in this section include two alternatives that are evaluated in detail in this SEA, as well as those that the City has considered but will not be carried forward for further analysis.

2.1 NO ACTION ALTERNATIVE

The existing hazard would remain under the No Action Alternative. The parking lot would remain unusable because of a 26-foot deep unshored excavation, which is a public nuisance and danger, and the public would continue to be exposed to odors from the spring water. The City would continue to pump water out of the parking lot excavation into a 6-inch diameter pipeline that discharges to the Salinas River, approximately 0.5 mile east of the parking lot. The spring water would continue to follow the path described in the current condition scenario. However, Caltrans requires that the pipeline eventually be removed from its culvert.

2.2 PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, the City would: (1) collect the geothermal spring water emanating from the parking lot rupture and convey the water through pipes to the City Water Yard, (2) construct an underground percolation system at the City Water Yard that would discharge the spring water to the underflow of the Salinas River, and (3) repair the damaged City Hall parking lot.

First, the City would line the walls of the parking lot excavation area with geotextile, backfill the excavation area with drainage material (i.e., drain rock), and install a perforated pipe collection system to collect the spring water from within the rock. The City would then install a manhole or wet well in the parking lot to collect the spring water. A 12-inch-diameter pipeline would be installed along the 10th Street right-of-way (ROW) to convey the spring water from the wet well through a gravity-fed or pumped system. Pipeline construction would require the City to cut a 36-inch-wide open trench to the UPRR ROW, jack and bore the pipeline underneath the UPRR ROW, then continue with open trench construction east of the crossing to U.S. 101. All trenches would be covered to grade after construction and would be repaved if in paved areas. The City would jack and bore under U.S. 101 and continue conventional underground construction within the public ROW that bisects industrially developed parcels. Figure 2, Appendix A, shows the proposed path of the pipeline. The pipeline would eventually reach the underground percolation system at the City's Corporate Water Yard, which currently houses pipe and supplies used for maintenance of the City's water infrastructure.

A 3000- to 6000-square-foot underground percolation system would be installed at the City Water Yard adjacent to the Salinas River. The system would consist of approximately five disposal trenches oriented parallel to the Salinas River. Each trench would be approximately 50 feet long, 24 inches wide, and excavated to a depth of about 6 feet. Six-inch diameter PVC drain pipe would be placed in each trench and embedded in crushed rock or pea gravel. The trenches would be parallel and spaced about 10 feet apart. The geothermal spring water would flow through the underground system and be discharged to the river's underflow after passing through permeable (sandy) material that is expected to act as a natural and passive filter for sulfide odors. Additional on-site facilities would include distribution boxes, diversion valves, and vents with sulfide filters to capture and treat odors.

City contractors have conducted subsurface testing and groundwater modeling at the Water Yard to determine that there is a suitable thickness of permeable, unsaturated alluvial material

at least 5 feet above the seasonally high groundwater into which spring water could be dispersed using the proposed percolation system. A percolation field length of 250 to 500 feet, encompassing a total area of 3000 to 6000 square feet, is expected to handle a flow of 400 gallons per minute (gpm). The current flow rate is approximately 130 gpm.

The City would also repair and resurface the damaged City Hall parking lot as part of the Proposed Action Alternative. The parking surface is currently and would be replaced with asphalt. There would be a need to restore concrete 'A' curb and interlocking pavers at various locations in the parking lot that were lost as a result of the earthquake (for raised planters and pedestrian walk connections). Landscaping would mainly consist of ornamental trees and low growing shrubs consistent with the plant palette existing for the remainder of the parking lot.

As described above, there are three distinct components of the Proposed Action Alternative:

- The construction of the parking lot infiltration system and the repair of the parking lot. The estimated construction time is 30 to 45 days.
- The installation of the City Yard percolation field system. The estimated construction time is 45 days.
- The installation of the drainage pipeline from the City Hall parking to the City Yard. The estimated construction time is 60 days.

The repair components can be constructed concurrently or in separate phases. The phasing can be adjusted to accommodate the environmentally acceptable construction window associated with work near the Salinas River. The City's draft construction schedule provides for a start date of summer/fall 2008. As a result of the phasing, the drainage and/or percolation components can be adjusted to start as late as summer/fall 2009 (if necessary) to accommodate the environmentally acceptable construction window near the Salinas River. The installation of the transmission/drain pipe from the spring to the percolation field would require the City to acquire easements from UPRR and Caltrans to cross under the UPPR tracks and Highway 101, respectively. It is estimated that easement negotiations could extend 6 to12 months beyond the design phase of the project. Should easement negotiations result in the City missing the September 2008 to April 2009 environmentally acceptable construction window for installation of the percolation field, resources would be focused on completing the two phases associated with (1) rehabilitation of the parking lot and (2) installation of the underground transmission/drain pipe until such time as work could resume on the percolation field in the next environmentally acceptable construction window (September 2009 to April 2010).

The only component of the repair that would be impacted by the environmentally acceptable construction window (September to April) is the percolation field system at the City Yard, as described in Sections 3.4 and 4.4 of the SEA. It would be the City's intent to start this work in early September 2008 or 2009. With the projected construction duration of 45 days, this would provide the best opportunity to avoid work near the river during the rainy season. Regardless of a start date, the City would implement best management practices for construction activity. To do this, the City would develop in detail a Construction Storm Water Program in conjunction with the project's final design and grading plan. Elements covered in the program would include: (a) soil stabilization, (b) sediment control, (c) tracking control, (d)

material and waste management, (e) dust control, (f) vehicle and equipment best management practices (BMPs), and (g) dewatering measures.

No land is expected to be acquired under this alternative. Construction would occur on City property or within City easements. Equipment would be staged on paved or previously disturbed areas owned by the City.

2.3 OTHER ACTION ALTERNATIVES NOT CARRIED FORWARD

The City considered several alternatives to restore the City Hall parking lot and dispose of the spring water. First, the City evaluated the possibility of transmitting the spring water to the City's wastewater treatment plant (WWTP) via the City wastewater collection system. The current rate of discharge from the spring is approximately 130 gpm or approximately 187,000 gallons per day. This is approximately 5 to 7 percent of the WWTP's current service quantity and would consume too great a portion of the limited WWTP capacity. Therefore, this alternative was dismissed from future consideration.

The City considered collecting the spring water and injecting it into a confined, underground aquifer. No such aquifer is known to exist in the vicinity. If found, an aquifer meeting the necessary criteria would likely be very deep and under considerable pressure, making this alternative cost prohibitive.

The City considered collecting and conveying the untreated spring water directly to the Salinas River through a permanent pipeline. This alternative was rejected because of perceived impacts to the Salinas River due to the surface discharge of the spring water, which has an elevated temperature (approximately 111° Fahrenheit) and high hydrogen sulfide (H_2S) content.

Finally, the City considered treating the spring water to reduce H_2S levels through chemical addition or by using a biofilter system and discharging the effluent to the Salinas River. The chemical (ferric chloride) alternative would likely require construction of an underground storage tank for the ferric chloride solution and installation of injection equipment in a vault at the parking lot site. This alternative was dismissed because the introduction of ferric chloride would increase the levels of chloride in the spring water and could affect the City's ability to comply with their Waste Discharge Requirements (WDRs). Elevated chloride levels may also have an adverse impact on the Salinas River ecosystem compared to the No Action Alternative. The biofilter system was dismissed from further consideration because of escalating costs due to land acquisition and facility construction and concerns from the State Regional Water Quality Control Board (RWQCB) that the process would not adequately reduce the spring water temperature.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The PEA has adequately described the affected environment and impacts of the Proposed Action Alternative for all resource areas excepting geology, seismicity, and soils; air quality; water resources; biological resources; cultural resources; and transportation. 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 Alternative are discussed in Section 4.

3.1 GEOLOGY, SEISMICITY, AND SOILS

The City lies within the Coastal Ranges Geomorphic Province, an area characterized by low rolling hills with broad valleys and eroded alluvial terraces. The project area is within the western margins of the Salinian block portion of the province. The Salinian block is composed of a Mesozoic and older crystalline basement complex of plutonic and metamorphic rocks overlain by a thick sequence of Upper Cretaceous and lower Tertiary marine and non-marine sedimentary rocks.

Bedrock at the site consists of the Paso Robles Formation, which underlies most of the hillside west of the City. The Paso Robles Formation is composed of a poorly consolidated mixture of gravel, sand, silt, and clay. The formation is rich in clay due in part to a high concentration of eroded shale clasts reworked from the Monterey Formation. The Paso Robles Formation is in turn overlain by a mantle of unconsolidated alluvial terrace deposits.

The Paso Robles area is subject to seismic hazards from several regional faults. Seismic hazards can include surface fractures along pre-existing fault planes and damage from seismically induced ground-motion including liquefaction and landslides. Active fault zones mapped in this area include the San Andreas (northeast of the City), Rinconada Fault (south of the City), and Hosgri "Offshore" Fault. (The Offshore Fault is seismically active, but available marine geophysical data indicate that future surface rupture is improbable along this fault.) Also, a broad set of short, discontinuous faults between Santa Maria and Big Sur occur near the Paso Robles area, often referred to as the Nacimiento fault zone. The Salinian block is bound on the east and west by the San Andreas and the Sur/Nacimiento/Rinconada fault systems, respectively. The geologic structure in the Paso Robles area is characterized by a series of northwest-trending anticlinal and synclinal folds and faults. A number of earthquakes with a moment magnitude (M) greater than 5 have occurred in recent time in the region on these faults, including the M 6.5 San Simeon Earthquake.

The Rinconada fault is the closest mapped fault to the project area. It is mapped as a northwest-southeast trending fault approximately 1,500 feet southwest of the project area. There is also a north-south trending concealed splay of the fault along Spring Street in Paso Robles, in relative proximity to the City Hall parking lot site. Based on the geothermal survey of the project area vicinity, it was interpreted that the hot spring that surfaced in the City Hall parking lot was one of several reactivated along what appears to be the southeast extension of the Rinconada fault and the intersection of the unnamed north-south trending fault.

The epicenter of the San Simeon Earthquake was located approximately 20 miles west-northwest of the project site, near the Nacimiento and Oceanic fault zones. The rupture of the San Simeon Earthquake is estimated to have extended southeast to within approximately 8 miles west of the City.

Groundshaking is a major seismic concern for Paso Robles. Portions of Paso Robles, especially those areas within or immediately adjacent to the Salinas River and Huerhuero

Creek floodplains, are located on alluvial deposits, which can increase the potential for groundshaking damage. Ground motion lasts longer on loose, unconsolidated materials than on solid rock. As a result, structures located on these types of materials may suffer greater damage. Alluvial soils can be a greater hazard for structures than proximity to a fault or an earthquake's epicenter. In addition, areas with shallow depths to groundwater, especially those areas located along Salinas River, can be prone to extreme shaking and liquefaction.

Prime soils in the City include Lockwood shaley loam, Hanford and Greenfield gravelly sandy loam, Arbuckle fine sandy loam, and Cropley Clay, when irrigated. Soils within the City are generally well to moderately-drained soils with a surface layer of coarse sandy loam to shaley loam west of the Salinas River, ranging to clay loam east of the river.

Soils in Paso Robles are classified as having high to moderate susceptibility to erosion. In the low-lying areas surrounding the Salinas River, erodability is attributed to river scouring and potential flooding. In the steep upland areas of the City, soils are subject to erosion from wind, rain, grazing, and human disturbance of soil and vegetation. Construction in areas of expansive soils may require major sub-excavation and replacement of existing materials with engineered fill.

Project activities would temporarily disturb soils during the construction of the collection/conveyance system and underground percolation system. Construction activities would cause short-term soil loss through water and wind erosion. The City would implement standard construction BMPs, as described in Section 4.1 of the SEA, to avoid and minimize soil loss and erosion. No impacts to geology or seismicity are expected from implementation of the Proposed Action Alternative.

3.2 AIR QUALITY

The Federal Clean Air Act (CAA) of 1970 was enacted to regulate air emissions from area, stationary, and mobile sources. This law authorized the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The six criteria pollutants regulated by the CAA are carbon monoxide (CO), lead (Pb), nitrogen oxides (NO_x), ozone (O_3), particulate matter (less than 10 micrometers [PM_{10}] and less than 2.5 micrometers [$PM_{2.5}$]), and sulfur dioxide (SO_2).

Additionally, the State of California set California Ambient Air Quality Standards (CAAQS) for ten criteria pollutants including CO, Pb, $PM_{10,}$ $PM_{2.5}$, NO_x, O_3, SO_2, sulfates, hydrogen sulfide (H_2S), and visibility reducing particles. CAAQS are the same or more stringent than the NAAQS.

Under the 1977 amendments to the Clean Air Act, states with air quality that does not achieve the NAAQS are required to develop and maintain state implementation plans (SIPs). These plans constitute a Federally enforceable definition of the state's approach (or plan) and schedule for the attainment of the NAAQS. Air quality management areas are designated as "attainment," "non-attainment," or "unclassified" for each individual pollutant depending on whether or not they exceed an applicable NAAQS or CAAQS. Areas that have been re-designated from non-attainment to attainment are called maintenance areas.

Prior to approval of any Federal action, the General Conformity Rule (GCR) (Title 40 CFR Part 51.853) states that a "a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates" (40 CFR 51.853 b) specified in the GCR. This requires the responsible Federal agency of a Federal action to determine the following:

- Whether or not the project is exempt based on exemption criteria listed in the GCR.
- The attainment status of each pollutant in the applicable County.
    - If the project is in a pollutant non-attainment or maintenance area, the direct and indirect project emissions must be compared against applicable emission threshold rates listed in the GCR to determine if the project's emissions are:
        - Below specific emissions threshold rates (hence, exempt from conformity analysis); or
        - Above the threshold rates applicable to the specific area (hence, requiring a conformity analysis).

This project site is located in the South Central Coast Air Basin, which includes San Luis Obispo, Ventura, and Santa Barbara Counties, and is under the jurisdiction of the San Luis Obispo County Air Pollution Control District (APCD). Specifically, this project is located in San Luis Obispo County, which is designated as unclassified/attainment for all Federal NAAQS. Additionally, San Luis Obispo County is not in a Federal maintenance area. However, the County is designated as non-attainment for the PM_{10} and O_3 CAAQS, but is in attainment or unclassified for all other California criteria pollutants (California Air Resources Board 2007).

The GCR is a Federal regulation and provides emission threshold rates for federally designated non-attainment and maintenance areas. Project emissions are compared to these threshold rates to determine whether or not a conformity analysis is required. However, the GCR does not provide emission threshold rates for areas federally designated as unclassified or attainment.

San Luis Obispo County is federally designated as unclassified or attainment for all six criteria pollutants and it is not in a maintenance area. Therefore, comparison to the non-attainment and maintenance area emission threshold rates is technically infeasible. However, because the County is designated as non-attainment for the PM_{10} and O_3 CAAQS, a comparison has been made to demonstrate that the proposed action's emissions would be below the most stringent emission threshold rates listed in the GCR, which is a very conservative approach.

San Luis Obispo County Emission Threshold Rates

	GCR Guidance	GCR Guidance
Pollutant	**Non-Attainment (tons/year)**	**Maintenance Area (tons/year)**
CO	100	100
NOx	10 (extreme, O_3 precursor)	100 (O_3 precursor)
PM_{10}	70 (serious)	100
$PM_{2.5}$	100	100
SO_2	100	100
VOC	10 (extreme, O_3 precursor)	50 (O_3 precursor)

Under the Proposed Action Alternative, construction of the collection/conveyance system, installation of the underground percolation system, and repair of the parking lot would result in temporary impacts to the existing air quality in the area. These impacts include temporary increases of fugitive dust (PM_{10} and $PM_{2.5}$), combustion emissions (CO, NO_X, $PM_{10,}$ $PM_{2.5}$, SO_2, and volatile organic compounds or VOC), and asphalt paving emissions (VOC).

It is important to designate the there are no NAAQS or CAAQS for VOC. However, VOC is a precursor to $O_{3,}$ which has both a Federal and State ambient air quality standard. The formation of O_3 occurs in the troposphere as precursor pollutants react in the presence of sunlight. Therefore, the only way to regulate/reduce O_3 is through the control of its reactive precursors, one of which is VOC.

Unmitigated emission estimates were determined using the following guidance and assumptions:

- 250 construction days/year
- 10 working hours/day
- Assumed 5 acres of ground disturbance (which is a conservative estimate for the Proposed Action Alternative)
- Emissions were estimated using the equipment loading for a permitted construction project with 38 acres of ground disturbance scaled down to the assumed 5 acres of this project.
- Assumed a total of 0.75 acre would be paved (which is a conservative estimate for the Proposed Action Alternative).
- 3.0 percent by volume VOC was used to determine the asphalt emissions as it is the maximum VOC content allowed in San Luis Obispo County (San Luis Obispo APCD 1997).

Based on the above assumptions, the following unmitigated emissions are expected for this project:

San Luis Obispo County Emission Threshold Rates

	Emission Rate
Pollutant	**tons/year**
CO	2.40
NO_X	4.87
PM_{10}[a]	2.49
$PM_{2.5}$[a]	0.73
SO_2	4.43E-03
VOC[b]	8.79
[a] Includes particulate from fugitive dust and combustion activities [b] Includes VOC from paving and combustion activities	

Even without mitigation measures and using conservative assumptions, the project emission estimates for CO, NO_X, PM_{10}, $PM_{2.5}$, SO_2, and VOC, are below the levels of the worst case GCR threshold emission rates. Therefore, no further analysis is required to establish conformity with the State Implementation Plan or the Clean Air Act; air quality impacts as a result of implementation of this action would be temporary and minimal. Mitigation measures to minimize air quality impacts are outlined in Section 4.2 of the SEA.

3.3 WATER RESOURCES

The project area is located in the upper Salinas River watershed. The upper watershed begins at the headwaters southeast of Santa Margarita Lake and extends to the town of Bradley, just inside Monterey County. The Salinas River is the primary hydrologic feature in Paso Robles. Although substantial subsurface flows occur throughout the year, the river is virtually dry on the surface from July through September. Peak flows typically occur during the months of January to March and are largely controlled by the Santa Margarita Lake and Dam, located approximately 20 miles upstream of the City. Downstream, tributary flows to the river are regulated by the Nacimiento Reservoir and Dam on the Nacimiento River, and the San Antonio Reservoir and Dam on the San Antonio River. Data from the U.S. Geological Survey (USGS) gauging station in Paso Robles (for the years from 1939 to 2004) indicate that mean monthly stream flows in the Salinas River typically range from about 398 cubic feet per second (cfs) in February to about 0.051 cfs in August. Since 1995, the highest recorded monthly average flow was 2,884 cfs in February 1998. In addition to the river, several smaller intermittent creeks flow through the Paso Robles area. These creeks carry runoff from the hills east and west of the City and discharge to the Salinas River. The most important of these is Huerhuero Creek, which carries runoff from the northeastern portion of the City to the Salinas River.

Groundwater is the primary source of water supply in Paso Robles. The City derives its water from both Salinas River underflow and a regional aquifer known as the Paso Robles

Groundwater Basin. The Paso Robles Groundwater Basin encompasses an area of approximately 505,000 acres (790 square miles). In general, groundwater flow moves northwest across the basin towards the Estrella area, then north towards the basin outlet at San Ardo. The biggest change in groundwater flow patterns in recent years has been the hydraulic gradient east of Paso Robles, along the Highway 46 corridor, which has steepened in response to greater pumping by the increasingly concentrated development of rural ranchettes, vineyards, and golf courses. The City is investigating acquiring surface water from Nacimiento Reservoir so that it can reduce dependence on groundwater to meet municipal water demand (City of Paso Robles Water Division 2005).

The City also has an abundance of mineral water. There are a number of mineral springs producing both hot and cold water and a wide variety of chemical salts in solution. Several springs are utilized as mineral pools or baths including the hotel/spa resort across Spring Street from the City Hall parking lot. These springs are considered a resource with economic value. Evidence shows that the mineral springs have a hydrologic connection to the Salinas River subflow and groundwater basin (Wang et al. 2004). Water quality tests of the spring water being discharged to the Salinas River under the current condition scenario showed that the spring water contains elevated levels of H_2S, boron, total dissolved solids, sodium, chloride, and ammonia. The spring water temperature is also higher than that of the Salinas River in the vicinity of the discharge point.

Temporary impacts to water quality during construction of the Proposed Action Alternative could occur due to the operation of heavy equipment, disturbance and stockpiling of soils, and dewatering (if necessary) of trenches. As described in Section 4.3, the City would implement BMPs for construction activity to limit sedimentation in the Salinas River. To do this, the City would develop in detail a Construction Storm Water Program in conjunction with the project's final design and grading plan. Elements covered in the program would include: (a) soil stabilization, (b) sediment control, (c) tracking control, (d) material and waste management, (e) dust control, (f) vehicle and equipment BMPs, and (g) dewatering measures. Specific details are provided in the City's Construction Site Storm Water Quality Requirements (Appendix B).

At FEMA's request, the City performed hydrogeologic modeling of the proposed percolation system to determine the potential for the spring water to enter the surface flow of the Salinas River under the Proposed Action Alternative. The modeling was based on the maximum recorded flow of the spring after the earthquake (400 gpm), although the spring has diminished to a fairly consistent 130 gpm flow rate at the present time. The model showed that during periods of no or low flow in the river (July to December) the spring water would percolate to groundwater with no contribution of spring water to the Salinas River. Therefore, during this period, the Proposed Action Alternative would improve surface water quality compared to the without project scenario or the current condition scenario by removing the contribution of spring water to the Salinas River.

The model showed that with implementation of the Proposed Action Alternative during high river flow (January to June), a maximum of 96 percent of the spring water would mix with flows in the Salinas River, compared to 100 percent in the without project scenario and the current condition scenario. This mixing would only occur when flow rates in the river are high. Comparing flow rates in the river during this high river flow period to flow rates of the

spring water escaping the percolation system shows that the river water would dilute the spring water by a ratio of approximately 10 to 1. Furthermore, the spring water that escapes the percolation system and mixes with river water would enter the river over an area of approximately 5,000 square feet under the Proposed Action Alternative, compared to the single-point discharge that would occur under the without project scenario and the current conditions scenario, thereby further diluting the spring water. Therefore, during periods of high flow in the river, the Proposed Action Alternative would also improve water quality compared to the without project scenario or the current condition scenario.

The Proposed Action Alternative was introduced to Central Coast Regional Water Quality Control Board (RWQCB) staff at a December 21, 2005, meeting, after which the RWQCB confirmed in a January 17, 2006, letter (Appendix C) that it would waive waste discharge requirements for such a project. Further, the letter recognizes that the sulfur spring is a natural spring, and that the proposed underground percolation field disposal method would mitigate the RWQCB's concerns relative to water quality impacts.

3.3.1 Executive Order 11988: Floodplain Management

In accordance with Executive Order (EO) 11988, FEMA evaluated the effects of the action alternatives on the floodplain. The project area is shown on Flood Insurance Rate Map (FIRM) number 0603080004B for City of El Paso de Robles, San Luis Obispo County, California, dated September 16, 1981. The FIRM indicates that the proposed underground percolation field at the City Water Yard would be located in Zone A10, which designates an area within the 100-year flood zone. The Flood Insurance Study for the Salinas River, which is more detailed than the FIRM, shows that the proposed elevation of the underground percolation field is on the outside border of the 100-year floodplain. Therefore, only a portion of the proposed percolation field is in the 100-year floodplain. The parking lot and proposed collection/conveyance system are located in Zone B, which designates areas between the limits of the 100-year flood and 500-flood.

EO 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. FEMA's regulations for complying with EO 11988 are found in Title 44 CFR Part 9. In compliance with EO 11988, FEMA considered the Proposed Action Alternative's impacts to the floodplain. FEMA applies the Eight-Step Decision-Making Process to ensure that it funds projects consistent with EO 11988. The NEPA compliance process involves essentially the same basic decision-making process to meet its objectives as the Eight-Step Decision-Making Process. Therefore, the Eight-Step Decision-Making Process has been applied through implementation of the NEPA process. FEMA published an Initial Public Notice at the declaration of the disaster. FEMA would ensure publication of a Final Public Notice in compliance with EO 11988 before implementation of the Proposed Action.

In compliance with EO 11988, if there is no practicable alternative to undertaking an action in a floodplain, any potential adverse impacts must be mitigated. Under the Proposed Action Alternative, the City would install a portion of the proposed underground percolation field within the 100-year floodplain of the Salinas River. As described in Section 2.3 of the SEA, there is no practicable alternative to the Proposed Action Alternative, which involves siting a

portion of the percolation field near the river and, consequently, within the adjacent floodplain. The City would implement measures to control erosion and sedimentation during construction, as described in Section 4.3 of the SEA. Construction of the proposed percolation field is not expected to change the established 100-year floodplain boundary. With implementation of these design standards and mitigation measures, the project would not result in any significant impacts to floodplains and FEMA would be in compliance with EO 11988.

3.3.2 Executive Order 11990: Protection of Wetlands

EO 11990, Protection of Wetlands, requires Federal agencies to take action to minimize the loss of wetlands. The project area does not contain wetlands, as action would be limited to upland areas outside of the Salinas River and associated riparian vegetation. Therefore, the Proposed Action Alternative complies with EO 11990.

3.4 BIOLOGICAL RESOURCES

The proposed path of the pipeline from the parking lot to the City Water Yard is completely developed and consists of paved city roads, U.S. 101, and a graded maintenance/storage yard. Vegetation in these areas is landscaped or ruderal. The proposed location for the percolation system at the City Water Yard consists of a disturbed area with exposed soils and devoid of vegetation. Adjacent to the proposed location for the percolation system, the Salinas River is a multi-braided system that has sandbars and gravelly areas in between patches of riparian or marsh vegetation. As described in Section 3.3 of the SEA, during periods of high river flow rates, a portion of the spring water may mix with the surface water of the Salinas River. Thus, the project area also encompasses the mixing area, which corresponds to the area where the spring water would mix with surface water from the river during such conditions. The mixing area would be approximately 500 feet in length and as wide as the river width. The vegetation in the mixing area consists of a patch of giant reed (*Arundo donax*) surrounded by willow riparian woodland. The dominant plant species in the willow riparian woodland include red willow (*Salix laevigata*), black willow (*S. gooddingii*), sandbar willow (*S. exigua*), Fremont's cottonwood (*Populus fremontii*), and mulefat (*Baccharis salicifolia*). Some areas adjacent to the mixing area include freshwater marsh species, such as cattails (*Typha* sp.) and common tule (*Scirpus acutus*).

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. The California Department of Fish and Game (CDFG) Natural Diversity Database (CNDDB) was searched for known occurrences of special-status species within nine U.S. Geologic Survey (USGS) 7.5-minute quadrangles surrounding the action area: Paso Robles, Adelaida, Bradley, San Miguel, Ranchito Canyon, Estrella, Creston, Templeton, and York Mountain (CDFG 2006). FEMA obtained a list of special-status species that may occur in San Luis Obispo County from the U.S. Fish and Wildlife Service (USFWS) Ventura Field Office website. Further, at a July 28, 2005, meeting, USFWS representatives listed several species that could occur in the action area. These sources identified a total of 37 special-status species.

FEMA conducted a literature review to identify habitat requirements and distribution of these special-status species. FEMA also conducted two site reconnaissance surveys of the action area, on July 7, 2005, and July 27, 2005, to ascertain the potential presence of special-status species. General habitat characteristics of the action area were evaluated during the reconnaissance surveys. Qualitative assessments of each habitat were used to determine whether each of the 37 special-status species identified is likely to occur in the action area. As a result of the literature review, site reconnaissance, and meetings with USFWS and the National Marine Fisheries Service (NMFS), FEMA determined that the action area and its immediate vicinity may provide habitat suitable to support the California red-legged frog (*Rana aurora draytonii*), arroyo toad (*Bufo californicus*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), and south central California coast steelhead (*Oncorhynchus mykiss irideus*). The following discussion provides details on the potential for each of these species to occur in the action area and potential impacts to these species.

California Red-Legged Frog

The California red-legged frog (CRLF) is listed as threatened under the ESA. The historical range of the CRLF extended on the coast from the vicinity of Point Reyes National Seashore and inland from the vicinity of Redding southward to northwestern Baja California, Mexico (USFWS 2007). The largest extent of currently occupied habitat is found in Monterey, San Luis Obispo, and Santa Barbara Counties (USFWS 2007). CRLF is generally found along marshes, streams, ponds, and other permanent sources of water where dense scrubby vegetation such as willows, cattails, and bulrushes dominate, and water quality is good. Breeding sites occur along watercourses with pools that remain long enough for breeding and the development of larvae. Breeding time depends on winter rains but is usually between late November and late April (Jennings 1988).

There are two CNDDB records of CRLF in tributaries to the Salinas River, at Graves Creek and Paso Robles Creek, which are both approximately 2.6 miles from the action area, respectively (CDFG 2006). Habitat suitable to support CRLF is found in the action area, specifically slow-moving water in the Salinas River. Since CRLF are known to migrate up to 1 mile from breeding sites, all upland areas within 1 mile of the Salinas River would be considered suitable upland habitat for the CRLF, including the proposed site for the underground percolation system. The action area is also located within its historical range. The action area is not located within the designated critical habitat for CRLF (USFWS 2006a).

During the meeting with USFWS on July 28, 2005, USFWS recommended that FEMA conduct protocol surveys for CRLF 1 mile upstream and 1 mile downstream of the action area on the Salinas River. FEMA's consulting biologists conducted protocol surveys for CRLF in this area between August 23 and 25, 2005, in accordance with the "Guidance on Site Assessment and Field Surveys for California Red-legged Frogs," issued by USFWS on February 18, 1997 (USFWS 1997). No CRLF were detected along the 2-mile stretch of the Salinas River during the August 2005 protocol surveys. Further, the survey area was heavily populated with introduced bullfrogs (*Rana catesbeiana*), which may negatively affect the

presence of native amphibians. Based on the distance between the action area and the closest known occurrence of CRLF, it is unlikely that the Proposed Action Alternative would affect the viability of individual populations or the species as a whole. These factors and the absence of CRLF during the surveys indicate that the Proposed Action Alternative is not likely to adversely affect this species or its designated critical habitat. The Proposed Action Alternative may be beneficial to CRLF habitat by improving water quality in the Salinas River.

Arroyo Toad

The arroyo toad is listed as endangered under the ESA. This species is endemic to coastal plains and mountains of central and southern California and northwestern Baja California, Mexico. The arroyo toad inhabits both perennial and intermittent rivers and streams with shallow, sandy to gravelly pools adjacent to sand or fine gravel terraces (USFWS 2007). Areas where arroyo toads are found range in elevation from sea level to approximately 7,500 feet above sea level. The arroyo toad breeds from late January or February to early July.

The arroyo toad's historical range extended from San Luis Obispo County to San Diego County and in Baja California (USFWS 2007). Arroyo toad has been extirpated from 75 percent of its historical range and now survives primarily in the headwaters of coastal streams as small populations (USFWS 2007). The action area is located within the toad's historical range. In 1936, arroyo toads were found in the upper Salinas River basin near Santa Margarita, San Luis Obispo County. However, surveys of this area were conducted in the 1980s and 1990s and no arroyo toads were found (USFWS 1999). The available arroyo toad habitat was probably affected by the construction of the Santa Margarita Dam, approximately 10 miles upstream from the collection site (USFWS 1999). The Recovery Plan for this species indicates that San Luis Obispo County only has a population that is presumed to be extirpated (USFWS 1999). Due to this species' historical range, San Luis Obispo County is considered part of the Northern Recovery Unit for the arroyo toad, more specifically the upper Salinas River. According to the Recovery Plan, there is potential for finding previously unknown populations or of re-establishing populations on rehabilitated habitat in the upper Salinas River (USFWS 1999).

Biologists conducted surveys for arroyo toads in the Huasna River and the San Juan Creek/Estrella River system, near the Huasna Townsite, east of Arroyo Grande, San Luis Obispo County, from May 13 to July 2, 2003 (Christopher 2004) and did not find arroyo toads or their larvae in the survey area. Even though no arroyo toad populations were present in the survey area and no populations of this species are known in San Luis Obispo County, the survey report concluded that there is a high probability that the toad could be present in the County (Christopher 2004). However, there are no known CNDDB records of this species for the entire county of San Luis Obispo (CDFG 2006).

On April 23, 2005, USFWS designated critical habitat for the arroyo toad in portions of Santa Barbara, Ventura, Los Angeles, Riverside, and San Bernardino counties. However, USFWS did not designate any critical habitat units in San Luis Obispo County (USFWS 2005). In its final designation of critical habitat for the arroyo toad in 2005, USFWS states that it is unaware of any recent observations of arroyo toads in the upper Salinas River watershed or anywhere within San Luis Obispo County in response to a comment as to why the upper Salinas River was not part of the designated critical habitat (USFWS 2005c). The closest

known occurrence, which is a northern range expansion for this species, is located on Fort Hunter Liggett in Monterey County (approximately 26 miles from the action area) and found in 1996 (USFWS 2007).

During the protocol surveys for CRLF conducted in August 2005 in the action area, biologists observed thousands of bullfrogs and many introduced predatory fish species along the 2-mile-long survey area. Introduced fish prey on tadpoles and are known to induce high arroyo toad larval mortality (USFWS 1994a). Adult bullfrogs are highly predatory and are known to prey on juvenile and adult arroyo toads, which threatens the survival of arroyo toad populations (USFWS 1994a and USFWS 1999). Bullfrogs are documented predators of arroyo toads (USFWS 1999). In addition, artificially sustained flow regimes and activities that create ponds make habitat more suitable for bullfrogs (USFWS 1999). The Santa Margarita Dam has changed the flow regime in the upper Salinas River and may have created suitable habitat for bullfrogs. Since bullfrogs and introduced predatory fish are known to prey on arroyo toads, these findings further reduce the probability of arroyo toads to occur in the action area.

For all the reasons stated above, it is highly unlikely that the arroyo toad would occur in the action area or its vicinity regardless of its historical range. Thus, the Proposed Action Alternative is not likely to affect the arroyo toad or its designated critical habitat.

Least Bell's Vireo

The least Bell's vireo is listed as endangered under the ESA. The least Bell's vireo's historical range extends from Red Bluff in the north; to northwestern Baja California in the south; and to Owens Valley, Death Valley, and the Mojave River in the east. This species current range is a very small fraction of its former range. The least Bell's vireo is a migratory songbird that nests and forages almost exclusively in riparian woodlands. It is only found in California during the breeding season from mid-March to late September. It winters in southern Baja California, Mexico. In 1986, when the least Bell's vireo was federally listed, it had been extirpated from most of its historical arrange and there were only 300 pairs statewide (USFWS 2007). These breeding pairs were confined to eight counties south of Santa Barbara, with most of them occurring in San Diego County (USFWS 2007).

The action area is surrounded by riparian habitat, and therefore, it may provide habitat suitable to support the least Bell's vireo. However, the action area is not located within the designated critical habitat for the least Bell's vireo (USFWS 1994b). A recent occurrence of the least Bell's vireo has been recorded at Camp Roberts Military Reservation on the Salinas River, approximately 9 miles from the action area (Kofron 2005). Another record of the least Bell's vireo was found in the Salinas River upstream and downstream of Bradley Bridge, approximately 6.7 miles from the action area in 1985 (CDFG 2006). The least Bell's vireo has the potential to occur in the vicinity of the action area. Suitable habitat for this species occurs at this location, and the action area is located within its historical range. However, the City has committed to perform construction-related activities during the period between late September and the middle of March, outside of the least Bell's vireo's breeding season, as described in Section 4.4 of the SEA. Thus noise and other short-term, construction-related impacts from the Proposed Action Alternative would not impact the least Bell's vireo. In the longer term, the Proposed Action Alternative would improve water quality compared to the without project scenario or the current condition scenario. This improvement to water quality

could lead to improved habitat for the least Bell's vireo. Thus the Proposed Action Alternative is not likely to adversely affect least Bell's vireo or its designated critical habitat. The Proposed Action Alternative may be beneficial to least Bell's vireo habitat.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is listed as endangered under the ESA. Historically, this migrant was known to occur in suitable habitat in the Los Angeles Basin; San Bernardino, Riverside, and San Diego Counties; and the lower Colorado River. The southwestern willow flycatcher inhabits riparian habitats along rivers, streams, and other wetland habitats with dense growths of willows. They are only found in California during their breeding season from the middle of May to late August. They are known to winter in Mexico, Central America, and northern South America.

The action area is surrounded by riparian habitat, and therefore, it may provide habitat suitable to support the southwestern willow flycatcher. However, the southwestern willow flycatcher's historical range does not include San Luis Obispo County (USFWS 2007). This species is not included in the USFWS species list for San Luis Obispo County (USFWS 2007). In addition, there are no known CNDDB records of this species for the entire County of San Luis Obispo (CDFG 2006). For these reasons, it is highly unlikely that the southwestern willow flycatcher would occur in the action area or its vicinity. The action area is not located within the proposed critical habitat for the southwestern willow flycatcher (USFWS 2004). Further, the City has committed to perform construction-related activities during the period between late September and the middle of March, outside of the southwestern willow flycatcher's breeding season, as described in Section 4.4 of the SEA. Thus noise and other short-term, construction-related impacts from the Proposed Action Alternative would not impact the southwestern willow flycatcher in the unlikely event that it did occur in the action area. As explained above for the least Bell's vireo, the Proposed Action Alternative may result in beneficial long-term impacts to the southwestern willow flycatcher habitat by improving water quality. Thus the Proposed Action Alternative is not likely to adversely affect southwestern willow flycatcher or its designated critical habitat.

Branchiopod Species

Two listed branchiopod species are known to occur in San Luis Obispo County: the longhorn fairy shrimp and the vernal pool fairy shrimp. The longhorn fairy shrimp inhabits vernal pools and is known around the borders of Soda Lake in San Luis Obispo County in vernal pools of the Northern Claypan type (Eriksen and Belk 1999), approximately 50 miles from the action area. The vernal pool fairy shrimp inhabits vernal pools, small swales, earth slumps, or basalt-flow depression basins with grassy or occasionally muddy bottom, in unplowed grassland (Eriksen and Belk 1999).

The action area is not located within the proposed critical habitat for the longhorn fairy shrimp or the vernal pool fairy shrimp (USFWS 2006b). The vernal pool fairy shrimp is known in eastern San Luis Obispo County approximately 44 miles from the action area, where critical habitat has been designated for this species. There are two CNDDB records of this species located near the action area, at Blacks Hatchery and Turkey Farm and just south of Highway 46, approximately 1.2 and 1.4 miles from the action area, respectively (CDFG

2006). There are another ten records of the vernal pool fairy shrimp at Camp Roberts Military Reservation, approximately 9 miles from the action area (CDFG 2006). However, the action area does not include habitat suitable to support either one of these two vernal pool branchiopod species. Because the action area does not include any vernal pools, seasonal wetlands, or any depressions that would pond water long enough to support the fairy shrimp cycle, neither of the listed branchiopod species could occur in the action area or be affected by the Proposed Action Alternative. Thus the Proposed Action Alternative is not likely to adversely affect longhorn fairy shrimp or vernal pool fairy shrimp or their designated critical habitats.

South Central California Coast Steelhead

The south central California coast steelhead is listed as threatened under the ESA. Steelhead trout are rainbow trout with an anadromous life history. Steelhead make spawning runs into rivers and small creeks flowing into the ocean. The south central California coast steelhead encompasses all naturally spawned steelhead populations below natural and manmade impassable barriers in streams from the Pajaro River (inclusive) to, but not including, the Santa Maria River (NMFS 2006). Therefore, the action area is located within the distribution of the south central California coast steelhead. In general, adult steelhead returns to rivers and creeks in the region from October to April. Spawning takes place in the rivers from December to April with most spawning activity occurring between January and March. Steelhead remains in freshwater for one to four years before they out-migrate into the open ocean during spring and early summer (Goals Project 2000). Juvenile steelhead can spend up to 7 years in freshwater before moving downstream as smolts from March to May (Busby et al. 1996). Steelhead can spend up to 3 years in saltwater before returning to freshwater to spawn (Barnhardt 1986). Since juvenile steelhead remain in the creeks year-round, adequate flows, suitable water temperatures, and an abundant food supply are necessary throughout the year in order to sustain steelhead populations. The most critical period is in the summer and early fall when these conditions become limiting.

There are no CNDDB records of steelhead in the action area and surrounding nine USGS quadrangles. However, the Salinas River is included as designated critical habitat for steelhead in San Luis Obispo County (NMFS 2005). Steelhead may migrate through the Salinas River, but the habitat in the Salinas River near the action area does not present the characteristics for suitable spawning nor rearing habitat. Therefore, if steelhead occurs in the Salinas River adjacent to the action area, they would occur sporadically during their migration period.

Construction of the percolation system in a previously disturbed upland area with exposed soils and devoid of vegetation would not have any short-term adverse effects on steelhead that may occur in the Salinas River. Regarding the long-term effects of the proposed action, the modeling shows that during periods of high flow in the river (from January through June), which correspond to the time steelhead could be migrating, the proposed action would improve water quality compared to the without project scenario or the current condition scenario. Therefore, in the long term, the proposed action may improve steelhead habitat compared to the without project scenario or the current condition scenario. Thus, the proposed action is not likely to adversely affect steelhead and/or its designated critical habitat. The proposed action may be beneficial to steelhead habitat.

Summary

Based upon the above evaluation, FEMA has determined that the Proposed Action Alternative is not likely to adversely affect CRLF, arroyo toad, southwestern willow flycatcher, least Bell's vireo, longhorn fairy shrimp, vernal pool fairy shrimp, south central California coast steelhead, or their designated critical habitats, or any other special-status species protected under ESA. Further, implementation of the Proposed Action Alternative may have long-term, beneficial impacts to CRLF, least Bell's vireo, southwestern willow flycatcher, and south central California coast steelhead habitat. In compliance with Section 7 of the ESA, FEMA provided its determination to USFWS on January 26, 2007 and to NMFS on February 5, 2007. USFWS concurred with FEMA's determination on April 25, 2007; NMFS concurred with FEMA's determination on June 25, 2007. Copies of this correspondence are provided in Appendix C.

In compliance with EO 13112, the City would implement minimization and avoidance measures described in Section 4.4 of the SEA to avoid the introduction of invasive species.

3.5 CULTURAL RESOURCES

The proposed action is located within an area that has been subject to extensive prior disturbance from heavy equipment storage and erosion associated with historic flooding and involves the installation of utilities within existing rights-of-way. The First Amended Programmatic Agreement (PA) among FEMA, the California State Historic Preservation Officer (SHPO), OES, and the Advisory Council on Historic Preservation (ACHP) exempts the proposed action from the need for SHPO or ACHP review.

FEMA has determined that the proposed action would not adversely affect historic properties and complies with Section 106 of the National Historic Preservation Act with implementation of the minimization and avoidance measures described in Section 4.5 of the SEA.

3.6 TRANSPORTATION

Vehicular access to the project area is via 10th Street and Spring Street. Within the downtown area, Spring Street forms the principal north-south arterial that serves as the downtown "spine." The UPRR railroad line, which is in the vicinity of project activities, runs north-south across the City and provides passenger and freight rail connection through the City. In general, the implementation of the Proposed Action Alternative would result in temporary, minor impacts, such as detours, delays, and congestion of traffic adjacent to the parking lot and pipeline alignment. To avoid and minimize adverse impacts to traffic and circulation, the City would implement the measures described in Section 4.6 of the SEA.

3.7 NOISE

The action area associated with the parking lot and proposed pipe route is relatively quiet, consisting primarily of noises typical of a small city retail area (e.g., passing and idling vehicles, human voices). Noise-sensitive receptors within and near this area include businesses, government facilities, residences, and a city park. The action area associated with the proposed underground percolation system is bordered by an industrial area. Noise is

dominated by vehicle noise from U.S. 101 and industrial equipment; there are no sensitive receptors in this vicinity. Noise associated with implementation of the proposed action includes the operation of equipment such as compacters, loaders, backhoes, bulldozers and scrapers, haul trucks, and paving equipment, which generate noise levels ranging from about 70 to 95 dB at 50 feet from the source.

Noise associated with project activities would not occur for more than a period of two construction seasons. Therefore, with implementation of the avoidance and minimization measures described in Section 4.7, impacts to noise-sensitive receptors would be minimal.

3.8 ENVIRONMENTAL JUSTICE

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs federal agencies to ensure that their programs, policies, and activities do not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations. This executive order also tasks federal agencies with ensuring that public notification regarding environmental issues is concise, understandable, and readily accessible.

The project area does not have a high proportion of low-income or minority persons. No substantial adverse impacts are expected to occur as a result of the Proposed Action Alternative. All adverse impacts would be temporary and negligible. In general, the Proposed Action Alternative would benefit residents, employees, and visitors to the City by reducing the public's exposure to the uncontrolled spring water flow. No disproportionately high and adverse human health or environmental effects upon minority or low-income populations would occur as a result of the Proposed Action Alternative. Therefore, the Proposed Action Alternative complies with EO 12898.

3.9 CUMULATIVE IMPACTS

CEQ defines a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions…". For this project, cumulative impacts would be generally related to commercial and retail development in the project vicinity. According to City officials, the following projects are planned for the area near the proposed facilities:

- a new two-story Superior Courthouse facility is under construction at 901 Park Street (southwest corner of Park and 10th Streets) directly south of the City Hall;
- The Inn at the Stables (Hotel Cheval), a 16-room hotel with lounge, is under construction and nearing completion at the northwest corner of 10th and Pine Streets;
- earthquake retrofit is underway for A&R Furniture (retail store) at the northwest corner of 12th and Pine Streets; and
- 3,000 square foot office complex is approved for construction at the southwest corner of 10th and Oak Streets.

One or more of the planned projects listed above could occur simultaneously with the construction of the Proposed Action Alternative; however, any cumulative impacts would be short-term in duration and minor in magnitude. In particular, cumulative short-term impacts on traffic circulation due to pipeline construction would be easily coordinated and alleviated by the City through typical construction public notification. No other cumulative impacts are expected.

4. MINIMIZATION AND AVOIDANCE MEASURES

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

4.1 GEOLOGY, SEISMICITY, AND SOILS

To avoid and minimize any adverse impacts to geology, soils, and seismicity, the City would implement standard construction BMPs to prevent soils from eroding and dispersing offsite. To do this, the City would develop in detail a Construction Storm Water Program in conjunction with the project's final design and grading plan. Elements covered in the program would include: (a) soil stabilization, (b) sediment control, (c) tracking control, (d) material and waste management, (e) dust control, (f) vehicle and equipment BMPs, and (g) dewatering measures. Specific details are provided in the City's Construction Site Storm Water Quality Requirements (Appendix B).

4.2 AIR QUALITY

The City would be responsible for reducing potential air quality impacts from implementation of the Proposed Action Alternative and employing avoidance and minimization measures to limit fugitive dust and emissions. These measures include but are not limited to the following:

- watering construction areas and all unpaved access roads, parking areas, and staging areas, as necessary;
- sweeping loose dirt and dust from all paved access roads, parking areas, staging areas, and adjacent public streets at the end of every work day;
- covering all trucks hauling soil, sand, and other loose materials;
- scheduling the siting of staging areas to minimize fugitive dust; and
- keeping vehicles and other equipment properly maintained.

4.3 WATER RESOURCES

To avoid and minimize any adverse impacts to water resources associated with sedimentation into the Salinas River, the City would implement BMPs for construction activity. To do this, the City would develop in detail a Construction Storm Water Program in conjunction with the project's final design and grading plan. Elements covered in the program would include: (a)

soil stabilization, (b) sediment control, (c) tracking control, (d) material and waste management, (e) dust control, (f) vehicle and equipment BMPs, and (g) dewatering measures. Specific details are provided in the City's Construction Site Storm Water Quality Requirements (Appendix B). FEMA would ensure publication of a Final Public Notice in compliance with EO 11988.

4.4 BIOLOGICAL RESOURCES

In order to avoid and minimize impacts to the least Bell's vireo and the southwestern willow flycatcher, the City would perform all construction-related activities in the vicinity of the Corporate Water Yard (for the underground percolation system) between late September and the middle of March, outside of these species' breeding season. To avoid the introduction of invasive species, the City would revegetate all appropriate areas subject to ground disturbance with native species when construction is complete, excepting parking lot landscaping which may include non-native ornamentals. To avoid and minimize any adverse impacts to steelhead associated with sedimentation into the Salinas River, the City would implement construction BMPs. To do this, the City would develop in detail a Construction Storm Water Program in conjunction with the project's final design and grading plan. Elements covered in the program would include: (a) soil stabilization, (b) sediment control, (c) tracking control, (d) material and waste management, (e) dust control, (f) vehicle and equipment BMPs, and (g) dewatering measures. Specific details are provided in the City's Construction Site Storm Water Quality Requirements (Appendix B).

4.5 CULTURAL RESOURCES

If unanticipated resources are discovered during construction, the City 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 City 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 City would be responsible for avoiding and minimizing the potential short-term impacts to transportation in the project area during construction:

- traffic along adjacent roadways would be temporarily rerouted as necessary during construction activities;
- traffic lane closures would be coordinated with appropriate community officials;
- to the maximum extent feasible, construction-related vehicles would be prohibited from parking on residential streets;

- construction equipment and vehicle staging would be located to hinder the traffic flow as little as possible in the areas where the actions are implemented; and
- adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of construction activities and any rerouting of local traffic and provided a local contact.

4.7 NOISE

The City would be responsible for implementation of the following measures to reduce noise levels associated with construction equipment:

- project activity would not be conducted between 7:00 p.m. and 7:00 a.m. on weekdays,
- project activity would not be conducted between 9:00 p.m. and 6:00 a.m. on Saturdays, and
- no project related activity would be allowed on Sundays or 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.

4.8 ENVIRONMENTAL JUSTICE

No avoidance or minimization measures are required.

4.9 CUMULATIVE IMPACTS

No avoidance or minimization measures are required.

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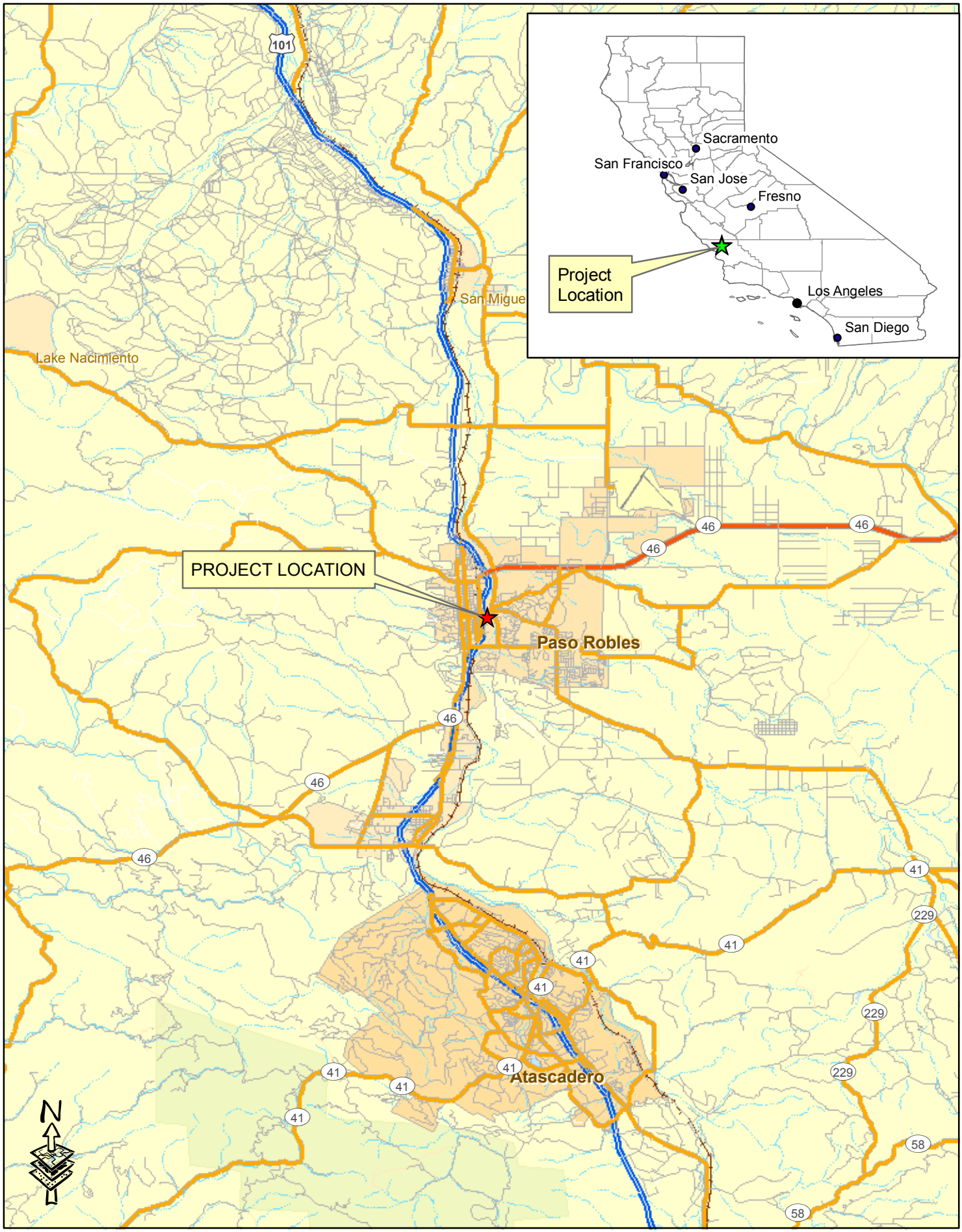
Appendix A — Figures



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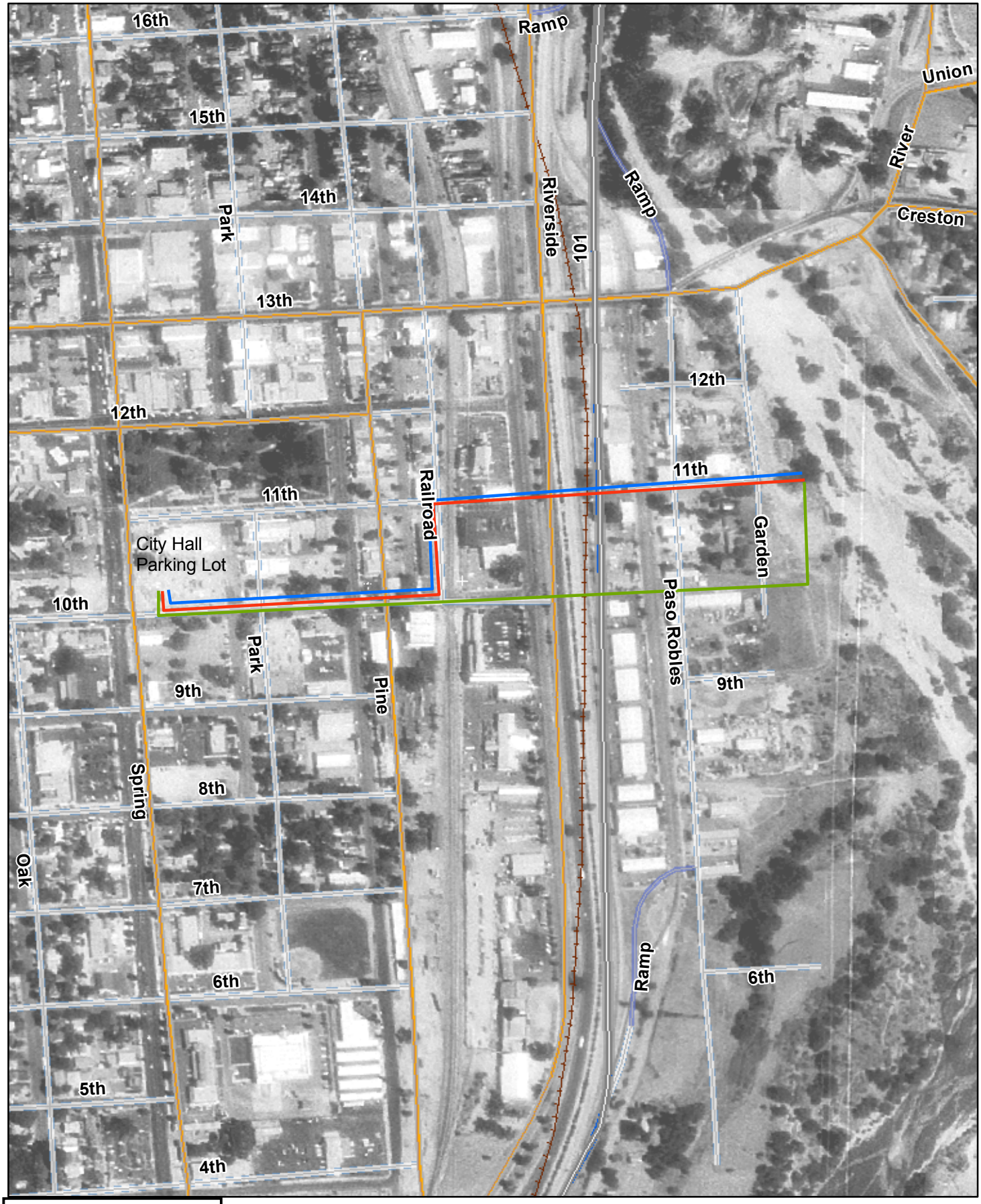
URS	Paso Robles City Hall Parking Lot 15800345	Project Location	Figure 1



Legend

- Without Project Scenario
- Current Condition Scenario
- Proposed Action

N

0 250 500 1,000 Feet

URS	Paso Robles City Hall Parking Lot 15800345	Pipeline Scenarios	Figure 2

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Appendix B — Construction Site Storm Water Quality Requirements

City of Paso Robles
Construction Site Storm Water Quality Requirements

Overview of the City's Construction Storm Water Program

The City of Paso Robles is committed to protecting the water quality of nearby creeks and streams and to preserving the overall health of our community. One of the major contributors of pollution within our City is construction activity, especially sediment laden storm water runoff. Sediment levels in construction site runoff are typically far greater than levels from urban areas or forest lands. During a short period of time, construction activity can contribute more sediment to streams than can be deposited naturally over several decades, causing physical and biological harm to our waters. The Environmental Protection Agency estimates that 20-150 tons of soil per acre is lost every year to storm water runoff from construction sites. Many studies indicate that controlling erosion can significantly reduce polluted storm water runoff.

Below is a list of pollutants commonly associated with construction activity:

- Sediment
- Concrete liquid waste
- Paint and stucco
- Soil amendments (lime fly ash)
- Trash
- Oil and grease
- Petroleum
- Asphalt products
- Herbicides, fertilizers, and pesticides
- Joint and curing compounds

To address construction related storm water pollution, the City of Paso Robles requires all projects to implement Best Management Practices (BMPs). BMPs are a practice or combination of practices that prevent or reduce adverse affects of storm water runoff and/or associated pollutants. Following are the major categories of BMPs that are required to be considered for all construction projects:

- **Soil Stabilization**- BMPs that prevent erosion from occurring.
- **Sediment Control**- BMPs that remove sediment once

it is suspended in storm water runoff.

- **Tracking Control**- BMPs that eliminate tracking of sediment off of a construction site.
- **Material and Waste Management**- BMPs that are implemented to protect storm water runoff from toxic materials or chemicals.
- **Dust Control-** BMPs which prevent wind erosion.
- **Vehicle and Equipment BMPs-** address pollutants associated with construction related equipment and vehicles.
- **Dewatering Measures-** BMPs that are implemented during dewatering activities (footing construction, culvert construction, groundwater, etc.)

The following section contains guidance that can be used by developers, contractors, commercial or small residential development to control storm water pollution during construction activities and outlines special requirements for projects that create 1 acre or more of disturbed soil areas.

SWPPP Information

Requirements for Projects That Will Create 1 Acre or More of Disturbed Soil Area.

The California State Water Resources Control Board (SWRCB) requires all construction projects that will disturb 1 acre or more of soil or smaller sites that are part of a common plan of development to obtain permit coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction Activity (WQ Order No. 99-08-DWQ) (General Construction Permit). To obtain General Construction Permit Coverage, the owner or developer is required to submit a Notice of Intent (NOI) application, along with a fee, to the SWRCB. Once coverage under the General Construction Permit is obtained the owner/developer is required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The City of Paso Robles will require submittal of the SWPPP and proof of permit coverage prior to the issuance of a grading permit. The SWPPP must be accepted by the City and implemented prior to the start of construction. The General Permit and NOI application can be obtained at:

http://www.swrcb.ca.gov/stormwtr/construction.html

The SWPPP Document must be available at the construction site at all times.

The SWPPP must include the following:

- The NOI Receipt Letter with the Water Discharge

Identification Number (WDID#).
- A certification page signed by the owner of the construction site.
- Description of the nature of the construction activity.
- Identification of a person responsible for SWPPP implementation.
- Identification of potential pollutants.
- Amount of planned disturbed soil area.
- Identification of receiving water body.
- Description of soils present at site.
- Site calculations (run-off coefficient, amount of run-on coming onto the site, and pre and post construction amount of impervious surface)
- Construction activity schedule.
- Topographic map of site.
- Identification of post construction storm water controls.
- Identification of BMPs proposed.
- Identification of Sample and Analysis Plan (SAP) requirements.
- SWPPP site map, depicting locations of storm drain components, drainages, receiving waters, identification overland flow direction, site elevation, BMP implementation, material and waste storage areas, and discharge locations.
- Amendments to the SWPPP must be completed any time construction activates change, BMP implementation changes significantly, if there is a violation of the permit or at the request of the City or the Regional Water Quality Control Board (RWQCB) staff.
- Compliance with the SWPPP must be certified annually. The signed Annual Certification must be kept with the SWPPP Document on site.
- Site inspections must be completed on a bi-weekly basis during the non-rainy season (April 16th to October 14th), once per week during the rainy season (April 15th to October 15th), before and after a rain event and at 24-hour intervals during an extended event. The site inspection must include a maintenance log which identifies BMPs repaired, replaced, or new added.
- All site inspection records must be kept on site with the SWPPP Document.

This fact sheet only provides a summary of the requirements of the General Construction Permit. Please review the Permit itself for more detailed information.

Site Requirements

Site Clean Up Area
An area shall be designated for workers to clean up equipment and tools that will prevent stucco, concrete, paint or wash water from entering storm drains, lakes, streams or other watercourses. Clean up area must be a minimum of 10' back of walks, a minimum of 100' from any storm drain inlet, and large enough to accommodate disposal of concrete slurry. Stabilized access is required for any clean up area that is not accessible from a paved area. Current areas shall be identified as an amendment to the on-site SWPPP Document.

Solid Waste Management
An area shall be designated for construction workers to deposit construction waste materials in a location away from drop inlets, curbs or source of runoff. The area must be at least 50' from storm drains, road ditches, and watercourses unless protected. Provide separate containers for handling of used stucco and concrete bags, wet paint cans, oil, solvents, etc.

Drain Inlet (DI) Protection
All DIs affected by the construction activities shall be protected to keep all silt, construction materials, and any water containing construction materials from entering storm drains, lakes, streams or watercourses. DI protection is to be checked and serviced on a regular basis, with additional checks prior to and after each storm event. Cleaning of DI protection must always be performed away from any area that might allow dirty rinse water to flow into DIs. DI protection includes storm drain inlet filter bags, fiber rolls (as per manufacturers recommended installation instructions), and rock bags to trap excess silt.

Cleaning of Streets/Sidewalks
All silt, construction materials, and water containing construction materials need to be prevented from entering storm drains, lakes, streams or other watercourses. Shoveling, scraping or dry sweeping prior to water washing of streets, curbs and gutters, and after any storm event is effective maintenance.

Sediment and Erosion Control
Keep all loose dirt and mud off sidewalks, gutters, and streets to prevent silt, construction materials, and water containing construction materials from entering storm drains, lakes, streams or other watercourses by implementing preventive measures. Undercut back of walks to create a small trench, cut lots to grade away from walks, and install fiber rolls at back of walks to prevent sediments from washing out onto the sidewalks. Keep loose materials a minimum distance of 2' to 4' back of walk. Install sediment and erosion control blankets at back of walk and on slopes to stabilize soil. Lay gravel/rock bags in the gutters every 50' to 100' to collect silt.

Install straw with tackifier for erosion control.

Concrete/Stucco Equipment
Any concrete/water mixture or hazardous pollutants must not enter storm drains, lakes, streams or other watercourses. Concrete trucks and pumps must use designated area(s) for cleanup and washouts. When in use, keep pumps off sidewalks and streets. Use tarp under pumps, shovel off excess concrete mixture, and use absorbent for oil/fuel leaks. If concrete bags are used, bags must be disposed of in designated clean area(s).

Mixers are to be placed on lots. Lots are to be graded to prevent spilled concrete/stucco or water mixture from reaching the sidewalks, gutters, drop inlets or drainage ditches. Protect mixers with tarps or plastic under area and berms of sandbags or gravel bags around edges to contain spills and/or wash water. Pump contents of bermed area to a location that will prevent any contaminants from reaching storm drains. Any wash water from concrete aggregate flatwork shall be contained in a tarped and bermed area and removed in an approved manner.

Saw Cutting
Any saw cutting activities shall implement the same preventive measures included with concrete equipment. Containment of concrete/water mixture or hazardous material is required. A vacuum, dam, and pump shall be use to pump runoff from saw cutting to a truck or other approved area.

Paint Wash Area
Painting equipment and tools are to be cleaned in designated areas. If a wash area is not available, rinsing is not to be done on lot fronts where rinse water may reach the streets.

Concrete/Stucco Tools
Concrete and stucco equipment and tools should be cleaned in designated areas only. Concrete and stucco rinse water is highly alkaline and considered a pollutant to groundwater and surface water. Rinse areas should be visibly marked and self-contained. Wash-out units can be dirt berms, hay bales or metal containers, but must be water-tight and serviceable. Wash-out units should be serviced regularly and always have extra capacity for storm events.

Material/Dirt Stockpiles
All material stockpiles need to be protected from waterways, wind, and rainfall. All materials should be securely covered when not in use and kept away from gutters, creeks, ponds, and other waterways. Materials must be contained well enough to prevent runoff to adjacent lots, streets or waterways.

Tracking
Access to site should be limited to as few locations as possible. Inactive access points should be blocked to prevent unauthorized access and to direct construction traffic to active accesses. Access points should be stabilized with

rock to prevent track-out. Active accesses should be swept of dirt and debris immediately upon occurrence and at the end of each work day. Stabilized accesses should be at minimum 50 feet long and 15 feet wide.

Portable Toilets
Portable toilets should be kept off streets and behind curbs and sidewalks as much as possible and at least 50 feet from storm drain inlets. If there are no reasonable off-street locations for the placement of a portable toilet, it should be placed at least 100 feet from storm drain inlets. Portable toilets should always be secured or weighted to prevent tipping. Securing toilets with stakes or gravel bags is often effective protection against tipping.

Landscaping
Landscaping materials should always be stored away from streets and drainage ways. All active landscaping areas should be swept at the end of the day. Landscapers must be careful to keep irrigation water out of gutters that contain dirt from recent work. Be sure that all gutters are clean prior to irrigation.

Power Washing
When power washing, careful attention must be paid to resulting runoff. Power wash runoff must be reclaimed. Down gradient storm drains should be protected from rinse water. All rinse water should be pumped behind curbs to grass or other lot area where it will not enter the storm drain.

Available Resources

There are many resources available for free that can assist in the development and implementation of a SWPPP Document and to aid in BMP selection and implementation. In addition to the two sources identified below, City staff can also provide assistance.

California Stormwater Quality Association
http://www.cabmphandbooks.com/Construction.asp

California Department of Transportation (Caltrans) Construction Storm Water Program
http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm

Appendix C — Correspondence from Regulatory Agencies

Alan C. Lloyd, Ph.D.
Agency Secretary

California Regional Water Quality Control Board
Central Coast Region

Arnold Schwarzenegger
Governor

http://www.swrcb.ca.gov/rwqcb3
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-5411
Phone (805) 549-3147 • FAX (805) 543-0397

January 17, 2006

Meg Williamson, Assistant to the City Manager
City of El Paso De Robles
1000 Spring Street
Paso Robles, CA 93446

Dear Ms. Williamson:

SULFUR SPRING LEACHFIELD

During our December 21, 2005 meeting and in your December 22, 2005 letter, you inquired about our authority and inclination to regulate a proposed, off-site leachfield disposal system for the sulfur spring that erupted following the December 2004 earthquake. We take our authority from the California Water Code, which says, in part:

> *The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.*
>
> *- California Water Code §13000.*

We realize that your downtown sulfur spring is a natural spring, and that you assume responsibility for it when you collect and convey it. However, we believe that your proposed leachfield would mitigate our concerns about temperature, natural attenuation, and precipitant deposition. Therefore, considering all relevant water quality factors, we would propose a conditional waiver of waste discharge requirements for such a project. The waiver conditions would include the usual prohibitions against degrading receiving water quality, as well as the usual conditions for leachfields, i.e., no surfacing wastewater. Because the wastewater is not from a sanitary source, we would not require the setbacks associated with sanitary leachfields. To pursue a waiver, please refer to our waiver policy (http://www.swrcb.ca.gov/rwqcb3/Permits/Waiver%20Policy/R3-2002-0115%20Resolution.pdf).

If you have any questions, please call Tom Kukol at (805) 549-3689 or David Athey at (805) 542-4644.

Sincerely,

David M. Athey

for: Roger W. Briggs
Executive Officer

Task: 121-01
TJK
S:\NPDES\NPDES Facilities\San Luis Obispo Co\Paso Robles WWTP\2004 Renewal\Final Draft\sulfur spring leachfield.doc
File: Paso Robles WWTP

United States Department of the Interior

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

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
PAS: 2229.3259.6901

April 25, 2007

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

Subject: Paso Robles City Hall Parking Lot Repair, City of El Paso de Robles, San Luis Obispo County, California (FEMA-1505-DR-CA)

Dear Mr. Amaglio:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter, dated January 26, 2007, and received in our office January 29, 2007, requesting our concurrence with your determination that the subject project is not likely to adversely affect the federally threatened California red-legged frog (*Rana aurora draytonii*) and vernal pool fairy shrimp (*Branchinecta lynchi*), the federally endangered arroyo toad (*Bufo microscaphus californicus*), southwestern willow flycatcher (*Empidonax trallii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and longhorn fairy shrimp (*Branchinecta longiantenna*), or any designated critical habitat. You are requesting our concurrence as a representative of the Federal Emergency Management Agency (FEMA), the lead Federal agency for the proposed project.

FEMA proposes to fund the construction of a drainage system for a geothermic spring that was exposed during the 2003 San Simeon earthquake in the city of El Paso de Robles (City), San Luis Obispo County, California. Exposure of the geothermic spring has resulted in the release of thermal, mineral-laced water within the damaged City Hall parking lot (FEMA 2007). The City has excavated a portion of the City Hall parking lot. The proposed drainage system construction would consist of lining the walls of the parking lot excavation area with geotextile, backfilling the excavation area with drain rock, and installing a perforated pipe collection system to collect the spring water from within the drain rock. The City would install a manhole or wet well in the parking lot to accept the spring water and allow for its discharge by gravity. A 12-inch diameter pipeline in the 10th Street right-of-way would convey the spring water from the wet well. Construction of the pipeline would consist of creating a 36-inch wide open trench, which would be covered to grade after construction, from the City Hall parking lot to U.S. Highway 101. The City would jack and directionally drill the pipeline under U.S. Highway 101, then continue conventional underground construction within the public right-of-way that bisects industrially developed parcels. The pipeline would eventually reach a percolation (leachfield) system at the City's Corporate Water Yard, which currently houses pipe and supplies used for maintenance of the City's water infrastructure. Within the City Water Yard, or immediate vicinity, the City would construct a percolation system consisting of 3,000 to 6,000 square feet of area.

California red-legged frogs have been observed in tributaries to the Salinas River, at Graves Creek and Paso Robles Creek, which are both approximately 2.6 miles from the project area (CNDDB 2007). At the

recommendation of the Service's Ventura Fish and Wildlife Office, focused surveys were conducted along the Salinas River for one-mile upstream and one-mile downstream from the proposed project area. No California red-legged frogs were observed; however, the survey did detect a very high population of American bullfrogs (*Rana catesbeiana*) which would inhibit the presence of California red-legged frogs (NISTAC 2005). The project area is not within any designated critical habitat for the California red-legged frog.

Vernal pool fairy shrimp inhabit vernal pools, small swales, and earth slumps typically in unplowed grasslands (Erikson and Belk 1999). Vernal pool fairy shrimp have been recorded at areas approximately 1.2 miles and 1.6 miles from the project area, and several locations on Camp Roberts Military Reservation, approximately 9 miles from the project area (CNDDB 2007). The project area does not include any vernal pools, seasonal wetlands, or any depressions that could potentially pond water long enough to support vernal pool fairy shrimp and is not located within designated critical habitat for this species.

The arroyo toad has been extirpated from 75 percent of its historical range and now is only known to survive in small populations primarily in the headwaters of coastal streams (USFWS 2007). The project area is located within the historic range of the species. It is believed that the available arroyo toad habitat was altered by the construction of Santa Margarita Dam, approximately 10 miles upstream from the last known observation of arroyo toads in the upper Salinas River (USFWS 1999). No arroyo toads were observed during the associated California red-legged frog surveys in the project area. The project area is not within any designated critical habitat for this species. Due to the high density of bullfrogs along the Salinas River near the project area, as observed during the California red-legged frog surveys, and the altering of stream hydrology related to the construction of the Santa Margarita Dam, arroyo toads are not likely be present in the project area.

The southwestern willow flycatcher inhabits riparian habitats and wetland areas with dense growths of willows (*Salix* sp.). The subspecies is typically only found in California during its breeding season, May to late August. The historic range of the subspecies does not include San Luis Obispo County and no observational records exist for the county (CNDDB 2007). The proposed project would be conducted outside of the southwestern willow flycatcher's breeding season.

The least Bell's vireo is a migratory songbird that nests and forages in riparian areas. A least Bell's vireo was observed in 1985 along the Salinas River near Bradley Bridge, approximately 6.7 miles from the project area (CNDDB 2007). A more recent occurrence of least Bell's vireo has been recorded near Camp Roberts, approximately 9 miles from the project area (Kofron 2005). The least Bell's vireo has the potential to occur in the project area; but, the proposed project would be conducted outside of its breeding season.

The longhorn fairy shrimp inhabits vernal pools around the borders of Soda Lake in San Luis Obispo County, approximately 50 miles from the project area (Erikson and Belk 1999). The project area does not include any vernal pools, seasonal wetlands, or any depressions that could potentially pond water long enough to support longhorn fairy shrimp and is not located within designated critical habitat for this species.

We concur that the proposed project is not likely to adversely affect the California red-legged frog, vernal pool fairy shrimp, arroyo toad, southwestern willow flycatcher, least Bell's vireo, longhorn fairy shrimp, or any associated designated critical habitat. Our concurrence is based on the quality of available habitat for these species within the project area, the distribution and occurrences of the aforementioned species near the proposed project area, and the timing of the proposed activities.

Further consultation on the action as proposed, pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended, is not required. However, if the proposed action changes in a manner that may affect listed species; you must contact us immediately to determine whether additional consultation is needed. If you have any questions, please contact Christopher Diel of my staff at (805) 644-1766, extension 305.

Sincerely,

For Jacob M. Martin
Acting Assistant Field Supervisor

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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

June 25, 2007

In response refer to:
2005/03916

Alessandro Amaglio, Environmental Officer
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 letters of June 28, 2005, and February 5, 2007, requesting initiation of consultation pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This consultation pertains to the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposal to fund the construction of a drainage system to collect and dispose of geothermal spring water released from a surface rupture in the Paso Robles City Hall Parking Lot located in the City of El Paso de Robles (City), San Luis Obispo County, California. The December 22, 2003, San Simeon earthquake exposed this geothermal spring, resulting in the surface flow of mineral-laced water. FEMA proposes to provide funds to the City to construct a drainage system and restore the parking lot to conditions that existed prior to the earthquake (FEMA File No: FEMA-1505-DR-CA). FEMA has requested consultation to address the possible effects of this project on Federally threatened South Central California Coast (S-CCC) steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) and their critical habitat.

On December 22, 2003, the San Simeon earthquake caused an emergence and eruption of a geothermal spring, thereby damaging the City Hall parking lot. Immediately following the earthquake, the thermal, mineral-laced water flowed across the parking lot, onto a City street, into the City's stormwater system, into a California Department of Transportation (Caltrans) culvert, and into the Salinas River. Since the earthquake, the City excavated a large portion of the parking lot to expose the water source and installed a pump and pipeline to carry the water from the geothermal spring beneath city streets and through culverts to discharge through the same Caltrans culvert into the Salinas River.

Currently, all of the geothermal spring water discharged mixes with the Salinas River. Recent water quality tests of the geothermal spring water showed the discharged water contained elevated levels of hydrogen sulfide, boron, total dissolved solids, sodium, chloride and ammonia. The temperature of the discharged water (approximately 111 degrees Fahrenheit) is also higher

than that of the Salinas River. The City has lost use of the parking lot; the damaged pavement and uncontrolled water source present a safety hazard and liability for the City.

The City proposes to construct a drainage system and install a perforated pipe collection system to collect the geothermal spring water. The drainage system includes approximately 2,500 feet of 12-inch diameter pipeline to convey the geothermal spring water to a percolation system (*i.e.*, leachfield) at the City's Corporate Water Yard. The 3,000 to 6,000 square-foot area of the percolation system is located near a braid of the Salinas River on the outside boundary of the 100-year floodplain. Flood flows in excess of a 50-year event may inundate a portion of the percolation system site.

The proposed percolation system will allow the geothermal spring water to percolate through pervious (*i.e.*, sandy) material and mingle with the Salinas River's underflow. Hydro-geologic modeling indicates that during the dry season (July to December) all the spring water will percolate to groundwater with no contribution to surface flow. During the wet season under high river flow conditions, up to 96 percent of the spring water could mix with Salinas River surface flows. The Central Coast Regional Water Quality Control Board has waived waste discharge requirements for the project, in recognition, that the spring flow is a natural event and the proposed percolation system mitigates potential impacts to Salinas River water temperature, natural attenuation, and precipitant deposition.

The City intends to begin construction during the summer/early fall of 2008, but may be as late as summer/fall 2009. The City is not proposing to conduct any work within the wetted channel of the Salinas River and will implement best management practices for construction activities. To do this, the City will develop a Construction Storm Water Program that provides for soil stabilization, sediment control, tracking control, material and waste management, dust control, and vehicle and equipment best management practices.

The Salinas River watershed supports a population of threatened S-CCC steelhead and the City's project area is adjacent to designated critical habitat for this species. To analyze the potential effects on threatened S-CCC steelhead and designated critical habitat, NMFS has reviewed the information provided in FEMA's letters of June 28, 2005, and February 5, 2007. Additional information was provided during a July 27, 2005, meeting and site visit with NMFS biologist Bill Stevens. NMFS has also reviewed the results of groundwater modeling performed by Fugro West, Inc. (October 31, 2006 letter to Mike Nunley).

Project construction is not expected to impact steelhead or designated critical habitat, because all construction activities are above the active river channel and located on the outside boundary of the 100-year floodplain. No equipment and personnel will be within the wetted perimeter of the Salinas River and construction will be performed during the dry season. Best management practices will be employed to ensure that sediment and any spilled contaminants do not enter the stream. Based on the project location and season of construction, steelhead and critical habitat will not be adversely affected by the construction phase of this project.

Upon completion of construction, operation of the drainage system and percolation field may affect listed steelhead and designated critical habitat during periods when geothermal spring water co-mingles with the surface flow of the Salinas River. Based on the results of groundwater modeling, during periods of low or no flow in the Salinas River, all the spring water discharge will percolate to groundwater. Groundwater levels drop in the dry season and do not co-mingle with surface flow in the Salinas River during this period. Therefore, it is anticipated that operation of the project during the dry season will not adversely affect water quality, steelhead, or critical habitat in the Salinas River.

During the wet season, groundwater modeling indicates geothermal spring water will likely be released into the river's surface flow during high flow events in the Salinas River. However, the model also indicates that the total amount of spring water released will be small in relation to the volume of the river's high flow events. Dilution rates are expected to be high and will minimize degradation of water quality in the Salinas River. Model results indicate minerals within the spring water will be adequately diluted under high river flow conditions. Thermal impacts are also expected to be minimal since high river flows events occur in the winter and early spring months when water and air temperatures are cool. During this period, water temperatures in the Salinas River are well within a suitable range for steelhead and the amount of spring water discharge by this project is expected to result in minimal thermal warming of the river. Since the geothermal spring water discharge will only co-mingle with surface flow in the Salinas River during wet and high flow periods, operation of this project is anticipated to result in minor and localized water quality effects at levels that are insignificant and discountable for steelhead.

Primary constituent elements (PCEs) of designated critical habitat for steelhead in the action area include water quality and quantity, foraging habitat, natural cover including large substrate and aquatic vegetation, and migratory corridors free of obstructions. Potential effects to designated critical habitat include minor and localized effects to water quality during operation of the project. These potential effects to water quality are discussed above and anticipated to be at levels that will not degrade PCEs of designated critical habitat. Construction of the project is adjacent to the Salinas River and is not expected to adversely affect critical habitat. Overall, the project is not expected to adversely affect essential physical or biological features associated with steelhead critical habitat.

Based on the best available scientific information, NMFS concurs with FEMA's determination that this project is not likely to adversely affect threatened S-CCC steelhead or designated critical habitat. This concludes consultation in accordance with 50 CFR §402.13(a) for the proposed construction of a spring water drainage system at the Paso Robles City Hall Parking Lot located in the Salinas River watershed. Further consultation regarding the proposed project may be required if: (1) new information becomes available indicating that listed species may be adversely affected by the project in a manner or to an extent not previously considered, (2) current project plans change in a manner that affects listed species or critical habitat that was not previously considered, or (3) a new species is listed or critical habitat designated that may be affected by the action.

Please contact Mr. Bill Stevens at (707) 575-6066, or via e-mail at William.Stevens@noaa.gov, if you have any questions concerning this consultation.

Sincerely,

for Rodney R. McInnis
Regional Administrator

cc: Russ Strach, NMFS, Sacramento
Meg Williamson, City of El Paso de Robles
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