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# City of El Paso de Robles General Plan 2003

## *Safety Element*

*Prepared for:*

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Adopted December 16, 2003;  
Amended as noted on the following pages.

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**Table of Adoption and Amendments for Safety Element**

<b>Date</b>	<b>City Council Resolution</b>	<b>Action</b>
December 16, 2003	03-232	Adoption of a comprehensive update of the General Plan
November 19, 2014	14-150	General Plan Amendment 2014-003

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## **SAFETY ELEMENT**

The Safety Element establishes goals, policies and action items to protect the community from risks associated with fires, flood, geologic hazards and other phenomena that put lives and property at risk. Technical supporting data can be found both in the Safety Element Technical Appendix and the portions of the San Luis Obispo County Safety Element that pertain to the Paso Robles area.

### **1.0 Goals, Policies, and Action Items**

#### **GOAL S-1: Minimize exposure to natural and manmade hazards.**

**POLICY S-1A:** Hazard Education. Continue to inform the public about hazards, hazard avoidance, and disaster response.

**Action Item 1.** Distribute informational handouts.

**Action Item 2.** Support volunteer training aimed at assisting police, fire, and civil defense personnel during and after a major earthquake, fire, or flood.

**Action Item 3.** Support/sponsor exhibits and presentations in secondary schools.

**Action Item 4.** Support the Department of Emergency Services' Weed Abatement Program to remove all combustible vegetation from yards or larger land parcels to reduce fire hazard.

**POLICY S-1B:** Disaster Response. Review/Update the community-wide Multi-Hazard Emergency Response Plan on a periodic basis.

- ◆ Addresses heavy search and rescue, major medical response, hazardous material response, interim morgue, emergency shelter, traffic and utility impacts, and debris removal and disposal; and
- ◆ Identifies procedures for access, traffic control, emergency evacuations, and security of damaged areas.

**Action Item 1.** Maintain Mutual and Automatic Aid Agreements with regional fire prevention and law enforcement agencies.

**Action Item 2.** Review/Update the Emergency Services Growth Management Plan on a periodic basis.

**Action Item 3.** Incorporate fire and crime prevention measures in the design and construction of new development via the following:

- a. Seek Fire and Police Department comments on development applications;
- b. Adopt the latest version of the Uniform Building and Fire Codes and related building safety codes;

- c. Implement the Building Security Ordinance;
- d. Incorporate concepts of “defensible space” (these concepts stress the importance of physical design and surveillance as techniques to deter crime) in reviewing development projects.

**Action Item 4.** Coordinate with emergency services to evaluate the potential vulnerability of wildfire hazards including accumulation of fuels (such as brush, etc.), and implement measures consistent with the Draft Local Hazard Mitigation Plan to reduce the risk from fire hazards.

**POLICY S-1C: Hazardous Exposure Minimization.** Minimize hazards to people and property caused by fire, crime, and related services.

**Action Item 1. Police Service Standards.** Maintain a ratio of 0.5 non-sworn police personnel per 1,000 population and a ratio of 1.4 to 1.6 sworn police personnel per 1,000 population.

**Action Item 2. Emergency Services Standards.** Maintain a ratio of 0.8 to 1.3 Firefighters per 1,000 population.

**Action Item 3.** As part of the environmental review of new Specific Plans, require preparation of fire station analysis identifying staffing requirements, station location, and response times.

**POLICY S-1D: Structural Safety.** Rely on the City’s planning and building permit review process to ensure that existing and proposed structures are adequately designed, and to reduce susceptibility to damage from fire, flooding, and geologic hazards.

**Action Item 1.** Review and update, as necessary, the City’s Building Security & Construction Standards for new development projects to address:

- Exterior Lighting;
- Surveillance devices;
- Illuminated street numbering;
- Locking devices for doors;
- Pedestrian safety devices;
- City Security Plan requirements; and
- City requirements/standards to incorporate considerations related to safety and defensibility into project design and site layout.

**Action Item 2.** Maintain a current survey of unreinforced masonry and other hazardous structures.

**Action Item 3.** Require structures identified as being located in hazardous areas to be brought into conformance with acceptable levels of risk.

**Action Item 4.** Discourage the locating of critical facilities within identified hazard areas.

**Action Item 5.** For development proposed in high or medium wildland fire hazard areas, require an investigation of the development's vulnerability to fire and its potential as a source of ignition, and implementation of measures to reduce fire hazard risks to acceptable levels.

**Action Item 6.** Prohibit construction within seismic and geologic hazards areas, including: areas directly astride known active or potentially active faults or fault zones; areas in high landslide risk areas without site-specific slope stability investigations; and areas of potential liquefaction without site-specific analysis of liquefaction potential.

**Action Item 7.** In reviewing development proposals for future water impoundments, require an evaluation of potential inundation areas and design of the dam to withstand earthquakes.

**Action Item 8.** Locate, when feasible, new essential public facilities outside of high fire risk areas, or identify construction or other methods to minimize damage if these facilities are located in a "state responsibility area," or very high fire hazard severity zone.

**POLICY S-1E:** Hazardous Materials. The City shall comply with Government code requirements regarding the use, storage, and transportation of hazardous materials.

**Action Item 1.** The City shall continue to require applicant declarations pursuant to Government code section 65.820.2.

**Action Item 2.** The City shall provide required notices to the County Environmental Health Department.

**Action Item 3.** Continue implementation of existing programs; add new ones as required.

**POLICY S-1F:** EMF Exposure. State or Federal electric or magnetic exposure levels and setbacks, if established, are to be followed.

**Action Item 1.** In the absence of State or Federal exposure standards, no residential structures or residential yards, schools, active parks, or recreational facilities are to be built within the utility corridor right-of-way. In addition, the following setback guidelines adopted by the California Department of Health Services shall be adhered to: 100 feet from 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.

**POLICY S-1G:** Maintain the structural and operational integrity of essential public facilities during flooding by taking safe guards such as locating new facilities outside of flood zones or areas subject to localized flooding, and audit existing facilities in these areas to determine if building upgrades should be considered to reduce the potential for future flooding.

## **2.0 Safety Issues**

The residents of the City of Paso Robles are subject to a variety of natural and human-caused hazards. Natural hazards are processes such as earthquakes, landslides, flooding, and wildfires.

These natural processes have played an essential role in shaping the topography and landscape of the City of Paso Robles, and become “hazards” when they disrupt or otherwise affect the lives and property of people. Human-caused hazards often occur as a result of modern activities and technologies. These potential hazards can include the use of hazardous materials, and buildings that may be unsafe during a strong earthquake.

This section inventories and assesses the major hazards confronting Paso Robles, including seismic and geologic hazards, wildland and urban fires, flooding, and hazardous materials incidents.

## **2.1 Critical Facilities**

Critical facilities are those that must remain operational after an emergency event, in order for the community to respond effectively. Examples of critical facilities include hospitals, fire stations, electrical power plants, and community facilities. Schools are often important staging and evacuation areas. There are relatively few critical facilities in Paso Robles; the nearest hospitals, for example, are in Templeton and San Luis Obispo. Figure S-1 shows the location of critical facilities in Paso Robles.

## **2.2 Seismic & Geologic Hazards**

This section contains a preliminary indication of the degree of potential risk associated with regional faulting. Potential hazards such as groundshaking, liquefaction, lurch cracking and lateral spreading, landslides, erosion, expansive soils, wildland and urban fires, flooding, hazardous materials, airport operations, electromagnetic fields, radon gas, and high-voltage transmission lines are discussed in the Safety Element Appendix. The assessment contained in the Safety Element and Appendix should be used as a general guide to indicate when further study may be needed.

### **Regional Faulting**

San Luis Obispo County contains several fault traces and has been subject to intense warping, folding and faulting. While most of the faults within the County have not been active in recent geologic times, movement may occur along one or several of these minor faults, and movements along the major principal faults traversing the County, including the San Andreas and Nacimiento Faults. The structural trend in the area is northwest to southeast, controlled mainly by the San Andreas Fault (EIP, 1984). Numerous fault traces have been detected in the area, but most have not been active in recent geologic time (San Luis Obispo County, 1980). Active faults are those along which there has been movement within the last 11,000 years; “proven” active faults have had movement within the last 300 years. Figure S-2 shows the locations of faults in the region.

The Paso Robles area is exposed to seismic hazards from movement along several regional faults. The identified active fault zones in this area are the San Andreas, Nacimiento, Rinconada, and “Offshore Faults,” although the classification of the Rinconada Fault as active has been much disputed (Quad Consultants, 1980). Historically, most of the earthquakes detected in Paso Robles have originated from movement along the San Andreas Fault, which lies approximately

23 miles northeast of the City, near the Town of Cholame (Quad Consultants, 1980). In the Paso Robles Area, the San Andreas Fault is identified as the primary source of potential ground shaking (Envicom, 1975). Magnitudes as high as 6.5 have been recorded twice in the past from movement along the San Andreas. The major “active” fault zones in the area are shown in Table S-1.

**Table S-1. Estimated Regional Maximum Credible Earthquake Events**

<b>Fault Zone</b>	<b>Magnitude (Richter)</b>
San Andreas	8.0-8.5
Nacimiento	7.0-7.5
Rinconada	6.5-7.0

*Source: San Luis Obispo County, 1980*

The Jolon Fault and the Rinconada Fault transect the southwestern portion of the City, but converge to form one fault or fault zone near Mountain Springs Road. To the northwest of Mountain Springs Road, the location of the Jolon Fault is based on mapping by Durham (1970). Its projection through the City and on the east side of the River is based on the alignment of warm, sulfur springs.

Regional data regarding the activity of the Rinconada and Jolon Faults indicate that these faults may have been active as recently as the late Pleistocene in the vicinity of Paso Robles, and as recently as late as Pleistocene near Santa Margarita. However, there is no evidence that either fault has moved during the Holocene (last 11,000 years approximately). While the Rinconada and Jolon Faults are not considered active with respect to fault rupture, they may be the sites of moderate seismic activity.

The Offshore Fault is seismically active, but available marine geophysical data indicate that future surface rupture is improbable along this fault.

### **2.3 Flood Hazard**

This section contains information regarding flood hazards for the City of Paso Robles. The Federal Emergency Management Agency (FEMA) defines flooding as, the rising and overflow of a body of water, submerging of two or more acres of normally dry land that is not normally covered by water (FEMA Definitions). Potential hazards for Paso Robles include riverine flooding, also known as overbank flooding due to excessive rainfall, and localized flooding. Localized flooding may occur outside of recognized drainage channels or delineated floodplains due to a combination of locally heavy precipitation, increased surface runoff, and inadequate facilities for drainage and stormwater conveyance (LHMP, page 4-13). The Paso Robles area is subject to flood hazards from the Huerhuero Creek, Dry Creek, the Salinas River floodplains, and their tributaries. This has the potential to occur in events where runoff is too great for the system, or the storm water system is disrupted by vegetation or other debris causing excess water to remain on the surface.

### *Flood Hazard Zones*

The City of Paso Robles participates in the Federal Emergency Management Agency (FEMA) National Flood Insurance Program, and consults with the Department of Water Resources (DWR) Division of Flood Management, for support in obtaining the most current floodplain mapping information. This information includes Flood Insurance Rate Maps (FIRMs) that identify regulated flood hazard zones, which are then used to assign risk and insurance rates for homeowners and businesses.

Non-regulatory maps published by DWR containing floodplain information include, Awareness Floodplain Maps, Best Available Maps (BAM), Levee Flood Protection Zone (LFPZ) maps, and the Central Valley Floodplain Evaluation and Delineation (CVFED) maps. Only FIRMs and DWR Awareness Floodplain maps have been prepared for the area of the City of Paso Robles (FEMA 2012; DWR 2012).

### *Flood Insurance Rate Maps*

Flood hazard zones are defined as an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard according to the FIRMs issued by FEMA. This designation, however, does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

The 2012 FIRMs for San Luis Obispo County identify two floodplain zones in Paso Robles for 100-year and 500-year flood events:

- **Zone A:** 1 percent annual chance of flood hazard area. This area includes the floodplains of Huerhuero Creek, Dry Creek, and the Salinas River.
- **Zone B:** 0.2 percent annual chance of flood hazard area. Floodplain boundaries for the 500-year flood include the northwest area of the City to the west of the Salinas River and east of the Salinas River between Creston Road to the south and Union Road to the north.

As shown in Figure S-5, the FIRMs highlight 100-year and 500-year floodplain boundaries for identified flood hazards. Within the City limits, 1.50 square miles are in the 100-year floodplain with an additional 4.08 square mile area within the 500-year floodplain.

Table S-2 identifies the number of existing residential buildings and vulnerable residents subject to 100-year and 500-year floodplains. A complete list of critical facilities found to be located in flood hazard zones can be found in Section 5, Table 5-6. Exposure Analysis – Critical Facilities Flood in the Paso Robles Local Hazard Mitigation Plan (LHMP).

**Table S-2 Vulnerable Population and Residential Buildings  
to 100-year and 500-year Floodplain Events**

<b>Hazard Area</b>	<b>Population Count</b>	<b>Residential Building Count</b>
500-Year Floodplain	18,061	6,912
100-Year Floodplain	496	188

*Paso Robles, Draft Local Hazard Mitigation Plan (LHMP), 2014*

Communities, insurance agencies, and others use FIRMs to identify properties and buildings in flood insurance risk areas (DWR 2014). Local officials use the FIRMs to administer floodplain management regulations and to mitigate potential flood damage (DWR 2014).

#### **DWR Awareness Floodplain Mapping**

The intent of the Awareness Floodplain Mapping project is to identify all pertinent flood hazard areas (by 2015) that are not mapped under the FEMA National Flood Insurance Program (NFIP). This also provides the community and residents an additional tool in understanding potential flood hazards currently not mapped as a regulated floodplain (DWR 2014). The DWR Awareness Floodplain maps present 100-year flood hazard areas using approximate assessment procedures. These floodplains are shown as “flood prone” areas without specific depths. As displayed in Figures S-6a through S-6d, one area within Paso Robles is designated under the Awareness Floodplain Mapping project: the northern end of Paso Robles, specifically areas of the Paso Robles Municipal Airport.

#### **DWR Best Available Maps (BAMs)**

DWR BAMs provide 100-year and 200-year floodplains located within the City of Paso Robles. The development of these maps is based on best available information from FEMA FIRMs and DWR Awareness Floodplain maps. The intent is to identify potential flood hazards that may warrant further study and consideration in land use decision making (DWR 2014). There are no delineated 200-year floodplains for the City of Paso Robles.

#### **DWR Levee Flood Protection Zones (LFPZs)**

LFPZs estimate the maximum area that may be inundated if a project levee fails when water surface elevation is at the top of a project levee (DWR 2011). There are no levees within the City of Paso Robles, therefore there are no LFPZs within the City (DWR 2011).

#### **DWR Central Valley Floodplain Evaluation and Delineation (CVFED) Maps**

DWR CVFED maps represent 100-year and 200-year floodplains for the Central Valley State-Federal Project Levees within the Sacramento-San Joaquin Valley watershed (SSJV). Since Paso Robles is not located within the SSJV watershed, CVFED Maps are not designated for the City.

### **Flood Control Projects**

The Paso Robles Downtown Watershed Management Plan (DWMP) identifies areas within the City's downtown core that experience flooding during moderate to large storm events. The goal of the DWMP is to utilize a watershed planning approach to manage runoff and address existing drainage issues by reducing localized flooding and improving water quality of storm water runoff prior to discharge to the Salinas River or its tributaries.

Regional storm water management projects will be combined with Capital Improvement Projects (CIP) within the DWMP to effectively and efficiently manage storm water. The list of projects included in the DWMP incorporate environmental concerns utilizing "Green Infrastructure" as exemplified through the 21<sup>st</sup> Street Green Street project, completed in 2013. Streets identified in the DWMP for Green Street upgrades include: 1) 15<sup>th</sup> Street south of Oak Street; 2) 7<sup>th</sup> Street south of Oak Street; and 3) 8<sup>th</sup> Street south of Oak Street.

### **Dam Inundation**

Dam failure involves unintended releases or surges of impounded water resulting in downstream flooding. The water released from dam failure results in the potential for human casualties, economic loss, service disruption, and environmental damage. While dam failure may involve the total collapse of a dam, this is not always the case as damaged spillways, overtopping from excessive rainfall, or other complications, including the unintended consequences from normal operations, can result in hazardous situations. Due to the lack of advance warning, failures from natural events, such as earthquakes, or landslides, may be particularly severe.

The Salinas Dam is located approximately 21 miles southeast of the town of Santa Margarita in San Luis Obispo County. The dam can currently store up to 23,843-acre feet of water. The failure of the Salinas Dam would flood an area of 1.07 square miles along the Salinas River within the Paso Robles City limits as seen in Figure S-7. The depth of flooding due to the failure of this dam is unknown. There have been no recorded dam failures affecting Paso Robles.

### **Regulatory Agencies**

The City of Paso Robles is responsible for flood protection and management within the City boundaries. The Local Hazard Mitigation Plan (LHMP) outlines agencies and technical resources available for emergency services in the event of a natural or manmade disaster. There are no other public agencies responsible for flood protection in Paso Robles.

Under the Flood Control and Coastal Emergency Act, the U.S. Army Corps of Engineers (USACE) provides disaster preparedness and response services and advanced planning measures designed to reduce the amount of damage caused by an impending disaster. USACE responds to natural and man-made disasters through the mobilization of personnel and other resources across the country.

In any disaster, USACE top priorities are:

- Support immediate lifesaving and life safety emergency response;

- Sustain lives with critical commodities, temporary emergency power and other needs;
- Initiate recovery efforts by assessing and restoring critical infrastructure.

## **2.4 Fire Hazard**

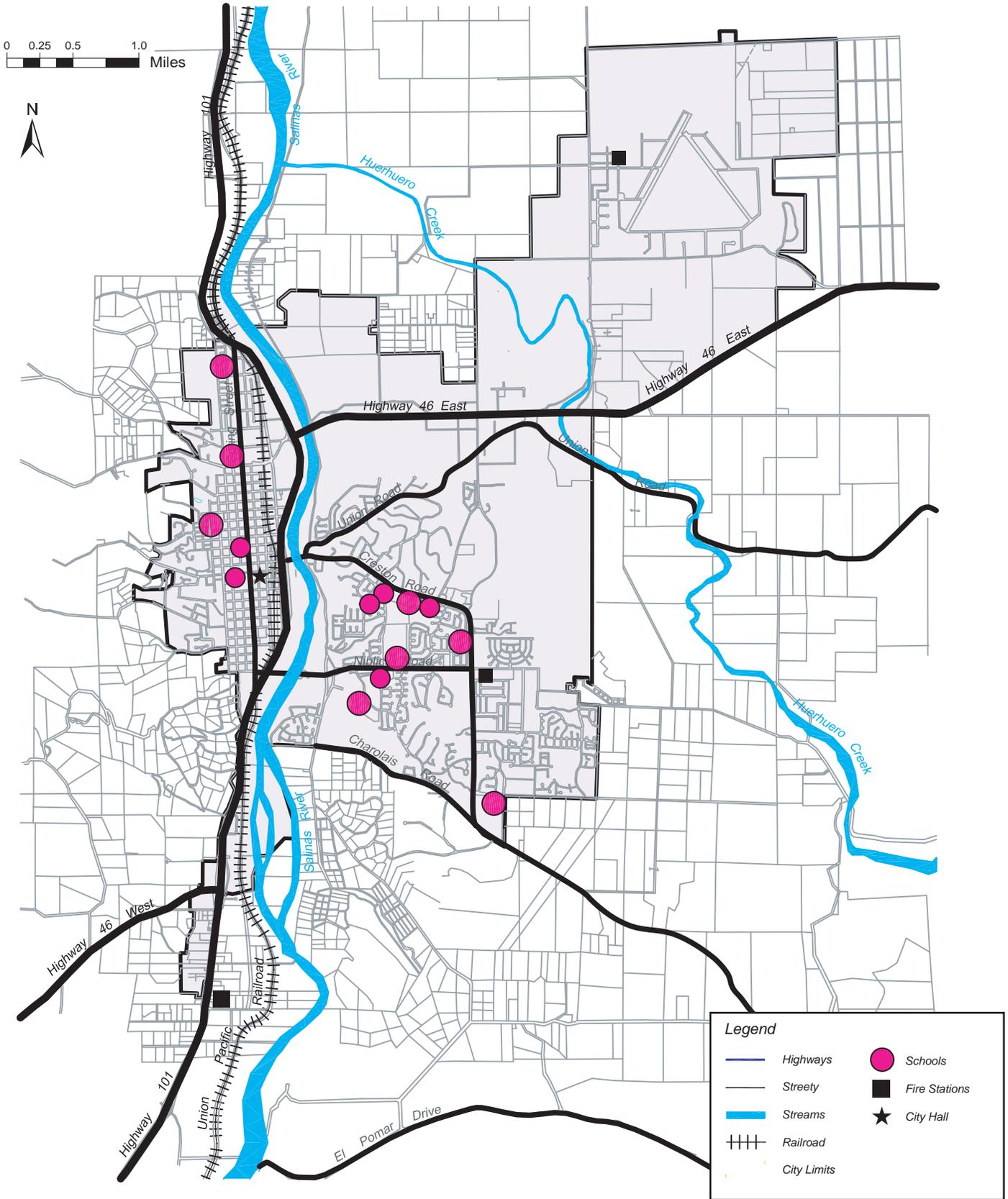
The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards in the state. These areas are identified based on weather, topography, fuels, and other factors. Fire hazards are greatest in areas with steep slopes, volatile vegetation, and windy conditions. Information pertaining to historic records of wildfires for the City can be found in the LHMP, Section 4.3.11.

Figure S-8 shows fire hazard severity zones for the City. CAL FIRE's Fire Severity Zone Maps highlight 6.40 square miles (33.0 percent) of City limits located within the high fire hazard severity area (and includes 8,660 people, 3,383 residential structures, and 16 critical facilities) while an additional 3.59 square miles (18.5 percent) of the City limits is located within moderate fire hazard severity area (and includes 4,475 people, 1,754 residential buildings, and 22 critical facilities). Land adjacent to the City limits and some land located within the City's Sphere of Influence are designated with a fire hazard severity zone of High in the State Responsibility Area (SRA).

A list of the general locations and distribution of existing uses of land in high fire hazard severity zones and in state responsibility areas, including structures, roads, utilities, and essential public facilities can be found in the City's LHMP, Section 5, Table 5-11.

The City of Paso Robles is responsible for fire protection and management within the City boundaries. The LHMP outlines agencies and technical resources available for emergency services in the event of a natural or manmade disaster. The City's Emergency Services Growth Management Plan (2000) includes an evaluation of fire and emergency services and a series of options to meet projected needs in 2020.

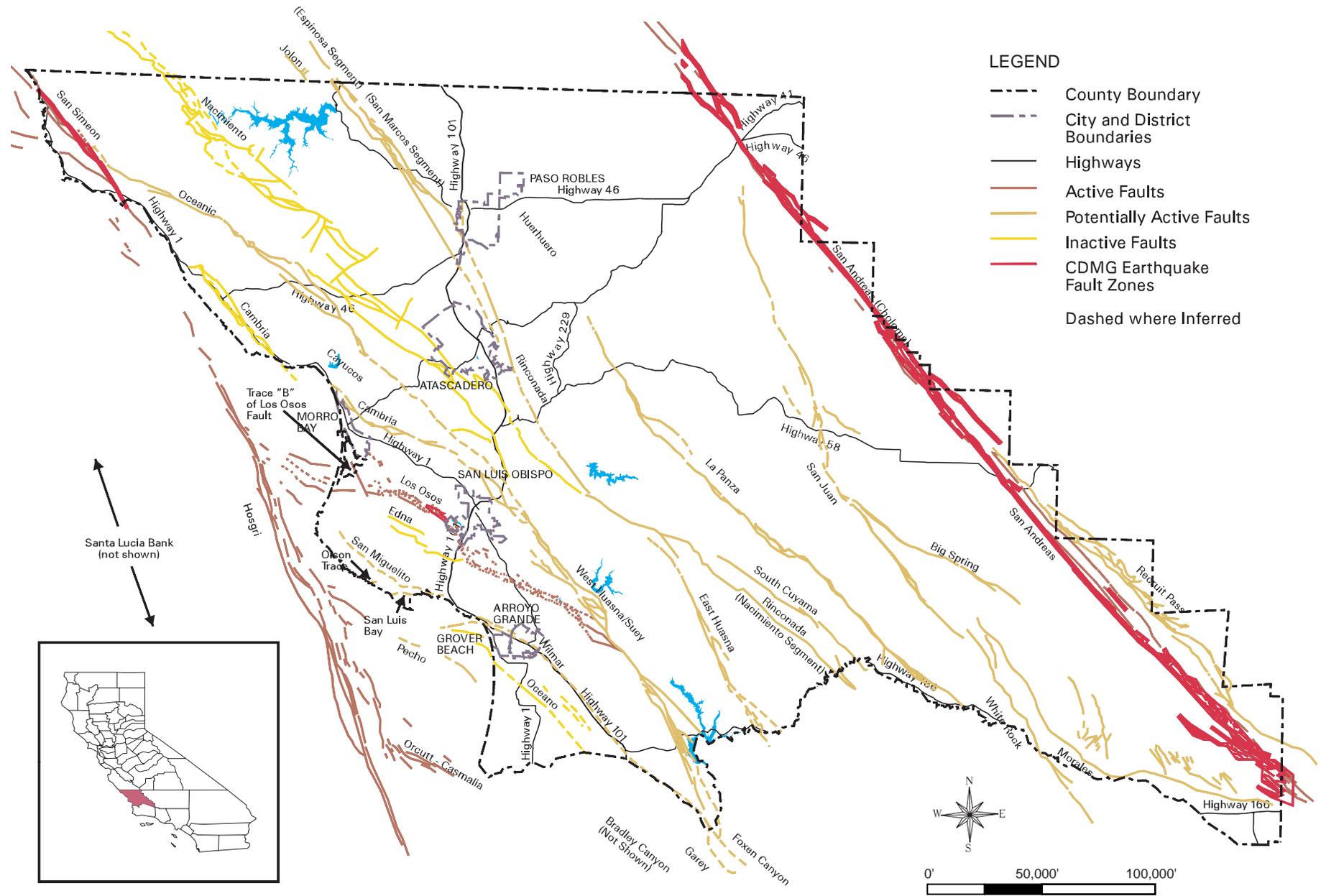
After careful review of existing San Luis Obispo County Fire Hazard Severity Zone Mapping, as supplied by CAL FIRE, the City has determined neither state responsibility areas nor very high fire hazard severity zones exist within incorporated areas as required by SB 1241.



**Critical Facilities**

**Figure S-1**

*City of El Paso de Robles*

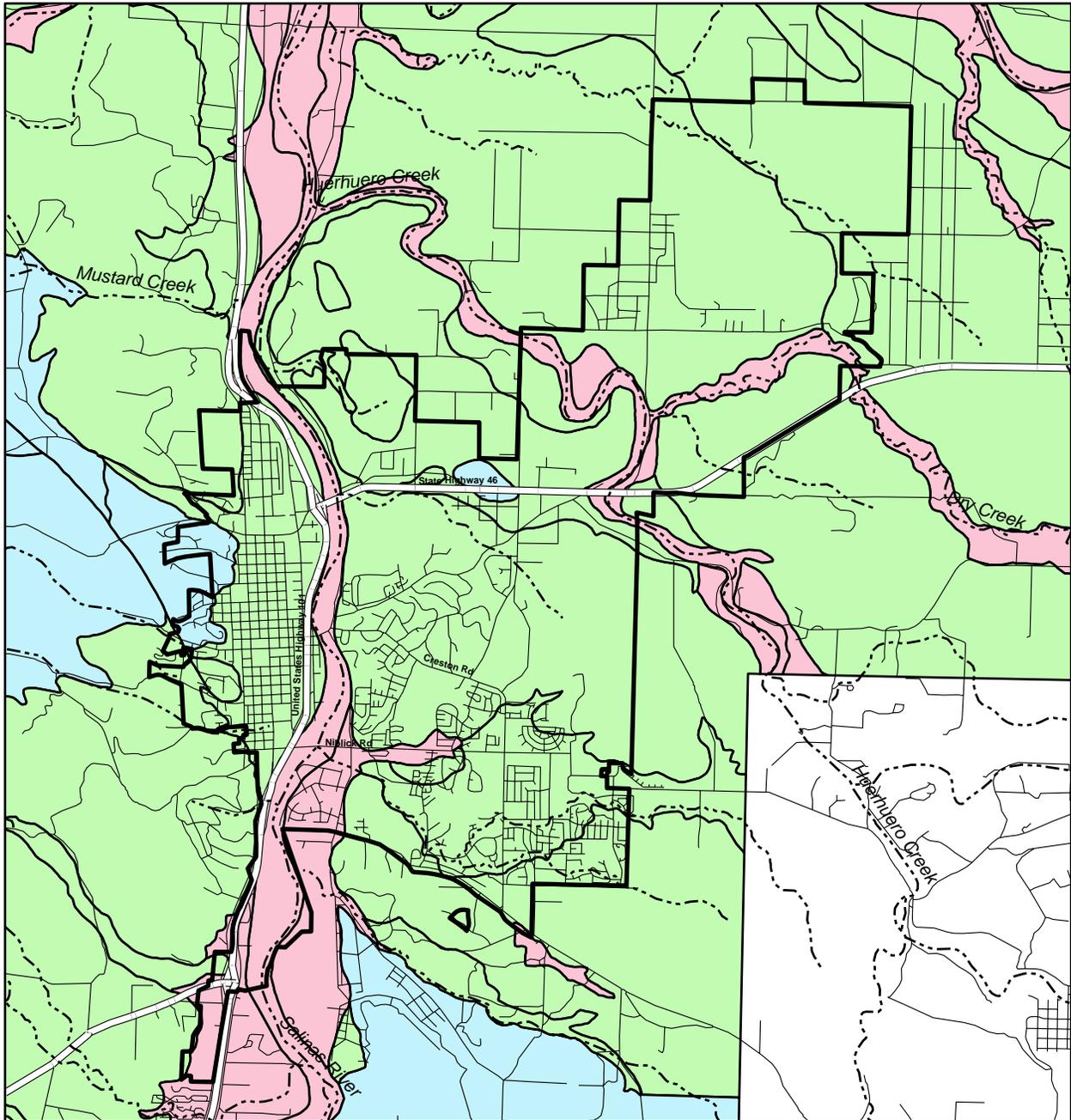


Source: County of San Luis Obispo Safety Element, December 1999

### Regional Faults

Figure S-2

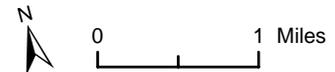
City of El Paso de Robles



Source: San Luis Obispo County for the National Resource Conservation Service, July 1999.  
 Projection: Lambert Conformal Conic.

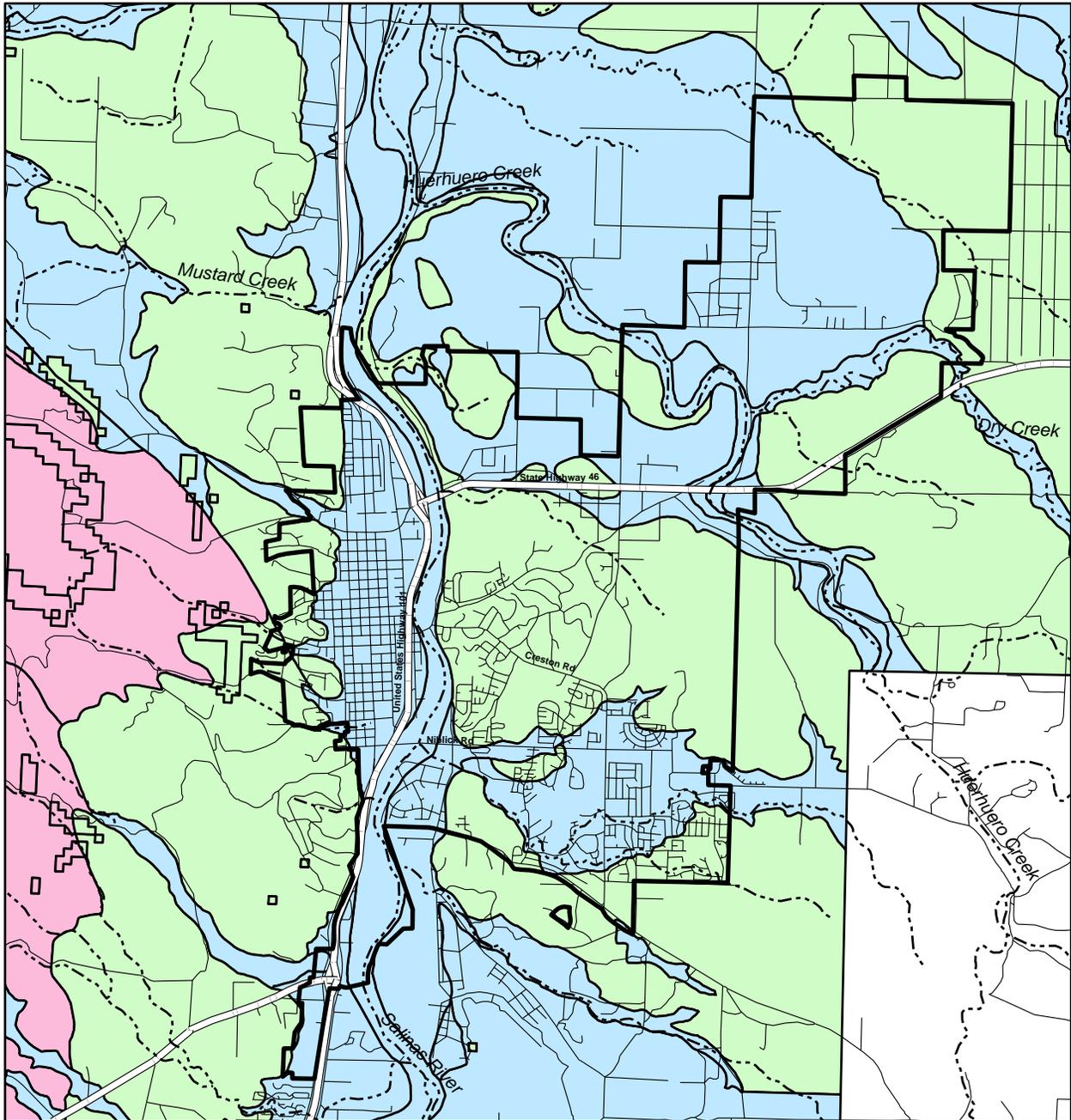
**Legend**

- City Limits
- Major Roads
- Roads
- Streams
- High Liquefaction Risk
- Moderate Liquefaction Risk
- Low Liquefaction Risk



**Liquefaction Risk**

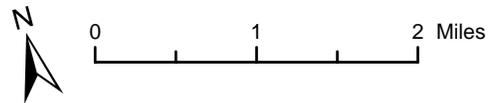
Figure S-3



Source: San Luis Obispo County for the National Resource Conservation Service, July 1999.  
 Projection: Lambert Conformal Conic.

**Legend**

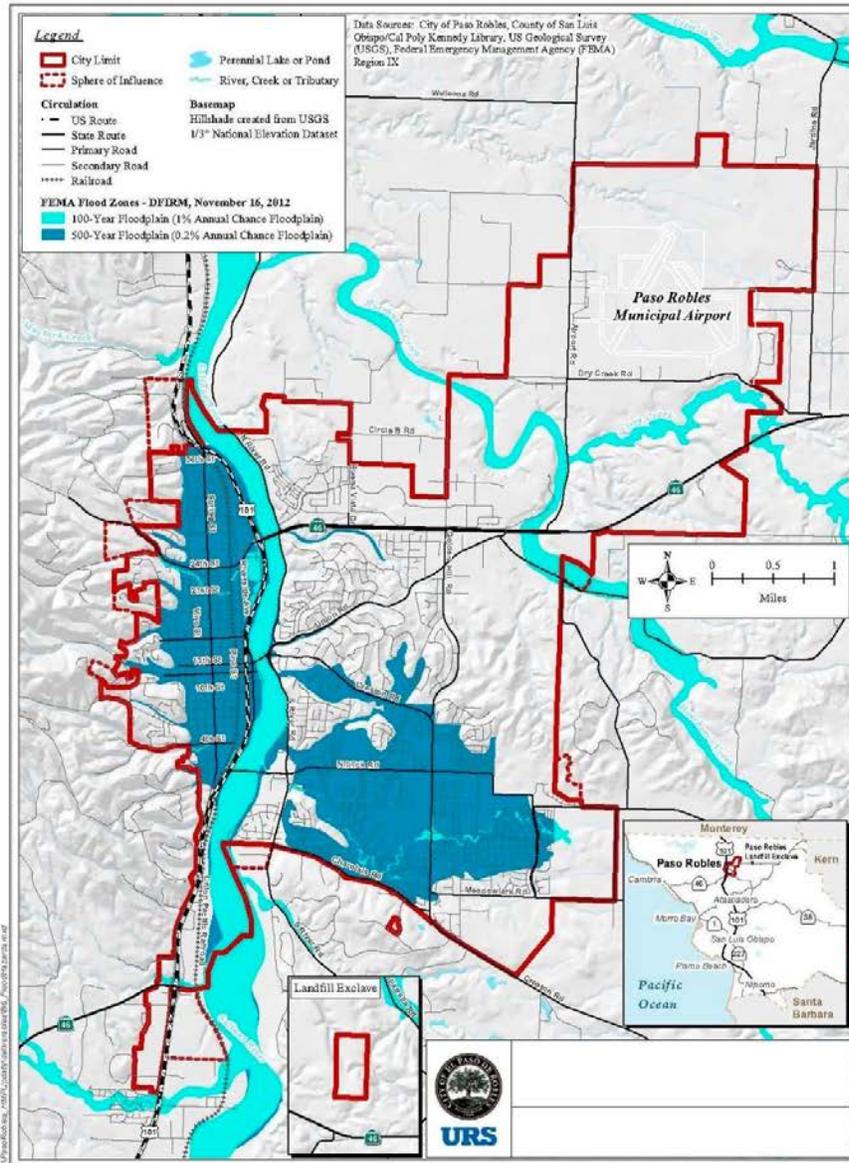
- |             |                       |
|-------------|-----------------------|
| City Limits | <b>Landslide Risk</b> |
| Major Roads | High Potential        |
| Roads       | Moderate Potential    |
| Streams     | Low Potential         |



**Landslide Risk**

Figure S-4





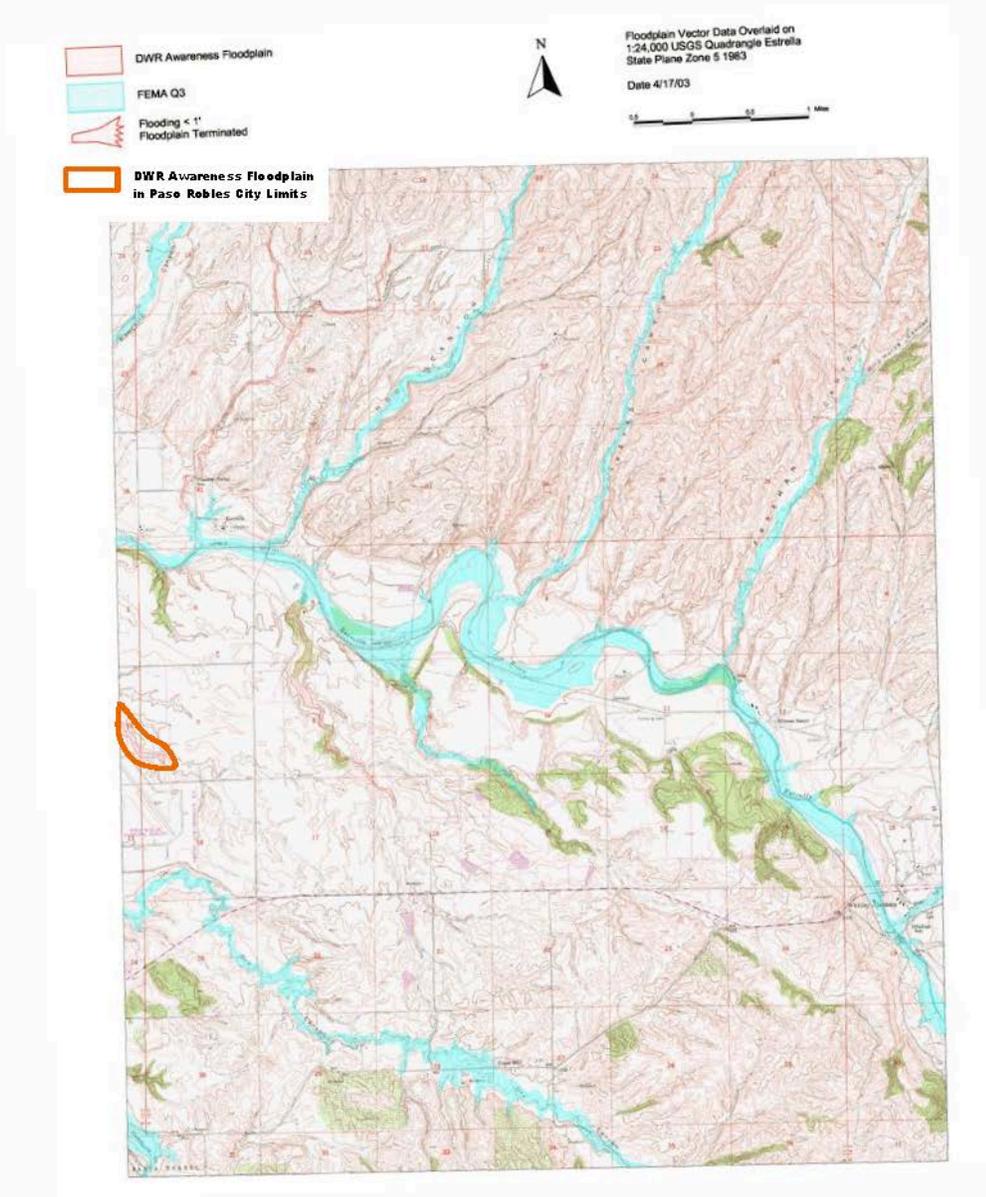
Flood Insurance Rate Map

Figure S-5  
 City of El Paso de Robles



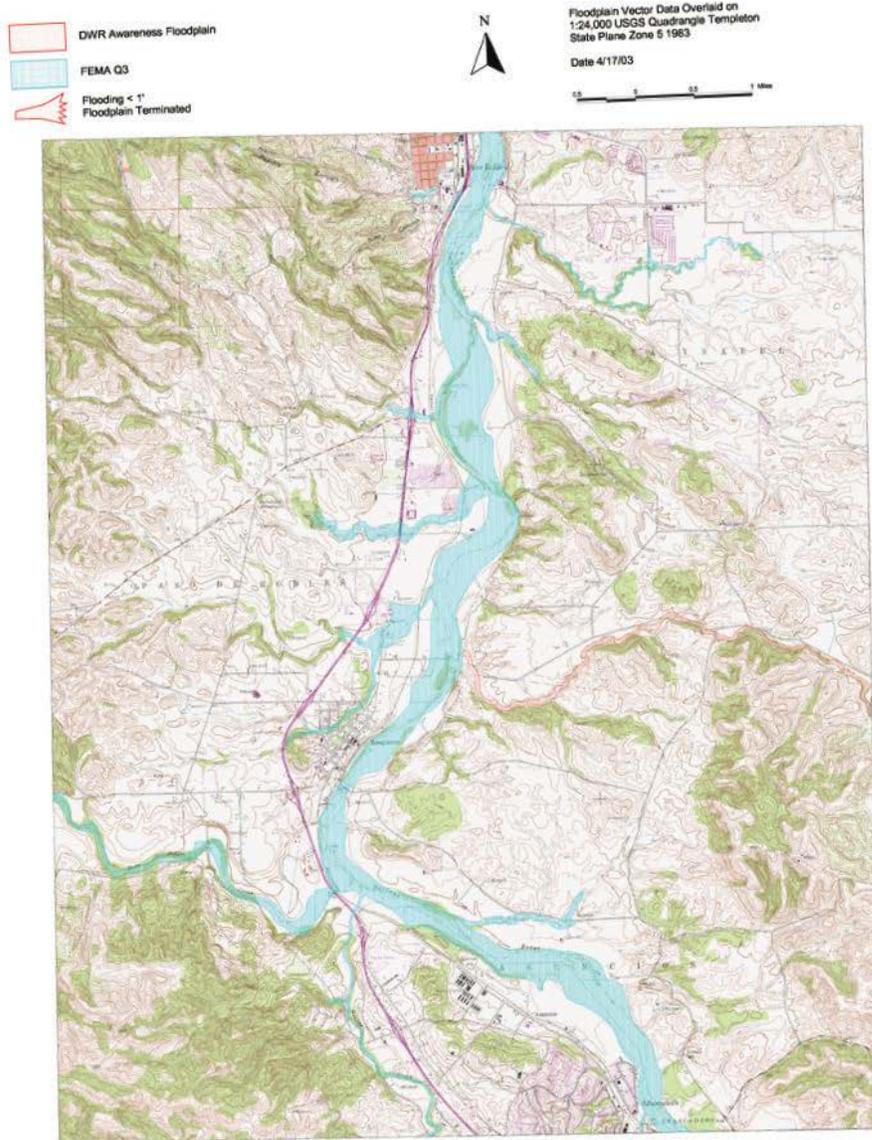
DWR Awareness Floodplain

Figure S-6a  
*City of El Paso de Robles*



DWR Awareness Floodplain

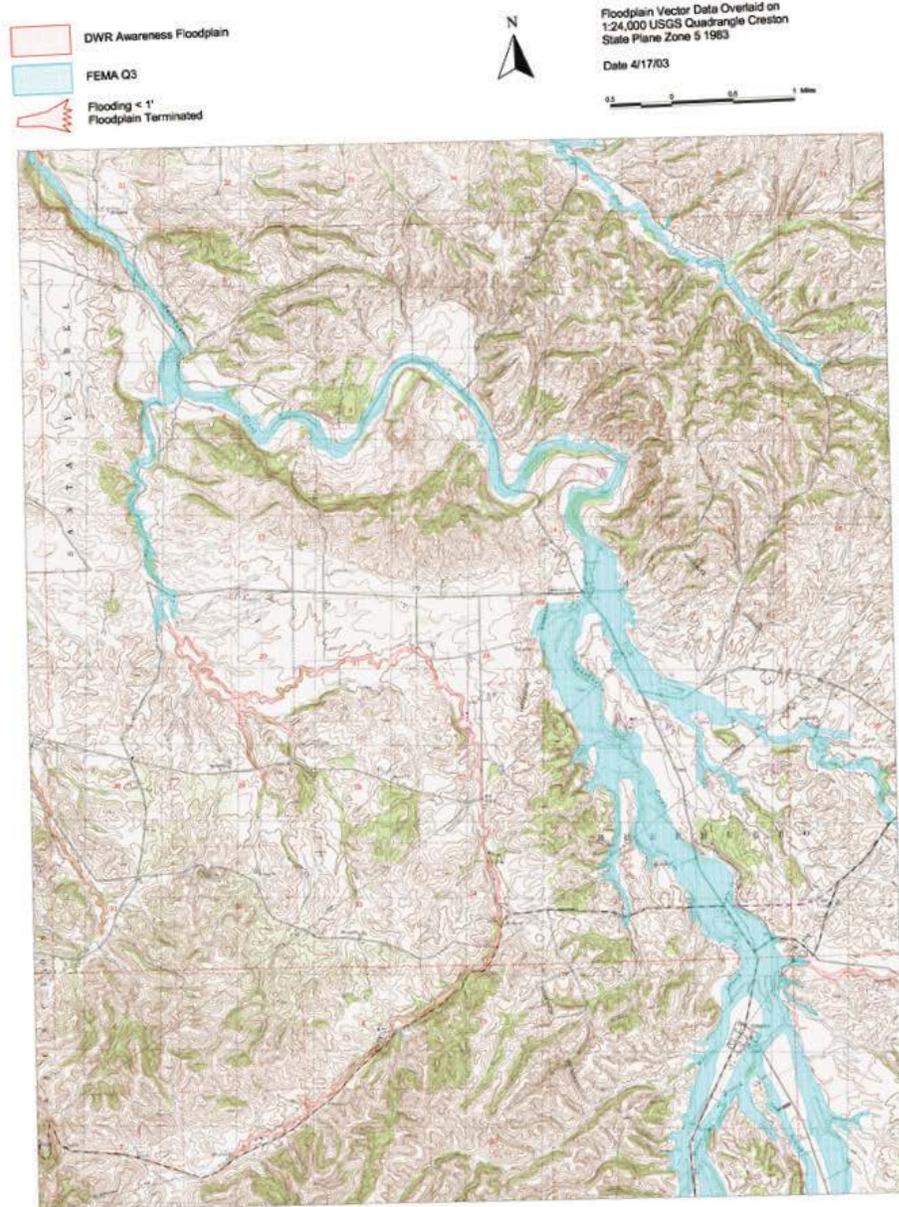
Figure S-6b  
*City of El Paso de Robles*



DWR Awareness Floodplain

Figure S-6c

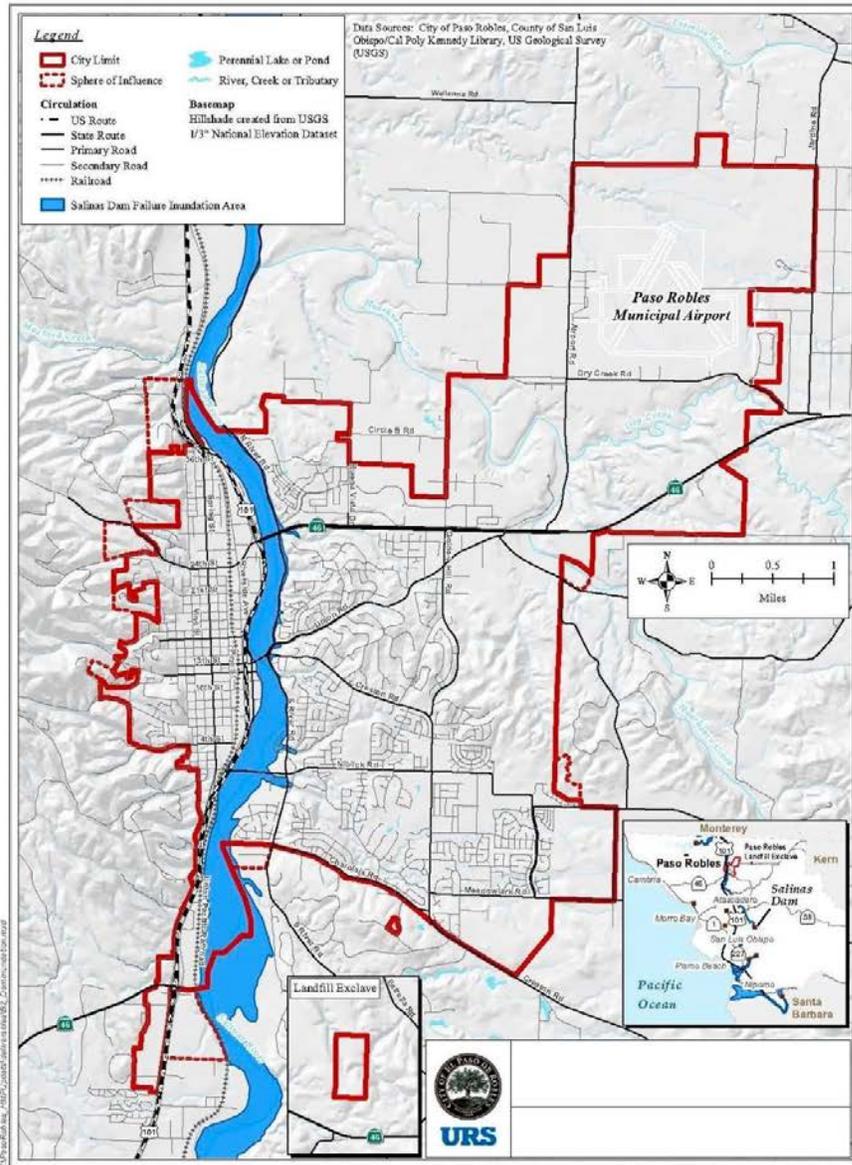
*City of El Paso de Robles*



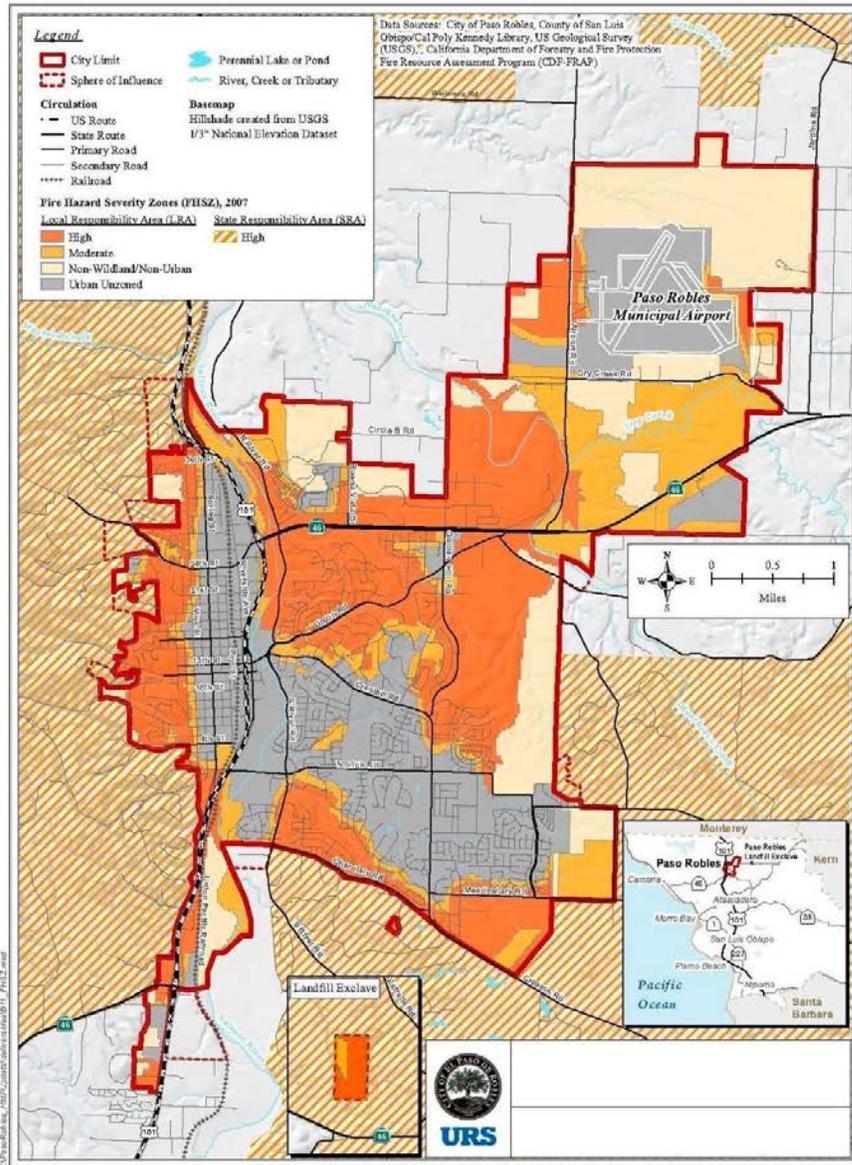
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DWR Awareness Floodplain

Figure S-6d  
City of El Paso de Robles



Salinas Dam Failure Inundation Figure S-7  
 City of El Paso de Robles



Fire Severity Zones, Local & State Responsibility Areas Figure S-8  
 City of El Paso de Robles