

Every general plan in California must address natural and human-made hazards and dangers, and identify the potential risk of death, injuries, property damage, and economic and social dislocation from fires, floods, earthquakes, and other events. Public safety and emergency response are top priorities in Stockton, but not just in relation to widespread events. Concerns over personal safety weigh heavily on many neighborhoods, even to the point of discouraging residents from recreating or traveling along specific routes or at certain times of day. The focus of this chapter is on improving public safety and reducing the risk of hazards. The chapter is organized around four key goals that represent the priorities of the Stockton community:

- Safe Community
- Hazard Protection
- Clean Water
- Clean Air



# GOALS, POLICIES, AND ACTIONS

## GOAL SAF-1: SAFE COMMUNITY

**Create a safe and welcoming environment in all areas of the city at all times of day.**

### PUBLIC SAFETY IS A TOP COMMUNITY PRIORITY

Violence and crime prevention are major issues for the Stockton community. As one of the City's strategic initiatives to reduce violence and crime and increase public safety, the Stockton Marshall Plan, funded by a ¾-cent sales tax approved by voters in 2013, emphasizes data-based targeting of "focus area" locations and predictive policing to achieve the objectives of preventing and stopping violence and building violence-prevention capacity.

Design of the built environment can also help prevent crime and increase both the sense and reality of safety. Research has shown that the most effective deterrent to criminal activity is the risk of being caught, and design of public spaces that places more eyes on the street and limits access points can create safer environments. Strategies for Crime Prevention Through Environmental Design (CPTED) include locating windows to overlook sidewalks and parking lots, increasing pedestrian and bicycle traffic, and installing fencing, landscaping, or lighting to control access. Well-maintained buildings and property also signal alert, active owners and can deter criminal activity.

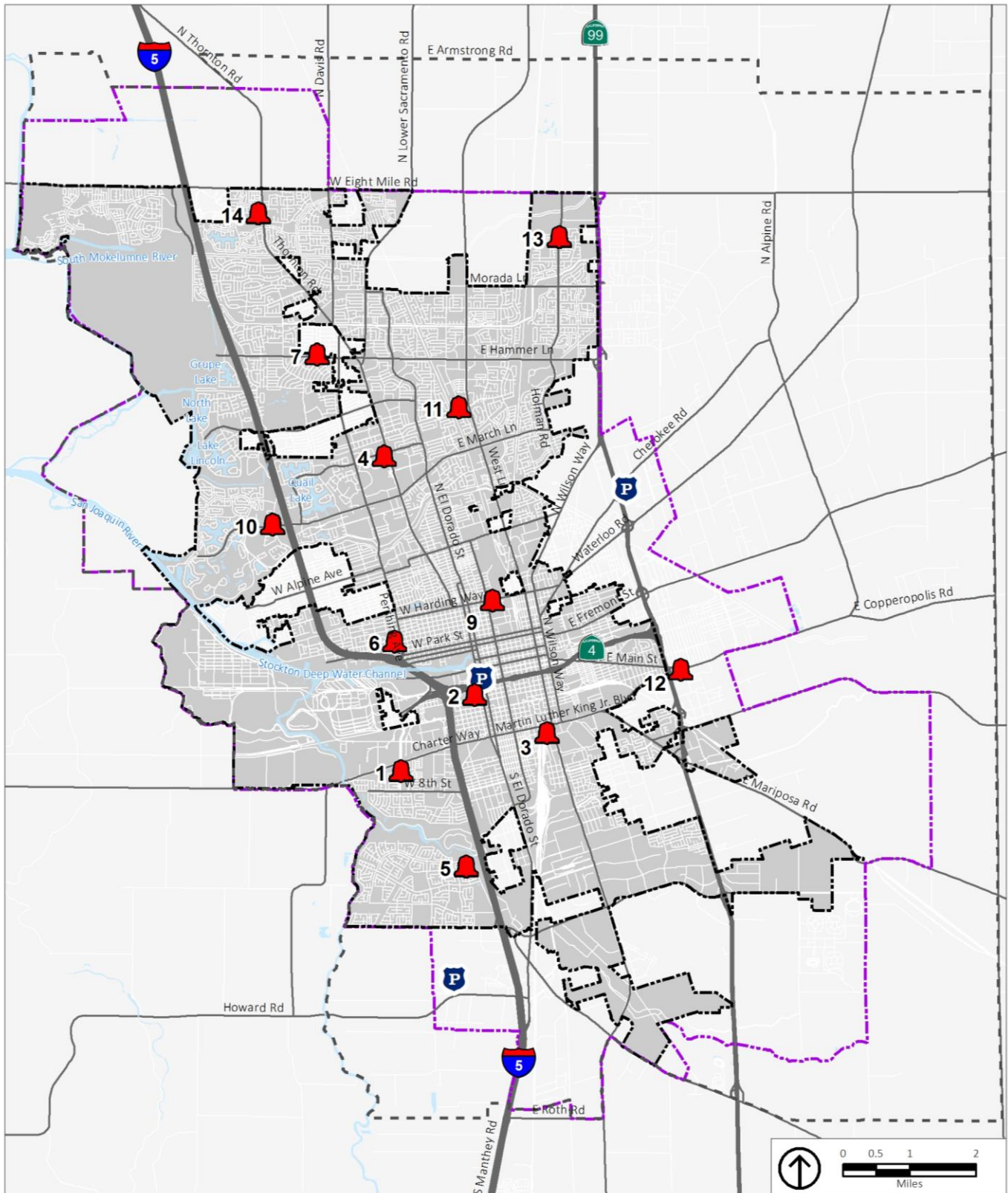
The Stockton Police Department (SPD) and Fire Department (SFD) provide essential services to keep the community safe; police and fire stations are shown on Figure 5-1. The SPD provides professional law enforcement based on a model of prediction, prevention, pursuit, and partnerships. This model combines policing and enforcement strategies with community involvement and engagement. Through its commitment to community policing, the SPD has established a variety of mentorship programs and training classes that promote proactive

partnership with neighborhood organizations and business owners to identify and solve issues.


The SFD mission is centered on providing excellent emergency and non-emergency services through public education, prevention, and aggressive suppression and rescue activities. The SFD is an all-hazard fire department, capable of mitigating all types of both human-made and natural disasters. As such, the fire department has the following specialized teams:

- **Hazardous Materials Team:** A California Office of Emergency Services Type II Hazardous Materials Team staffed with seven personnel daily, trained to the Hazardous Materials Technician and Specialist level. Specialty apparatus and personnel are assigned to Fire Company 3.
- **Water Rescue Team:** Staffed by a team of four personnel daily, the water rescue team is capable of both surface and sub-surface water rescues, helping to protect over 1,000 miles of waterways surrounding the city. The team has specialty apparatus including personal watercraft, inflatable boats, and a water rescue vehicle. The Water Rescue Team is assigned to Fire Company 6. In addition to City resources, the California Office of Emergency Services has also assigned the City a tow vehicle and trailer (OES Boat Team #13) for deployment anywhere in the United States.
- **Urban Search and Rescue (USAR) Team:** Staffed by a team of seven personnel daily, the USAR Team is trained in rope rescue, confined space rescue, trench rescue, and building collapse. The team utilizes specialty apparatus including a Type I heavy rescue, and a California Office of Emergency Services Rescue Trailer.

**Figure 5-1**  
**Police and Fire Stations**



Source: City of Stockton; San Joaquin County; PlaceWorks, 2017.

-  Fire Stations (Station ID #)
-  Police Stations
-  City Limit
-  Sphere of Influence
-  General Plan Planning Area

To reinforce their public service model, the SFD offers a variety of volunteer programs including the Community Emergency Response Team (CERT), which provides training to residents and members of the business community to increase disaster awareness and emergency response capability, as well as the Stockton Fire Explorers and Stockton Fire Auxiliaries. The City and San Joaquin County coordinate for response in emergency situations, and SFD offers disaster preparedness training opportunities through the CERT program. The risk of wildfire in the Planning Area is considered relatively low, given the lack of forest or grassland area that could serve as fuel sources for a wildfire.

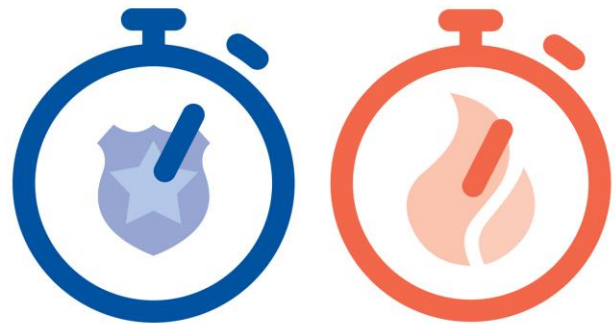
Measure W was approved by voters November 2, 2004. It was originally adopted by Ordinance 038-04 C.S., and is codified in Section 3.52 of the Stockton Municipal Code, entitled Funding for Police and Fire Protection Services. The ordinance provides for a ¼-cent (0.25 per cent) transaction and use tax (i.e., sales tax), a tax dedicated to providing for police and fire personnel and services. The ordinance calls for Program Guidelines, which were developed and adopted by the City Council, August 4, 2004. The Program Guidelines prescribe two methods of ensuring that tax monies collected are used as specified by the ordinance. The first method is an independent audit and the second method is a citizens' committee. Measure W provides funding for 23 suppression positions within the SFD.

Public safety staffing and response time standards provide a means to ensure that the community will remain safe as the city develops. The City strives to achieve the following public safety standards:

- **Police Staffing:** 1.5 sworn officers per 1,000 residents.
- **Police Response Times:** Average law enforcement response time of 5 minutes or less for priority one calls (where a threat to persons may exist).
- **Fire Staffing:** 1.23 sworn firefighters per 1,000 residents for a population up to 500,000 people.

■ **Fire Response Times:**

- 240 seconds or less travel time for the arrival of the first arriving engine company at a fire suppression incident.
- For other than high-rise, 480 seconds or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident.
- For high-rise, 610 seconds or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident.



**POLICY SAF-1.1**

**Invest in neighborhood safety through partnerships with the community to help prevent violence and crime ("community policing").**

*Action SAF-1.1A*

Promote public safety programs, including business, neighborhood, and school watches; child identification and fingerprinting; and other public education efforts.

#### Action SAF-1.1B

Maintain and expand community outreach programs to improve the community's understanding of how the criminal justice system works, foster a positive relationship between community members and public safety staff, provide a venue for open dialog, and promote transparency in public safety.

#### Action SAF-1.1C

Engage with schools, non-profit organizations, and faith-based organizations to recognize and work with at-risk youth to avert future criminal activity.

### **POLICY SAF-1.2**

**Reduce community violence and crime by fostering community connectivity, creating a sense of place, and encouraging social interactions between residents, employees, and business owners.**

#### Action SAF-1.2A

Update the City's Design Guidelines and Development Code to require new and retrofitted development to support effective police and fire protection response and services by using the following principles of crime prevention through environmental design (CPTED):

- Delineate private and public spaces
- Enhance visibility
- Control property access
- Ensure adequate property maintenance

#### Action SAF-1.2B

Pursue public art projects that match the culture of the neighborhood to create a sense of ownership and belonging.

#### Action SAF-1.2C

Engage residents and business owners in ongoing discussions about how land use and planning decisions can help to reduce violence.

#### Action SAF-1.2D

Incentivize a variety of uses in a neighborhood that will be active throughout the day and night.

### **POLICY SAF-1.3**

**Ensure that City-managed spaces and facilities support a feeling of safety for users.**

#### Action SAF-1.3A

Design and maintain parks, waterways, trail corridors, and other facilities to meet the recreational needs of the community, while maximizing public safety and access concerns, such as through the following approaches:

- Locate facilities to ensure visibility along public roadways where appropriate;
- Provide clear access points;
- Maintain vegetation to maximize visibility and demonstrate active attention to the site; and
- Use signage to clearly convey site ownership and rules.

#### Action SAF-1.3B

Design and improve City streetscapes to create safer places by maximizing visibility through installation and maintenance of appropriate lighting and landscaping.



## GOAL SAF-2: HAZARD PROTECTION

**Protect residents and businesses from natural and human-caused hazards.**

### WE NEED TO BE PREPARED FOR EMERGENCIES

Stockton is close enough to major earthquake faults to be vulnerable to seismic activity, including the Greenville Fault roughly 22 miles away. The Hayward Fault, about 40 miles away, has an over 60-percent probability of a magnitude 6.7 or greater earthquake by 2036, according to the US Geological Survey. Earthquakes of this magnitude can create ground accelerations in Stockton severe enough to cause major damage to structures and foundations not designed to resist the forces generated by earthquakes. Underground utility lines are also susceptible where they lack sufficient flexibility to accommodate seismic ground motion. With a seismic event of this magnitude, most parts of Stockton could experience significant ground shaking.

Earthquakes are also among the threats to levee and dam stability. According to the Federal Emergency Management Agency (FEMA), most of the levees in the Planning Area meet minimum standards, but levees are subject to structural failure, erosion, and damage from vegetation and rodents, as well as earthquakes and floods (see next section). Given these possible risks, the California Department of Water Resources (DWR) provides Levee Flood Protection Zone (LFPZ) maps to increase awareness of flood risks from levee failure. These zones, shown in Figure 5-2, estimate the maximum area that may be flooded from failure of a State or federal levee.

As shown in Figure 5-3, Stockton is also within the inundation areas of three major dams:

- New Hogan Dam on the Calaveras River
- New Melones Dam on the Stanislaus River
- Camanche Dam on the Mokelumne River

Failure of any of these dams (each is about 30 miles from the city) would give residents about 7 hours to

evacuate. Other major regional dams could also affect Stockton, but would have longer lead times. The California Division of Safety of Dams (DSOD) inspects each dam on an annual basis to ensure the dam is safe and performing as intended. The dams have also been assessed for seismic stability and are projected to withstand the maximum credible earthquake.

#### POLICY SAF-2.1

**Ensure that community members are adequately prepared for natural disasters and emergencies through education and training.**

##### Action SAF-2.1A

Develop neighborhood watch and emergency support groups to be trained and put into action in the event of an emergency in support of government staff.

##### Action SAF-2.1B

Inform the public about the specific risks of living in flood-prone areas, and provide residents instructional information on how to take steps to reduce their exposure to flood damages.

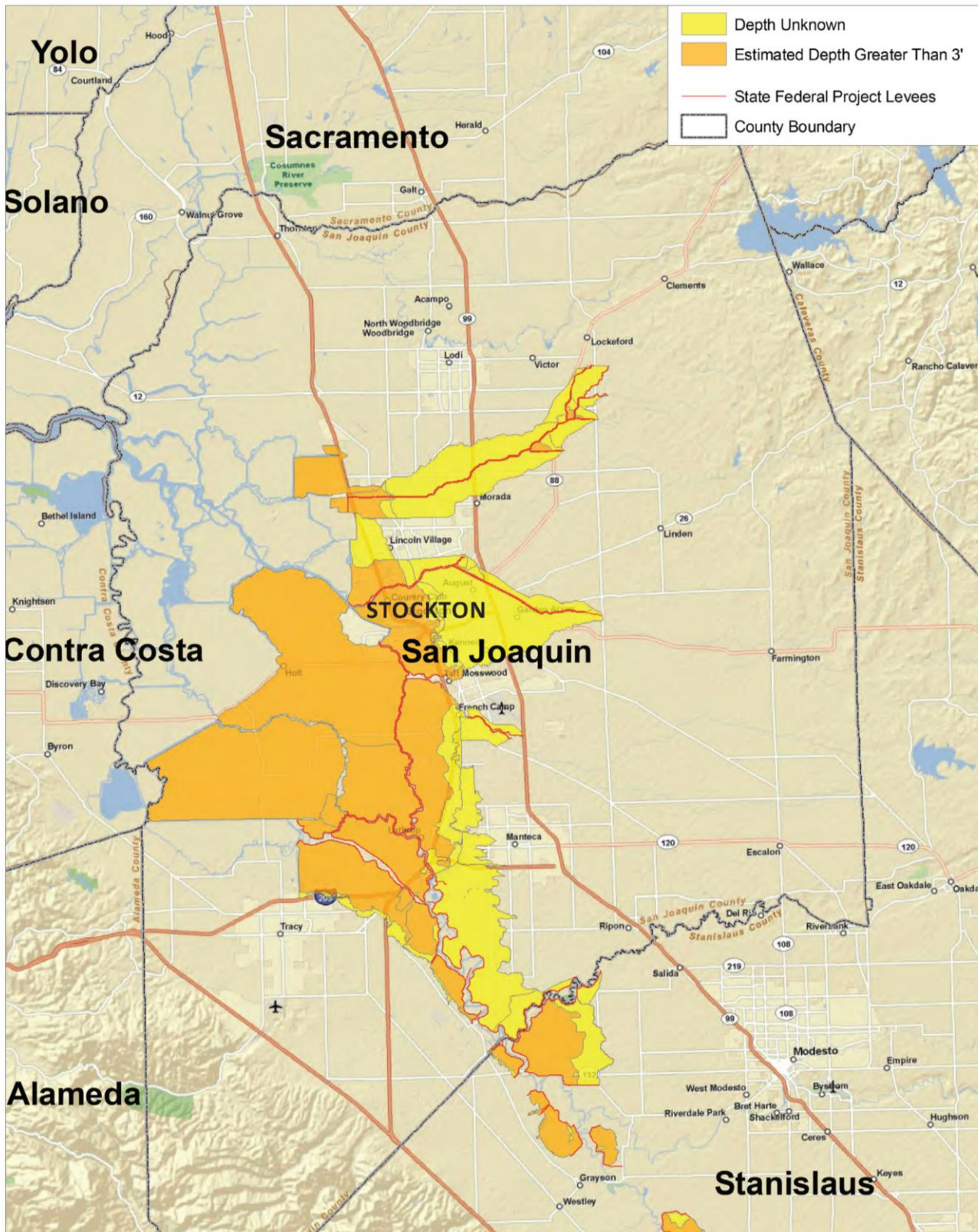
#### POLICY SAF-2.2

**Prepare sufficiently for major events to enable quick and effective response.**

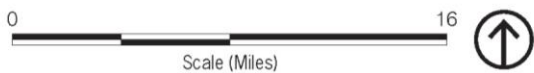
##### Action SAF-2.2A

Require new development to provide adequate access for emergency vehicles and evacuation routes, including by designing roadway systems to provide multiple escape routes in the event of a levee failure.

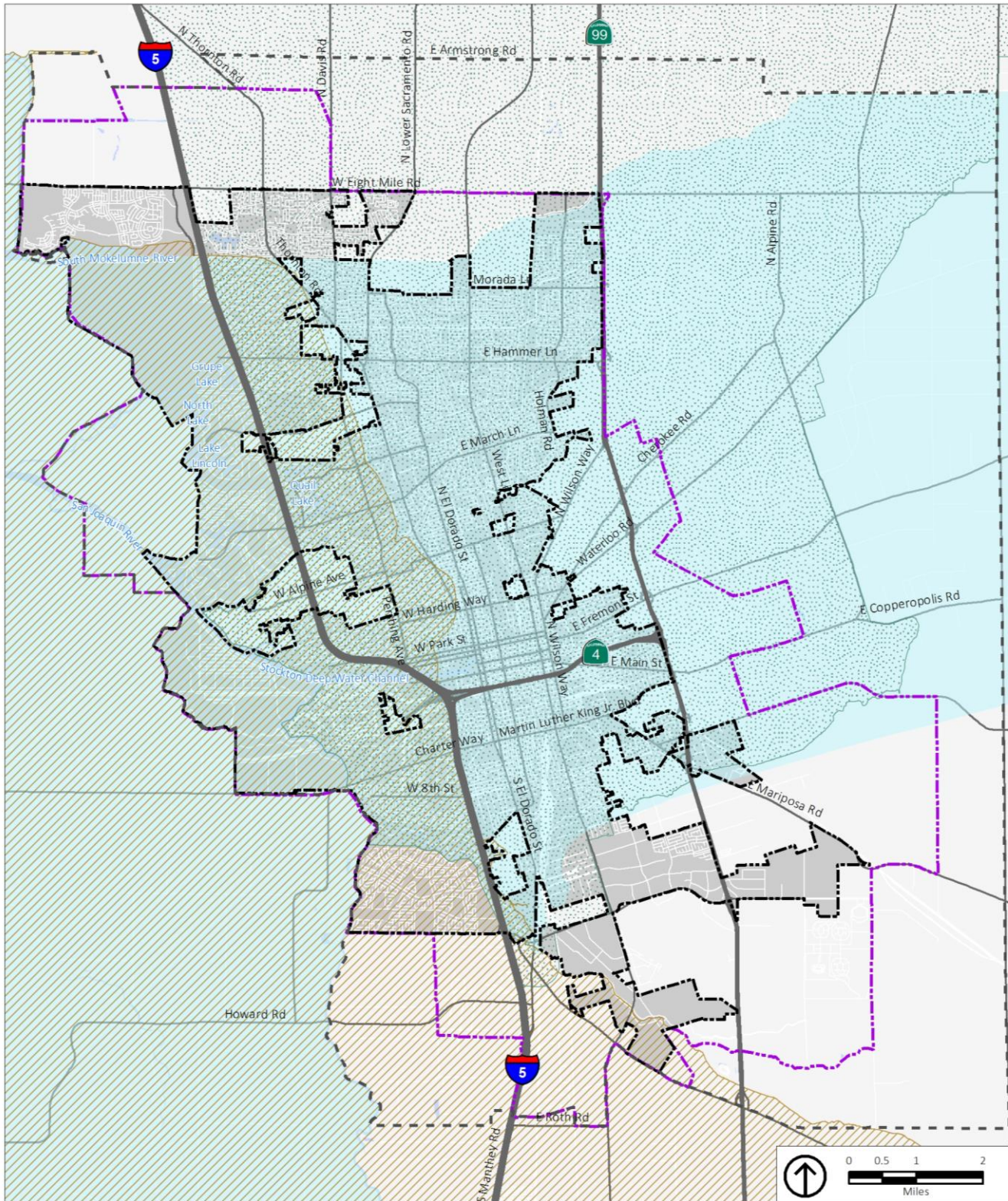
**Figure 5-2**  
**Levee Flood Protection Zones**



Source: California Department of Water Resources, 2011.



**Figure 5-3**  
**Dam Inundation Areas**



Source: San Joaquin County, 2017; PlaceWorks, 2017.

- |                             |                            |
|-----------------------------|----------------------------|
| <b>Dam Inundation Areas</b> | City Limit                 |
| Camanche Dam                | Sphere of Influence        |
| New Melones Dam             | General Plan Planning Area |
| New Hoga Dam                |                            |



### Action SAF-2.2B

Formulate, review, periodically update, and make available to the public emergency management plans for the safe evacuation of people from areas subject to inundation from levee and dam failure.

### Action SAF-2.2C

Require new critical facilities, including hospitals, emergency operations centers, communications facilities, fire stations, and police stations, to be located, designed, and constructed to avoid or mitigate potential risks and ensure functional operation during flood events (i.e., avoid locating in the 100-year and 200-year floodplains), seismic and geological events, fires, and explosions.

### Action SAF-2.2D

Continue to work with San Joaquin County, the County Office of Emergency Services, other cities in the region, and disaster agencies to coordinate disaster and emergency preparedness planning.

## PARTS OF STOCKTON ARE AT RISK FROM FLOODING

Reclamation of Delta land over many years has reduced available floodplain and increased flooding potential, especially along the western boundary of the community. Land along local waterways is protected by levees, but earthquakes or overtopping due to major storms can cause levees to fail. Stockton has historically faced flooding, especially during the 1950's:

- **1950:** Almost 14,000 acres of the Delta flooded, washing out the Southern Pacific Railroad tracks and State Highway 50 west of Stockton.
- **1955 -1956:** Extensive flooding occurred along the eastern tributaries of the San Joaquin River.
- **1958:** Approximately 250,000 acres from Stockton to Fresno along the San Joaquin River flooded, in part due to prolonged and unusually voluminous snowmelt from the Sierra Nevada.

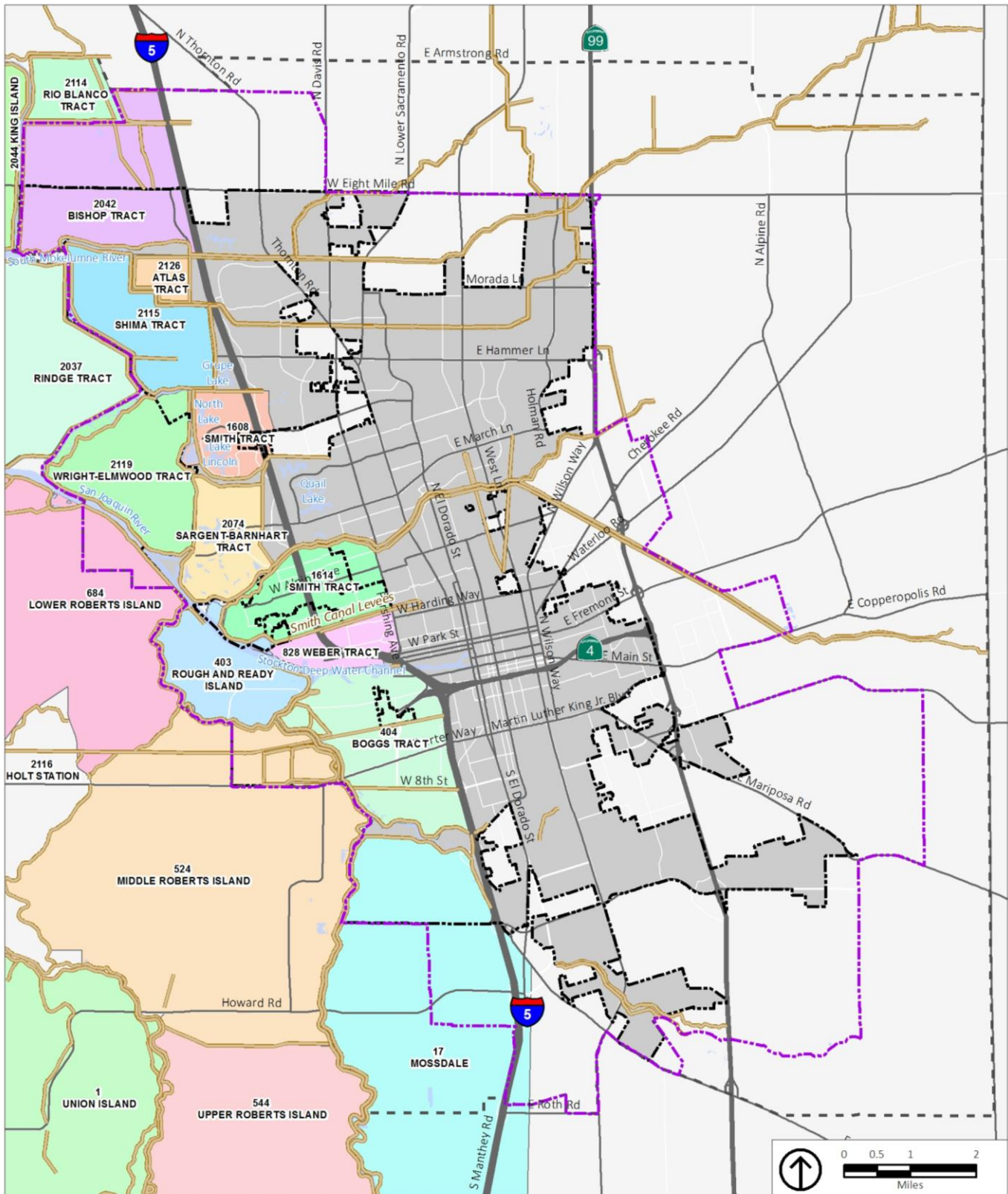
Since 1998, flood risks have been reduced significantly through the Locally Constructed Flood Control Project by the San Joaquin Area Flood Control Agency, which

includes flood protection facilities on Bear Creek, Little Bear Creek, Pixley Slough, Upper Mosher Creek, the Mosher Diversion, Mosher Slough, the Calaveras River, the Stockton Diverting Canal, and Mormon Slough. Figure 5-4 shows levees in the Stockton area and the boundaries of the local reclamation districts that are responsible for maintaining levees and other flood protection facilities.

The Federal Emergency Management Agency maps areas at risk of inundation from a 100-year flood, which has a 1 percent chance of occurring in any year, and a 500-year flood, where the risk of flooding is 0.2 percent annually, along with areas protected by levees, as shown in Figure 5-5. In Figure 5-6, these flood hazard zones are overlaid on the General Plan land use map to illustrate how planned land uses are affected by flood risk. State Senate Bill 5, adopted in 2007, also requires Central Valley cities to protect development from a 200-year flood, which has a 0.5 percent probability of occurring in any year. Areas that would be subject to flooding levels of 3 feet or more during a 200-year storm are shown on Figure 5-7. The 2012 Central Valley Flood Protection Plan provides additional guidance for regional flood protection, including suggestions for improvements to levees along the San Joaquin River and tributary channels in and around Stockton that are part of the State Plan of Flood Control Facilities, which are shown in Figure 5-8. Areas already protected by those facilities are shown in Figure 5-9, and Figure 5-10 shows waterway and land areas that can help accommodate flood and storm waters.



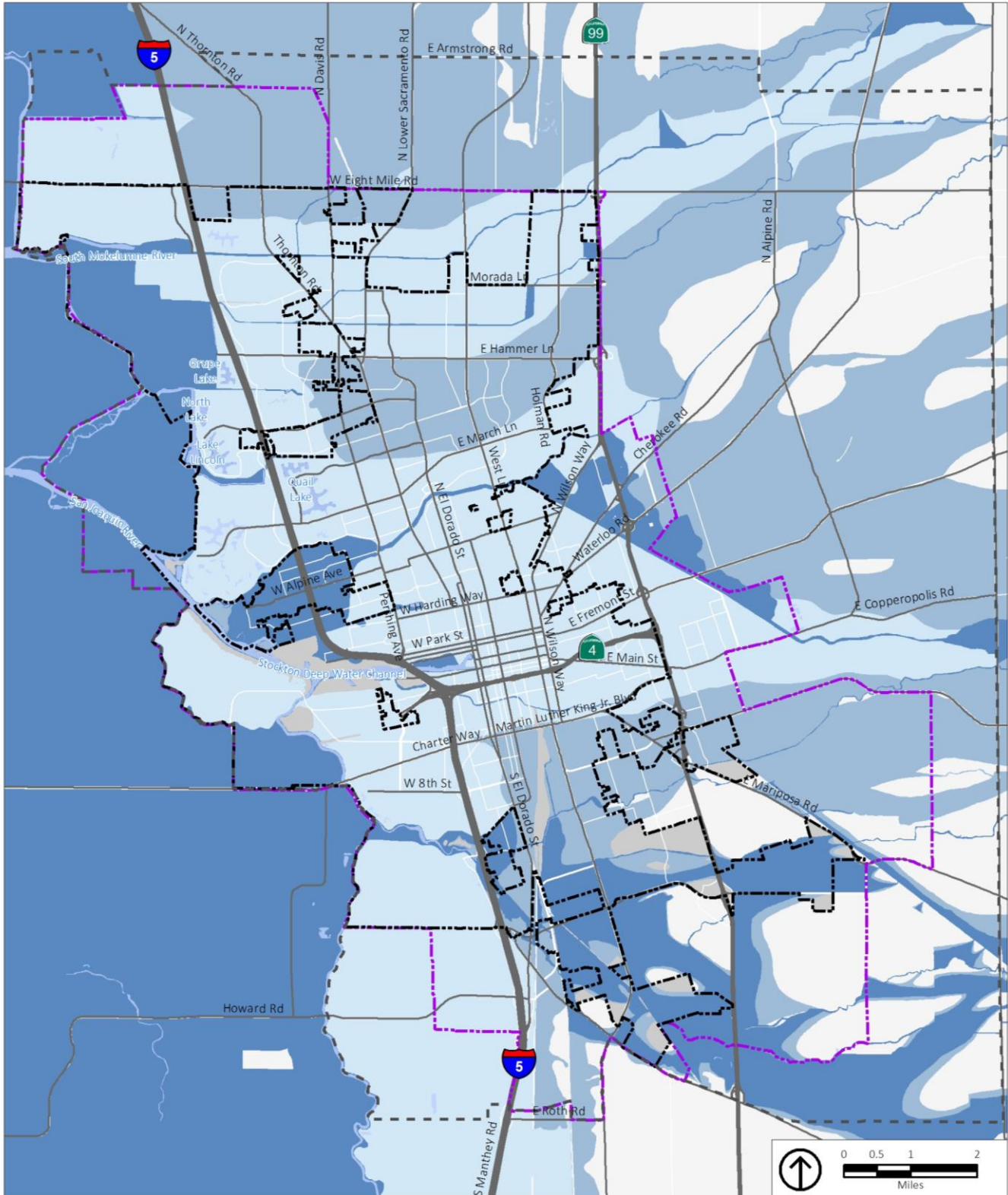
**Figure 5-4**  
**Levees and Reclamation Districts**



Source: San Joaquin County, 2016; PlaceWorks, 2017.

- Levees
- City Limit
- Sphere of Influence
- General Plan Planning Area

**Figure 5-5**  
**FEMA Flood Zones**



Source: City of Stockton; San Joaquin County; Federal Emergency Management System (FEMA), 2016; PlaceWorks, 2017.

- |                      |                            |
|----------------------|----------------------------|
| <b>Flood Zones</b>   | City Limit                 |
| 100-Year Flood Zone  | Sphere of Influence        |
| 500-Year Flood Zone  | General Plan Planning Area |
| Protected by a Levee |                            |

### **POLICY SAF-2.3**

#### **Protect the community from potential flood events.**

##### Action SAF-2.3A

Coordinate with appropriate State, federal, and local flood control agencies to develop a flood protection plan for the levee systems protecting the city that:

- Identifies the levees protecting the city and the entities responsible for the operation and maintenance of the levees;
- Determines the flood levels in the waterways and the level of protection offered by the existing levees along the waterways;
- Identifies a long-term plan to upgrade the system as necessary to provide at least a 100-year level of flood protection to the city, and 200-year level of flood protection, where feasible;
- Encourages multi-purpose flood management projects that, where feasible, incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the city's streams, creeks, and lakes; and
- Includes provisions for updates to reflect future State or federally mandated levels of flood protection.

##### Action SAF-2.3B

Collaborate with State and local flood management agencies and other interested parties to develop funding mechanisms to finance the local share of flood management responsibilities, and maintain cooperative working relationships with appropriate agencies to minimize flood hazards and improve safety.

##### Action SAF-2.3C

Require new public and private waterfront development to be oriented to waterways and provide setbacks and easements along levees and channels to provide space for levee widening, flood fighting, roadway and maintenance access, open space and trail amenities, and appropriate landscaping.

##### Action SAF-2.3D

Prepare and maintain a map of evacuation routes for major flood events.

### **POLICY SAF-2.4**

#### **Minimize risks to the community from flooding through appropriate siting and protection of structures and occupants.**

##### Action SAF-2.4A

Regulate new urban development in accordance with State requirements for 200-year level of flood protection and federal requirements for 100-year level of flood protection.

##### Action SAF-2.4B

Investigate and implement when feasible mitigation measures that offer 200-year level of flood protection for existing urban development in flood-prone areas.

##### Action SAF-2.4C

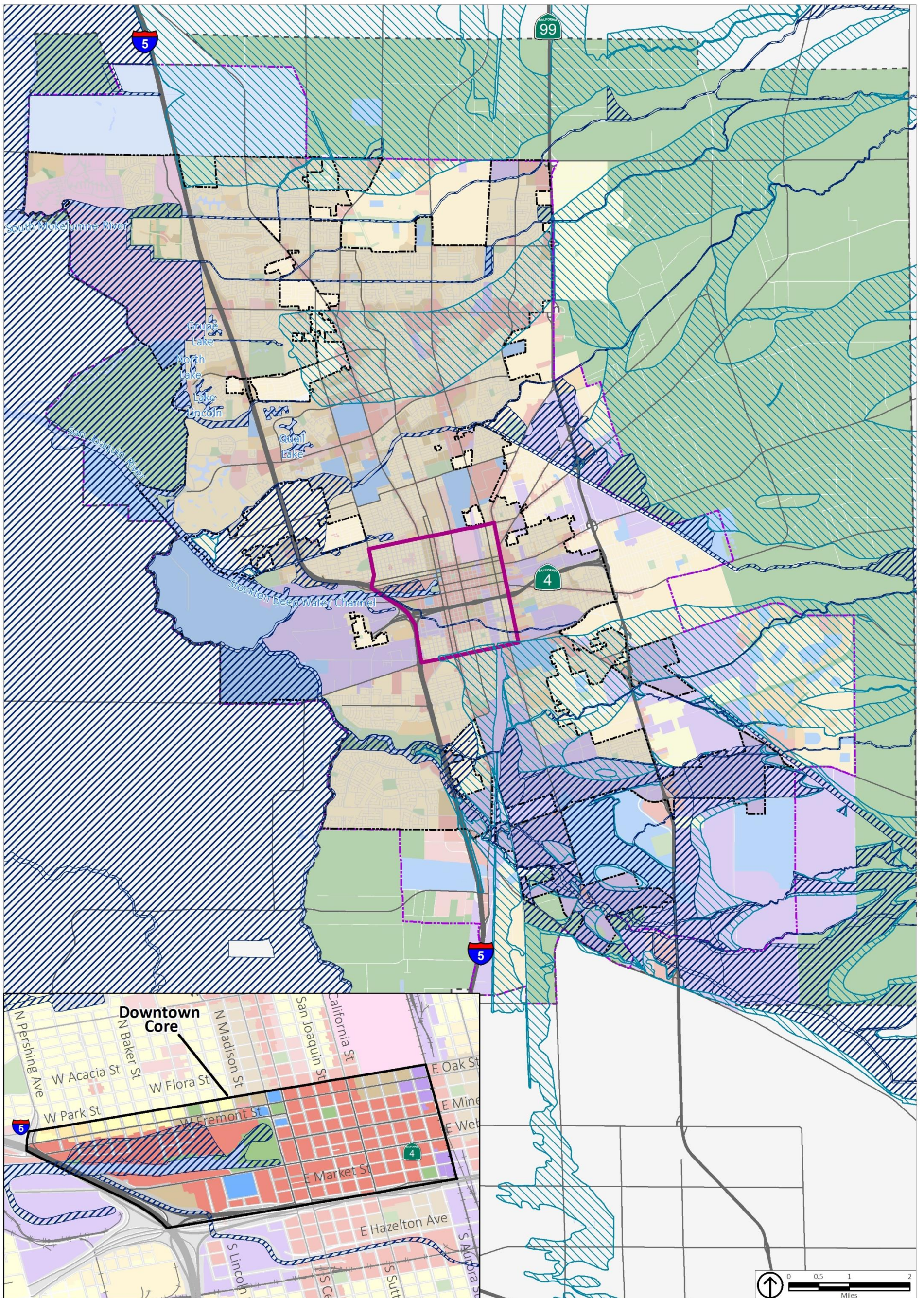
Preserve floodways and floodplains for non-urban uses to maintain existing flood carrying capacities, except when mitigated in conformance with the City's floodplain management program.

##### Action SAF-2.4D

Consider the best available flood hazard information and mapping from regional, State, and federal agencies to inform land use and public facilities investment decisions.



**Figure 5-6**  
**Planned Land Uses in Flood Hazard Zones**

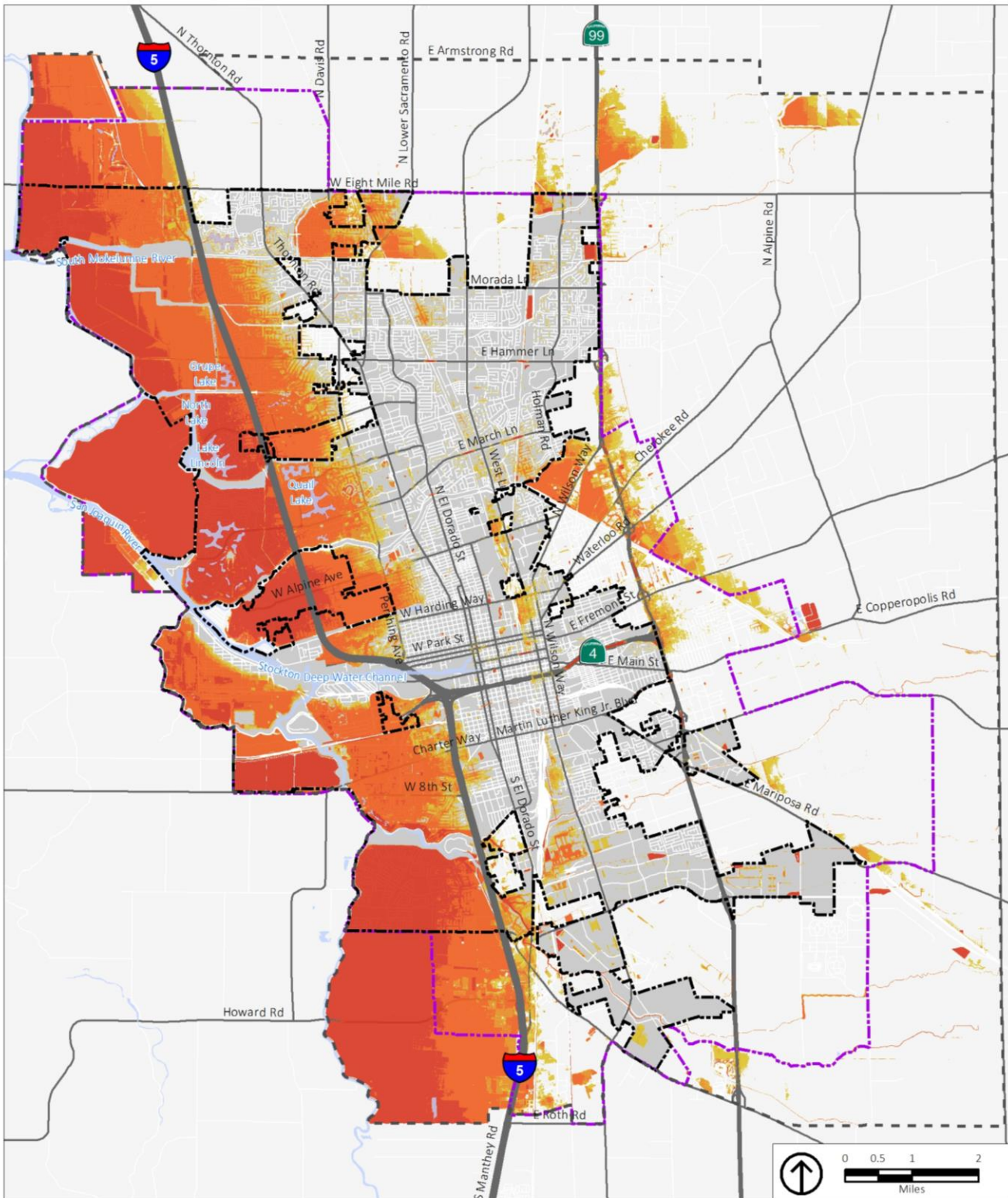


Source: Federal Emergency Management Agency, 2016; City of Stockton, 2017; PlaceWorks, 2017.

- |                     |                            |                            |                             |                        |
|---------------------|----------------------------|----------------------------|-----------------------------|------------------------|
| <b>Flood Zones</b>  | City Limit                 | Residential Estate         | Mixed Use                   | Economic and Education |
| 100-Year Flood Zone | Sphere of Influence        | Low Density Residential    | Commercial                  | Institutional          |
| 500-Year Flood Zone | General Plan Planning Area | Medium Density Residential | Administrative Professional | Parks and Recreation   |
|                     | Greater Downtown Boundary  | High Density Residential   | Industrial                  | Open Space/Agriculture |

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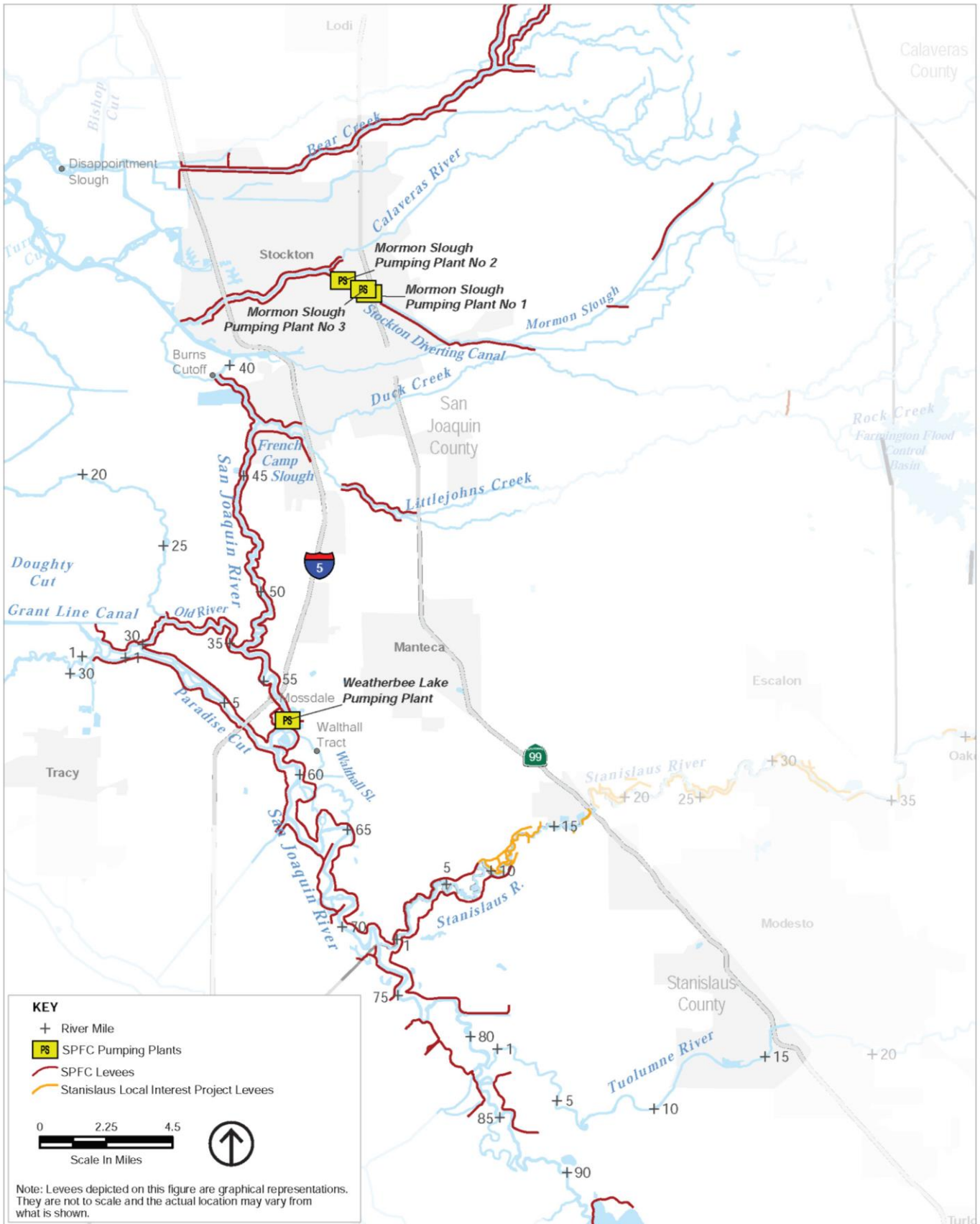
**Figure 5-7**  
**200-Year Storm Flood Depths**



Source: California Department of Water Resources, 2016; PlaceWorks, 2017.

- 200-Year Storm Flood Depth**
- 3 - 4 feet
  - 4 - 5 feet
  - 5 - 10 feet
  - > 10 feet
- City Limit  
 Sphere of Influence  
 General Plan Planning Area

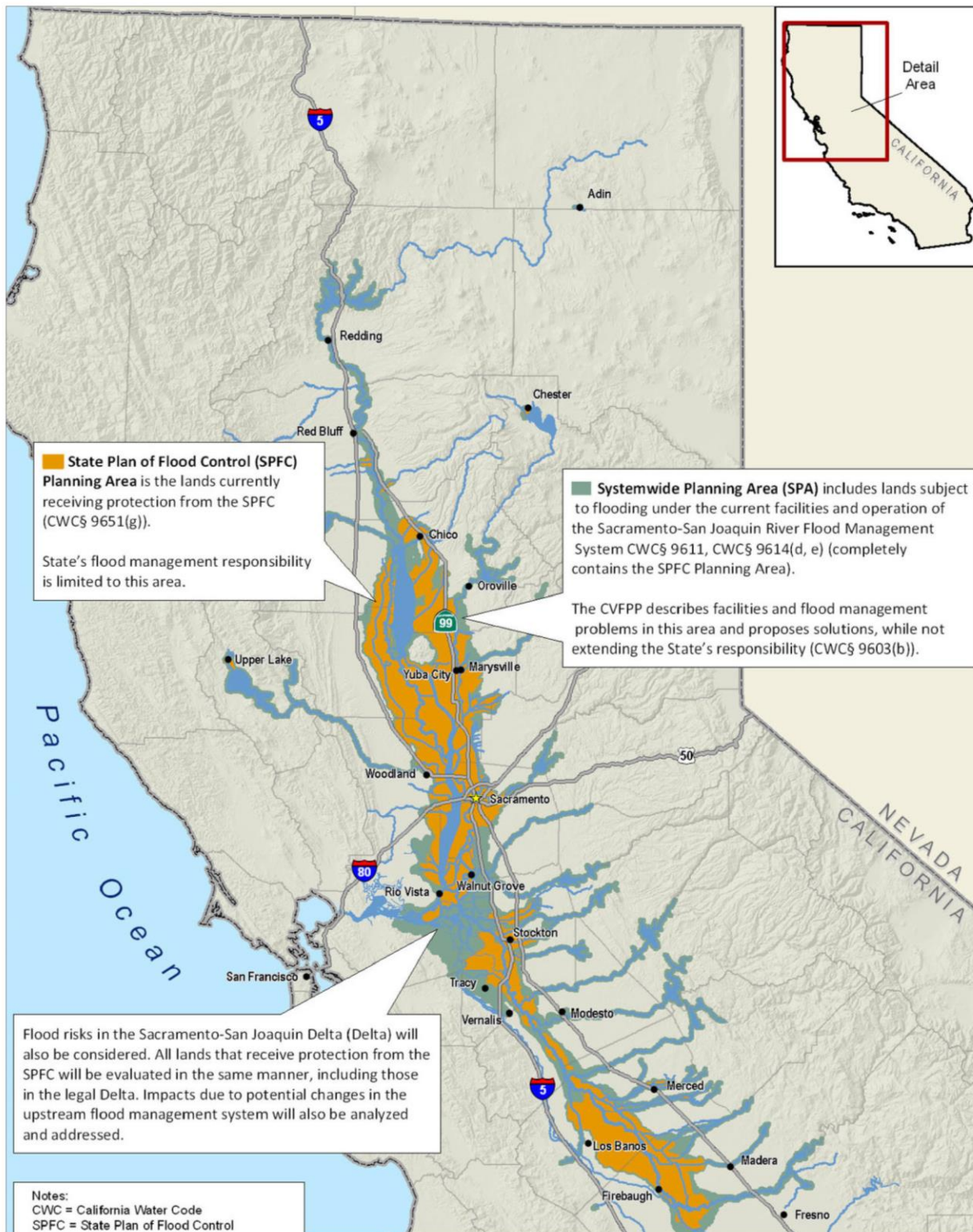
**Figure 5-8**  
**State Plan of Flood Control Facilities in the Stockton Area**



Source: California Department of Water Resources, 2010.



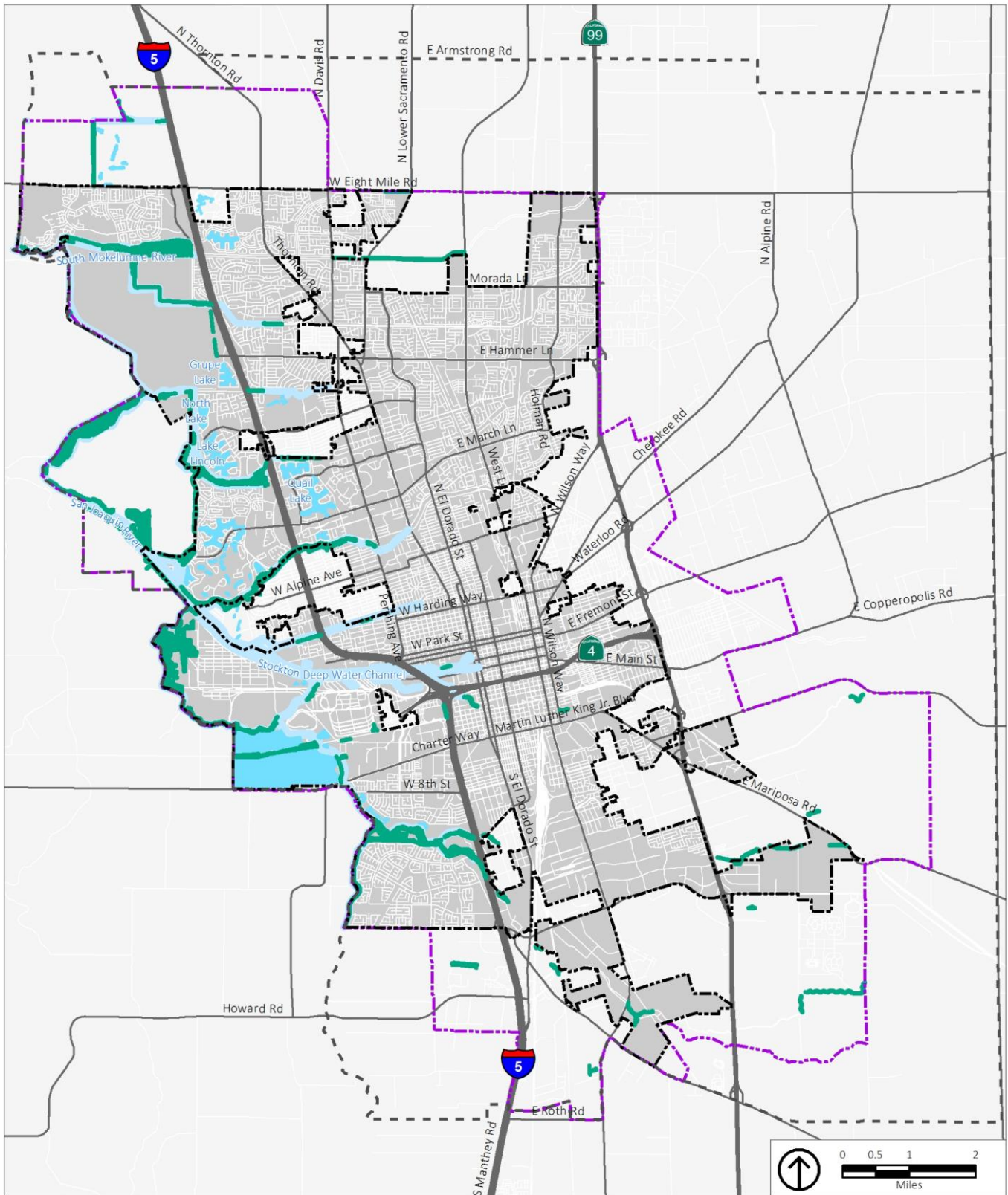
**Figure 5-9**  
**Areas Protected by State Plan of Flood Control Facilities**



Source: California Department of Water Resources, 2011.



**Figure 5-10**  
**Floodwater Accommodations**



Source: CA Department of Fish & Wildlife, 2016; City of Stockton, 2017; PlaceWorks, 2017.

- Riparian Areas and Wetlands
- City Limit
- Lakes, Reservoirs, and Ponds
- Sphere of Influence
- Streams and Rivers
- General Plan Planning Area

## NOISE CAN DETRACT FROM QUALITY OF LIFE

Noise can affect the way people live and work. Some types of noise are only short-term irritants, like the pounding of a jackhammer or the whine of a leaf blower. These mobile sources can generally be controlled through the City's noise ordinance, but fixed sources such as roads, the railroad, and the airport instead require the City to ensure that land uses, especially "sensitive receptors" like homes and schools, do not bring people too close to noise, unless noise reduction measures like thicker walls and windows are determined to be acceptable.

State law requires general plans to use the Community Noise Equivalent Level (CNEL) or the Day/Night Average Sound Level ( $L_{dn}$ ) to describe the community noise environment (in decibels, "dBA") and its effects on the population. The City of Stockton land use compatibility standards for noise are shown in Table 5-1, and the future 2040 roadway noise conditions are depicted graphically on Figure 5-11.

### POLICY SAF-2.5

**Protect the community from health hazards and annoyance associated with excessive noise levels.**

#### Action SAF-2.5A

Prohibit new commercial, industrial, or other noise-generating land uses adjacent to existing sensitive noise receptors such as residential uses, schools, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA Community Noise Equivalent (CNEL) (decibels on A-weighted scale CNEL) when measured at the property line of the noise sensitive land use.

#### Action SAF-2.5B

Require projects that would locate noise sensitive land uses where the projected ambient noise level is greater than the "normally acceptable" noise level indicated on Table 5-1 to provide an acoustical analysis that shall:

- Be the responsibility of the applicant;
- Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics;
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions;
- Estimate existing and projected (20-year) noise levels in terms of  $L_{dn}$ /CNEL and compare the levels to the adopted noise policies and actions in this General Plan;
- Recommend appropriate mitigation to achieve compatibility with the adopted noise policies and standards;
- Where the noise source in question consists of intermittent single events, address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance;
- Estimate noise exposure after the prescribed mitigation measures have been implemented;
- If the project does not comply with the adopted standards and policies of this General Plan, provide acoustical information for a statement of overriding considerations for the project; and
- Describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures.

#### Action SAF-2.5C

Require noise produced by commercial uses to not exceed 75 dB  $L_{dn}$ /CNEL at the nearest property line.

#### Action SAF-2.5D

Grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners.

#### Action SAF-2.5E

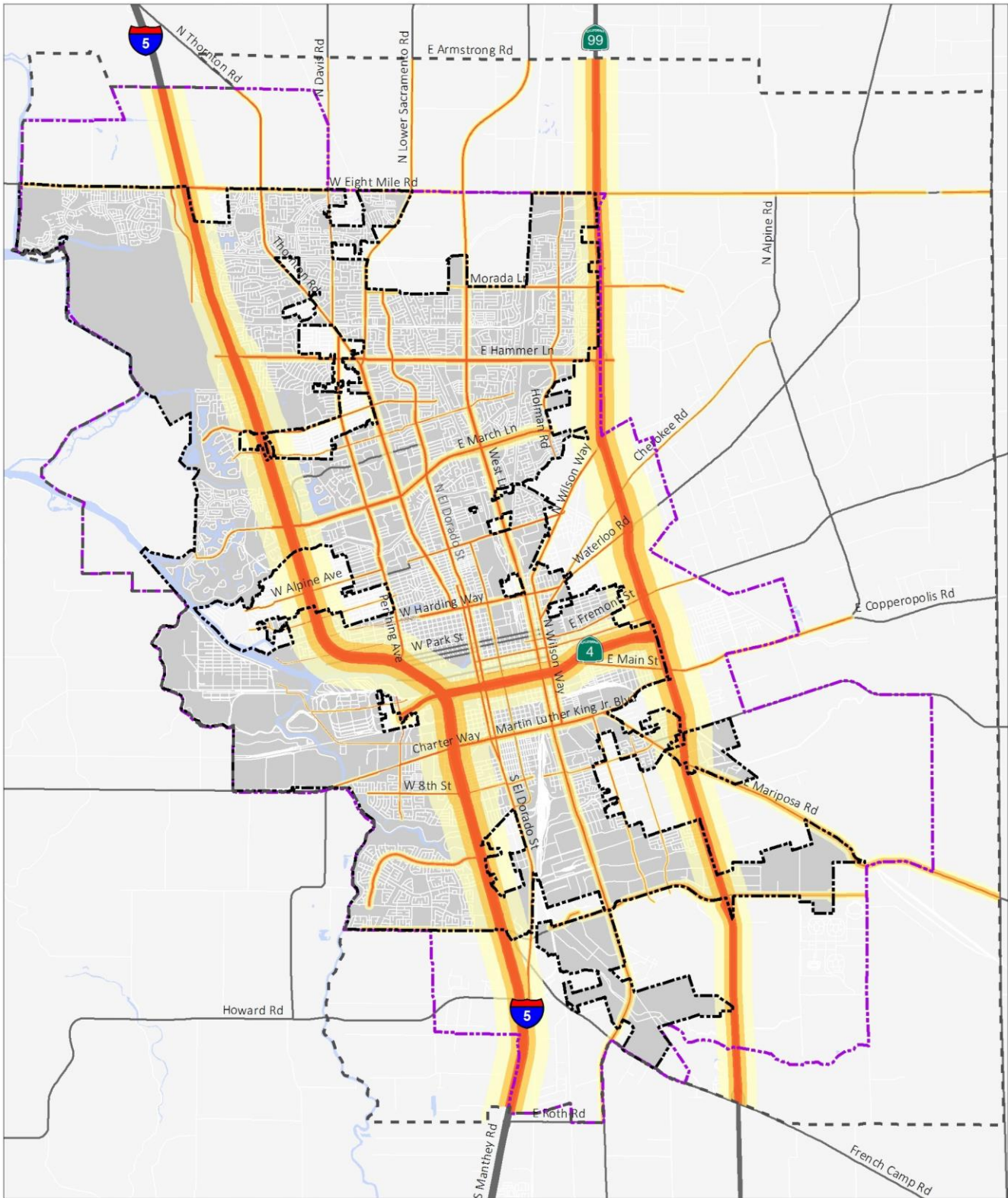
Require all new habitable structures to be set back from railroad tracks to protect residents from noise, vibration, and safety impacts.

**Table 5-1: Maximum Allowable Noise Exposure by Land Use**

LAND USE TYPE	NOISE LEVEL, L <sub>DN</sub> (DBA)						
	0-55	56-60	61-65	66-70	71-75	75-80	>81
Residential			Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Urban Residential Infill					Normally Acceptable	Unacceptable	Unacceptable
Hotels, Motels			Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Schools, Libraries, Churches, Hospitals, Extended Care Facilities			Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Sports Arenas, Outdoor Spectator Sports		Normally Acceptable	Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Playgrounds, Neighborhood Parks					Unacceptable	Unacceptable	Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries				Normally Acceptable	Normally Acceptable	Unacceptable	Unacceptable
Office Buildings, Business Commercial and Professional				Normally Acceptable	Unacceptable	Unacceptable	Unacceptable
Mining, Industrial, Manufacturing, Utilities, Agriculture					Unacceptable	Unacceptable	Unacceptable
							<p><b>Normally Acceptable.</b> Specified land use is satisfactory based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.</p> <p><b>Conditionally Acceptable.</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.</p> <p><b>Unacceptable.</b> New construction or development should not be undertaken.</p>

Notes: If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA. Urban residential infill applies to residential uses in the Greater Downtown.

**Figure 5-11**  
**2040 Roadway Noise Contours**



Source: City of Stockton; PlaceWorks, 2016.

- Future (2040) Noise Contours**
- 70dB
  - 65dB
  - 60dB
  - City Limit
  - Sphere of Influence
  - General Plan Planning Area

## HAZARDOUS MATERIALS NEED TO BE CONTROLLED

State and federal laws regulate the production, storage, handling, and disposal of hazardous materials and waste, including industrial wastes, pesticides, radioactive substances, asbestos, and combustible fuels. Hazardous materials commonly used in the home include garden pesticides, waste oil, paint supplies, car batteries, and pool chemicals. Limited quantities of household hazardous waste may be transported to and dropped off at a recycling center. State and federal rules require inventory and reporting for businesses that store more than 55 gallons of hazardous liquids, 500 pounds of solids, or 200 cubic feet of compressed gases, including plans for incident prevention and emergency response and evacuation.

Although hazardous materials are carefully regulated today, past activities have left some contaminated sites in Stockton, as well as others where contamination is suspected and investigation is underway. Contamination has resulted from leaking underground storage tanks, disposal of hazardous materials, and various past industrial practices. The California Department of Toxic

Substances Control oversees cleanup of such sites, but the potential for accidents and spills means that the City also must strive to reduce risks.

### POLICY SAF-2.6

**Minimize the risk to city residents and property associated with the transport, distribution, use, and storage of hazardous materials.**

#### Action SAF-2.6A

Restrict transport of hazardous materials within the city to routes that have been designated for such transport.

#### Action SAF-2.6B

When appropriate, require new development to prepare a hazardous materials inventory and/or prepare Phase I or Phase II hazardous materials studies, including any required cleanup measures.

#### Action SAF-2.6C

Educate the public regarding the types of household hazardous wastes and the proper methods of disposal.

## GOAL SAF-3: CLEAN WATER

**Sustain clean and adequate water supplies.**

## EVERYONE HAS A RIGHT TO CLEAN WATER

Access to safe water is a fundamental human need for both physical and social health. Maintaining clean water supplies requires constant vigilance, significant expenditures, and sometimes changes in behavior, especially as the impacts of human activities become more pervasive.

Water supply, quality, and distribution are vital to Stockton's ability to serve its population now and in the future. Regulatory pressures, droughts, and saline intrusion affecting groundwater supplies have already strained the region's water supplies. As a result, the City has focused attention on the availability of existing

surface water supplies, and is cooperating with other agencies in the region to manage groundwater resources at a sustainable yield.

Meanwhile, water conservation and efficiency has become a normal way of life in and around Stockton. Increasing use of reclaimed (or "recycled") water can be an effective way to protect water supply. For example, simple "graywater" systems can re-use water from bathroom sinks, showers, bathtubs, and washing machines to irrigate landscaping. Stockton also is committed to protecting water quality by ensuring adequate collection, treatment, and safe disposal of wastewater.



### **POLICY SAF-3.1**

**Secure long-term renewable contracts and related agreements to ensure that surface water rights will be available to meet projected demand.**

#### **Action SAF-3.1A**

Actively participate in appropriate forums designed to discuss and solve regional water supply and quality issues.

### **POLICY SAF-3.2**

**Protect the availability of clean potable water from groundwater sources.**

#### **Action SAF-3.2A**

Continue to cooperate with San Joaquin County, Stockton East Water District, and CalWater to monitor groundwater withdrawals and ensure that they fall within the target yield for the drinking water aquifer.

#### **Action SAF-3.2B**

Require new development to employ low impact development (LID) approaches, including:

- Conserving natural areas and reducing imperviousness
- Runoff storage
- Hydro-modification (to mimic pre-development runoff volume and flow rate)
- Reducing trash accumulation
- Public education and outreach

### **POLICY SAF-3.3**

**Encourage use of recycled ("gray") water for landscaping irrigation to reduce demand on potable supplies.**

#### **Action SAF-3.3A**

Require new development to install non-potable water infrastructure for irrigation of large landscaped areas where feasible.

#### **Action SAF-3.3B**

Investigate and implement Code amendments to allow installation of dual plumbing and/or rainwater capture systems to enable use of recycled water and/or captured rainwater generated on-site.

### **POLICY SAF-3.4**

**Ensure adequate collection, treatment, and safe disposal of wastewater.**

#### **Action SAF-3.4A**

Require all new urban development to be served by an adequate wastewater collection system to avoid possible contamination of groundwater from onsite wastewater disposal systems.

#### **Action SAF-3.4B**

Conduct outreach and provide information to encourage homeowners with septic tanks to abandon existing septic tanks and hook up to the City wastewater collection system.


#### **Action SAF-3.4C**

Continue to discharge treated effluent to the Delta and reuse that water through the City's California Water Code Section 1485 water right.

## GOAL SAF-4: CLEAN AIR

### Improve local air quality.

## AIR QUALITY IN THE VALLEY HAS TO IMPROVE

The San Joaquin Valley Air Basin is burdened by air pollution from a variety of industrial and vehicular sources. Topographic and meteorological conditions unique to the area trap these particulates and generate high levels of unhealthy air in the region. The San Joaquin Valley Air Pollution Control District oversees plans and control measures to address air pollution, primarily from stationary sources such as industry and power plants. The District also enforces rules and regulations to control air pollution and to assess potential air quality impacts of proposed land uses. The City of Stockton also plays an important role in helping to minimize air pollutant emissions, both through direct regulations on land use activities and through policies and actions that help reduce the need to travel long distances and that promote alternatives to single-occupant vehicular travel. Goals, policies, and actions that address air quality are highlighted with the  throughout the document.

### POLICY SAF-4.1

**Reduce air impacts from mobile and stationary sources of air pollution.**

#### Action SAF-4.1A

Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including:

- Use of low-emission and well-maintained construction equipment, with idling time limits.
- Development and implementation of a dust control plan during construction.
- Installation of electrical service connections at loading docks, where appropriate.
- Installation of Energy Star-certified appliances.
- Entering into Voluntary Emissions Reduction Agreements with the San Joaquin Valley Air Pollution Control District.

#### Action SAF-4.1B

Use the results of the Health Risk Assessments required by the California Air Toxics "Hot Spots" Act to establish appropriate land use buffer zones around any new sources of toxic air pollutants that pose substantial health risks.

#### Action SAF-4.1C

Require the use of electric-powered construction and landscaping equipment as conditions of project approval when appropriate.

#### Action SAF-4.1D

Limit heavy-duty off-road equipment idling time to meet the California Air Resources Board's idling regulations for on-road trucks.

### POLICY SAF-4.2

**Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bike-sharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.**





Action SAF-4.2A  

Provide information and conduct marketing and outreach to major existing and new employers about the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.

**POLICY SAF-4.3** 

**Coordinate with the San Joaquin Valley Air Pollution Control District and non-profit organizations to promote public awareness on air quality issues and consistency in air quality impacts analyses.**

Action SAF-4.3A 

Distribute educational materials from the San Joaquin Valley Air Pollution Control District on the City's website and at its Permit Center.

Action SAF-4.3B 

Coordinate review of development project applications with the San Joaquin Valley Air Pollution Control District to ensure that air quality impacts are consistently identified and mitigated during CEQA review.