



CITY OF WEST SACRAMENTO

Community Profile Information

Yolo County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

December 2012

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The City of West Sacramento

GENERAL INFORMATION

Located just across the Sacramento River from the state capitol, the City of West Sacramento offers residents and businesses a convenient, strategic location, quality housing choices and a business-friendly atmosphere that encourages new investment.

Since its incorporation in 1987, the City has moved aggressively to address a wide variety of needed infrastructure improvements, creating an environment ripe for growth.

History

Over four thousand years ago, the Patwin Indians were the first inhabitants of the area now known as the City of West Sacramento. These Native Americans established villages on the west bank of the Sacramento River and their members often numbered in the hundreds. The Patwin Indians took advantage of the abundant natural resources offered by the land and water that surrounded them. They hunted and fished; they also crafted baskets, fishing nets, boats, and rafts from willows, tough grasses, and vines. All of their needs were provided by their environment.

The tranquil lifestyle of the Patwin Indians changed dramatically with the introduction of European settlers during the 19th century. Many hunters and trappers were attracted to the Sacramento Valley by the abundance of fur-bearing animals. Tragically, with the arrival of these European explorers came diseases which decimated the Patwin Indian population. Malaria and smallpox epidemics swept throughout the Patwin and other surrounding Native American villages in 1833 and 1837. By the time the epidemics had been contained, the Native American population in the Sacramento Valley had dropped from 60,000 to 20,000 people. Over time, more and more settlers came to the valley. The few remaining Patwin Indians either became employed or enslaved by the Euro American settlers, thus bringing to a close the Patwin cultural lifestyle.

In 1844, Jan Lows de Swart, a Flemish traveler, was the first Euro-American to permanently settle in the area of West Sacramento. Jan, who came to be known as John Schwartz, built a shack along the west bank of the Sacramento River six miles south of the confluence with the American River. In 1845, Schwartz acquired a land grant from the Mexican Governor Manuel for an area of land one mile wide and twenty miles long. He named his newly acquired property "Rancho Nueva Flandria" after his native homeland. Shortly after settling here, John, with the help of his brother George, established a salmon fishery along the river. Besides drying and pickling the salmon, they also engaged in raising livestock and cultivating potatoes and melons. Little did John and his brother realize that within a few years, the great gold rush of 1848 would begin in California. The announcement of the discovery of gold at Sutter's Mill brought thousands of miners to the area.

In 1846, an adventuresome jack-of-all-trades named James McDowell bought 600 acres of "Rancho Nueva Flandria" from John Schwartz. With his wife, Margaret, and their three daughters, McDowell settled in the area we know today as Broderick. The McDowell family was not untouched by the violence that often marked the tumultuous times of the Gold Rush. In May of 1849, James McDowell was shot and killed in a barroom brawl that he had supposedly instigated. With the loss of the sole supporter of the McDowell family, Margaret had to find the means to support herself and her children.

At first, Margaret McDowell took boarders into her home as a means of gaining some income, but she soon realized that this was not enough. It became apparent that the land she owned was her

most valuable asset. In October of 1849, Margaret hired a land surveyor to map out 160 acres, which was subsequently divided into forty one blocks. She sold individual lots within this platted area which she named the Town of Washington. The first lot was sold to August W. Kaye for \$500. During the ten years following its creation, the rural Town of Washington experienced a significant increase in business development and shipping activity. One of the earliest companies to be established in the town was the California Steam Navigation Company, which was attracted to the area in 1859 by the close proximity of the Sacramento River. Other economic enterprises that marked early Washington included hotels, saloons, and restaurants catering to the needs of weary travelers. Many travelers making the harsh journey through the marshlands on their way to Sacramento welcomed the rest stop at the Town of Washington.

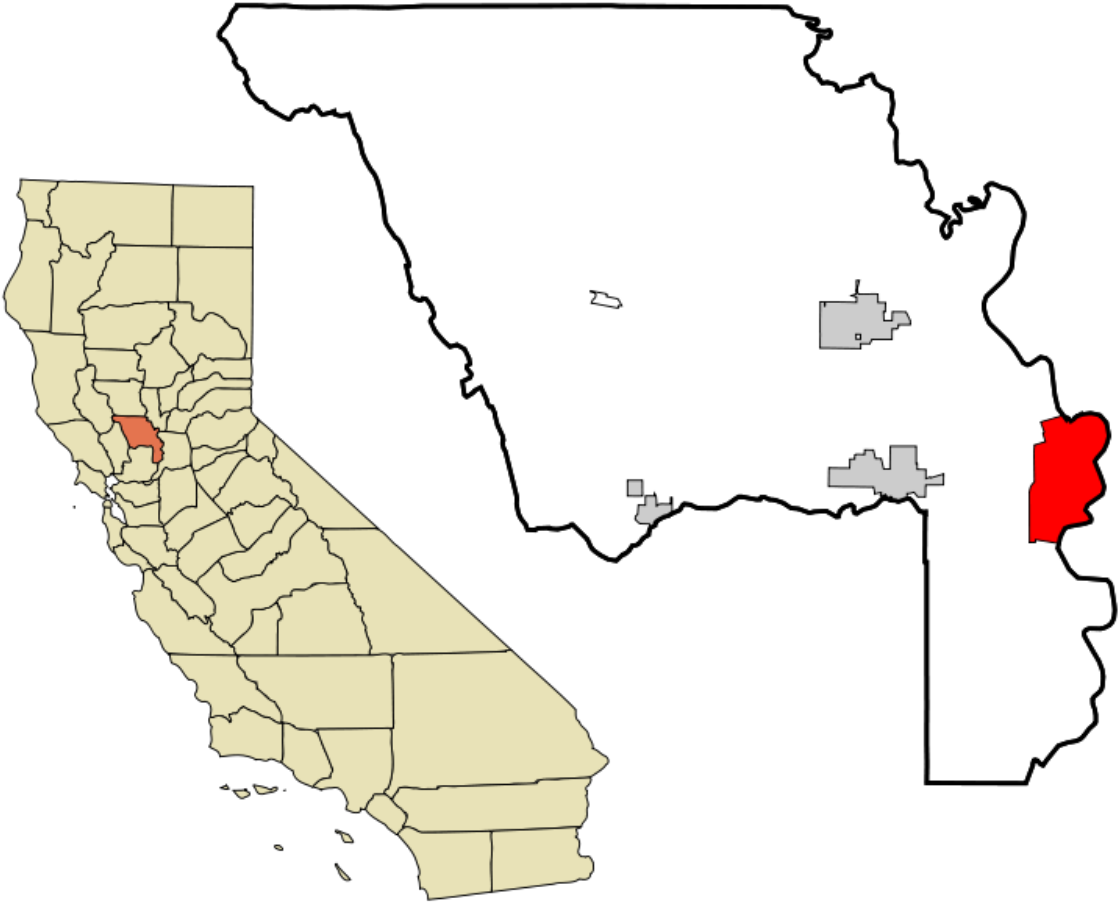
Other enterprises that found success in the early days of West Sacramento were the fishing and farming industries. Fishermen saw the profitable potential in salmon, sturgeon, catfish, eel, crayfish, and clams. The river community was thriving, supplying fish markets not only in Sacramento, but in San Francisco as well. In addition, the rich soil of the valley produced abundant crops of corn, melons, cucumbers, and sweet potatoes. The dairy industry also established roots in West Sacramento around this time. One of the area's most well known dairy farmers was Mike Bryte. Bryte came to California in 1849 to try his hand at gold mining. Although he did not make a fortune in gold, he bought a dairy farm in 1853 which was very successful. When the California Steam Navigation Company came to Washington, Bryte used the steamships to carry his dairy products to regional markets. Profits from this allowed Bryte to expand his holdings. By 1879, he owned 1,500 acres of land, raised 150 cows and 100 young stock, and farmed 2,500 acres in Sacramento County. Mike Bryte's status in the community was marked by his election to the Yolo County Board of Supervisors and later as sheriff. During the 20th century, Mike Bryte's property was subdivided and became known as the community of Bryte.

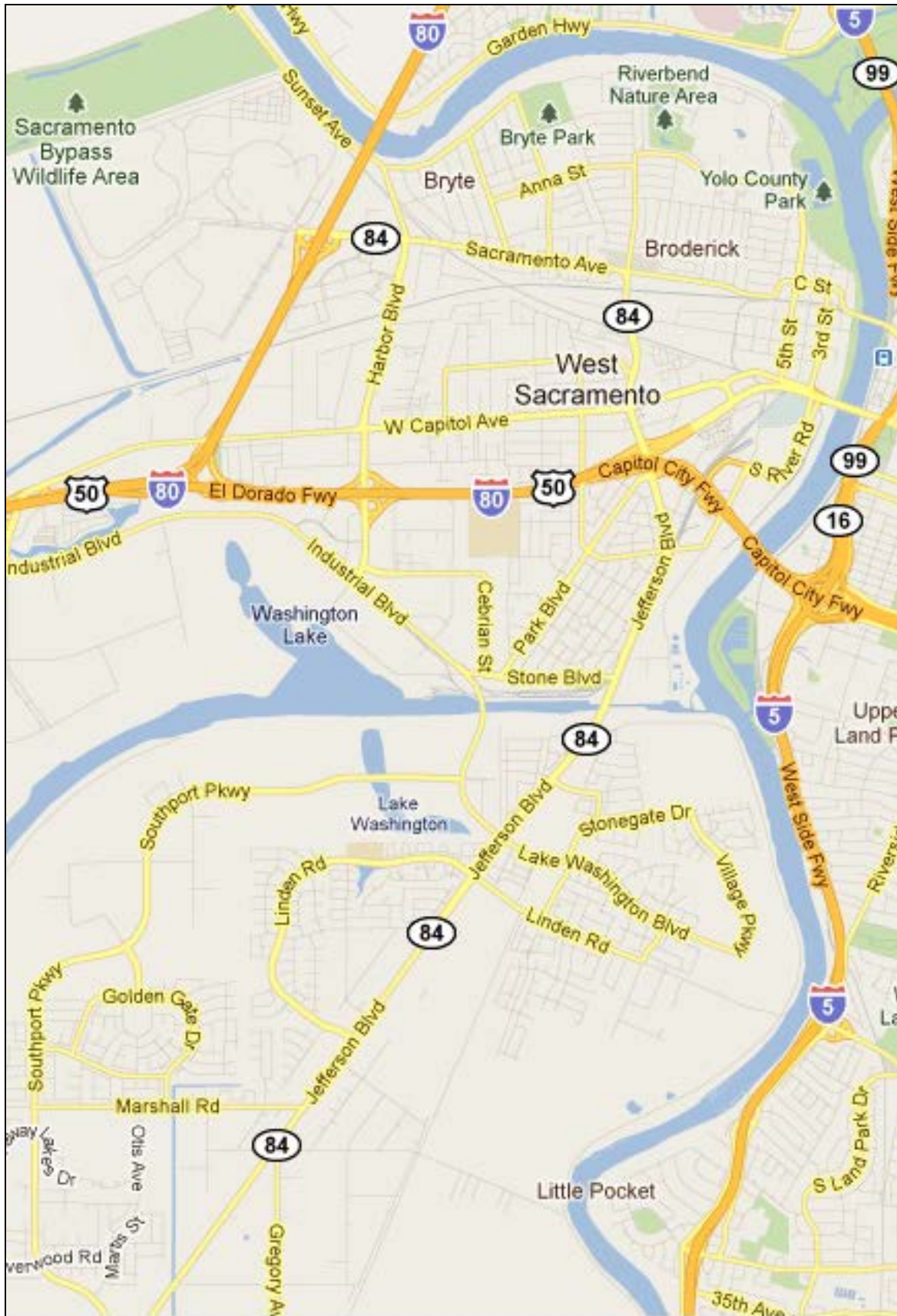
With time, the area continued to grow, prosper, and develop. The Town of Washington was renamed Broderick in honor of U. S. Senator David D. Broderick. After 1900, the three communities known as Bryte, Broderick, and West Sacramento were cumulatively known as "East Yolo." From 1900 to 1920, the population of East Yolo doubled from 1,398 to 2,638. These communities are the foundation on which the current City of West Sacramento is built. In June 1963, the Port of Sacramento was opened to deep sea traffic with the completion of the Deep Water Ship Channel. The project had been authorized by Congress in 1946 and construction commenced in 1949. Although the City continues to change and grow even today, its roots are deeply embedded in the community spirit of the past.

Facts

Location & Geophysical Features

Elevation:	20 ft
Land Area:	22.8
Zip Code:	95691, 95605
Area Code:	916





Weather & Climate

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High Temp	55	62	67	74	82	89	94	93	89	79	64	55
Low Temp	41	45	47	50	54	58	61	61	59	54	46	40
Precipitation	4.18	3.77	3.15	1.17	.6	.18	.05	.05	.37	1	2.59	2.76

Demographics

Population:	48,744
Males:	49.4%
Females:	50.6%
Median Age:	34
Median Household Income:	\$31,718
Median Home Value:	\$113,000

Ethnic Background:

White:	65.0%
African American:	2.6%
American Indian:	1.8%
Asian:	7.2%
Hispanic:	30.0%
Other:	16.0%
Two or More:	6.9%

For Population 25 Years and Over:

High School Graduate or Higher:	69.9%
Bachelor's Degree or Higher:	9.8%
Unemployed:	5.4%
Mean Travel Time to Work:	21.2 min

For Population 15 Years and Over:

Never Married:	27.1%
Currently Married:	49.6%
Separated:	3.0%
Widowed:	7.1%
Divorced:	13.2%

COMMUNITY ACTIVITY

Business & Economic Profile

West Sacramento is a vibrant, innovative and business friendly community located just across the beautiful Sacramento River from California's capital city. The city's redevelopment, growth and increasingly diverse economy are inspired by a community personality and energy all its own. The City maintains a business climate that encourages new business formation and growth. Businesses investing in West Sacramento recognize its many advantages:

- Strategic location within easy reach of West Coast markets and the Pacific Rim

- Comprehensive transportation network including the Port of West Sacramento, air, highway and rail
- Favorable California tax credits in the West Sacramento Enterprise Zone
- Affordable, vacant land and housing communities
- Proximity to University of California, Davis
- Highly-skilled, regional labor force
- Higher education and improved K-12 education system
- Riverfront recreation and regional entertainment destinations

Health & Wellness

Hospitals/Medical Centers in West Sacramento

1. Arnold Greenberg, Inc
808 Harbor Blvd
2. Greater Sacramento Medical Clinic
515 Michigan Blvd
3. Harbor Medical Clinic
804 Harbor Blvd
4. River Bend Medical Associates, Inc
2101 Stone Blvd
5. Sacramento Family Medical Center
2727 W Capitol Ave
6. Sacramento Occupational Medical Group
1550 Harbor Blvd
7. US Health Works Medical Group
3680 Industrial Blvd, Ste #550
8. West Sacramento Medical Center
155 15th St
9. West Sacramento Pediatrics Medical Group, Inc
1050 Jefferson Blvd

INFRASTRUCTURE

Overview

Citizens and businesses that live and operate within the City of West Sacramento function in an increasingly complex environment marked by interconnection and interdependence across many facets. This complexity requires that owners and operators of critical infrastructures manage their operational risks in an all-hazards environment across the full spectrum of prevention, protection, response, recovery, and reconstitution activities. The City has come to understand that protection of critical infrastructures is an important component of managing infrastructure risk.

Communications

Community Cable TV

Wave Broadband
1031 Triangle Ct

The community access channel 21 was developed primarily to provide a forum for non-profit and other organizations to share information and programs that may be of interest to the community.

Topics can deal with items such as the arts, business, cultural events, health, music, news, event promotion, public service announcements, religion, science and sports.

Broadcast Media

1. KCRA 3
3 Television Cr
Sacramento, CA 95814
2. KVIE 6
2030 W El Camino
Sacramento, CA 95833
3. KXTV 10
400 Broadway
Sacramento, CA 95812
4. KBTV 8
2030 W El Camino Blvd, Ste 263
Sacramento, CA 95833
5. KOVR 13
2713 KOVR Dr
W Sacramento, CA 95605
6. KUVS 19
1710 Arden Wy
Sacramento, CA 95815
7. KMAX 31
2713 KOVR Dr
W Sacramento, CA 95605
8. KXTV 40
4655 Fruitridge Rd
Sacramento, CA 95820

Print Media

1. The News-Ledger
1040 W. Capitol Avenue, Suite B
PO Box 463
2. West Sacramento Press
830 Jefferson Blvd, Ste 60

Transportation

Highways

1. State Highway 84
2. State Highway 50
3. Interstate 80
4. Interstate 80 Business Loop

Rail

1. Sierra Northern Railroad
1550 Harbor Blvd
2. Union Pacific Railroad
915 L St
Sacramento, CA 95814

Airports

Although there are no airports in West Sacramento, the flight path to the Sacramento International Airport goes directly over the City.

Marine

The Port of West Sacramento
2895 Industrial Blvd

The inland Port of West Sacramento is located 79 nautical miles northeast of San Francisco, and is centered in one of the richest agricultural and industrial regions in the world. The Port provides a full array of services with a commitment to provide efficient, affordable and environmentally responsible Goods Movement centered around the Maritime Industry.

Pipeline

1. Kinder-Morgan Pipeline
 - a. Liquid petroleum
2. Chevron Pipeline
 - a. Liquid petroleum
3. Wickland Pipeline
 - a. Liquid petroleum
4. PG&E Pipeline
 - a. Natural gas pipeline

Utilities & Lifelines

Power

PG&E provides electrical service throughout the City of West Sacramento.

Water

Bryte Bend Water Treatment Plant
400 N Harbor Blvd

Bryte Bend WTP Capacity: 60 million gallons per day

The Bryte Bend water treatment plant diverts water from the Sacramento River and provides treatment at the recently upgraded and expanded, state-of-the-art, facility, which was designed to serve the city's expanding needs. In addition to the plant, the city operates several water tanks to provide additional storage for fire and emergency needs.

Natural Gas

PG&E provides natural gas throughout the City of West Sacramento.

Waste Water Treatment

The City of West Sacramento runs and maintains a sewer collection system consisting of 12 sewer pump stations along with all underlying sewer pipes across the city.

The collected sewage is then delivered to the Sacramento County Regional Sanitation District (SRCSD) via the 19-mile pipeline - Lower Northwest Interceptor (LNWI) for treatment.

Solid Waste Management

The City of West Sacramento contracts with Waste Management for solid waste removal.

HAZARD IDENTIFICATION

The Steering Committee for the City of West Sacramento identified hazards that affect the city and developed hazard profiles based upon the countywide risk assessment, past events and their impacts. Definitions for the rankings and a detailed explanation of the hazards can be found in Element B: Hazard identification and Risk Assessment of the Yolo County MHMP Base Plan.

City of West Sacramento—Hazard Profiles

Hazard	Probability of Occurrence	Geographic Extent & Potential Magnitude	Priority Hazard
Dam Failure	Unlikely	Critical	No
Drought	Likely	Critical	Yes
Earthquake	Occasional	Critical	Yes
Flood	Likely	Catastrophic	Yes
Severe Weather	Highly Likely	Catastrophic	Yes
Volcanic Activity	Unlikely	Critical	No
Wildfire	Highly Likely	Critical	Yes

Previous Occurrences

Information on previous occurrences for the hazards is located in Element B of the Yolo County MHMP Base Plan.

Vulnerability Assessment

The vulnerability assessment analyses the population, property and other assets at risk to natural hazards in the City of West Sacramento. This section lists assets at risk to natural hazards including critical facilities and infrastructure. It also discusses the impacts that occurred in past events and vulnerability to specific hazards ranked affecting the City of West Sacramento with a high or medium significance.

Estimating Potential Losses

The Total Exposure to Hazards table shows the maximum population and building exposure in the City of West Sacramento in terms of population and the number and values of structures. More information on how these estimates were calculated can be found in Element B.3 Vulnerability Assessment of the Yolo MHMP Base Plan.

Total Exposure to Hazards

Jurisdiction	Exposed Population	Buildings	
		Number	Value
City of West Sacramento	48,744	16,444 parcels	\$3,267,659,420
Total	48,744	16,444 parcels	\$3,267,659,420

Source: City of West Sacramento Steering Committee; Yolo County GIS

Asset Inventory

The tables below list the facilities and other community assets identified by West Sacramento as important to protect in the event of a disaster.

CITY OF WEST SACRAMENTO CRITICAL FACILITIES LIST

Name	Address	Function	Building Value	Equip Value	Open Property Value	Vehicles	Total Value
Fire Station 42	3585 Jefferson Blvd	Fire Station	\$505,356	\$134,295	\$519,677	\$0	\$1,159,328
Fire Station 43	1561 Harbor Blvd	Fire Station	\$670,743	\$181,369	\$0	\$0	\$852,112
Fire Station 44	905 Fremont St	Fire Station	\$452,684	\$132,101	\$0	\$0	\$584,785
West Sacramento Neighborhood Center	1515 Lisbon	Community Center	\$446,727	\$0	\$0	\$0	\$446,727
City Police Department	550 Jefferson Blvd	Police Station	\$4,382,643	\$1,044,276	\$0	\$0	\$5,426,919
PW and Park Maintenance Office	1951 S River Rd	Maintenance Office	\$10,451,727	\$6,382,392	\$7,264,538	\$0	\$24,098,657
Club West Teen Center	1125 Riverbank Rd	Community Center	\$350,327	\$81,324	\$0	\$0	\$431,651
PSIP Water Treatment Plant	Enterprise Blvd	Water Treatment Plant	\$428,562	\$1,621,738	\$902,671	\$0	\$2,952,971
Fire Station #41	132 Fifteenth St	Fire Station	\$4,557,759	\$256,477	\$0	\$0	\$4,814,236
Bryte Bend Water Treatment Plant	400 N. Harbor Blvd	Water Treatment Plant	\$24,411,501	\$15,185,025	\$619,707	\$0	\$40,216,233
Bryte Pump Station Building	1600 Citrus	Pump Station	\$119,737	\$1,013,441	\$17,544	\$0	\$1,150,722
South Pump Station	1966 Park Blvd	Pump Station	\$48,894	\$470,749	\$0	\$0	\$519,643
Coke A Cola Lift Station	Coke St/Evergreen	Lift Station	\$18,847	\$202,397	\$0	\$0	\$221,244
Water Well #22 & Storage Tank	964 Oak St	Water Tank	\$10,267	\$294,860	\$696,243	\$0	\$1,001,370
Deerwood Pump Station	Deerwood St/Lakewood Dr	Pump Station	\$22,430	\$19,230	\$0	\$0	\$41,660
Storm Drain Lift Station	Fifth St & C St	Lift Station	\$33,722	\$128,202	\$0	\$0	\$161,924
Iron Triangle Pump Station	Triangle Ct @ Jefferson	Pump Station	\$25,334	\$140,025	\$0	\$0	\$165,359
Sewer Pump Station	Industrial Blvd	Pump Station	\$119,283	\$1,408,935	\$0	\$0	\$1,528,218
Jefferson Pump Station - Control R	601 Jefferson Blvd	Pump Station	\$163,959	\$1,540,406	\$0	\$0	\$1,704,365
Southport Water Reservoir & Pump	Linden Rd at Touchstone	Pump Station	\$514,956	\$1,373,557	\$948,073	\$0	\$2,836,586
Northport Sewer Lift Station	3990 W Capital Ave	Lift Station	\$126,889	\$1,418,340	\$0	\$0	\$1,545,229
Lighthouse Pump Station	213 Fourth St	Pump Station	\$393,185	\$2,307,610	\$0	\$0	\$2,700,795
Southport PS Wells	Linden Rd	Well	\$303,444	\$1,592,153	\$646,709	\$0	\$2,542,306
Washington Underpass Storm Wat	W Capital Ave/Riske Lane	Pump Station	\$26,072	\$23,077	\$0	\$0	\$49,149
Linden Park	Linden Park	Park	\$0	\$60,000	\$271,494	\$0	\$331,494
Touchstone Park	Touchstone Park	Park	\$0	\$0	\$5,279	\$0	\$5,279
Elkhorn Park	Cummins Way	Park	\$0	\$0	\$82,211	\$0	\$82,211
Sam Combs Park	205 Stone Blvd	Park	\$453,924	\$250,046	\$23,066	\$0	\$727,036
Memorial Park	18th & Delaware St	Park	\$91,555	\$3,958	\$0	\$0	\$95,513
Summerfield Park	Linden & Diana Rd	Park	\$0	\$0	\$466,389	\$0	\$466,389
Meadowdale Park	3625 W Capital Ave	Park	\$0	\$0	\$50,000	\$0	\$50,000
Bryte Park	Carrie St/Todhunter	Park	\$63,705	\$8,179	\$427,559	\$0	\$499,443
City Property	422 C St	Development Property	\$168,336	\$0	\$0	\$0	\$168,336
Central Tank	Industrial & Stone	Water Tank	\$0	\$128,202	\$1,128,340	\$0	\$1,256,542
Northeast Water Tank	Fourth & B St	Water Tank	\$0	\$128,202	\$1,128,340	\$0	\$1,256,542
Raley's Storm Drain Pump Station	Second St/F St	Pump Station	\$129,416	\$969,196	\$0	\$0	\$1,098,612
Vehicles		Vehicles	\$0	\$0	\$0	\$8,242,421	\$8,242,421
Broderick Boat Ramp	100 4th St	Boat Ramp	\$306,670	\$25,590	\$156,808	\$0	\$489,068

Name	Address	Function	Building Value	Equip Value	Open Property Value	Vehicles	Total Value
Alyce Norman Playfields	1225 Carrie St	Park	\$138,980	\$25,590	\$0	\$0	\$164,570
Riverwalk Park	Second St	Park	\$0	\$0	\$1,416,119	\$0	\$1,416,119
Harbor Blvd Storm Drain Pump St	Harbor Blvd/Rice Ave	Pump Station	\$75,695	\$191,917	\$0	\$0	\$267,612
West Sacramento City Hall	1110 W Capital Ave	City Hall	\$20,405,471	\$3,310,808	\$0	\$0	\$23,716,279
Golden Gate Sewer Lift Station	3400 Golden Gate	Lift Station	\$142,837	\$1,920,143	\$0	\$0	\$2,062,980
Southport Sewer Lift Station	2500 Jefferson Blvd	Lift Station	\$150,270	\$3,005,652	\$0	\$0	\$3,155,922
Carlin Pump Station	2930 Oates St	Pump Station	\$368,265	\$4,534,946	\$0	\$0	\$4,903,211
Washington Firehouse	317 Third St	Abandoned Fire Station	\$579,871	\$0	\$0	\$0	\$579,871
Southport Elementary School	Linden Rd	School	\$120,385	\$12,419	\$0	\$0	\$132,804
Senior Center	664 Cummins	Community Center	\$0	\$24,205	\$0	\$0	\$24,205
Bridgeway Island Park	Golden Gate Dr	Park	\$0	\$133,149	\$556,631	\$0	\$689,780
Southport Gateway Park	Jefferson & Gateway	Park	\$0	\$72,929	\$371,858	\$0	\$444,787
Evergreen Building	2801 Evergreen	Development Property	\$1,290,497	\$0	\$0	\$0	\$1,290,497
Rotary Centennial Park	580 Jefferson Blvd	Park	\$0	\$0	\$46,194	\$0	\$46,194
Sunset Vista Park Bridgeway	3501 Oakland Bay Dr	Park	\$0	\$0	\$608,850	\$0	\$608,850
Pheasant Hollow Park	2583 Meadowlark Cir	Park	\$0	\$0	\$196,461	\$0	\$196,461
Lakeview Park Bridgeway	3728 Henshaw Rd	Park	\$0	\$0	\$202,403	\$0	\$202,403
Eagle Point Park Bridgeway	3620 Lewiston Rd	Park	\$0	\$0	\$269,610	\$0	\$269,610
Fire Administration Office	2945 Ramco St #110	Office	\$0	\$280,202	\$0	\$0	\$280,202
Bridgeway Lakes Park & Boathouse	3650 Southport Pkwy	Park	\$2,051,000	\$52,357	\$550,000	\$0	\$2,653,357
Patwin Park	2875 Summerfield Dr	Park	\$0	\$0	\$690,957	\$0	\$690,957
Bridgeway Lake Park Largo Pump	4099 Otis Ave	Pump Station	\$1,866,410	\$12,945	\$0	\$0	\$1,879,355
Fire Station #45	2040 Lake Washington Blvd	Fire Station	\$7,178,500	\$209,432	\$0	\$0	\$7,387,932
Experience Motel	820 W Capital	Development Property	\$2,301,222	\$0	\$0	\$0	\$2,301,222
Redev Property	52450 Harbor Blvd	Development Property	\$1,230,600	\$0	\$0	\$0	\$1,230,600
Delta Garden Park	1310 Cold Springs Rd	Park	\$0	\$0	\$820,400	\$0	\$820,400
Emile "Whitey" Boisclair	1728 Lake Washington	Park	\$0	\$0	\$625,555	\$0	\$625,555
Barge Canal Park Access	2100 Jefferson Blvd	Park	\$0	\$0	\$350,000	\$0	\$350,000
William G Stone Lock Facility	2050 S River Rd	Development Property	\$3,000	\$0	\$8,558,727	\$0	\$8,561,727
Bridgeway Lakes II Water Storage	Jefferson Blvd	Water Tank	\$213,525	\$7,100,000	\$0	\$0	\$7,313,525
Allen Sewer Pump Station	Allen/Linden Rd	Pump Station	\$207,027	\$0	\$0	\$0	\$207,027
Patwin-Summerfield Bridge	Patwin/Summerfield	Bridge	\$0	\$0	\$377,700	\$0	\$377,700
Rec Center	2801 Jefferson Blvd	Community Center	\$0	\$948,000	\$0	\$0	\$948,000
Baker Square	1235 Harbor Blvd	Development Property	\$1,000,000	\$1,500,000	\$0	\$0	\$2,500,000
TOTAL							\$190,220,789

Impacts of Hazards

Flooding

Flooding in West Sacramento could result from a 100-year or greater flood event, localized drainage problems, or dam and levee failure. All of West Sacramento lies within the natural floodplain of the Sacramento River. It is reclaimed land protected from floods by levees and the Yolo and Sacramento Bypasses, which divert water flood flows around the city to the west.

Levee Failure/Overtopping

The Sacramento River Flood Control Project, authorized by the Flood Control Act of 1917, was established to build this levee system, although many of its levees had been constructed by local interests prior to its enactment, and were subsequently upgraded and incorporated into the project. The levees of the Sacramento River Flood Control System protect an estimated 1.7 million people, of which approximately 40,000 are protected by the approximate 16.3 miles of the system located in the West Sacramento area. The WSAFCA and DWR evaluated the levees surrounding the city in 2006 and 2007 according to the latest Corps criteria for stability, seepage, erosion, and dimensions. The WSAFCA and DWR determined that some reaches of levees around West Sacramento have structural problems reducing the level of flood protection.

The potential for flooding in the West Sacramento area depends on the adequacy of the levee system and magnitude of flood hazards. Inundation of West Sacramento could occur if the levees failed or were over-topped by flood waters. The area of greatest concern is along the west bank of the Sacramento River south of the barge canal. A report prepared for the Corps found low stability of levee materials in this area. During the 1986 floods, some slumping of a section of levee occurred

near the intersection of Davis Road and South River Road. Other areas that have experienced levee slumping and spreading are located on the east side of the Yolo Bypass. Levee slumping has occurred in areas just south of Highway 80, between Highway 80 and the Southern Pacific railroad tracks, and the levee from the Sacramento Bypass to the railroad tracks. The levee section between the railroad tracks and Highway 80 is now stable after repairs in 1983 and showed no problems during the 1986 floods. The area from the railroad tracks to the Sacramento Bypass has experienced not only slumping and spreading, but also damage from wave action during the 1986 floods. Although much remedial work has been completed, more work is proposed by WSAFCA in conjunction with the Corps to meet the City's 200-year level of protection goal.

Localized Drainage Problems

Local drainage within the northern portion of the city, which contains primarily residential and commercial development, is controlled with a piped storm drain system; while drainage in the rural southern portion of the area is controlled by earth-lined drainage channels. Existing drainage problems are discussed in the General Plan.

Flooding from Seiches Resulting from an Earthquake

Seiches are waves generated within enclosed or restricted bodies of water caused by wind, earthquakes, and changes in barometric pressure. Major, and even moderate earthquakes, miles away from West Sacramento, can produce oscillations or waves in local bodies of water which could overtop and damage levees and cause water to inundate surrounding areas. The bodies of water most susceptible to seiches in or near West Sacramento are the Sacramento River, Yolo and Sacramento Bypasses, and the Deep Water Ship Channel. The danger of seiches during seismic events is limited to those periods when the Yolo and Sacramento Bypasses and Sacramento River are full during the flood season. Overtopping of levees during this period could cause a limited amount of flooding; however, the risk of this happening is greatly reduced by the very limited time, which the Sacramento and Yolo and Sacramento Bypasses are at these stages.

West Sacramento is connected to the larger region by five significant bridges, three of which lead to the Bay Area. These bridges maintain a vital transportation route to the greater Sacramento area. A compromise to any of these bridges or connecting freeways jeopardizes the safe evacuation of West Sacramento residents and hinders the response of neighboring emergency responders. In order to protect critical infrastructure and ensure public safety during a high-water event the following tasks have been prioritized:

- Ensure roadways remain open.
- Plan and cooperate with Caltrans and CHP to maintain the security and integrity of the aforementioned bridges in the event of an emergency.
- Obtain detailed knowledge of the freeway/bridge system and prepare detour routes in advance of an emergency.
- Be able to communicate a fault in the freeway/bridge system to residents and travelers using the Caltrans notification system in addition to other means of communication.

Future Development Trends

Design and construction of an initial streetcar line with stations at Civic Center, Garden Street, and Raley Field on the West Sacramento side, and extending across the Tower Bridge to downtown Sacramento are in the works for the City. The Final Environmental impact Report for the project was certified in June 2009. Preliminary engineering, including a variety of technical studies, was completed in early 2009 and a preliminary financing plan was outlined. Future phases of the

streetcar network could include a North/South line serving the Bridge District development area.

The Bridge District Infrastructure Project includes the construction of new backbone transportation and infrastructure improvements for the first phase of the Bridge District Development. This includes new roadway segments and supporting utilities - sewer, water, storm drainage, and commercial utilities - for the area bounded by Tower Bridge Gateway to the north and northwest, US50/Business 80 to the south and southwest, and the Sacramento River to the east.

CAPABILITY ASSESSMENT

Capabilities are the programs and polices currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capability assessment is divided into five sections: regulatory, administrative and technical, fiscal, outreach and partnerships, and other mitigation efforts.

Regulatory Capability

The legal and regulatory capabilities of each jurisdiction are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of each jurisdiction. Examples of legal and/or regulatory capabilities can include: a jurisdiction's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

City of West Sacramento Regulatory and Planning Capabilities

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Building code	√	√	√	√	√	√
Zoning ordinance	√	√	√	√	√	√
Subdivision ordinance or regulations	√	√	√	√	√	
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	√	√	√	√	√	√
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	√	√	√	√	√	√
Site plan review requirements	√	√	√	√	√	√
General or comprehensive plan	√	√	√	√	√	
A capital improvements plan	√	√	√		√	√
An economic development plan	√	√	√	√	√	√
An emergency response plan	√	√	√	√	√	√
A post-disaster recovery plan				√		√
A post-disaster recovery ordinance						
Real estate disclosure requirements	√	√	√	√	√	
Habitat Management Plan	√	√	√	√	√	

Regulatory Tools	YOA	WLD	DAV	WSAC	WIN	YDH
Master Drainage, Sewer, Water, & Reclaimed Water	√	√	√	√	√	√
Redevelopment Master Plan	√	√	√	√	√	

Source: Steering Committee

Municipal Ordinances

Title 17 of the City of West Sacramento Municipal Code is the local code that refers to local mitigation and associated land use practices and policies.

Chapter 18.04 of the City’s Municipal Code establishes provisions to restrict, prohibit, or control development of uses that could increase or cause flood damage. This chapter of the Municipal Code also establishes the community development director as the floodplain administrator. The duty of the floodplain administrator is to review development permits for consistency with criteria in the City Municipal Code, and other State and Federal requirements.

The City of West Sacramento has fully adopted the California Fire Code standards for fire protection services in the city. Section 15.14.040 of the West Sacramento Municipal Code includes amendments to the California Fire Code to provide more specific fire protection services to the city. This includes an amendment stating that where the standards of the Code for required water supply for fire protection cannot be implemented, such as in rural areas where access to the public water supply is not available, a fire sprinkler system deemed acceptable by the fire chief may be installed. This does require connection to the public water supply.

Boards and Commissions

Local boards and commissions that specifically address mitigation, land use, and development are identified below.

1. Agriculture and Natural Resource Commission
2. Disaster Council
3. Planning Commission

Public Safety & Preparedness

Police Department

The West Sacramento Police Department is committed to providing quality service to the community and its guests through maintaining order, fostering a sense of security, enforcing the laws of the city and State and supporting the Constitution of the United States of America and the State of California.

The Police Department provides a full range of police services to the residents of West Sacramento - 24 hours a day, 7 days of week. The Police Department is responsible for patrolling city neighborhoods, the business districts, responding to calls for service, investigating crime and arresting offenders and working closely with the community to identify and solve problems of crime and neighborhood disorder. The Department also provides educational programs to assist the citizens with making their homes and surrounding areas a safe and enjoyable place to live.

Fire Department

The West Sacramento Fire Department has the mission of protecting life, environment, and property within the City of West Sacramento. To effectively complete this mission, the Department

has five fire stations located throughout the City, each of which houses one front line fire engine equipped to handle a variety of emergency calls. The five fire stations operate 24 hours a day, 7 days a week with a combined staffing of 19 personnel on duty. Firefighters work 48-hour tours of duty.

Outside the city limits, the Fire Department is responsible for the unincorporated area south of the City of West Sacramento boundary to Babel Slough Road and across to the old Arcade Station on Jefferson Blvd. The Fire Department has Automatic Aid agreements with several Yolo County Fire Departments, and with the City of Sacramento Fire Department.

Emergency Management & Preparedness

The West Sacramento Fire Department serves as emergency management coordinator for the City of West Sacramento and is the lead agency that fulfills the city's requirements under the Emergency Services Act (Government Code Section 8550 et. seq.). This office works with all city departments and other partners having emergency management responsibilities including, the Yolo County Office of Emergency Services (OES) and surrounding jurisdictions.

Administrative and Technical Capability

The **Administrative and Technical Capability** table identifies the city personnel responsible for activities related to mitigation and loss prevention in the City of West Sacramento. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

City of West Sacramento Personnel Capabilities

Personnel Resources	Department/Position
Engineer and/or Planner with knowledge of land development/land management practices	Community Development; Public Works Department
Professional trained in construction practices related to buildings and/or infrastructure	Community Development; Building Official, Public Works Department
Full time Building Official	Community Development; Building Official; Public Works
Floodplain Manager	Public Works Department; Flood Management
Emergency Manager	City Manager's Office, Fire Department
Grant Writer	Various Departments
Other Personnel Resources	Various Departments

Source: Steering Committee

Fiscal Capability

The **Fiscal Capability** table shows specific financial and budgetary tools available to the jurisdictions such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

City of West Sacramento Available Financial Tools and Resources

Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
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Financial Resources	YOA	WLD	DAV	WSAC	WIN	YDH
Community Development Block Grants	√	√	√	√	√*	
Capital improvements project funding	√	√	√	√	√	
Authority to levy taxes for specific purposes	√	√	√	√	√**	
Fees for water, sewer, gas, or electric service	√	√	√	√	√	
Impact fees for homebuyers or developers for new developments/homes	√	√	√	√	√	
Incur debt through general obligation bonds	√	√	√	√	√**	
Incur debt through special tax and revenue bonds	√	√	√	√	√**	
Incur debt through private activity bonds	√	√	√	√	√**	
Withhold spending in hazard-prone areas	√	√	√	√	√	

* Subject to grant from State
** Subject to voter approval

Source: Steering Committee

Outreach and Partnerships

In times of emergency or disaster, agencies like the West Sacramento Fire Department (WSFD) will turn to citizen volunteers for assistance, especially in the first hours of an event. The WSFD has been training citizens through the Community Emergency Response Team (CERT). The CERT program trains residents in basic disaster response skills, such as fire safety, light search and rescue, and disaster medical operations. With proper CERT training, citizens can help protect family, neighbors and co-workers if a disaster occurs. The CERT program can make a positive difference when citizens may need to be on their own temporarily.

The City works with the Bryte and Broderick Community Action Network (BBCAN) which implements and supports programs and projects to meet the aspirations of the diverse community by working with the City, non-profit and faith-based organizations, schools, and businesses toward sustaining a healthy, informed, and engaged community, in which planning and mitigating against future disasters is an area of focus.

GOALS AND OBJECTIVES

City of West Sacramento adopts the hazard mitigation goals and objectives developed by the Steering Committee and described in Element C Mitigation Goals.

MITIGATION ACTIONS

The Steering Committee for City of West Sacramento identified and prioritized the following mitigation actions based on the risk assessment.

2012 Mitigation Actions

Mitigation Action #1 WSAC

Action:	All Hazards Public Awareness and Disaster Preparedness
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	There are many different jurisdictions within Yolo County. Each jurisdiction is responsible for their own public awareness and disaster preparedness program for hazards in their community. The level of effort varies by jurisdiction. All jurisdictions are faced with limited resources; some must sacrifice educational outreach campaigns to direct their limited resources to the most critical projects. A unified public awareness and disaster preparedness program will ascertain both broad and targeted needs. Resources will be leveraged by consolidating messaging where appropriate and reaching across jurisdictional lines would greatly benefit the entire county.
Responsible Office:	West Sacramento Office of Emergency services; West Sacramento City Manager's Office – Public Information Officer
Partners:	Yolo County; Cities of Davis, Winters, Woodland, Yolo County Housing; Yocha Dehe Wintun Nation; Special Districts; Public Information Officers in each of the participating jurisdictions
Potential Funding:	Homeland Security Grant Programs, Hazard Mitigation Grant Programs, other funding sources as available
Cost Estimate:	\$150,000
Benefits: (Losses Avoided)	Increase in population knowledge of potential hazards and activities needed to mitigate the affects of those hazards
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #2 WSAC

Action:	Convene Local Disaster Councils
Jurisdiction:	City of West Sacramento
Priority:	Medium
Issue/Background:	<p>The emergency services ordinance establishes the local Disaster Council and designates the membership of the council. The council's powers include the development of emergency and mutual aid plans and agreements and the ordinances and resolutions to implement them, including the Hazard Mitigation Plan.</p> <p>The City of West Sacramento would like to convene the formal inter-jurisdictional entity that meets regularly to coordinate emergency management and mitigation issues.</p>
Responsible Office:	Director of Emergency Services for the City of West Sacramento
Partners:	City Departments and Agencies; West Sacramento OES; Yolo County OES;
Potential Funding:	General Fund
Cost Estimate:	Minimal, staff time
Benefits: (Losses Avoided)	Increase knowledge of potential hazards and activities needed to mitigate the affects of those hazards; hazard mitigation plan approval and oversight
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #3 WSAC

Action:	Integrate Local Hazard Mitigation Plan into Safety Element of General Plan
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	Local jurisdiction reimbursement for mitigation projects and cost recovery after a disaster is guided by Government Code Section 8685.9. Specifically, this section requires that the County must adopt a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 as part of the safety element of its general plan adopted pursuant to subdivision (g) of Section 65302. It is important for the City of West Sacramento to incorporate the City's LHMP into the safety element as part of the next general plan update.
Responsible Office:	City Manger's Office; Public Works Department
Partners:	West Sacramento OES, other City Departments and Agencies
Potential Funding:	General Fund
Cost Estimate:	Minimal, staff time \$2,000 - \$5,000
Benefits: (Losses Avoided)	AB 2140 Compliance; Provides General Plan policy direction for development activity with the county's unincorporated areas. Potential loss reductions in the \$1000's as any new development within the city will be considered within the context of the city's Safety Element.
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #4 WSAC

Action:	Community Warning System
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	The County and City existing emergency notification system that is exclusively phone based is antiquated and inefficient. It is estimated that due to the proliferation of cell phones and other electronic devices, existing landline based systems reach less than 60% of the targeted households during a notification event. Secondly, updating the core databases and incorporating new technologies is expensive and cumbersome. The County seeks to purchase an updated system that allows families to modify their profile online and alert all the communications devices each household possess to maximize the ability to alert and warn the residents of the county wherever they might be during times of emergency. This countywide system can integrate alert and warning, EAS messaging and customized notifications of first responders, targeted neighborhood or demographic groups as needed.
Responsible Office:	West Sacramento OES; County and City Public Safety Agencies; Yolo Emergency Communications Agency; Yolo County Office of Emergency Services
Partners:	City Departments and Agencies; Cities of Davis, Winters, and Woodland; Yolo County Housing; Special Districts; Yocha Dehe Wintun Nation; County Departments and Agencies
Potential Funding:	Homeland Security Grant Programs; other funding as available
Cost Estimate:	Approximately \$300,000 for the complete Countywide system, \$30,000 annually to staff and maintain the system
Benefits: (Losses Avoided)	Timely alerting and warning to all segments of the county's population during a disaster or major event leads to appropriate and informed responses by the residents and populations. Simplifies sheltering, evacuation, resource efforts which will save time, resources and lives in an emergency.
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #5 WSAC

Action:	Mass Care and Shelter Plan Development to include People with Disabilities, the Elderly and People with Access and Functional Needs
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	The participating jurisdictions in this planning effort would like to develop some specialized planning for Mass Care and Shelter countywide. The focus would be to develop a plan for emergency response agencies to assist in providing Mass Care and Shelter services to members of the community. An additional component to this plan would be dedicated to addressing the affects of a Major Bay Area Earthquake and Yolo County's response to support that overall regional effort.
Responsible Office:	West Sacramento OES; County Public Health; County Department of Employment and Social Services; Yolo County Office of Emergency Services
Partners:	City Departments and Agencies; Cities of Davis, Winters, and Woodland; Yolo County Housing; Special Districts; Yocha Dehe Wintun Nation; American Red Cross, County and City Public Safety Agencies;
Potential Funding:	Homeland Security Grant Programs; Emergency Management Performance Grant Program; other funding as available
Cost Estimate:	Approximately \$75,000 for the complete Countywide planning effort
Benefits: (Losses Avoided)	Emergency planning for a Mass Care and Shelter Response will help reduce loss of life and injury during emergency events. Increased community awareness and planning will also be beneficial.
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #6 WSAC

Action:	Develop Public Health and Mass Care Tiered Response System
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	The participating jurisdictions in this planning effort would like to develop some specialized criteria for planning for Mass Care and Shelter responses countywide. The focus would be to prioritize response structures, site identification, and activation triggers of multiple sites that may need to be activated simultaneously in response to a large event.
Responsible Office:	West Sacramento OES; County Public Health; County Department of Employment and Social Services; Yolo County Office of Emergency Services
Partners:	City Departments and Agencies; Cities of Davis, Winters, and Woodland; Yolo County Housing; Special Districts; Yocha Dehe Wintun Nation; American Red Cross, County and City Public Safety Agencies;
Potential Funding:	Homeland Security Grant Programs; Emergency Management Performance Grant Program; other funding as available
Cost Estimate:	Approximately \$25,000 for the complete Countywide planning effort
Benefits: (Losses Avoided)	Emergency planning for a Mass Care and Shelter Response will help reduce loss of life and injury during emergency events. Increased community awareness and planning will also be beneficial.
Hazards Addressed:	Drought, Earthquake, Flooding, Severe Weather, Wildfire

Mitigation Action #7 WSAC

Action:	Drought Emergency Plan
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	The participating jurisdictions in this planning effort would like to develop a drought emergency plan to include rationing criteria during drought conditions, develop agreements for secondary water sources, establish an irrigation scheduling program so that all agricultural land in Yolo County receives water needed and all water is not used at one particular time.
Responsible Office:	City Public Works; West Sacramento OES, Yolo County Agricultural Commissioner, Yolo County, Yolo County Flood Control & Water Conservation District
Partners:	County Departments and Agencies; Cities of Davis, Winters, and Woodland; Yolo County Housing; Special Districts; Yocha Dehe Wintun Nation
Potential Funding:	Hazard Mitigation Grant Programs; Homeland Security Grant Programs; Emergency Management Performance Grant Program; other funding as available
Cost Estimate:	Approximately \$75,000 for the complete Countywide planning effort
Benefits: (Losses Avoided)	Emergency planning for Drought will help reduce loss of water supply, provide criteria and set policy for use of water during drought conditions and increase community awareness and planning
Hazards Addressed:	Drought

Mitigation Action #8 WSAC

Action:	Non-Structural and Structural Earthquake Mitigation Outreach Program
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	Existing structures can be retrofitted to better withstand damage from seismic events. By educating home and business owners about structural and non-structural retrofit techniques by teaching them how to seismically strengthen their homes and business locations can be an effective mitigation tool. Development of an outreach program to secure furnishings, storage cabinets and utilities to prevent injuries and damages, such as anchoring, installing lathes, using flexible connections on gas and water lines, and bracing propane tanks and water heaters.
Responsible Office:	City Public Works; Yolo County Planning and Public Works, West Sacramento OES
Partners:	City Departments and Agencies; Cities of Davis, Winters, and Woodland; Yolo County Housing; Special Districts; Yocha Dehe Wintun Nation
Potential Funding:	Hazard Mitigation Grant Programs; other funding as available
Cost Estimate:	\$100,000
Benefits: (Losses Avoided)	Increase in population knowledge of structural and non-structural mitigation activities needed to mitigate the affects of those hazards
Hazards Addressed:	Earthquake

Mitigation Action #9 WSAC

Action:	Promote Flood Insurance
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	This CRS activity credits communities that take an active role in encouraging residents and businesses to purchase and maintain adequate flood insurance coverage. It credits a four-step process that allows communities to assess their own needs and receive credit for improving their coverage.
Responsible Office:	City Flood Management; West Sacramento OES
Partners:	City Manager's Office-Public Information Officer
Potential Funding:	Hazard Mitigation Grant Program
Cost Estimate:	Minimal Staff time \$2000 - \$8,000
Benefits: (Losses Avoided)	Property Protection during a flood event
Hazards Addressed:	Flooding

Mitigation Action #10 WSAC

Action:	West Sacramento Levee Improvements
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	Improve the condition and capacity of the levees surrounding West Sacramento to raise the level of protection to the 200-year level. This level of flood protection is consistent with SB 5 passed in 2007. Pending Congressional Authority for federal funding, this project is scheduled for completion in 2025.
Responsible Office:	City Flood Management and Public Works
Partners:	West Sacramento OES; other City Departments and Agencies; Yolo County Planning and Public Works, Yolo County Office of Emergency Services Department of Water Resources; FEMA, US Army Corps, Reclamation Districts
Potential Funding:	Various Levee project funding from local, state and federal funds.
Cost Estimate:	\$500 Million
Benefits: (Losses Avoided)	Property Protection during a flood event
Hazards Addressed:	Flooding

Mitigation Action #11 WSAC

Action:	Winter Weather Preparedness Campaign
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	Severe Winter Weather and Flooding is a priority hazard in the City of West Sacramento. A public awareness and disaster preparedness specifically geared to Winter Weather Preparedness with an emphasis on flooding and severe weather has not been done in many years. This is a program that will target all residents in Yolo County in the fall months.
Responsible Office:	City Manager's Office-Public Information Officer
Partners:	West Sacramento OES; Other City Departments and Agencies; Yolo County Office of Emergency Services
Potential Funding:	Hazard Mitigation Grant Program; Homeland Security Grant Program; other funding as available
Cost Estimate:	\$100,000
Benefits: (Losses Avoided)	Increase in population knowledge of severe weather and flood hazards and activities needed to mitigate the affects of those hazards
Hazards Addressed:	Severe Weather; Flooding

Mitigation Action #12 WSAC

Action:	Reducing Wildfire Risk Maintenance Program
Jurisdiction:	City of West Sacramento
Priority:	High
Issue/Background:	Fire fuel reduction mitigation measures in the local responsibility areas within the City of West Sacramento is critical to gain and maintain defensible space and control the fire fuels on and near both public and private lands. Actions of the program will consist of debris clearance, recycling wood materials through chipping to be used for weed abatement; fire hydrant testing, arson prevention and cleanup of abandoned structures, power line tree trimming and maintenance and safe access for fire apparatus to wildland/urban interface (WUI) area neighborhoods and properties
Responsible Office:	City of West Sacramento Fire; West Sacramento OES
Partners:	other City Departments and Agencies
Potential Funding:	FEMA grant funding as available
Cost Estimate:	Approximately \$100,000 – \$150,000
Benefits: (Losses Avoided)	Potential loss of numerous homes and structures from the uncontrolled spread of wildfire
Hazards Addressed:	Fire