



FLOOD CONTROL and STORM SEASON PREPAREDNESS

The City is Ready for Winter Storms

This fall, the city convened a meeting with all departments responsible for emergency response and maintenance of the levees surrounding West Sacramento to ensure that all departments are ready for what winter storms may bring.

The annual meeting covers levee conditions and maintenance activities, storm season expectations and double checking the inventory of flood preparedness resources. The city feels confident that it is prepared for whatever Mother Nature brings this winter.

Are You and Your Family Ready?

If a major storm catastrophe occurs, emergency responders will be fully involved in providing relief to the community. It may take a few hours or even two to three days before assistance can reach you. Therefore, **you must be prepared to take care of yourself and your family** – see the check list for storm season preparedness in this special edition of City Lights.

In the event of a life-threatening emergency or a serious threat to public safety, call 911.

Extensive emergency planning information can be found on the city Web site home page, under "Planning for Disaster." (www.cityofwestsacramento.org)

Flood Insurance? We Say "Yes"

The city of West Sacramento encourages its residents to purchase flood insurance as extra protection against a future flood event. Since flooding is not covered by standard property insurance, it must be purchased separately. Property owners can insure buildings and contents and renters can insure their possessions. The coverage is relatively inexpensive, but it can take up to 30 days before flood insurance takes effect so buy it now rather than waiting until a disaster is right around the corner.

In the event of an emergency, an insurance agent handles claims quickly and often can provide partial payments immediately after a flood to help families recover from a crisis. Contact your insurance agent for more information.

Inside this Special Edition of City Lights:

- With the Help of Local Funds, West Sacramento is a Leader in Flood Protection
- State Repairs Critical Levee Erosion Sites
- City Levees Put to the Test
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Storm Waters in Sacramento Bypass



Levee Evaluation Project



Erosion Repair near Linden Road



City LIGHTS

SPECIAL EDITION

With the Help of Local Funds, West Sacramento is a Leader in Flood Protection

Over the years, West Sacramento and its flood protection partners have worked diligently to improve and maintain the levees protecting West Sacramento.

The city works collaboratively with Reclamation Districts 900 and 537, the US Army Corps of Engineers and the California Department of Water Resources to address all aspects of flood control and emergency preparedness.

Essential to the success of West Sacramento's flood solutions has been the funds raised for the West Sacramento Flood Control Agency (created in 1994) through local property tax assessments. These assessments have helped fund the local shares of two major projects: the \$8 million Army Corps project to construct a stability berm along the Sacramento River in Southport (1990-1993) and the \$32 million West Sacramento Project, in which the Army Corps raised and strengthened levees along the Yolo Bypass and the Sacramento Bypass (1998-2002).

"The thing to remember about levees is they're constantly subject to changing conditions," said Caroline Quinn, West Sacramento's assistant director of Public Works and Community Development. "The weather and water flows, even people walking on levee slopes, all cause erosion over time. It's a natural process. Levee design standards also change. **Our levees now require evaluation against recently adopted standards."**

The city successfully obtained state and federal funding to help with flood protection solutions but without the help of local funding, the level of flood protection would not be as high as it is now. **With the West Sacramento Flood Control Agency reaching its authorized spending limit, the city and the Flood Control Agency will be bringing forth information in the coming months about how best to continue local funding.**

West Sacramento Project



Timeline of Key Levee Developments

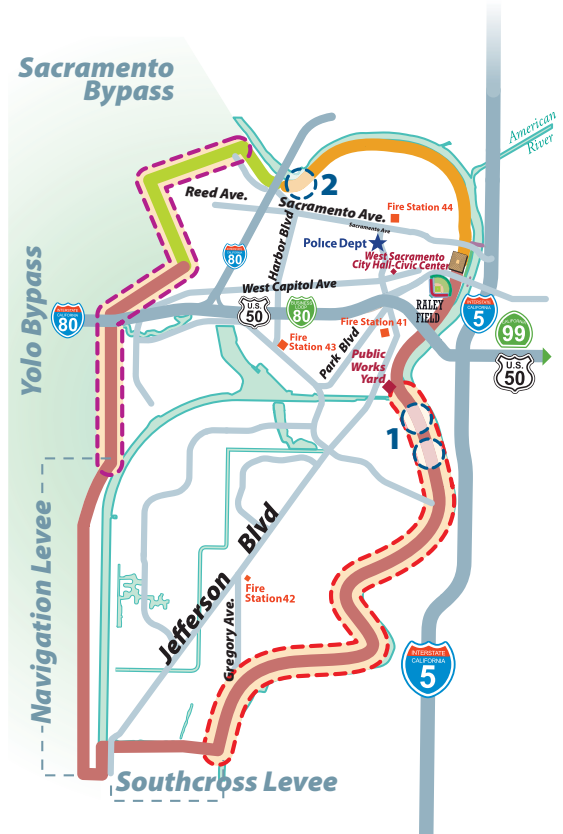
- 1990-1993: Stability berm built along the Sacramento River in Southport (Sac Urban Project);
- 1994: West Sacramento Flood Control Agency established to fund the local share of the West Sacramento Project;
- 1997: West Sacramento Flood Control Agency assessment is approved by voters to provide local funding match for the West Sacramento Project.
- 1998-2002: Army Corps strengthened five miles of Sacramento and Yolo Bypass levees (West Sacramento Project).

State Repairs Critical Levee Erosion Sites

(see adjoining map)

- 1 The state has completed repairs on two erosion sites along the Sacramento River levee, north of Linden Road;
- 2 The state has also begun work on a third site along the Sacramento River near the Interstate 80 bridge.

The city and Reclamation District 900 continue to work with the state to identify additional, less urgent erosion sites along levees for future remediation.



LEGEND:

	West Sacramento Project		Reclamation District 900
	Sac Urban Project		Reclamation District 537
	Levee Erosion Repair Sites		State Maintenance Area #4

City Levees Put to the Test

While substantial improvements have been made to the city's levees over the years, other areas in the region have found that what were thought to be excellent levees do not meet the most recent Army Corps standards. It's likely that additional improvements will be needed for West Sacramento levees.

Rather than wait for state or federal agency analysis of local levees, however, the city and Flood Control Agency initiated a levee evaluation project in July that was expanded in October to include the entire West Sacramento levee system. Drilling rigs collect soil samples from deep beneath the levees which are analyzed to determine potential problems. Then alternatives for correcting the problems through levee repairs and upgrades will be developed. Levee evaluation results are expected to be available beginning in early 2007 and will help West Sacramento officials understand what improvements are needed to fortify city levees. Additional studies will then be needed to plan, design, and construct the recommended improvements.

Footing the Bill for Costly Levee Improvements

As levee improvement alternatives are developed, cost estimates for each will be developed as well. The cost to construct levee improvements will likely be high and West Sacramento will compete with other jurisdictions for limited state and federal funds. **The city and local reclamation districts are working closely with state and federal officials to determine opportunities for cost-sharing agreements and other cooperative ventures.** The levee evaluation work will position the city to apply for funding from the newly passed propositions 1E and 84, and other programs, as funds become available.

Local Funds are a Necessity

The West Sacramento community will be responsible for funding some portion of the levee work needed to safeguard the city as any state or federal funding for levee studies and improvements will require a local match. To ensure West Sacramento has funding available for both ongoing levee maintenance and planned levee repair and improvement projects, the city and RD 900—through the West Sacramento Flood Control Agency—are reviewing options for raising the local share of these costs.

A History of Interagency Planning

Prior to each storm season since 1998, the city has brought together the local agencies responsible for levee maintenance and emergency response to discuss levee conditions, weather forecasts, and emergency resources. "All the planning you do for emergencies really helps you through the first hour of an event," said Bill Summers, manager of the city's Emergency Operations Center. "What you do in the first 10 minutes will probably direct the next six hours of the event."

At all times, the city continues to actively communicate with agencies on all levels—local reclamation districts, the Yolo County Emergency Operations Center, the State Reclamation Board, the Department of Water Resources, the U.S. Army Corps of Engineers and the Federal Emergency Management Agency (FEMA)—to monitor current flood protection standards.

"Who's Who" in West Sac Flood Protection

There are many local, state, and federal agencies involved in flood protection activities and projects that affect West Sacramento. These are the key players:

City of West Sacramento (city) Coordinates and assists all other agencies with flood risk reduction efforts, provides emergency response and pursues state and federal funding. The city, in conjunction with the West Sacramento Flood Control Agency, is currently conducting evaluation studies of all West Sacramento levees. www.cityofwestsacramento.org

Reclamation Districts (RD) 537 and 900 Constructed the original levees surrounding West Sacramento in the early 1900s and continue to be responsible for their regular maintenance. Conduct semi-annual levee inspections with state inspectors. Patrol the levees in winter to watch for potential problems and patrol 24 hours a day during high-water periods.

West Sacramento Area Flood Control Agency (Flood Control Agency) A joint powers agreement established between the City, RD 537, and RD 900 to coordinate flood control work in West Sacramento. The agency collects an assessment from West Sacramento property owners to help pay for flood system improvements. With the authorized spending limit having been reached, new local assessments are being considered.

State Department of Water Resources (state) The state maintains the Sacramento Bypass levee and the Sacramento River levee from Interstate 80 to the Tower Bridge. The state also oversees reclamation districts and regulates levee construction both on and adjacent to the levees. The state is completing repairs to three critical West Sacramento erosion sites along the Sacramento River under the Governor's February 2006 Executive Order. www.water.ca.gov

U.S. Army Corps of Engineers (Army Corps) The Army Corps is the lead agency for planning, designing, and constructing levees throughout the U.S., including portions of the Sacramento River levee system. The Army Corps has historically constructed capital improvements to levees, including repairing damage from major storm events. www.usace.army.mil

Federal Emergency Management Agency (FEMA) FEMA manages federal response and recovery efforts following any national emergency, trains first responders, and manages the National Flood Insurance Program. FEMA produces flood insurance rate maps that depict flood zones that are used for floodplain management and insurance purposes. FEMA is currently updating and digitizing all floodplain maps nationwide. www.fema.gov

Emergency Operations Center

The Emergency Operations Center (EOC) is a special city facility that opens in times of major emergencies. It is a nerve center for directing personnel and resources. The EOC is typically managed and operated by city staff members who are trained to fulfill emergency functions. The EOC is also connected to a regional resource system.

According to the city's Slow Rise Flood Plan, the **EOC will open when Sacramento River levels reach 31 feet at the I Street Bridge and/or when water levels reach 19 feet in the Yolo Bypass. When open, the EOC phone number is (916) 617-5090.**

City Slow Rise Flood Plan

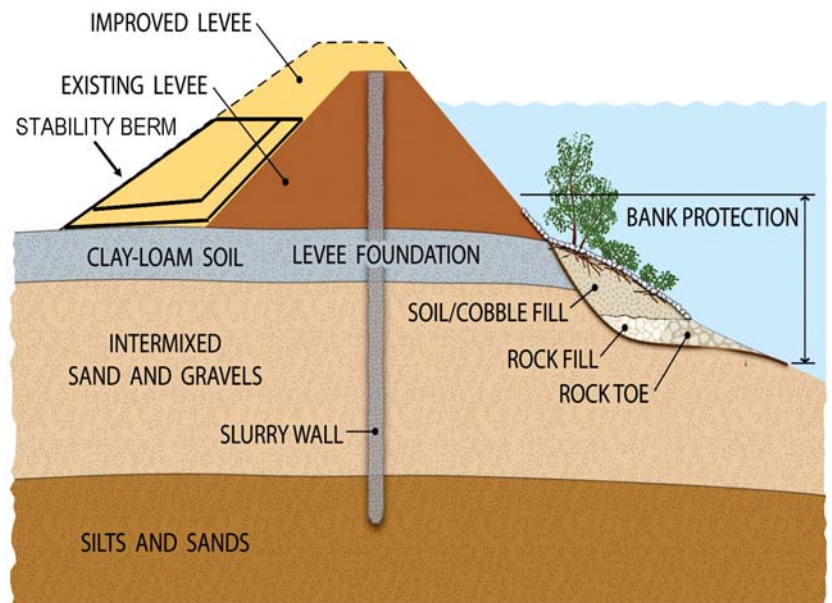
The levees on the west side of the Sacramento River are at an elevation of 34 feet while the levees next to the Yolo Bypass are at least 35 feet high. Prolonged storm periods may cause water levels in the river and bypass to slowly rise. When surrounding waters reach threatening levels, the city is guided by its Slow Rise Flood Plan.

The plan describes a series of seven stages in which specific actions are taken as waters rise. The city will monitor the water level for potential conditions affecting public safety. The plan is on the home page of the city's Web site, www.cityofwestsacramento.org (under "highlights").

Treat Levees with TLC

Levees are an integral part of the city's safety, yet some local levees are subjected to "off road" activities—driving motorcycles, all-terrain vehicles, even dune buggies. Not only is it against the law to drive unauthorized motor vehicles on levees (California Vehicle Code 21116), it can damage levee slopes and undermine levee stability. If you observe illegal use of levees, call police dispatch at 372-3375.

An "Inside Look" at a Levee



Jones and Stokes, 2006

Terms to Know

Berm: A mound or bank of earth, used especially as a barrier or to provide insulation; a narrow ledge or shelf, as along the top or bottom of a slope.

Boil: Evidence of under-seepage on the land side of the levee. A boil occurs when high waters create sufficient pressure to force water through deep sand or gravel layers. Boils vary in size and significance. Boils normally display clear water; if the water in a boil is carrying soil, the levee is being undermined.

Hydrology: Describes the magnitude, timing, distribution and frequency of precipitation that determines the volume of water that ultimately flows to channels. Hydraulic models are used to simulate the flow of water through drainage channels.

Levee: A raised embankment that prevents a river from overflowing. Levees conform to established design and construction standards.

Slurry wall: A special wall built inside or on the waterside of a levee to minimize the seepage of water underneath the levee. Slurry walls are constructed of a mix of materials that reduce under-seepage.

STORM SEASON PREPAREDNESS CHECKLIST:



- Obtain flood insurance as an extra level of protection for your belongings and property.
- Gather and store essential supplies: first aid kit; supply of medications; non-perishable food; non-electric can opener; cooking and eating utensils; portable radios, flashlights and extra batteries; and drinking water in closed containers. Have a "go bag" with essential supplies for family members in case you have to evacuate.
- Duplicate your important documents and inventory your valuables (supported in writing and photos or video); keep copies of the documents off-site.
- Gather waterproofing supplies: sandbags, plywood, plastic sheeting, and lumber.
- Know the safe routes from your home or workplace to high, safe ground; determine where your family will meet if there is an emergency; provide an out-of-the-area contact person (who is far enough away not to be affected by the same emergency) with names and contact information to share with those who need to know where you are.

Riding Out the Storm

- Do not try to cross a flowing stream where water is above your knees; strong currents in water as low as six inches deep can sweep you away.
- Do not try driving over a flooded road; 80 percent of flood deaths involve people caught in vehicles. If your car stalls, abandon it immediately and seek higher ground.
- Do not "sightsee" in flooded areas or try to enter areas blocked by local authorities.

In the Event of an Evacuation Order

If city officials decide to institute an evacuation order, the city will provide notice to residents immediately using all means of communications, including TV and radio.

- Follow instructions of safety officials and use authorized travel routes.
- If you are told to evacuate by public safety officials, leave immediately.
- Wear sturdy shoes and weather-appropriate clothing.
- Take your emergency go-bag.
- If you have time, leave a note telling others when you left and where you are going.
- Once you are safe, call your out-of-the-area contact person and tell them where you are.

Phone Numbers to Keep Handy in an Emergency

Life-threatening Emergencies **911**

Non-emergency Services
Police and Fire Dispatch (24/7)
372-3375

PG&E (electrical outages, power lines, gas leaks)
1-800-743-5000

Code Enforcement
617-4027

Public Works
(roads, pipes, storm drains, trees)
617-4850
(after hours) **372-3375**

Water Treatment **617-4860**

Emergency Operations Center
(when activated), **617-5090**

Other city departments
617-4500

