

FLOOD WATCH

A PUBLICATION OF THE SACRAMENTO AREA FLOOD CONTROL AGENCY

Updated April 2012

Sacramento Flood Control Update

Dear Residents:

Much has been accomplished in the last 20 years to improve our flood control system; but much remains to be done.

The cornerstone of the system is Folsom Dam. The Sacramento Area Flood Control Agency (SAFCA) and its federal and state partners are proceeding with physical and operational improvements to the dam that will allow operators to control floods significantly larger than any that have occurred in the American River Basin in over 100 years.

Complementary improvements to the levee systems protecting the Natomas Basin, as well as the flood basins outside Natomas, are proceeding to meet the more demanding design standards adopted by the California Department of Water Resources and the U.S. Army Corps of Engineers after Hurricane Katrina. Please visit our Web site for current news and more information on projects in the area.

-Richard M. Johnson
Executive Director

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New auxiliary spillway currently under construction at Folsom Dam (artist rendering).

Folsom Dam Joint Federal Project

Motorists driving across the new Folsom Lake Crossing bridge can see a lot of construction activity at Folsom Dam. A new control structure and spillway are being built to improve the operational capability and efficiency of Folsom Dam.

Several years ago, the U.S. Army Corps of Engineers (Corps), the State of California, and SAFCA studied what could be done at Folsom Dam to help achieve a minimum 200-year level of flood protection for the region. Simultaneously, the U.S. Bureau of Reclamation (operator of the facility) was looking at what could be done to eliminate dam safety concerns associated with an aging facility that could potentially overtop and fail during a large flood event. The entities joined forces and came up with a plan to achieve the objectives of all federal agencies and dubbed the project the "Joint Federal Project" or "JFP".

The JFP features a new spillway with six submerged gates embedded in a new control structure that prevents water from entering the spillway unless the gates are open. The project is divided into five main phases. Construction of

the first two phases of work has been completed including excavation of the spillway channel. The Corps is currently constructing Phase 3, the control structure and spillway gates. In Phases 4 and 5 of the project, the Corps will line the spillway channel with concrete and link the control structure to the reservoir. Upon completion, currently planned for 2017, the new spillway will double the size of the flood that the dam and reservoir can safely handle by making more efficient use of the flood space in Folsom Reservoir.

Completion of the JFP will benefit all properties in the floodplain along both the north and south sides of the American River. If you live in one of SAFCA's American River assessment benefit zones, you directly benefit from the JFP and part of your assessment goes towards its construction. Designated by the Corps as a "Mega Project", this is one of the largest flood control and dam safety construction projects presently being built in the United States.

Nearly 3.5 million cubic yards of rock is being excavated to make room for the control structure, approach channel and spillway channel. In addition, approximately 350,000 cubic yards of concrete and 26 million pounds of steel will be used during construction.

FLOOD CONTROL UPDATE

Natomas Levee Improvement Program

The road to a 100-year level of flood protection and beyond

At the close of 2011 and at a cost of \$360 million, 18 of the 42 miles of levees surrounding the Natomas Basin have been raised and strengthened. This accomplishment is largely due to local property owner approval of a new assessment, the availability of state bond funds and the ability of SAFCA contractors to meet a very rigorous and aggressive design and construction schedule.

Typically, flood control projects are constructed by the Corps with a local agency, such as SAFCA, providing planning and engineering support. However, SAFCA was able to take advantage of federal and state “early implementation” programs to begin work well ahead of the Corps. This allowed SAFCA to start making improvements in 2007 to the most vulnerable segments of the levee system along the Sacramento River and, in just five years, completed 50 percent of the improvements necessary to obtain a 100-year level of flood protection.

By the end of 2012, SAFCA will have expended the state and local cost share available for levee construction and will then rely on the federal government, via the Corps, to complete the project. In order for the Corps to begin construction, Congress must first authorize the project. At that point, the Corps will begin constructing levee improvements along the southern and eastern portions of the Natomas Basin. The sequencing of this work will depend on design considerations, right of way acquisitions and the federal funding available for the project.

SAFCA continues to coordinate closely with Corps staff to ensure that construction can begin once federal authorization is obtained.

“Earmark” Interpretation by Congress Proves Challenging

In December 2010, the Corps forwarded to Congress a report recommending federal authorization to complete the Natomas Levee Improvement Program (NLIP). In early 2011, the Assistant Secretary of the Army also endorsed the report on behalf of the President.

Congressional approval and funding would allow the Corps to construct 24 additional miles of levee improvements beyond what SAFCA completed in 2011. Last January, Congresswoman Doris O. Matsui introduced H.R. 433, which would authorize the Project. In November, Senators Feinstein and Boxer introduced S. 1810, companion legislation in the Senate. The Project has satisfied all reporting and administrative approval requirements and is now poised for action in both chambers of Congress.

Unfortunately, progress on this legislation, and virtually all nationwide infrastructure proposals, is stalled due to the current congressional policy against “earmarks”. SAFCA representatives were recently in Washington DC meeting with administration and congressional leadership and committees discussing the problem. Much is being done, especially by our Representatives Matsui and Lungren who continue to work to resolve this issue so the Project can continue.



◀ Deep Soil Mixing rig installing cut off wall ▲ New levee at Garden Hwy and Sankey Rd.

Most of the 18 miles of levee improvement work completed to date includes a new adjacent setback levee with seepage cutoff walls installed to depths ranging from 40 to 120 feet, which will reduce the potential for water to seep through or under the levee.

American and Sacramento River Levees

HURRICANE KATRINA RADICALLY CHANGED ENFORCEMENT OF LEVEE STANDARDS

In the aftermath of Hurricane Katrina, urban levee standards have become significantly more stringent. The Corps, the State of California, and SAFCA are again reviewing all levees along the lower American and Sacramento Rivers, and their tributaries in North Sacramento (Dry Creek and Arcade Creek) to ensure the new standards are met. The Corps is preparing a General Re-evaluation Report (GRR) to document work required to bring the levee system to a minimum 200-year level of flood protection. The GRR will be the basis for asking Congress to authorize the Corps to perform the work that will be identified in the report. Corresponding environmental documents will also be prepared, addressing potential impacts and required mitigation.

Meanwhile, under the National Flood Insurance Program (NFIP), flood-prone areas protected by levees must be mapped to reflect their current level of flood protection. In order to avoid mandatory insurance requirements and building restrictions, area levees must be certified to withstand at least a 100-year flood. Historically, the Corps has provided this certification for federal project levees.

Following the devastation caused by Hurricane Katrina, the Corps began a national review of their prior levee certifications. This review reflects their more demanding post-Katrina standards affecting the assessment of risk of levee failure, levee encroachments and woody vegetation. Under these new standards, in all likelihood Sacramento's levees, which have a legacy of vegetation and other encroachments, may not

retain the Corps' certification. This will require a local entity, such as SAFCA, to demonstrate that the affected levees meet the NFIP criteria that has historically been applied to these levees. The timing of such a transition for certification will depend on the condition of the levees as determined through the GRR, the age of the existing Corps' certifications, and discussions with the Federal Emergency Management Agency (FEMA), which manages the NFIP.

AMERICAN RIVER LEVEE IMPROVEMENTS

Residents living along the American River Levee System know there has been on-going construction activity for a number of years. Since 1998, the Corps has installed seepage cutoff walls to depths of 80-feet, raised and stabilized levees, and corrected some erosion problems affecting about 24 of the 26 miles of the levee system. However, the Corps continues to close "gaps" in the cutoff wall system where the construction process was temporarily organized to work around significant structures such as bridges and pipes. When this work is completed, the American River levee system will be substantially stronger than it was during the 1986 and 1997 floods.

In addition, the levee protecting the Butterfield-Riviera East neighborhood east of the Mayhew Drain was incorporated into the federal system and brought up to federal standards, releasing residents from mandatory flood insurance requirements. The levee was raised, widened and a cutoff wall installed. A closure structure was also installed near the mouth of the Mahew Drain to prevent American River waters from backing up into the drain, while still allowing internal drainage to flow out to the American River.

20 Years of Progress

Post 1986 Flood

- 30 miles of levee seepage repairs in Natomas and Pocket areas (1990-93)
- 10 miles of levees raised on east side of Natomas and in North Sacramento area (1993-98)
- Minimum flood control storage space at Folsom Dam increased by 50 percent (1995)
- Critical erosion repairs initiated along the American River (1996)

Post 1997 Flood

- 24 miles of American River levees strengthened to cut off under seepage (1998-present)
- 2 miles of Sacramento River levee in Pocket area strengthened to cut off under seepage (2003-2004)
- Approximately 6 miles of stream channel improvements completed in South Sacramento area (1999-present)

Post Hurricane Katrina (2005)

- 18 miles of levees in Natomas raised and strengthened to cut off under seepage (2007-present)
- New bridge completed; construction of auxiliary spillway initiated at Folsom Dam (2003-present)
- American River Levee System extended east of the Mayhew Drain area (2005-2007)

SAFCA

Sacramento Area Flood Control Agency

About SAFCA

The Sacramento Area Flood Control Agency is a Joint Powers Agency formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding

Member Agencies

City of Sacramento
County of Sacramento
Sacramento County Water Agency
County of Sutter
Sutter County Water Agency
American River Flood Control District
Reclamation District No. 1000

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FLOOD CONTROL UPDATE

South Sacramento Streams Channel Improvements

South Sacramento County residents living in neighborhoods impacted by flooding from local streams will see additional improvements made to the stream channels this summer. Construction is complete from the Sacramento River to Franklin Boulevard, except for improvements between Unionhouse Creek and Morrison Creek where the two creeks cross the Union Pacific Railroad (UPRR) tracks.

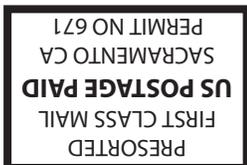
The Corps has awarded a contract to construct a flood wall parallel to the UPRR tracks to complete the levee improvements in this area later this year. During this same period, SAFCA, with financial assistance from the City of Sacramento, will begin constructing

channel improvements along Unionhouse Creek between Franklin Boulevard and Bruceville Road.

It is anticipated that sometime in 2013, nearly 1,500 additional properties in South Sacramento will be relieved of mandatory flood insurance requirements and become eligible for low-cost flood insurance once work is completed and the area is re-mapped by FEMA.

More work will be needed east of Franklin Boulevard along Florin Creek and Morrison Creek to complete the South Sacramento Streams Group Project. The scope of this work is currently being evaluated so that construction can begin as early as 2013.

ADDRESS SERVICE REQUESTED



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