



FLOOD WATCH

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Ongoing Flood Risk Reduction Program

SAFCA was formed in 1989 to work with the U. S. Army Corps of Engineers (Corps) and the California State Reclamation Board (Reclamation Board) to address the weaknesses in Sacramento's flood control system that were exposed during the record flood of 1986. That flood served as a wake-up call for our community. The Corps' post-flood evaluation showed our flood control system was inadequate to meet the minimum requirements of the National Flood Insurance Program. FEMA prepared new maps indicating that all of the Natomas Basin and substantial portions of Sacramento had less than a 100-year level of flood protection. These maps made flood insurance a requirement for all property owners with Federally backed mortgages.

In response, SAFCA adopted a flood risk reduction program with four objectives:

- Provide all of the floodplains in the Sacramento area protected by the State-Federal levee system with at least a 100-year level of flood protection as quickly as possible. This addresses the system's most immediate vulnerabilities by allowing affected areas to be removed from the federal floodplain, thus making flood insurance for local property owners optional and more affordable.
- Provide a 200-year level of flood protection to these areas over time. 200-year protection is likely to withstand the largest floods along the American and Sacramento rivers that are reasonably foreseeable.
- Ensure the long-term integrity of the levee system by providing for thorough, regular inspections and maintenance. Levees must be regularly maintained to perform as designed.
- Encourage good floodplain management practices, including open space preservation, habitat enhancement, flood insurance retention and public flood risk awareness.

In order to implement this program, SAFCA has relied on a partnership with the Corps and the Reclamation Board in which the funding for project improvements is shared by the Federal government (about 65 percent), the State (about 25 percent) and SAFCA (about 10 percent). Local levee maintaining agencies such as the American River Flood Control District and Reclamation District 1000 assume responsibility for the long-term care and maintenance of the improvements.

CONTINUED ON PAGE 4

Protecting Against Floods is Critical For Our Region

The haunting images of New Orleans in the aftermath of Hurricane Katrina have had a powerful impact on all of us. That's especially true for residents of Sacramento who live and work in the area's floodplains, including the Natomas Basin, River Park, Campus Commons, the Pocket-Meadowview area and other vulnerable areas. The Sacramento Area Flood Control Agency (SAFCA) is working hard to reduce the chances that Sacramento will suffer a similar catastrophe. This newsletter is part of that effort. It is the first of three newsletters we will send you and other property owners in the area over the next few months leading to an opportunity for you to help decide on whether and how to continue SAFCA's efforts to reduce the risk of flooding in Sacramento.

The stakes are high. A recent study estimated the devastating impacts of hypothetical levee breaks in Natomas, the Pocket and near CSUS:

- 102 square miles would be flooded
- 63,800 structures would be flooded
- Up to 500 people could lose their lives
- 157,000 people would be threatened by flooding of six feet or more, with 118,000 facing depths of ten feet or more
- Sacramento International Airport would be under 15 feet of water
- Four major hospitals and 65 schools would be flooded
- Damage to property would be \$11.2 billion, including \$9.2 billion in damage to homes

A MESSAGE FROM THE EXECUTIVE DIRECTOR



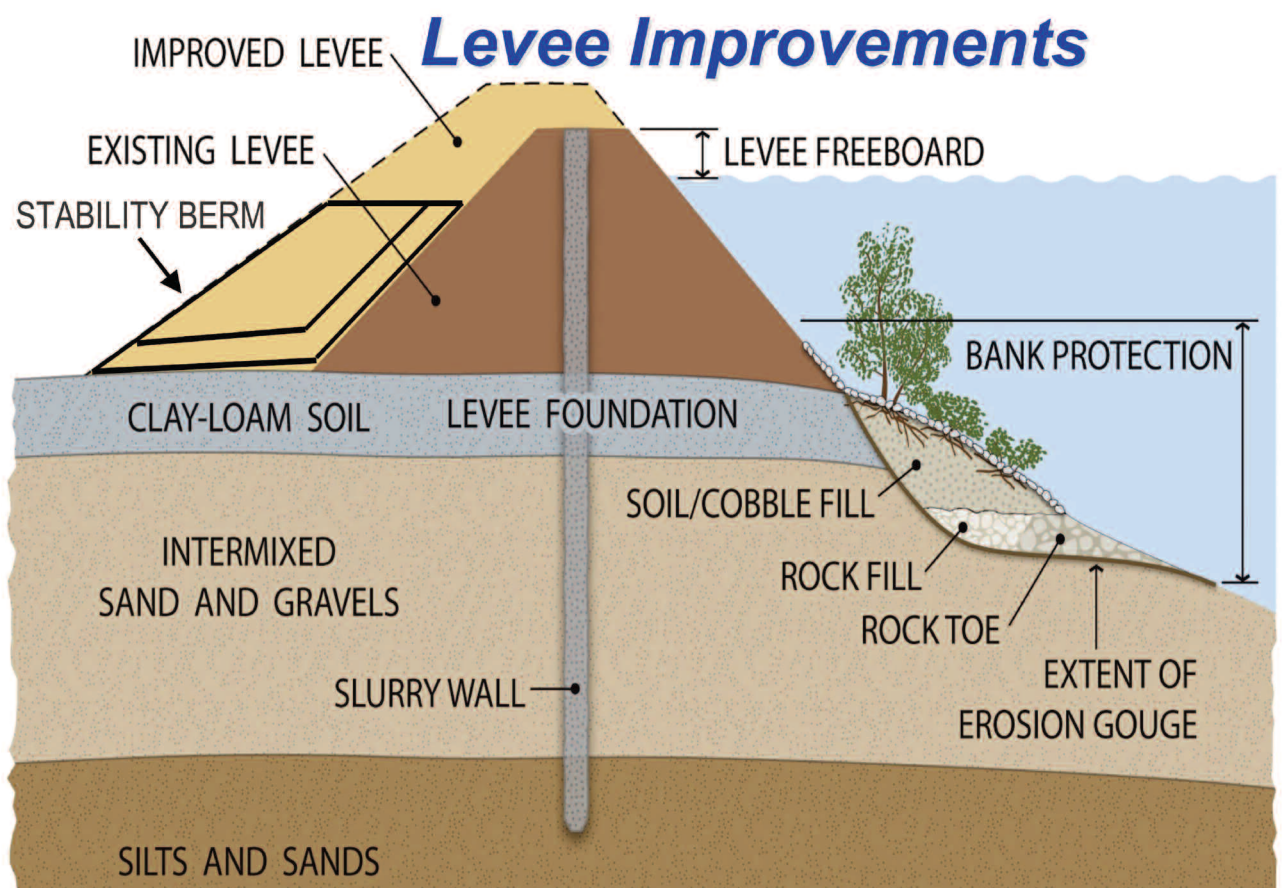
STEIN BUER
 Executive Director

SAFCA is preparing a draft Environmental Impact Report (EIR) document to describe the potential impacts of future flood system improvements and provide a basis for future decision making. The draft EIR will be available for public review and

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comment in late October. Comments on the draft EIR can be provided in writing or at a public hearing scheduled for November 20 at the County Board of Supervisors chambers. For more information on the draft EIR process, please visit the SAFCA web site at www.safca.org.

I hope that you will take the time to read this and future newsletters, consider the ideas and information presented and participate in the decision-making process on how to best meet Sacramento's flood control needs.



RECENT IMPROVEMENTS

FLOOD CONTROL IS A NEVER ENDING PROCESS

Between 1990 and 1998, SAFCA, the U.S. Army Corps of Engineers (Corps) and the California State Reclamation Board constructed levee improvements along the Sacramento River and around the Natomas Basin. With the cooperation of the U.S. Bureau of Reclamation, Folsom Dam and Reservoir operations were changed to provide 50 percent more flood control storage. These actions provided 100-year flood protection for the Natomas Basin in 1998, making flood insurance optional and lower in cost for property owners in Natomas neighborhoods. SAFCA's funding for these projects was provided through Assessment Districts #1 and #2, created in 1991 and 1995, respectively. (See map on Page 4)

In 1996, Congress approved improvements for the American River levee system and the

Corps set to work on designing the proposed improvements. Based on the 1997 flood experience, the Corps decided to provide the levees with deeper slurry walls than originally envisioned, which raised the costs of these levee improvements significantly.

In 1999, Congress approved cost increases for the American River levee improvements and authorized additional features to strengthen and extend the levee protection along the river. In addition, Congress authorized the South Sacramento Streams Group Project, the Folsom Dam Modifications Project and permanent re-operation of Folsom Dam and Reservoir. To provide the local share of the cost of these projects, SAFCA formed Assessment District #3, which was approved by property owners in 2000.

It was originally anticipated that these projects would be completed by 2006 to provide the 85,000 parcels in Assessment District #3 with slightly more than 100-year level flood protection (reducing the annual risk of flooding to less than one percent). This would clear the way for removing these properties from the federally-regulated 100-year floodplain, making flood insurance coverage for these property owners optional and significantly less costly. Most of the American River levee improvements were completed by 2004, providing 50,000 parcels with 100-year flood protection. Most of the remaining work along the Sacramento River and a key portion of the South Sacramento Streams Group Project will be completed between the end of 2006 and early 2007.

Remaining parcels will be protected incrementally over the next four to six years.

RECENT FLOOD CONTROL HISTORY

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| 1986 Historic Flood: Storm dumps 10 inches of rain on Sacramento in 11 days, stressing Sacramento's flood defenses nearly to the breaking point | 1997 Historic Flood: Record flows occur over the New Year's holiday; Sacramento's major levees perform well |
| 1989 FEMA remaps Sacramento's floodplains with less than 100-year flood protection | 1998 Work on SAFCA's North Area Local Project progresses; FEMA certifies Natomas and portions of North Sacramento have 100-year protection and flood insurance is no longer required |
| 1989 SAFCA formed | 1999 New Sacramento flood control projects are authorized by Congress; projects include enlarging outlets at Folsom Dam, raising the lowest levees on the American River and raising levees along Morrison Creek and its tributaries in South Sacramento |
| 1991 Assessment District #1 formed by SAFCA Board of Directors for planning, improvements, construction, operation and maintenance of the Sacramento area flood control system | 2000 Assessment District #3 is approved by Sacramento property owners to finance the local match for the flood control projects approved by Congress in 1999 |
| 1992 Levee improvements in North Sacramento and Natomas are authorized by Congress | 2003 Project to raise height of Folsom Dam is authorized by Congress |
| 1993 SAFCA begins construction of the "North Area Local Project" to protect North Sacramento and Natomas | 2004 U.S. Army Corps of Engineers (Sacramento District) issues new standards for levee evaluation and performance |
| 1995 Folsom Dam operation improved: SAFCA and the Bureau of Reclamation execute an interim agreement to operate Folsom Dam and Reservoir with 50 percent more flood storage | 2005 FEMA certifies 100-year flood protection for American River floodplain |
| 1995 Assessment District #2 formed by SAFCA Board of Directors to fund North Area Local Project | 2006 SAFCA reports that Natomas levees do not meet new Army Corps of Engineers levee standards and begins implementation of a plan to correct the deficiencies |
| 1996 American River levee improvements are authorized by Congress | |
| 1996 High flows cause extensive erosion damage along lower American River levees; SAFCA and partnering agencies construct emergency erosion repairs | |

SACRAMENTO'S SHORT HISTORY IS LONG ON FLOODING

Sacramento's founders probably didn't imagine the flood threat they were facing when they began building on the bank of the Sacramento River, just downstream of its junction with the American River. It wasn't long before Sacramentans began a long and occasionally humbling battle with the floodwaters of the Sacramento and American rivers.

We are still at it 150 years later. Our levees are better; we have a flood bypass system with relief weirs stretching from Chico to the Delta, and most of the tributaries of the Sacramento River are tamed by dams which control the flow through the channels on the valley floor. Even so, the flood threat still exists – and Sacramento is more at risk than any other major American city.

If there is any lesson to be learned from our history, it is that Sacramento will always face the threat of floods. There is always more that can be done to protect us from floodwaters. For more information on Sacramento's flood history, please visit the SAFCA web site at www.safca.org.

PROPOSITION 1E

WHAT IT IS AND WHAT IT MEANS

The November election will have a big impact on SAFCA's future flood protection efforts as voters decide on several bond proposals. From a flood protection perspective, Proposition 1E is the most critical. Prop 1E would allow the state to sell \$4.1 billion in bonds to be administered by the State Department of Water Resources (DWR).

Funds would be expended to address both structural and non-structural system deficiencies, including improvements to dams, levees, weirs and bypass channels protecting the Central Valley, with a limit of \$200 million per project, except for the Folsom Dam Project. Funding would also be allocated to improve stormwater management, flood corridor function and habitat quality and floodplain mapping.

Specifically for the Sacramento area, Prop 1E would make state funding available for the State cost share of levee improvements in the area, including Natomas and the American River, as well as improvements to Folsom

Dam. These funds would help SAFCA achieve protection against the largest flood that can reasonably be expected to occur in the future – the 200-year flood.

The bond proceeds would also be used to obtain federal matching funds and encourage local matching funds for a wide variety of projects. Prop 1E would require the DWR to establish priorities, design projects and prepare an annual plan for the use of Federal, State and local funds. If passed, the act would take effect immediately as an urgency measure.

If this measure fails, SAFCA will have to seek funds through the State budget process (which is far less certain) and from local sources in order to maintain eligibility for Federal funding. The key to achieving our regional flood protection goals is assured Federal, State and local funding. This bond act would provide that assurance for the State share of anticipated project costs to meet our safety goals on schedule.

NEXT STEPS: Taking Sacramento to 200-Year Protection

In 2004, SAFCA's structural plans for achieving 200-year protection for the region were clearly defined and on track for completion by 2021:

- Modify Folsom Dam by increasing its low level river outlet capacity and raise the dam to allow it to store and safely release 200-year storm inflows
- Continue to strengthen, armor and raise the levee system along both the American River and the Sacramento River

In June 2005, however, it was learned that the Folsom Dam Modification Project could not begin as planned due to the high cost of construction.

A second challenge came in February 2006 when SAFCA released preliminary findings showing a major new construction effort would be required to maintain 100-year levee certification for the Natomas Basin. This effort is expected to cost more than \$400 million and will eventually achieve 200-year level flood protection for the area. SAFCA's conclusions, supported by independent U.S. Army Corps of Engineers analyses, were finalized in July 2006.

Some have wondered why SAFCA and its partners did not anticipate and plan for these new developments. Part of the answer lies in the rapidly changing world economy and its effect on the construction industry and part of it lies in the inherent uncertainty about our levee system.

For example, between the time the Folsom Modifications Project was authorized in 1999 and the time construction bids were received in 2005, world demand for construction contractors, materials and fuel escalated dramatically. The result has been skyrocketing prices and a market in which contractors can be very selective about the projects they bid on. Faced with the prospect of constructing the complex and financially risky Folsom Modifications Project, with plenty of other projects on the market, construction firms bid high.

Similarly, the 2006 findings about the vulnerability of Natomas levees came as a result of new information assembled from levee failures that occurred upstream from Sacramento in the flood of 1997. Following that flood, the Corps studied the likely impact of deep underseepage, which can weaken levee foundations and cause boils or sudden rupture behind otherwise

stout levees. As a result, the Corps established new levee evaluation and design criteria in 2004, which SAFCA applied in its subsequent study of the Natomas levees.

After a year of intensive collaborative studies the Corps, the Bureau of Reclamation, the State and SAFCA have formulated a new approach for achieving 200-year design flood protection for Folsom Dam and Reservoir. Instead of modifying the existing river outlets

than the original combination dam modification projects, including raising the height of the dam. SAFCA is currently seeking Congressional authorization for construction of the new design, called the Folsom Dam Joint Federal Project.

SAFCA is also moving swiftly to address the newly identified weaknesses of the Natomas levee system. SAFCA has begun an expedited planning and design process to construct the needed levee improvements. These include deep seepage cutoff walls, stability berms, erosion protection and increases in levee height, with work required on more than half of the 43-mile levee system surrounding the Natomas Basin. If local and State financing commitments can be obtained, SAFCA will begin the first phase of construction in the summer of 2007.

Considerable work remains to be done on the rest of Sacramento's 107-mile primary levee system to achieve 200-year flood protection or better. Portions of the American River levee system need to be raised, strengthened and protected against erosion and seepage. The Sacramento River levees, which are currently undergoing repairs and improvements at 13 different sites to address underseepage, erosion and overtopping concerns,

may also need additional work to achieve the 200-year level of protection. The South Sacramento Streams Group Project, which will provide 100-year protection against flows from Morrison Creek and its tributaries, will be under construction for the next six years.

Implementation of this comprehensive flood control program for the Sacramento area is likely to cost in excess of \$2 billion over the next 10 to 15 years. Additional federal and state authorizations will be needed for the Folsom Dam Joint Federal Project and Natomas levee improvements.

Despite the challenges of rising costs and changing levee safety standards, SAFCA and its partner agencies are moving decisively to achieve better than 200-year flood protection for the Sacramento area. With the support of the community, the State, and the Federal government, the partnering agencies will continue to move forward with planning, designing, funding and constructing these vitally important flood safety projects.



in the face of the dam and raising the dam, the project partners now propose to build a new gated spillway through the hillside on the south side of the dam. This will allow construction to take place away from the operating dam, in a much safer and simpler construction process. Materials excavated from the new spillway will be available for safety improvements on the

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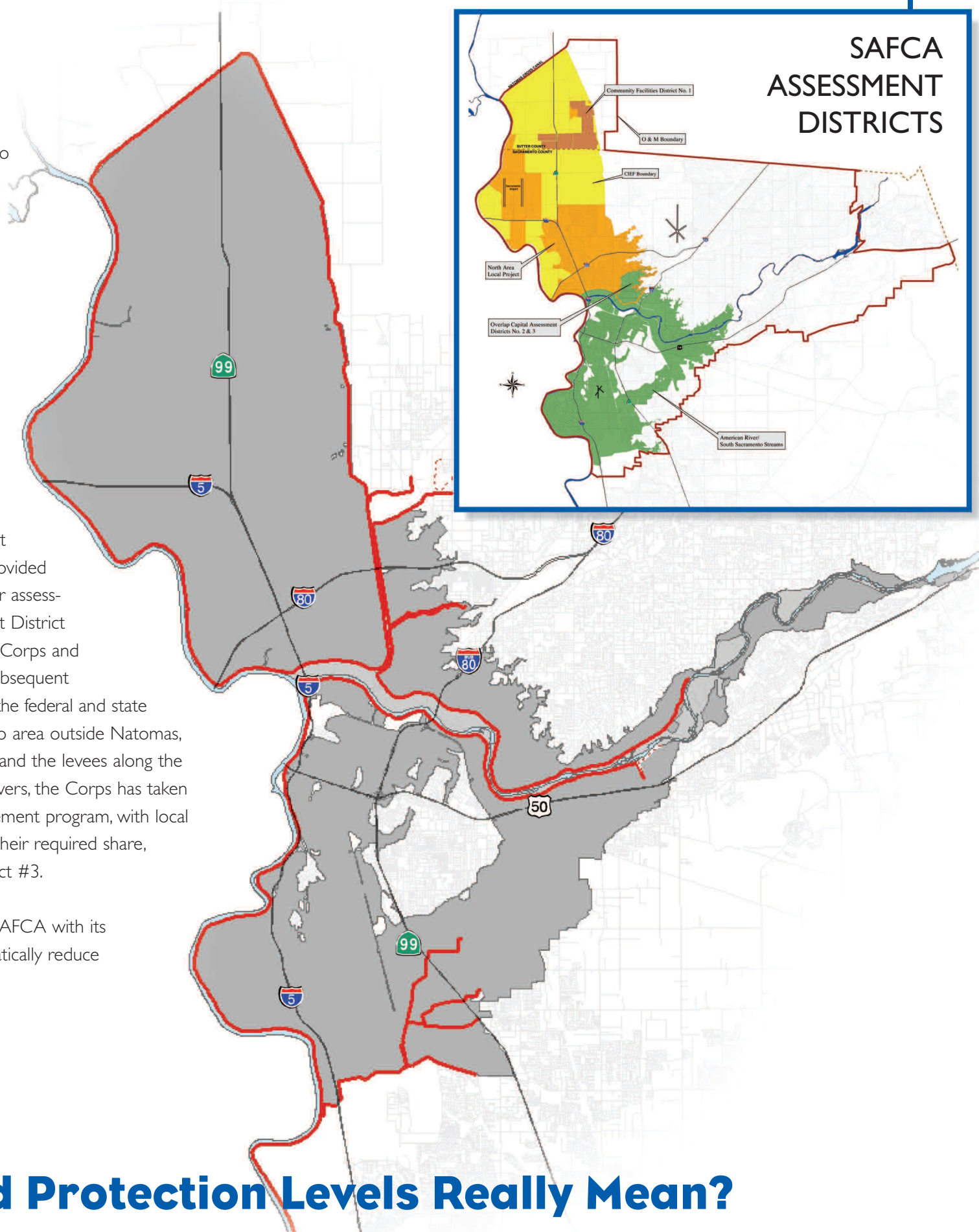
Mormon Island Auxiliary Dam, saving material disposal and acquisition costs. The new spillway gates will allow for timely releases of up to 160,000 cubic feet per second (well above the record of 134,000 cubic feet per second in 1986), preserving flood storage space behind the dam to capture larger flood peaks that would otherwise overwhelm downstream levees. It will likely be completed several years sooner

SACRAMENTO AREA FLOODPLAINS & LEVEES

CONTINUED FROM PAGE 1

Over the past 17 years, SAFCA has used this partnership arrangement to meet the particular needs of Sacramento's major floodplains. SAFCA's planning, administration and operation and maintenance costs have been funded through an assessment on property owners in Assessment District #1 (see map), which covers all of the properties likely to benefit from SFCA flood control projects. In Natomas, SAFCA has taken the lead in improving the 40-mile levee system around the Natomas Basin. The cost of these improvements has been provided by a combination of property owner assessments, collected through Assessment District #2, and development fees, with the Corps and the Reclamation Board promising subsequent reimbursements or credits to cover the federal and state share of the cost. In the Sacramento area outside Natomas, which is protected by Folsom Dam and the levees along the Lower American and Sacramento rivers, the Corps has taken the lead in carrying out the improvement program, with local property owners contributing only their required share, collected through Assessment District #3.

These arrangements have allowed SAFCA with its Federal and state partners to dramatically reduce flood risks in the Sacramento area.



What Flood Protection Levels Really Mean?

100 Year Protection: Estimated 1 in 100 chance of flooding in any given year

200 Year Protection: Estimated 1 in 200 chance of flooding in any given year

Why is 200-year protection the next step?

A 200-year flood would be 50 percent larger than floods of 1986 and 1997 – the largest flood reasonably foreseeable based on current and historical records

For more information on the flood threat faced by the Sacramento area and the work to minimize the potential for flooding:

Sacramento Area Flood Control Agency, (916) 874-7606, www.safca.org.

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