For the many Sacramentans living in the floodplain, there is perhaps nothing more frightening than the idea of a levee failing. While we all hope Sacramento never has to experience this kind of catastrophe, it’s important to know what is at stake if a levee were to fail.

Hydrologists have constructed several levee failure scenarios to determine what exactly can be expected in such a disaster. One study, prepared in 2005 for the California Department of Water Resources (DWR), outlined what would happen should levees fail along the east bank of the Sacramento River in Natomas; the south bank of the American River near Sacramento State; and the east bank of the Sacramento River in the Pocket Area.

The study found that a flood of this magnitude would cover an area of 102 square miles, containing roughly 63,800 structures. More than 230,000 Sacramentans would face flood waters of one foot or more. Approximately 150,000 people would face at least six feet of flooding, and 120,000 people would face 10 feet of flooding.

Such a catastrophic flood would also have a devastating economic impact. The DWR study estimated flood damages at more than $11.2 billion. With thousands of businesses and more than 230,000 residents displaced, Sacramento’s economy would be turned upside down and, just as we witnessed in the aftermath of Hurricane Katrina, thousands of Sacramentans could be forced to relocate outside the area.

As New Orleans has taught us, the true long-lasting human and financial costs of a catastrophic flood and its aftermath are incalculable.

For Sacramento, this is an unacceptable risk, which is why the Sacramento Area Flood Control Agency has developed a plan to significantly increase our region’s level of protection against the worst reasonably foreseeable kind of flood event.

Property owners will have an opportunity to learn about and comment on the identified flood control projects and the proposed assessment district formation plan at SAFCA’s upcoming public hearings in January and February. During the month of March, SAFCA will also conduct community open houses throughout the proposed assessment district, offering another opportunity for the public to gather information.

I hope you will take time to consider these important issues and participate in this process. In the meantime, if you want additional information about SAFCA’s protection program or how the proposed assessment will affect your property, please call our offices at (916) 874-7606 or visit our website at www.safca.org.
The new assessment district proposed by SAFCA was formulated to ensure that assessments paid by individual property owners will go only toward flood control improvements that benefit their property.

To ensure assessments are fairly distributed, SAFCA’s proposed new assessment district is divided into eight flood protection benefit zones. These benefit zones are tied to the improvements which benefit each area. Property owners in each zone will only be assessed for projects that benefit them. (See map on this page)

The proposed assessments are based on current risks faced by individual properties and the benefit they will realize if the necessary flood control project is completed.

To ensure assessments are fair, the following variables are factored into the building and parcel rates used in this formula:

- Likely depth of flooding.
  The proposed assessment district has been divided into flood depth zones to reflect the likely effects of flooding in each area. These zones are 0-5 feet, 5-10 feet, and greater than 10 feet.

- Likely damage to structures and land.
  Likely damages for different depths of flooding were calculated for each of the three basic types of land use: residential, commercial, and industrial. These values were reduced to an expected damage per square foot of building and land for each type of land use in each flood depth zone.

Using this methodology, average annual assessments would range from $36 to $109 for single-family residences, $59 to $200 per 1,000 square feet of building area of commercial properties, and $40 to $128 per 1,000 square feet of building area for industrial properties.

STEP 2: Assessments in Each Benefit Zone are Proportional to Expected Flood Damage

The current average assessments that would be eliminated range from $12 to $66 for single-family residences, $26 to $89 per 1,000 square feet of building area of commercial properties, and $17 to $54 per 1,000 square feet of building area for industrial properties.

Assessments would continue for a 30-year period. They would be recalculated annually based on changes to properties, such as new construction or demolition of an existing structure.

To see how your property would be assessed, visit www.safca.org, click on the “Assessment Calculator” and enter your parcel number (which can be found on the mailing label of this newsletter).

**STEP 3: Existing Assessments are Eliminated**

The proposed new assessment district would eliminate two existing assessment districts - the North Area Local Project capital assessment district (formed in 1995) and the American River/South Sacramento Streams Group capital assessment district (formed in 2000).
Should property owners approve SAFCA’s proposed assessment district formation plan, SAFCA is prepared to move forward quickly with a series of projects to enhance the region’s flood protection. The first planned step is to complete the projects necessary to provide 100-year flood protection for developed areas in Sacramento’s major floodplains as quickly as possible. At the same time, SAFCA plans to embark on a series of projects to provide urban-standard (200-year) flood protection for developed areas in Sacramento’s major floodplains.

The total price tag for these projects is estimated at $2.68 billion. About 90 percent of this cost will be paid by the Federal and State governments. Local residents who will benefit from these improvements are required to provide the remaining 10 percent of the construction cost (or $246.5 million), 100 percent of the operation and maintenance costs for the projects, and complete debt service payments on the North Area Local Project, for a total of $325.8 million. For this investment, the Sacramento area will:

- Achieve 200-year flood protection or better
- Protect $40-$50 billion in damageable property

The formation of a new assessment district, if passed, would fund the following projects to meet Sacramento’s flood protection goals:

- **Natomas Basin levee improvements** — improve the levees that surround the Natomas Basin to control deep underseepage, repair erosion sites, and raise levees where needed.

- **Levee improvements along the American and Sacramento rivers** — improve the levees along the lower American and Sacramento rivers to safely convey sustained releases of up to 160,000 cubic feet per second (cfs) from Folsom Dam — well above the record of 134,000 cfs set in 1986.

- **South Sacramento Streams Group channel improvements** — improve the flood control levees and channels along Morrison Creek, Elder Creek, Unionhouse Creek, and Florin Creek.

- **Folsom Dam improvements** — improve Folsom Dam’s low-level discharge and flood storage capacities and upgrade the dam’s ability to manage river water temperature for fish. This would include a new auxiliary spillway and a new bridge across the American River downstream of Folsom Dam, plus more efficient flood operations.

- **Long-term levee integrity program** — a long-term urban levee and channel maintenance program to maintain the improvements and ensure that the levees protecting Sacramento continue to perform with a high degree of reliability.

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### PROJECT COST SHARES USED TO COMPUTE ASSESSMENTS ($ Millions)

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>PROJECT COST</th>
<th>SAFCA SHARE</th>
<th>STATE SHARE</th>
<th>FEDERAL SHARE</th>
<th>CITY OF FOLSOM SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folsom Dam Improvements</td>
<td>$1,665</td>
<td>$145.5</td>
<td>$328.4</td>
<td>$1,146.6</td>
<td>$44.5</td>
</tr>
<tr>
<td>Natomas Levees</td>
<td>$414</td>
<td>$43.5</td>
<td>$101.5</td>
<td>$269</td>
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<tr>
<td>AR Levee Improvements</td>
<td>$160</td>
<td>$13.8</td>
<td>$32.2</td>
<td>$114</td>
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<tr>
<td>SR Levee Improvements</td>
<td>$340</td>
<td>$35.7</td>
<td>$83.3</td>
<td>$221</td>
<td></td>
</tr>
<tr>
<td>North Sac Streams</td>
<td>$16.7</td>
<td>$5</td>
<td>$7.3</td>
<td>$4.4</td>
<td></td>
</tr>
<tr>
<td>South Sac Streams</td>
<td>$85</td>
<td>$3</td>
<td>$20.3</td>
<td>$61.7</td>
<td></td>
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<tr>
<td>TOTAL PROJECT COST</td>
<td>$2,680.7</td>
<td>$246.5</td>
<td>$573</td>
<td>$1,816.7</td>
<td>$44.5</td>
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<tr>
<td>NALP DEBT SERVICE</td>
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<td>$34.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEVEE INTEGRITY</td>
<td></td>
<td>$44.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAFCA TOTAL</td>
<td></td>
<td>$325.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After enduring two record floods and recently witnessing the devastation that major floods have caused around the world, most Sacramentans are uniquely aware of the unacceptable flood threat our region faces. Perhaps nowhere is this more clear than in the Natomas Basin.

Natomas levees nearly failed in the flood of 1986. The culprit was water seeping through the levees along the Sacramento River, taking the sandy embankment material with it. Fortunately, emergency repairs averted a major catastrophe, but new flood risk maps and an evaluation by the U.S. Army Corps of Engineers (Corps) downgraded Natomas to a 40-year level of flood protection, leading to mandatory flood insurance requirements in 1989.

Between 1990 and 1997, SAFCA, the Corps and the State Reclamation Board made major improvements to the levees, enabling the Corps to certify that the Natomas levees met 100-year flood protection criteria. The Federal Emergency Management Agency (FEMA) subsequently drew new flood risk maps, relieving residents from expensive mandatory flood insurance.

In 1997, Sacramento again faced a monster flood and Natomas improved levees performed well. However, because levees elsewhere in the region failed, new studies eventually revealed a new problem: **Levees are more vulnerable to deep underseepage failure than the Corps previously thought.**

As illustrated in the graphic on this page, deep underseepage occurs when river levels reach flood stage, quickly increasing water pressure in the sand and gravel layers deep underground. This highly pressurized water can flow under the levee, where it can erupt out of the ground, undermining the levee.

This discovery prompted the Corps to develop new levee safety criteria in 2004. Using the new criteria, SAFCA recently concluded that much more work would be required to address these weaknesses. After reviewing SAFCA’s report, the Corps concluded in July 2006 that it could not stand behind its 1999 certification of Natomas levees.

As a result, new FEMA maps will place Natomas back in the 100-year floodplain in November. Mandatory flood insurance will be required of all property owners in this community and restrictions may be placed on new construction. **Natomas property owners have until November to purchase a low-cost flood insurance policy under the current levee certification.** It is important to act fast as this opportunity ends in November when rates are likely to at least double.

For this reason, SAFCA has been working closely with City and County officials, as well as State and Federal agencies, to develop a plan to ensure that these levees are quickly restored to at least the 100-year protection level and then pushed to the 200-year protection level over time. **SAFCA plans to begin construction this year to build deep slurry walls or land side seepage berms to fix the underseepage problem. SAFCA also plans to repair known erosion sites and make sure the levees are high enough.**

If SAFCA's assessment district plan is approved by property owners, Natomas residents and other residents of Sacramento could achieve 200-year flood protection by 2012.

### Community Open House Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/5</td>
<td>6:30</td>
<td>Clunie Community Center</td>
<td>601 Alhambra Boulevard, Sacramento</td>
</tr>
<tr>
<td>3/5</td>
<td>6:30</td>
<td>South Natomas Community Center</td>
<td>2901 Truex Road, Sacramento</td>
</tr>
<tr>
<td>3/7</td>
<td>6:30</td>
<td>George Sim Community Center</td>
<td>6207 Logan Street, Sacramento</td>
</tr>
<tr>
<td>3/7</td>
<td>6:30</td>
<td>Inderkum High School</td>
<td>2500 New Market Drive, Sacramento</td>
</tr>
<tr>
<td>3/8</td>
<td>6:30</td>
<td>Gold River Elementary School</td>
<td>2200 Roaring Camp Drive, Gold River</td>
</tr>
<tr>
<td>3/12</td>
<td>6:30</td>
<td>Belle Coolidge Community Center</td>
<td>5697 South Land Park Drive, Sacramento</td>
</tr>
<tr>
<td>3/12</td>
<td>6:30</td>
<td>Elk Lodge #6</td>
<td>6446 Riverside Boulevard, Sacramento</td>
</tr>
<tr>
<td>3/12</td>
<td>6:30</td>
<td>Robertson Community Center</td>
<td>3525 Norwood Avenue, Sacramento</td>
</tr>
<tr>
<td>3/14</td>
<td>6:30</td>
<td>Joe Mims Jr. Hagginwood Community Center</td>
<td>3271 Marysville Boulevard, Sacramento</td>
</tr>
<tr>
<td>3/14</td>
<td>6:30</td>
<td>Sierra 1 Center</td>
<td>2791 24th Street, Sacramento</td>
</tr>
<tr>
<td>3/15</td>
<td>6:30</td>
<td>Coloma Community Center</td>
<td>4623 T Street, Sacramento</td>
</tr>
<tr>
<td>3/15</td>
<td>6:30</td>
<td>Samuel Pannell Meadowview Community Center</td>
<td>2450 Meadowview Road, Sacramento</td>
</tr>
</tbody>
</table>

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


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