

FLOOD WATCH

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WHY THE NATOMAS LEVEE IMPROVEMENT PROGRAM COST IS GREATER THAN ANTICIPATED

The Natomas Levee Improvement Program (NLIP) is expected to cost significantly more than estimated in April 2007. At that time, property owners approved assessments through a mail ballot process to fund the local share of this program. There are two primary reasons for the cost increase.

After the NLIP was established, the U.S. Army Corps of Engineers (Corps) adopted new standards that required SAFCA to develop a new design solution along the Sacramento River. Rather than stripping existing vegetation from the waterside slope of the levee and removing several dozen waterside homes, SAFCA opted to construct a new levee adjacent to the existing levee. The redesign solution satisfies the Corps' new standards and does so at a cost substantially less than what it would have cost to remove homes, trees, utility poles and other structures under the original plan. However, constructing adjacent levees has required a large expansion of the project footprint and added greatly to the original project costs.

The NLIP along the east side of Natomas also had to be redesigned. In 2007, most of this part of the levee system was considered to be adequate. SAFCA planned only to improve the levee along the Pleasant Grove Creek Canal north of Sankey Road. However, under new Federal and State standards, the levee between Sankey Road and Dry Creek needs to be strengthened to withstand extreme water levels in the adjoining drainage channel. After collecting and examining data on the condition of this segment of the levee, SAFCA identified problems with the foundation and banks of the levees. To address these deficiencies, SAFCA's engineers created an adjacent levee design similar to the one along the Sacramento River, adding significantly to the original project costs.

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A MESSAGE FROM THE EXECUTIVE DIRECTOR

THE STAKES ARE HIGHER THIS YEAR

SAFCA is confronting new challenges that require the attention of all property owners in the Natomas Basin.



RICK JOHNSON
Interim Executive Director

We have made significant progress to strengthen levees protecting this Basin from serious flood risks since property owners approved assessments in 2007. With that said, like it or not, we must deal with the fact that new assessments are needed to maintain the pace of our work and to complete the improvement projects for which SAFCA has responsibility.

At stake is the timing of when we can get the Federal Emergency Management Agency (FEMA) to remove the requirement for flood insurance coverage that will cost

homeowners more than a thousand dollars per year for a typical policy and to remove building restrictions in Natomas.

As you may recall, new U.S. Army Corps of Engineers (Corps) standards caused FEMA to remap Natomas into the 100-year floodplain in late December 2008. Unfortunately, the Corps also changed its standards affecting vegetation and other structures along the Sacramento River. To further complicate things, after collecting and examining data on the condition of the levees on the east

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ARMY CORPS OF ENGINEERS RECOMMENDS APPROVAL OF NATOMAS LEVEE IMPROVEMENT PROGRAM

In an engineering feasibility report delivered to Congress and the Obama Administration at the end of 2010, the U.S. Army Corps of Engineers (Corps) has laid the groundwork for Congress to authorize completion of the Natomas Levee Improvement Program (NLIP). In the past two years, this report was among only a handful to make it successfully through the Corps' national review process.

Evaluating the NLIP as a separate component of the flood control system in Sacramento was in large part inspired by SAFCA's accomplishments in Natomas. The Corps was able to take advantage of SAFCA's planning, engineering and environmental work. SAFCA's ability to show that adjacent levees along the Sacramento River complied with the Corps' new vegetation and encroachment standards was a key factor in this national review process.

The stage is now set for Congress to authorize completion of the NLIP and provide the

appropriations necessary to permit its completion. An effort will be made in the current 2011-12 session of Congress to obtain such authorization.

Several factors weigh in favor of congressional action on the Natomas project during this new session. The risk of flooding in Sacramento is well known in Washington, D.C.

SAFCA's accomplishments in reducing the flood risk and the willingness of local citizens to contribute their share of the cost of this effort are also well known and have played a key role in previous congressional authorizations.

Most importantly, as the Corps' report makes clear, the Federal interest in flood risk reduction in Natomas is not well served by further delay. SAFCA will continue to work with Congresswoman Doris O. Matsui and the Sacramento congressional delegation to support the needed authorization.

FOUR YEARS OF PLANNING AND CONSTRUCTION

Passengers flying in and out of Sacramento International Airport may have noticed how SAFCA's massive Natomas Levee Improvement Program (NLIP) has altered the landscape along the perimeter of the Natomas Basin north and west of the airport. For flood managers and Natomas residents, these changes are welcomed because a breach of this portion of the levee system would cause deep flooding of the Natomas Basin.

"When the Consolidated Capital Assessment District was formed in April 2007, our plan was to get going as quickly as possible on raising and strengthening the south levee of the Natomas Cross Canal, which forms the northern boundary of Natomas," explained John Bassett, SAFCA's Director of Engineering. According to Bassett, "SAFCA's next priority is to raise and strengthen the levee along the Sacramento River, also a high risk part of the Natomas levee system. Any failure in the Natomas Cross Canal or Sacramento River levees during a large flood would result in the Basin flooding up to a depth of 20 feet."

Within months of the launch of the NLIP, the U.S. Army Corps of Engineers (Corps) adopted new levee vegetation and encroachment standards affecting the NLIP. These new standards made it impractical to raise and strengthen the levee along the Sacramento River using standard construction methods. Said Bassett, "We would have had to strip the trees from the waterside of the levee and remove dozens of homes along the waterside of the Garden Highway."

SAFCA came up with a concept to address these new standards – construction of a new levee adjacent to the existing levee. This adjacent levee is the highly visible structure taking shape along the eastern bank of the Sacramento River in Natomas.

The adjacent levee design has worked because it is well adapted to conditions on the ground in the western portion of the Natomas Basin. Large-scale farming is the predominant land use alongside the airport and the emerging Natomas Basin Habitat Conservation Plan area. Near the river, the landscape is also dotted with the burial grounds of the Native Americans who occupied the Natomas Basin long before it was reclaimed for farming.

Because of especially porous foundation conditions in several locations along the river, SAFCA has constructed wide earthen berms rather than deep cut-off walls to address the risk of levee underseepage. The berms also serve to contain and protect buried human remains and artifacts.



Gualco Consulting



SAFCA has also adopted several interagency agreements to ensure that the redesigned levee improvements not only protect but also complement existing land uses. For example, under an agreement with the Sacramento County Airport System, SAFCA is mining several million tons of soil material from abandoned rice fields in the bufferlands north of the terminal. These fields are being regraded to meet Federal Aviation Administration drainage standards, thereby reducing wildlife conflicts in the area.

Construction of the adjacent levee has also required relocation or removal of several hundred trees along the landside of the existing levee. SAFCA is compensating for this loss by creating a new woodland corridor along the outer edge of the adjacent levee footprint. According to Peter Buck, SAFCA's Natural Resources Supervisor, "Many of the trees in the project footprint are mature valley oaks. We've transplanted some of the younger trees and planted hundreds of new trees as replacements. The soil conditions in the western portion of the Basin are very favorable

for tree growth. Over time, we expect the new corridor to produce a canopy that is two or three times larger than the canopy that is being lost."

These arrangements have allowed the NLIP to move forward at a rapid pace. "We finished the work on about five miles of the Natomas Cross Canal and seven miles of the Sacramento River last year," Bassett noted. "If we can close our local funding gap, we could extend the adjacent levee another six miles to Powerline Road south of the Airport." Under this scenario, SAFCA could significantly reduce flooding potential in Natomas and complete half of the improvements needed to meet Federal standards for providing the Natomas Basin with at least a 100-year level of flood protection.

This scenario would set the stage for congressional authorization of the remainder of the perimeter levee improvement program – lifting the current restrictions on building new homes and businesses in Natomas.

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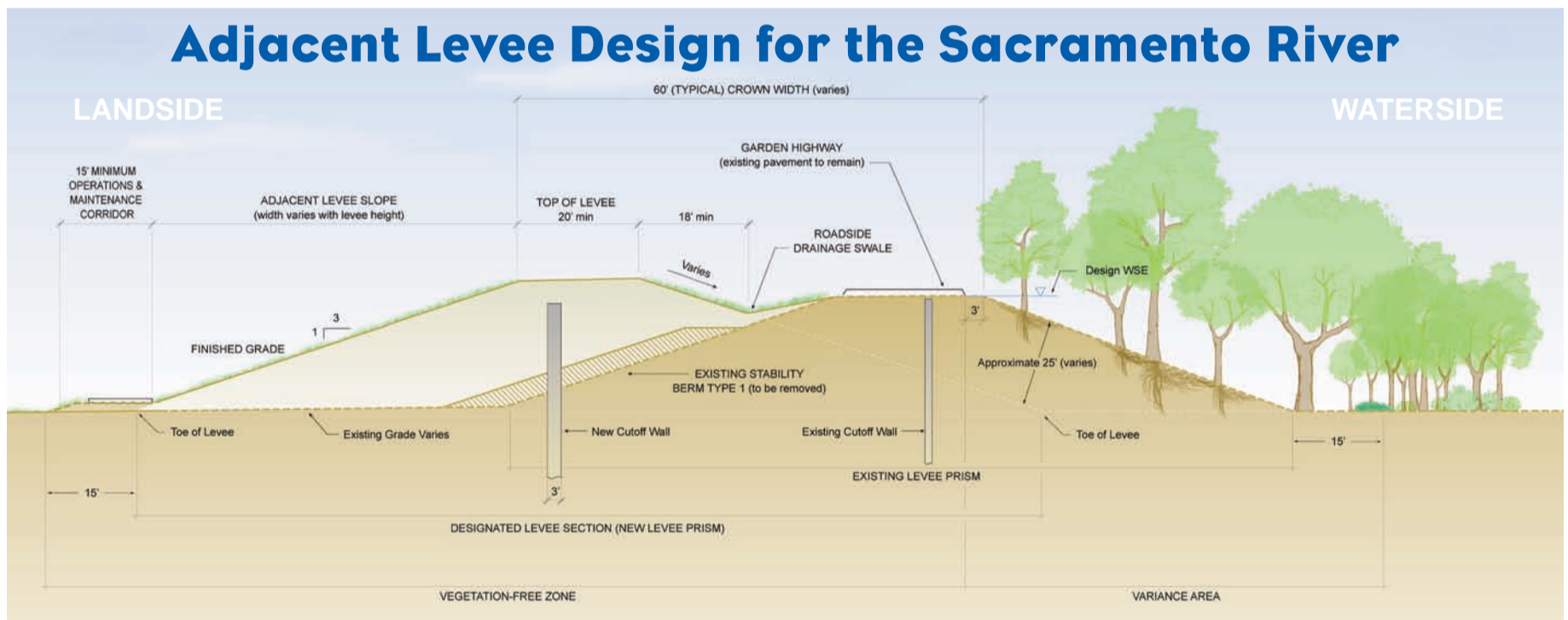
“WHY THE NATOMAS LEVEE IMPROVEMENT PROGRAM COST IS GREATER THAN ANTICIPATED”

The following table summarizes the NLIP cost increases on the west and east sides of the Natomas Basin. (The figures are in millions of dollars.)

If Natomas property owners fail to approve the new assessments required to raise SAFCA’s \$35-40 million local share off the \$366 million in added costs, the following events would occur:

- ✓ SAFCA’s current construction program along the Sacramento River would halt.
- ✓ The current building restrictions in Natomas would not be lifted.
- ✓ Costly flood insurance requirements would continue indefinitely.
- ✓ The Natomas Basin would not achieve 200-year level flood protection.

West Side and East Side Cost Increases (SAFCA/Corps Project)			
Project Feature	2007 Engineer’s Report (Millions)	NLIP Current Estimate (Millions)	Comment
Levee Improvements	\$290.9	\$395.1	Higher cost due to widening approximately 30 miles of the perimeter levee system and reconstructing drainage, irrigation, utility and roadway infrastructure to accommodate the larger levee area.
Environmental Mitigation	\$5.2	\$50.8	Higher cost for designing and creating several hundred acres of woodland, cropland and marsh habitat to offset negative environmental impacts of the larger levee area.
Construction Management	\$29.2	\$64.0	Higher management cost due to larger construction project.
Real Estate	\$1.1	\$119.9	Higher cost to acquire land for the larger project area.
Planning and Engineering	\$87.6	\$150.2	Higher cost for compliance with new vegetation and encroachment standards and permitting, including monitoring and avoiding Native American burial grounds in the larger project area.
Total	\$414.0	\$780.0	Difference = \$366.0 million



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FLOOD INSURANCE RATE RELIEF FOR AT LEAST TWO YEARS

Some Natomas property owners who renewed their flood insurance policies in 2009 experienced a large rate increase – from approximately \$350 to \$1,250 per year for a typical policy. This increase resulted from a decision of the Federal Emergency Management Agency (FEMA) in late 2008 to remove its 100-year flood protection rating for the Natomas Basin and to remap it into a “special flood hazard” zone. Other Natomas property owners who renewed their policies prior to this date avoided the cost increase for at least the first year after the remapping.

Fortunately, Congresswoman Doris O. Matsui persuaded FEMA to make insurance rate relief available to all Natomas property owners for 2011 and 2012. This means that during this two-year period, single-family residents can obtain flood insurance for about \$350 per year.

Rep. Matsui is working with others in Congress on legislation that would extend insurance rate relief beyond 2012. This relief would be included along with other measures in a five-year renewal of the National Flood Insurance Program (NFIP). These measures were introduced in 2010 but differences between the House and Senate prevented adoption. The NFIP was renewed in its present form for one year with the expectation that another effort to pass the five-year renewal will be made in 2011.

The measure being supported by Rep. Matsui would require a phase-in period for new insurance rates when areas such as Natomas are removed from and then later remapped into a “special flood hazard” zone. Under this provision, rate increases could not exceed 20 percent of the new rate in any year.

If this measure is adopted, insurance rate increases in Natomas after 2012 would be limited to about \$250 per year until the new rate (approximately \$1,250) is achieved in 2016. The new rate would remain in force until the Corps completes the Federal portion of the Natomas project and removes the Natomas Basin from the 100-year floodplain.

Under a best-case scenario, if the local funding gap is closed, the removal could occur in 2019. At this point, flood insurance rates would be rolled back to the current \$350 per year level. Under a worst-case scenario, if the local funding gap is not closed, the new \$1,250 rate would continue indefinitely.

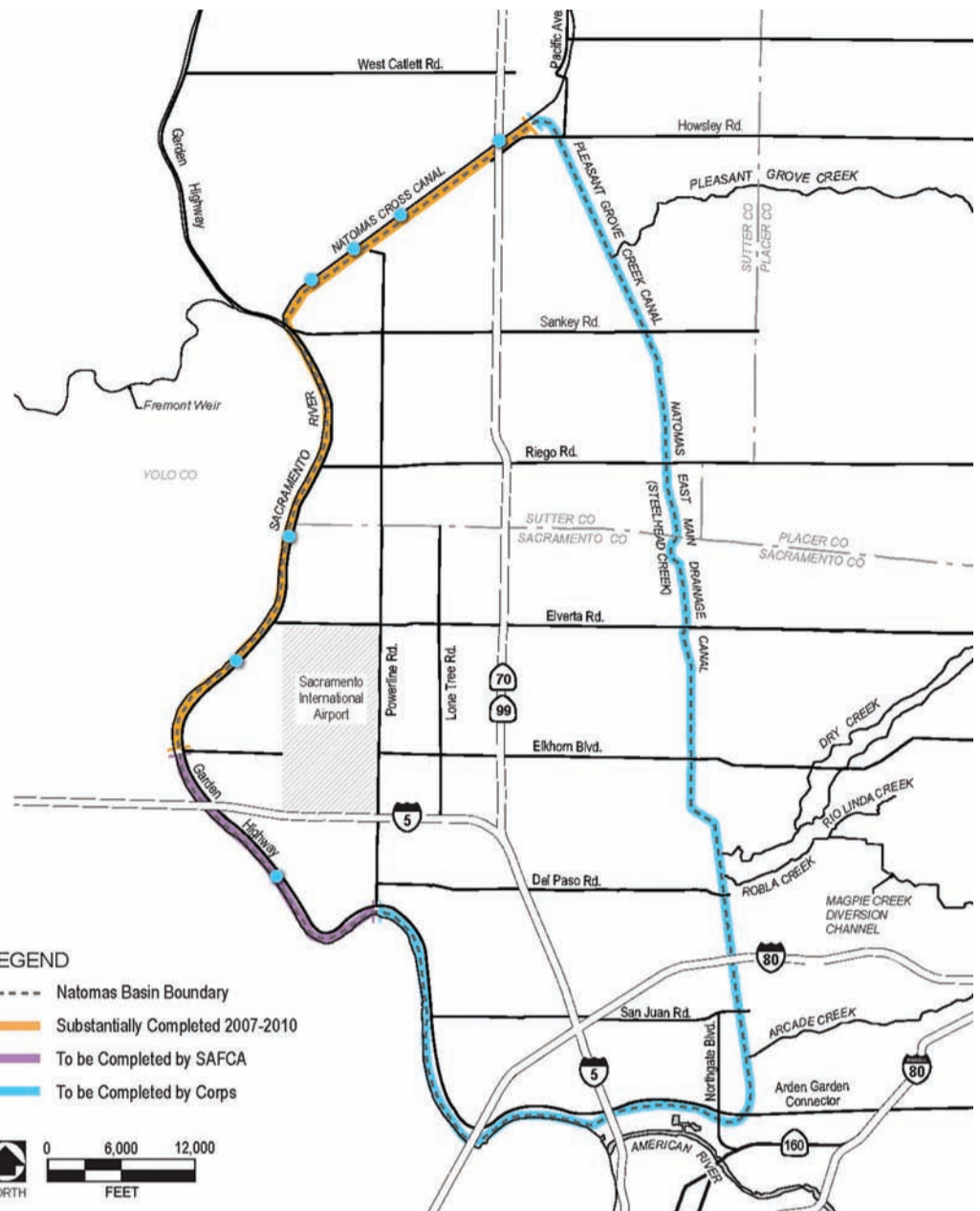
COMMUNITY OUTREACH AND POTENTIAL FOR A MAIL BALLOT PROCESS

Property owners will have an opportunity to learn about and discuss the need for additional funding to complete ongoing improvements to the Natomas levee system at regular community and homeowner association meetings planned in February and March.

SAFCA staff will provide information on costs and benefits of the Natomas Levee Improvement Program (NLIP) and answer questions about the NLIP's status. Among the meeting topics will be expenditures to date, additional funding needed to complete the project, prospects for Federal authorization and funding, and other issues of interest to Natomas property owners.

This information also will be addressed in an engineer's report to be presented to the SAFCA Board at its regular meeting on February 17, 2011. This report will be accompanied by an updated project cost estimate and independent review of the cost estimate by an outside engineering firm familiar with the Natomas project. This report will identify the local funding need, describe the proposed method to meet this need with special assessments on Natomas property owners, and identify the allocation of assessments among residential, commercial and industrial properties in the Natomas Basin.

The SAFCA Board is expected to consider action on the engineer's report at a special meeting on March 2. If the Board approves this report, all Natomas property owners (residential and non-residential) will have an opportunity to decide the fate of the proposed new assessments through a mail ballot process.



Under this process, the ballots are weighted to reflect each property owner's respective assessment, ballots must be returned within a 45-day period and the ballot question is decided by a majority of the weighted ballots cast.

Should there be an assessment process, SAFCA will host a series of community open

houses in Natomas in March to address questions about the contents of the engineer's report and the balloting process.

Details about the community open houses and the assessment proposal will be included in a second newsletter to be issued by SAFCA in early March.

"DIRECTOR'S MESSAGE" CONTINUED FROM PAGE 1

side of Natomas, we realized that more money would be needed to make the improvements necessary to provide for the safety of Natomas Basin residents.

While all of these changed conditions forced SAFCA to redesign its scope of work to improve these levees, the Corps delivered a report to Congress last year asking that the redesigned NLIP be authorized for Federal appropriations. Under a best case scenario, if the Corps is able to move at a pace similar

to SAFCA's, the work needed to remove Natomas from the 100-year floodplain could be completed by 2018.

In February, we will present to the SAFCA Board a proposal to close the identified funding gap. We estimate that gap to be roughly \$366 million. Of that amount, SAFCA's local share would be \$35-40 million. To raise this local share, another assessment process involving Natomas property owners is needed.

Should this assessment be approved, actual collection of the new assessment will not occur until 2013 or 2014 when bond funds would be needed.

Our challenges are a stark reminder that we don't control the rules under which the Natomas Basin levee system is managed. Fortunately, however, we can satisfy the new standards, avoid high flood insurance costs, and provide 200-year protection if the funding gap can be closed.

For more information, please contact SAFCA at (916) 874-7606 or visit www.safca.org.

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