November 17, 2008

TO: INTERESTED PARTIES

FROM: Stein Buer, Executive Director
Sacramento Area Flood Control Agency
(916) 874-7606

SUBJECT: NATOMAS LEVEE IMPROVEMENT PROGRAM UPDATE

INTRODUCTION

This report provides an update to the Executive Director’s Report distributed by SAFCA on July 30, 2008. SAFCA and its partner agencies, the U.S. Army Corps of Engineers (Corps), and the Central Valley Flood Protection Board (State), formerly the Reclamation Board, have continued to work on many fronts to advance the Natomas Levee Improvement Program ("NLIP" or "Program"). As progress continues in planning, the preparation of environmental documents, securing financing, and construction, we also continue to seek comments from interested public and stakeholder groups, which can help guide our decision-making.

To help the community stay informed about current activities, SAFCA provides access to information in a variety of ways:

- Relevant information about the Program is posted regularly on the SAFCA website (www.safca.org) under the link titled “SAFCA Projects”.

- Program updates are provided at monthly SAFCA Board meetings, which typically occur on the third Thursday of every month, beginning at 3:00 PM. These meetings are televised live on Metro Cable. The Board meetings are videotaped and archived online under “Board Meetings”. Links to agency staff reports and archived video are also available.

- Public meetings are held in the community to garner public input on the Program as each stage moves through the environmental impact analysis and permitting process.

- All of the relevant environmental documentation is posted on the SAFCA website and is available in public libraries throughout the Sacramento area.
• Executive Director Reports, such as this one, are periodically mailed to property owners located adjacent to the project footprint.

**PROGRAM GOALS**

In general, the NLIP is designed to improve flood protection for the Natomas Basin as quickly as possible. In light of the anticipated re-mapping of the Natomas Basin into the Federal Emergency Management Agency (FEMA) regulated 100-year floodplain (an AE rating on the revised National Flood Insurance Rate Maps) in early December 2008, SAFCA’s milestones are to:

• Achieve a re-mapping to an A99 rating, which would alleviate the building restrictions which will be imposed when the AE rating takes effect;
• Restore 100-year flood protection to the Natomas Basin as quickly as possible;
• Achieve a 200-year level of flood protection or better over time.

**PROJECT SCHEDULE**

SAFCA and its partner agencies are seeking ways to expedite project execution by every reasonable means. This is expected to result in rapid flood risk reduction with cost savings in both risk exposure and cost inflation. Many of the activities that are normally done in sequence for projects of this nature are being executed in parallel. SAFCA is making numerous adjustments in schedule, design, and real-estate requirements as the project moves forward.

Since the NLIP project was originally proposed in 2006, it was anticipated that the levee improvements necessary to provide the Natomas Basin with a 100-year level of flood protection could be completed in a four-year construction cycle commencing in 2007 and ending in 2010. This would be followed with the completion of improvements to provide 200-year protection by the end of 2012. At that time, 26 miles of levee was identified as having potential 200-year deficiencies that could be addressed relatively quickly by raising and strengthening the levee. It was estimated that the improvements necessary to provide 100-year protection would cost $260 million and the cost of repairs necessary to provide 200-year protection could be constructed for a combined total of $414 million.

These assumptions did not anticipate subsequent changes in Corps policies and regulations covering alterations to Federal project levees and management of encroachments. Moreover, due to limited information regarding the condition of levees along the east side of the Basin, the initial project costs and scope of work required to achieve levee certification was significantly underestimated. The result of these changes is summarized as follows:

1. The expected pace of construction has been slowed by the Corps’ recent determination that any alteration to a Federal project levee must be reviewed and approved by the Corps’ Washington headquarters and is subject to NEPA compliance. Compliance with this requirement has added almost 12 months
to the environmental review and permitting process and largely eliminated any substantial project construction activities in 2008.

2. In 2006, the Corps released a draft white paper outlining requirements for managing vegetation and encroachments on Federal project levees. These requirements created immediate challenges for SAFCA’s original plan to raise and strengthen levees in place. In response, SAFCA developed a new design for the Sacramento River east levee (the ‘adjacent levee’ alternative) that would avoid and/or minimize the need for extensive removal of vegetation and encroachments from the water side of the existing levee. The new adjacent setback levee has added approximately $130 million to the original NLIP cost estimate.

3. Additional levee stability and underseepage data gathered in 2007 and 2008 indicate that portions of the levees on the east side of the Basin may not meet current 100-year protection criteria and will require more substantial improvements than previously anticipated. These improvements are estimated to cost $75 million.

With the change in design for the Sacramento River levee and additional work required along the Basin’s east levees, the updated project cost estimate is $618.1 million, of which approximately $580.1 million is allocable to achieving 100-year level flood protection. In addition, SAFCA anticipates federal permitting issues will add twelve months to the schedule.

Currently the project is being funded solely by State (Proposition 1E) and local (SAFCA) funds. Because these funds are limited, assurance by Congress that all expenditures will be credited to the non-federal partners is necessary before construction of the improvements needed for 200-year protection can commence, and to fully complete the improvements for 100-year protection.

The Corps is in the process of preparing a General Reevaluation Report (GRR) for the area that will reflect the status of Sacramento’s urban levee improvement program and serve as the basis for a review and authorization by Congress in 2010. SAFCA estimates that up to $430 million of non-federal, state and local, funds can be expended on the project before an assurance by Congress is required for the project to continue.

The estimated schedule to achieve the program goals has been updated as follows:

- Completion of 50 percent of the levee improvements by November 2010, with FEMA adequate progress remapping (A99) in mid 2011.
- Completion of the 100-year levee improvements by November 2011, with FEMA 100-year remapping in mid 2012.
- Completion of the 200-year levee improvements by November 2012, with certification by mid 2013.
The Program schedule and execution strategy is adapted as necessary as new information becomes available, as design criteria change, as the complex environmental documentation and permitting process moves forward, and as we work through the acquisition of right-of-way and borrow materials.

The Program schedule is updated at least once a month and posted on the SAFCA website. A graphic representation of the proposed construction sequence for the Natomas Basin is shown in the link titled, “NLIP Construction Phasing Map” which is also updated monthly.

**PROJECT FUNDING**

**SAFCA Development Impact Fee Program:** In May 2008 the SAFCA Board approved the implementation of a Development Impact Fee on all new residential, commercial, and industrial development within the SAFCA Consolidated Capital Assessment District (CCAD) 200-year floodplain. The new fee will take effect on January 1, 2009. The collected revenues will be used to offset the additional risk of economic damage from new development in the 200-year floodplain, including Natomas. The collected funds will help fund the local share of costs of improving Natomas levees from a 100-year level of protection to the 200-year level. The fee is projected to contribute $132 million for flood system improvements over the next 11 years, based on regional growth projections. This fee, combined with the revenues from the SAFCA CCAD, will provide the local contribution to the Sacramento area flood damage reduction system improvements, including the NLIP.

**State Funding:** In 2007, the State Legislature allocated $49 million in Proposition 1E funds for the NLIP. In 2008, another $193 million was allocated, for a total of $242 million. The State is authorized to work with SAFCA to help complete the NLIP, contributing 70% of the total non-federal cost share, including its share of advancing anticipated federal funding, while SAFCA contributes 30% of the total.

**Federal Funding:** Despite long federal involvement in Natomas levee improvements, dating back to 1917, because the needed improvements are far more extensive than previous federal authorizations contemplated, the Corps requires new authority to contribute funds and help with the construction of the NLIP. SAFCA and the State fully anticipate that the Corps will be authorized to contribute its full federal share of 65% of the total project cost, once the GRR federal study and authorization process is completed.

**ENVIRONMENTAL DOCUMENTATION**

The Natomas Basin is surrounded by 42 miles of levees, with a variety of deficiencies which must be corrected in order to achieve flood risk reduction goals. These include water side erosion, insufficient levee height, instability due to potential seepage through and under the levees, instability due to inadequate levee cross sections, poor construction materials, and encroachments. SAFCA has
determined that the most practical and cost-effective way to make the levee improvements is to break the work into phases, allowing available resources for studies, design, and construction to be most efficiently used.

Accordingly, the environmental documentation for the program is being completed in stages as well. This can sometimes be confusing to the casual observer, as multiple documents in various stages of completion may be available for review at any given time. Furthermore, SAFCA and its partner agencies must comply with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), as well as a host of other federal and State laws and regulations. Thus for every significant action, both an Environmental Impact Report (EIR, for CEQA) and an Environmental Impact Statement (EIS, for NEPA) must be completed, as separate documents or as a combined EIS/EIR. While environmental documents evaluate many different elements and impacts of a project such as borrow sites, habitat and air quality effects, the objective of the project is to improve the Natomas Basin levee system. To that effect, listed below is a status of each phasing document along with a description in parentheses below it that describes the levee improvements associated with it.

**Phase I EA/EIR**
(Includes project Level detail for Natomas Cross Canal Phase 1 levee improvements)

**February 2007:** SAFCA certified the *Final EIR on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area, including a Programmatic Evaluation of the Proposed Funding Mechanisms and a Project-Level Evaluation of the Natomas Cross Canal South Levee Phase 1 Improvements*. This report provided the evaluation which supported the implementation of SAFCA’s assessment district (CCAD) in April of 2007 and the establishment of the SAFCA Development Impact Fee Program in May of 2008. It provided a general, program-level description of the entire NLIP, and project-level CEQA compliance for the first stage of construction on the NLIP, consisting of seepage cutoff wall construction along the western portion of the Natomas Cross Canal south levee. A subsequent federal Environmental Assessment provided project-level NEPA compliance

**Phase II EIS/EIR**
(Includes project level detail for Natomas Cross Canal Phase 2 levee, Sacramento River east levee Reach 1-4B improvements)

**November 2007:** SAFCA certified the *Final EIR on the Natomas Levee Improvement Program Landslide Improvements Project*, which provided a detailed, project-level analysis of construction planned for the 2008 construction season and a more general, program-level analysis of construction work planned for the 2009-2010 construction seasons.
June 2008: The Corps released for public review the Draft EIS on 408 Permission and 404 Permit to Sacramento Area Flood Control Agency for the Natomas Levee Improvement Project, Sacramento, CA, which is the companion NEPA compliance document to SAFCA’s November 2007 EIR. It is required to support Corps decisions on project compliance with federal laws (33 U.S.C. 408 and Clean Water Act, Section 404). The Final EIS was released for the final 30-day comment period on November 14, 2008. The comment period ends on December 14, 2008, with a record of decision anticipated a few weeks after that. While originally described as “2008” construction work, due to additional time required to complete the environmental documentation process, the described work is now planned for the 2009 construction season and referred to as “Phase II”.

October 2008: SAFCA held a scoping meeting on October 22, 2008 for a Phase II Supplemental EIR (SEIR). The SEIR is subsequent to the Phase II Project EIR that was certified in November 2007. The SEIR is being prepared to reflect substantial changes in the project which require revisions to the previous EIR. These changes include borrow site substitutions, re-routing of truck hauling to off-road haul routes of the Sacramento River east levee (Reaches 1-4B), levee and drainage design modifications, construction phasing and timing, and land use and habitat.

Phase III EIS/EIR
(Includes project level detail for Sacramento River east levee Reach 5A-9B, Pleasant Grove Creek Canal levee, Natomas East Main Drainage Canal levee south of Elkhorn Blvd. improvements)

August 2008: The Corps, the State, and SAFCA jointly began preparation of an EIS/EIR to provide environmental documentation for NLIP Phase III work, which will likely be executed in the 2009 and 2010 construction seasons. A Scoping Meeting on this document was held on August 6, 2008. We anticipate the Draft EIS/EIR will be available for public review in late January to early February 2009.

Phase IV EIS/EIR
(Includes project level detail for Sacramento River east levee Reach 10-15 improvements)

January 2009: A Notice of Preparation is currently scheduled to be issued in January 2009.

Phase V EIS/EIR
(Includes project level detail for Sacramento River east levee Reach 15-20, American River levee, Natomas East Main Drainage Canal levee from Sankey Road to Elkhorn Blvd. improvements)

Date of preparation to be determined.
LEVEE VEGETATION AND ENCROACHMENTS

Levee encroachments can be defined as any man-made structures or woody vegetation which may interfere with the structural integrity of a levee or the capacity to efficiently access, inspect, flood fight, or repair a levee. Some encroachments on the levees of the Federal Sacramento River Flood Control Project are permitted by the Central Valley Flood Protection Board (CVFPB, Formerly the Reclamation Board), with the consent of the U.S. Army Corps of Engineers. Permitted encroachments must conform to regulations established by the CVFPB. Some encroachments, such as volunteer vegetation and fences which obstruct flood fight activities, are not permitted.

In April 2007, the Corps released a draft white paper titled, the Treatment of Vegetation within Local Flood Damage Reduction Systems, which called for the removal of brush and trees, as well as other encroachments that might impair levee integrity or flood-fighting access during floods, particularly on the water side of the levee. Recognizing that existing brush and trees provide valuable wildlife and fisheries habitat, contribute greatly to the quality and beauty of our region, and both vegetation and encroachments would be extremely expensive to remove, SAFCA modified its originally proposed NLIP levee improvement designs to include the adjacent setback levee.

It still remains to be seen how the Corps will ultimately view woody vegetation and other encroachments during the levee certification process, however SAFCA has, and will, continue to work with Corps and CVFPB officials at all levels to help guide this evolving policy. SAFCA believes the adjacent levee concept will minimize the need to remove or modify encroachments while meeting Corps geotechnical design criteria, including those for through-seepage, under-seepage and slope stability.

For encroachments which may be judged to be an obstacle to levee certification or maintenance, SAFCA will inform and work with affected property owners before making any final recommendations for modification or removal.

2008 CONSTRUCTION SEASON ACTIVITIES

Geologic Exploration and Field Surveys: SAFCA’s field crews are working throughout the Natomas Basin, collecting data on surface soils and sub-surface foundation conditions, topography, boundary lines, biological resources, cultural resources, and other essential project data.

Prichard Lake - Pumping Plant 2 Site Repair: Reclamation District 1000 managed the emergency repairs at this site, on the Sacramento River east levee just south of the Sutter County Line at River Mile 75.1. The contractor excavated the site to remove old pipes and poor foundation materials which contributed to excessive seepage during the 2006 flood season. The levee cross section was rebuilt with competent materials, with this phase of construction completed in
October. A new pumping plant will be built during Phase III construction to replace the pumping plant removed in 2006.

**Natomas Cross Canal South Levee Phase 1B**: SAFCA successfully completed the installation of approximately 4,500 feet of seepage cutoff wall along the Natomas Cross Canal south levee, picking up east of where the Phase 1A work ended in 2007. This work was completed in early October. (see the NLIP Construction Phasing Map).

**Vegetation Removal and Relocation- Sacramento River East Levee (Land Side)**: SAFCA anticipates that in December of this year, contractors will begin the removal and relocation of trees and vegetation located on the land (east) side of the Sacramento River east levee from the Natomas Cross Canal to just south of the Prichard Lake Pumping Plant. The objective of this work is to prepare the area for the construction of an adjacent levee in 2009. Native trees ranging from 2-10 inches in diameter and located within the project footprint are scheduled to be transplanted to areas along the levee outside of the construction footprint. Native trees that are deemed unviable for successful transplantation, as well as non-native trees and vegetation located in the project footprint, will be removed.

### 2009 CONSTRUCTION SEASON ACTIVITIES PLANNED

**Power Line Relocations along the Sacramento River East Levee in Sutter County**: SAFCA will work with the Pacific Gas and Electric Company to relocate the main power line which parallels the Sacramento River east levee south of the Natomas Cross Canal in Sutter County in early 2009. The power poles and electrical lines would be re-located eastward to make room for the enlarged levee to be constructed along this reach in mid-2009. The relocations will be designed to minimize visual, property, and service impacts on existing homes in the area.

**Elkhorn Irrigation Canal Relocation**: SAFCA will initiate relocation of the Elkhorn Irrigation Canal, which originates at the Prichard Lake Pumping Plant and conveys irrigation water southward parallel to the Sacramento River East Levee to the Elkhorn Reservoir, adjacent to the Teal Bend Golf Club. The work will consist of modifying the canal headworks and constructing a new canal east of the existing canal to make room for the enlarged levee to be constructed along this reach in 2009.

**Levee Improvements along the Natomas Cross Canal**: The installation of seepage cut-off will continue easterly to the Pleasant Grove Creek Canal. Once completed, the levee will then be raised 3 +/- feet and an adjacent levee constructed.

**Levee Improvements along the Sacramento River East Levee**: SAFCA anticipates beginning construction of levee improvements along the Sacramento River east levee from Reach 1-4B in March 2009. In addition, if the Phase III environmental documentation is completed as scheduled, work along the east levee
from Reach 5A-9B will begin in July 2009. Levee work along these two stretches will take place over 2 years, finishing in late 2010.

**FLOOD INSURANCE**

The Natomas Basin will be mapped into the FEMA regulated 100-year flood plain (Zone AE) on December 2 (Sutter County) and December 8 (Sacramento County and City of Sacramento). As a result of this mapping change, flood insurance will be required for properties that have a federally insured loan. If your property lies within the proposed AE zone and you don’t already have flood insurance, SAFCA recommends that you obtain flood insurance prior to the new designation taking affect. The City and Counties have been conducting outreach efforts to further explain the changes in floodplain mapping and how it can affect you in the coming months. Additional information can be located on their respective web sites:

City of Sacramento:
http://www.cityofsacramento.org/utilities/

County of Sacramento:
http://www.msa.saccounty.net/waterresources/

County of Sutter:
http://www.co.sutter.ca.us/doc/government/depts/pw/wr/fp/fphome

**CONTACT**

Gualco Consulting has been assigned by SAFCA to respond to questions and comments by the community. Please feel free to contact Barbara Gualco or Jay Davis by telephone at (916) 351-0600 or by email at jdavis@gualco.com if you would like additional information about NLIP.
NATOMAS LEVEE IMPROVEMENT PROGRAM
Construction Year

Borrow Site

Completed in 2007
Completed in 2008
Completed in 2009
Completed by 2010
Completed in 2011
Completed in 2012

200-year improvements in 2012

SREL Tree Removal and Power Pole Relocations

Completed in 2009
Completed in 2010

Borrow Sites

2008
By 2010
By 2011