

**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
SACRAMENTO, CA 94236-0001  
(916) 653-5791



**AUG 07 2006**

TO: Distribution List

The Budget Act of 2006 requires the Department of Water Resources (DWR) to report quarterly, beginning August 1, 2006, on expenditures of funds pursuant to Assembly Bill 142 (Nunez, Chapter 34, Statutes of 2006) until such funds are exhausted. DWR is required to report on expenditures by project. This report is submitted in compliance with these requirements and covers the quarter ending June 30, 2006.

During the quarter ending June 30, 2006, DWR expended and committed funds for two projects as follows:

- Emergency Levee Erosion Repair Project
  - expended \$37,807,000
  - committed on construction contracts \$92,362,000
- American River Common Features Project
  - expended \$2,100,000

Further details on these projects and expenditures are attached.

In addition, DWR's concept for the various categories of projects that will be funded through AB 142 is as follows:

- Emergency Repair of Critical Erosion Sites
- Additional Critical Repairs, Construction of New Levees, Flood Corridors and Bypasses
- Flood Control Improvements, including sediment removal, emergency preparedness and levee and floodplain evaluations

Unfortunately, recent field surveys of the flood control system in the Sacramento Valley have revealed that the sustained high water carried by the system this winter and spring has caused new erosion that jeopardizes levee integrity at many sites. Surveys by boat will be completed in early August, and DWR will then have a better understanding of the number of new critical sites in need of immediate repair and the associated cost. To the extent the federal government does not adequately fund these repairs; DWR may need to use AB 142 funds to complete those that are most urgent. Expenditures for repairs that the federal government should complete but may not get to, because of funding limitations, will reduce the amount of funds available for the projects described above.

---

If you have any questions, please contact me at (916) 653-7007, or your staff may contact Les Harder, Deputy Director for Public Safety and Business Operations, at (916) 653-9502.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lester A. Snow', with a long horizontal flourish extending to the right.

Lester A. Snow  
Director

Attachments

## DISTRIBUTION LIST:

Honorable Wesley Chesbro, Chair  
Joint Committee on Legislative Budget  
State Capitol, Room 5035  
Sacramento, California 95814

Attention: Ms. Peggy Collins

Honorable Kevin Murray, Chair  
Senate Appropriations Committee  
State Capitol, Room 5050  
Sacramento, California 95814

Honorable John Laird, Chair  
Assembly Budget Committee  
State Capitol, Room 6026  
Sacramento, California 95814

Honorable Judy Chu, Chair  
Assembly Appropriations Committee  
State Capitol, Room 2114  
Sacramento, California 95814

Mr. E. Dotson Wilson  
Chief Clerk of the Assembly  
State Capitol, Room 3196  
Sacramento, California 95814

Mr. Gregory Schmidt  
Secretary of the Senate  
State Capitol, Room 400  
Sacramento, California 95814

Ms. Diane Boyer-Vine  
Legislative Counsel  
925 L Street, Suite 900  
Sacramento, California 95814

Attention: Ms. Diane Anderson

Ms. Elizabeth G. Hill  
Legislative Analyst  
925 L Street, Suite 1000  
Sacramento, California 95814

# Report on the Emergency Levee Erosion Repair Project

## August 1, 2006

### Introduction

On February 24, 2006, Governor Arnold Schwarzenegger declared a state of emergency for California's levee system. Soon after, he signed Executive Order S-01-06, directing the California Department of Water Resources (DWR) to identify and repair critical eroded levee sites on the California's levee system to prevent catastrophic flooding and loss of life. DWR is utilizing funding provided by Assembly Bill 142 to respond to and alleviate this emergency.

In response to this emergency proclamation, 29 critical erosion sites are being repaired throughout the Sacramento River Flood Control System. These sites are located in six counties: Colusa, Sacramento, Solano, Sutter, Yolo and Yuba. DWR, with the assistance of the U.S. Army Corps of Engineers (Corps), plans to complete repairs on all 29 sites before the next flood season. DWR will be repairing 19 sites while the Corps, in partnership with The Reclamation Board, will take the lead on repairing the remaining 10 sites under the Sacramento River Bank Protection Project. The State has advanced \$32,883,000 in AB 142 funds for repairs handled by the Corps with the expectation that the State's funding toward these repairs will be used as a credit towards the State's share of future cost-sharing projects with the Corps. DWR estimates the total cost to repair all 29 critical erosion sites to be approximately \$172.5 million, of which about \$156.7 million will be funded with AB 142 funds, with \$15.8 million sourced from federal funds.

As part of its mission under the executive order, DWR has also responded to requests from various local agencies to evaluate 33 potentially critical erosion sites for possible repair.

### Project Planning

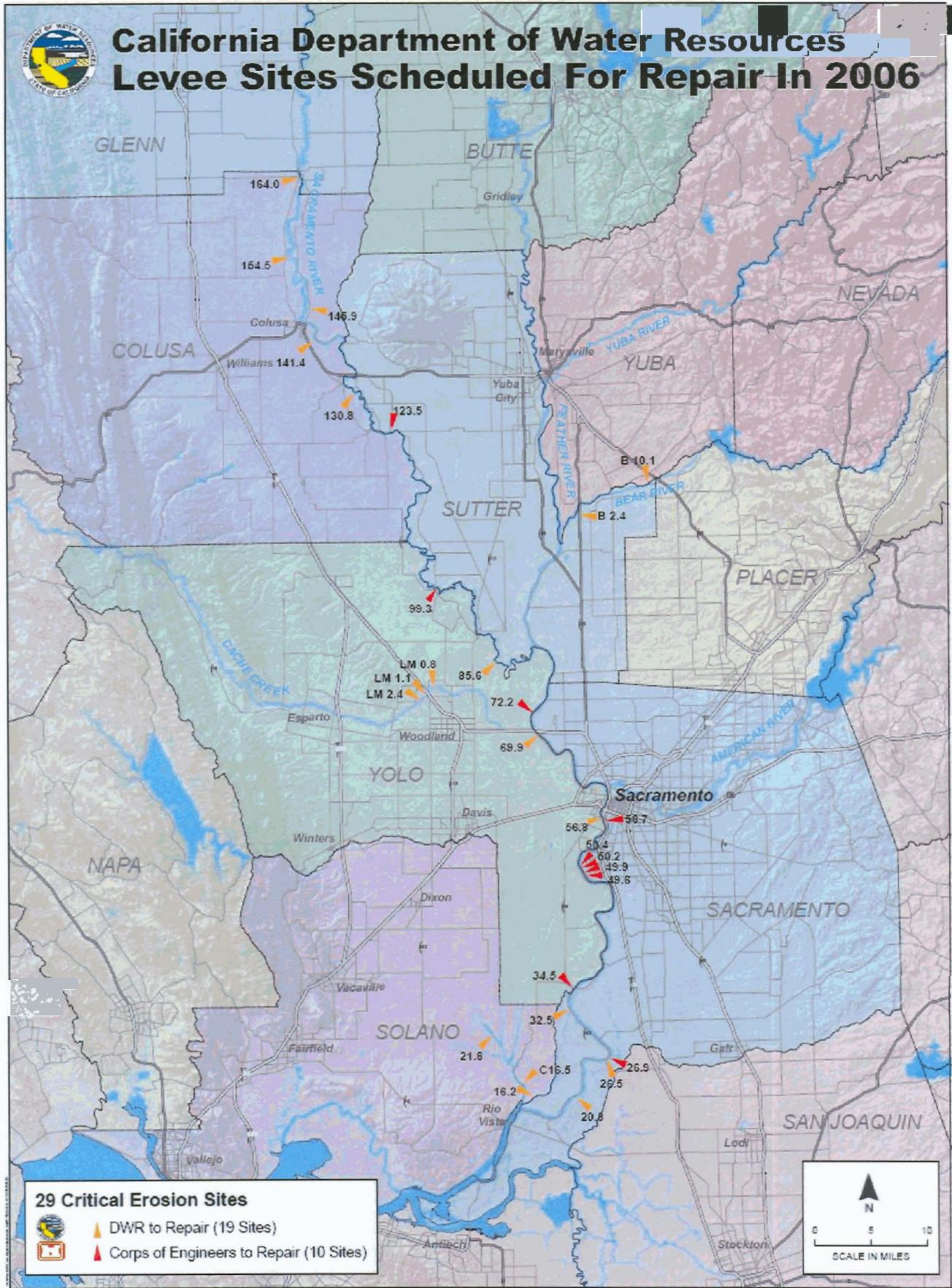
Immediately following the Governor's executive order, DWR developed a plan to accomplish the work described in the executive order. The plan involved using available staff resources to manage the work without significantly impacting existing DWR programs and using consultants to assist with the major portion of the work.

In a December 29, 2005 study completed for the Corps, 24 critical erosion sites were originally identified as having the highest need of repair. These 24 sites were identified in the executive order and were investigated by DWR along several other potentially critical erosion sites. DWR evaluated more than 50 sites along the Sacramento River Flood Project and a total of 29 critical erosion sites on the levee system were identified as being in need of urgent repairs.

In March 2006, the investigation and design phase of the project began with site inspections, field surveys, and collection of relevant design information on each of the critical and potentially critical erosion sites. At that point in time, water level conditions were very high and rain was fairly constant. It was too hazardous to conduct bathymetric surveys of the sites to determine the extent of the erosion damage under the water surface. It was not until May 2006 that these surveys could be conducted.

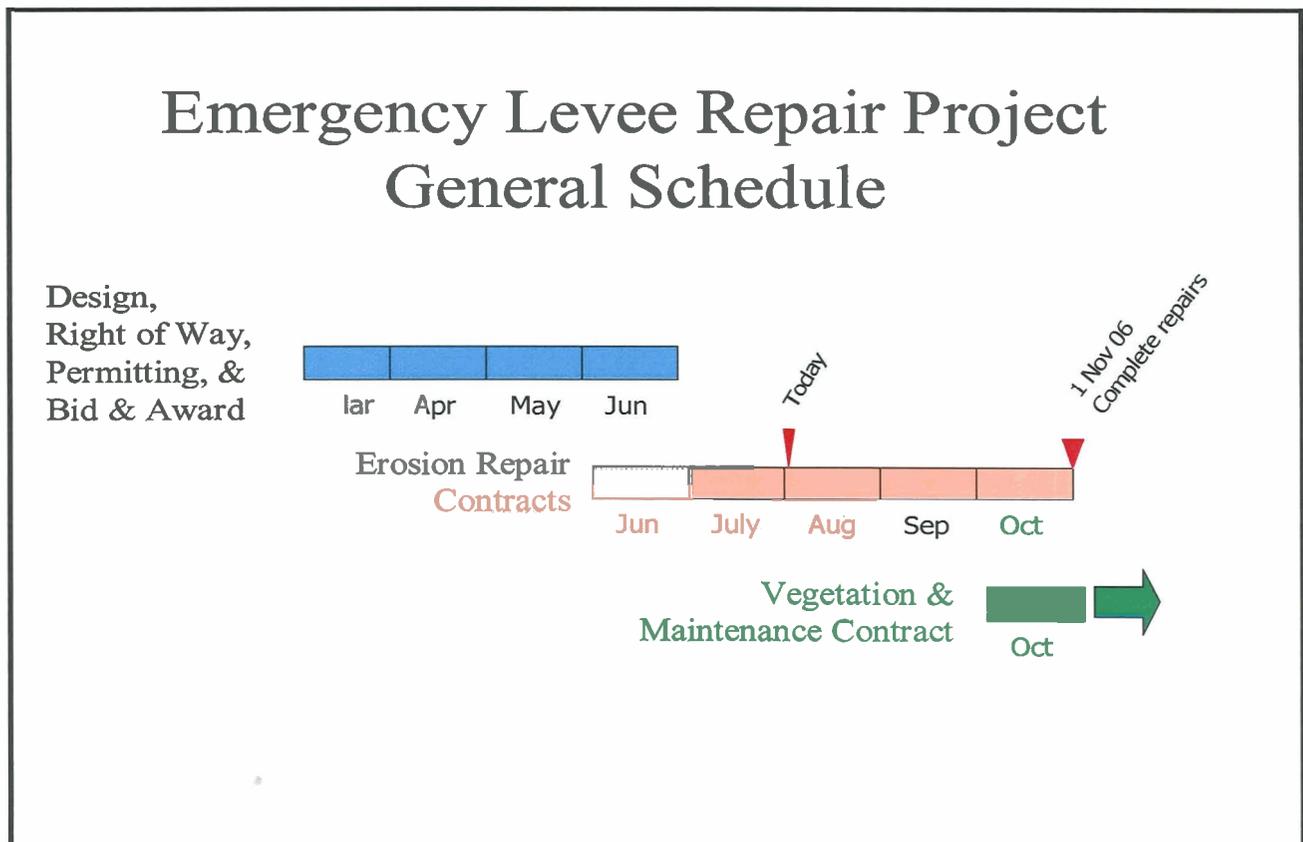


# California Department of Water Resources Levee Sites Scheduled For Repair In 2006



On March 31, 2006, the Corps committed to repairing 10 of the 29 critical erosion sites subject to the State providing accelerated funding of \$32,883,000. The Reclamation Board subsequently amended an agreement with the Corps to provide those funds and on May 12, 2006, those funds were transferred from the State to the Corps.

In May 2006, DWR reached an unprecedented agreement with the federal regulatory agencies to allow the State to meet all environmental laws and permit requirements while maintaining the emergency schedule for levee erosion repairs. Under the Memorandum of Understanding signed by DWR, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries Service, and the U.S. Army Corps of Engineers, the agencies agreed to complete all federal permits by June 21, 2006. The agreement to expedite the permits provided an assurance for the timely completion of all levee site repairs, and allowed DWR to meet all required federal environmental permits, including the Clean Water Act, Endangered Species Act, National Environmental Protection Act and other applicable federal laws. DWR also consulted with State environmental agencies to ensure this project meets all State environmental measures. Those agencies include the California Department of Fish and Game, California Department of Parks and Recreation, State Lands Commission, The Reclamation Board, State Water Resources Control Board and the Central Valley Regional Quality Control Board. As a result of this cooperation, projects have proceeded on schedule (see schedule).



## **Project Construction**

There are 9 construction contracts for the repair of the 29 critical erosion sites. These contracts generally involve multiple erosion sites, which were grouped because of their location and their expected method of repair. The first contract was advertised on May 5, 2006 and was awarded on June 16, 2006. DWR has advertised, awarded and given notices to begin construction on all 5 of its construction contracts for the repair of 19 critical erosion sites. The Corps has advertised, awarded and given notices to begin construction on all 4 of its construction contracts for the repair of 10 critical erosion sites. DWR and the Corps will administer the construction contracts until the work is completed. All contracts are targeting completion of repairs by November 1, 2006, which is the beginning of the normal flood season. In addition to these construction contracts, DWR is purchasing plants and related materials for the repair sites. The plants are part of the environmental compliance requirements of the project and will be supplied to the repair contractor when needed. Most of these plants will be planted in October.

## **Project Budget**

The total cost estimate to repair the original 24 critical levee erosion sites was based on the lengths of the erosion site multiplied by specific cost per foot. These lengths were determined based on field surveys conducted in October 2005. Based on an average of previous repair costs of \$5,000 per foot experienced by the Corps on similar work, it was estimated that the repairs for the 24 critical sites would be about \$77 million. Since then, 5 additional critical sites were added to the original 24 sites and, in June 2006, as water levels receded at the various erosion sites, project designers found that most of these erosion sites were much larger than estimated last year. The extended high water conditions of this past flood season increased the severity of the erosion at most of these sites. The total length of the erosion at the original 24 sites was initially estimated to be about 15,000 feet of conventional bank protection repair and 5,000 feet of setback levee. The 29 sites now comprise 26,000 feet of conventional bank protection repair and 4,000 feet of setback levee. Additionally, the design criteria for these erosion sites required that the waterside slopes be flattened, requiring significantly more bank protection material than originally estimated. The additional erosion also made the scour depths at these sites significantly greater, thereby further increasing the need for more rock fill material. The large demand for the rock protection materials, the increased cost for transportation and the aggressive schedule for these repair contracts have likely contributed to the increased construction costs. The total cost to repair the 29 repair sites after awarding the construction contracts is now estimated at \$172.5 million. The Corps has indicated that with the additional federal funding it acquired in June 2006, it will contribute \$15.8 million toward this project. Therefore, DWR will utilize \$156.7 million (\$172.5 million minus \$15.8 million) in AB 142 monies to fund repair of the critical sites for which we have designs and permits to date, while continuing to assess additional critical erosion sites that need repair.

## **Identification of Additional Erosion Sites**

Several local agencies have referred erosion sites to DWR for consideration and repair. After DWR added 5 critical erosion sites to the original 24 critical erosion sites, 19 sites remained and required an engineering evaluation. DWR's consultant, URS, had engineers, geotechnical experts and environmental biologists inspect each of these sites and met with the local agencies involved. A draft report has been prepared summarizing the engineering assessment and their findings and recommendations. DWR is currently reviewing this report and expects to release it by August 2006.

## **Project Website**

DWR has developed a web site (<http://www levees.water.ca.gov>) specifically for those interested in the emergency levee repair project. Visitors can find exact site locations, up-to-date construction progress, fact sheets by site, photos of erosion sites and information for those living near or on a critical levee erosion site.

DWR has committed to assisting local agencies in determining the best way to accomplish any needed repairs, the funding mechanisms available and the responsible agency to take the lead.

Emergency Levee Erosion Project  
Expenditures and Budget  
February – June 2006

	Funds Spent or Committed to Date	Total Project Budget
<b>Design, R/W, Permitting, Legal</b>	<b>\$ 4,924,000</b>	<b>\$ 7,600,000</b>
<b>Construction*</b>		
DWR Contract(19 sites, 5 contracts)	<b>\$90,762,000</b>	
CORPS Contracts (10 sites, 4 contract)	<b>\$48,683,000</b>	
Plant Materials (3 contracts)	<b>\$1,600,000</b>	
Subtotal	<b>\$141,045,000</b>	<b>\$141,045,000</b>
10% Contingency		<b>13,945,000</b>
Contract Administration		<b>7,800,000</b>
Total		<b>\$162,790,000</b>
*		
<b>O&amp;M</b>		<b>\$ 2,110,000</b>
<b>Total</b>	<b>\$145,969,000</b>	<b>\$ 172,500,000</b>
<b>Federal contribution</b>	<b>\$-15,800,000</b>	<b>-\$15,800,000</b>
<b>AB 142 Funds</b>	<b>\$130,169,000</b>	<b>\$156,700,000</b>

As of June 30, 2006, all construction monies shown represent funding commitments or reservations to contracts that have not yet been spent.

# Report on the American River Common Features Project

August 1, 2006

## Introduction

The Department of Water Resources (DWR) is using funding provided by Assembly Bill 142 to perform scheduled improvement to levees protecting the City of Sacramento under the American River Common Features Project (Project). The Project was authorized by the Legislature in 1997 to provide flood damage reduction improvements along the lower American River (downstream of Folsom Dam), the Sacramento River (downstream of the Natomas Cross Canal) and the Natomas Cross Canal (NCC). The Project's proposed improvements include: (1) strengthening the levees to reduce the chance of failure due to seepage and levee instability; (2) raising the levees to increase flood conveyance capacity to a level of performance consistent with providing system-wide minimum levee parity; and (3) providing bank protection on the American River for conveyance of the design flow. The Project has been funded and is continuing to be funded by capital outlay appropriations. However, an urgent need to fund \$2.1 million beyond available capital outlay funds developed in June 2006, and AB 142 funds were used to fund the improvements and maintain the project construction schedule.

## Location

The Project includes approximately 12 miles of the north and south banks of the lower American River, immediately upstream of the confluence with the Sacramento River; approximately 10 miles of the east levee of the Sacramento River from near the confluence with the American River to the lower Pocket area; approximately 12 miles of the east levee of the Sacramento River, immediately downstream of the NCC; and approximately 5 miles of the north and south levees of the NCC, immediately upstream of the confluence with the Sacramento River. The Project reaches are located within the jurisdictional boundaries of Sacramento County, Sutter County, the City of Sacramento, Reclamation District No. 1000, the American River Flood Control District, the Sacramento Area Flood Control Agency and DWR.

## Description

The Project is sponsored and cost shared by the U.S. Army Corps of Engineers, The Reclamation Board of the State of California and the Sacramento Area Flood Control Agency. The Project has been in construction since 1998. Planned and constructed Project features include:

- Strengthening and raising approximately 12 miles of the Sacramento River east bank levee downstream of the NCC.
- Installing slurry walls in approximately 12 miles of the American River north and south bank levees (24 miles total), immediately upstream of the confluence with the Sacramento River.
- Raising approximately 4,500 feet of the American River south bank levee immediately upstream of Mayhew Drain by approximately 2.5 feet.
- Raising approximately 5,500 feet of the American River north bank levee in the vicinity of Howe Avenue by approximately 1 foot.

- Modifying approximately 5 miles of the NCC south bank levee to provide a level of performance consistent with that provided by proposed improvements to the Sacramento River east bank levee.
- Modifying approximately 5 miles of the NCC north bank levee to provide a levee height equivalent to that provided for the NCC south bank levee.
- Installing a closure structure for the Mayhew Drain to prevent American River outflow and flood backwater at Folsom Boulevard.
- Installing approximately 1.2 miles of slurry walls in the American River north bank levee near Natomas East Main Drainage Canal.
- Installing approximately 1 mile of slurry wall in the American River north bank levee near Jacobs Lane.
- Repairing four erosion sites along the American River totaling approximately 7,000 feet.

AB 142 funds were used to pay \$2,100,000 to the Corps in June 2006 to facilitate construction for the following features:

- Modifying approximately 600 feet of the Sacramento River East Levee near the Pioneer Reservoir (near the Pioneer Bridge over the Sacramento River) to control excessive seepage.
- Installing a 110-foot deep slurry wall for a distance of approximately 800 feet of the Sacramento River East Levee in the Pocket Area to control excessive seepage.
- Installing a 40-foot deep slurry wall for a distance of approximately 1,500 feet of the Sacramento River East Levee in the Pocket Area to control excessive seepage.

By providing the \$2.1 million payment, the Corps was able to open bids in July and is expected to award a contract and initiate construction of these features in August. Without this payment, the work would have been deferred until 2007.

A map is attached showing work in the Pocket Area of Sacramento necessary for achieving FEMA 100-year level protection. The map shows the Pioneer Reservoir site and two Geotechnical Repair sites funded by AB 142 under the American River Common Features Project, along with erosion site repairs performed with other funds under the Sacramento River Bank Protection Project.

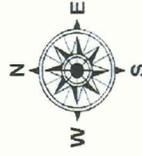
# Pocket / South Sac FEMA 100-year Flood Certification



US Army Corps  
of Engineers®

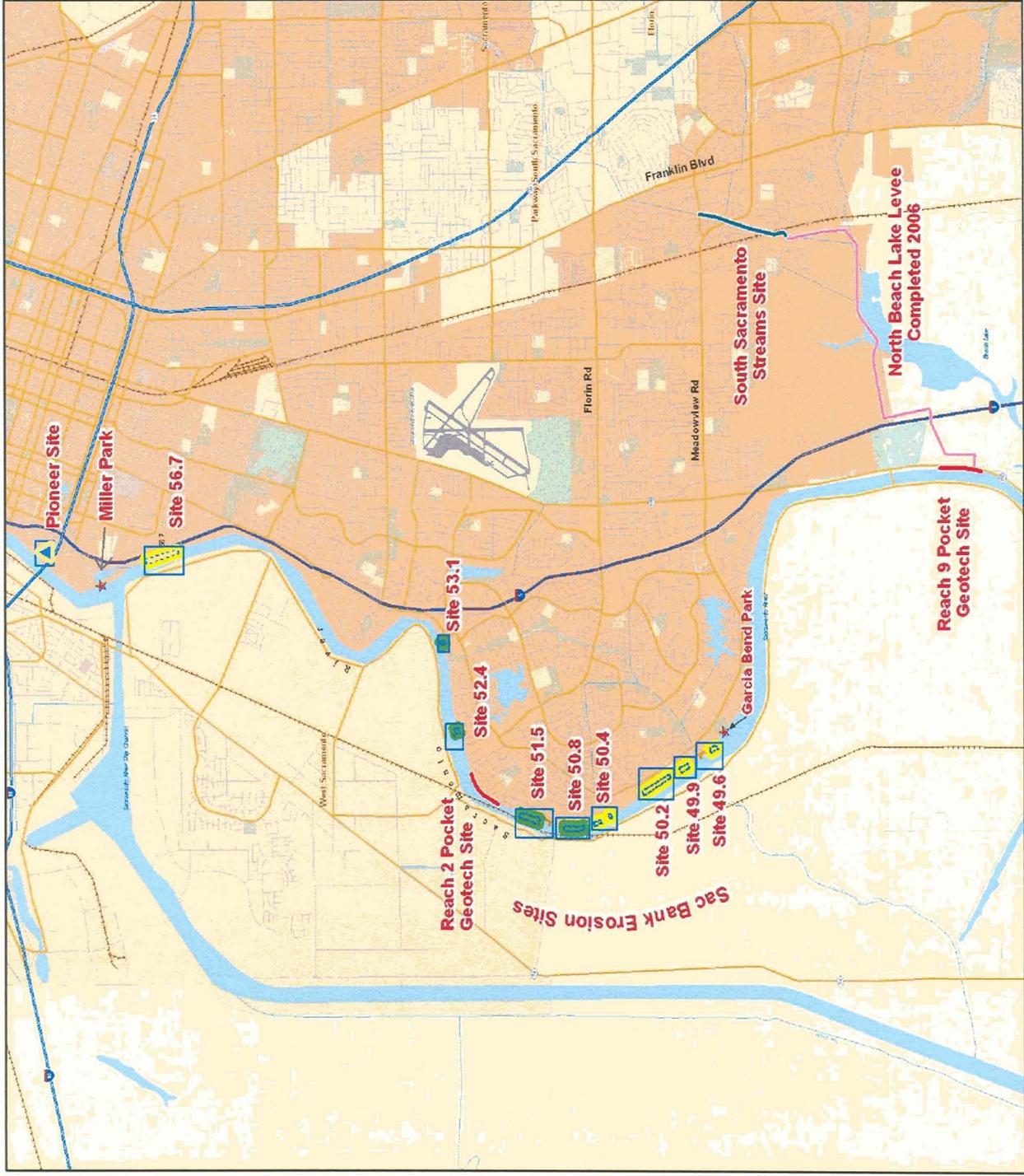


SACFA  
Sacramento  
Area Flood  
Control  
Agency



## Legend

- Critical Levee Erosion Repairs Sites
- Levee Erosion Certification Sites
- Geotech Reaches
- Sac Stream Site
- Beach Lake Levee
- Pioneer Site



DATE: 2/20/09 11:58 AM