

**DEPARTMENT OF WATER RESOURCES**

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



OCT 21 2010

TO: Distribution List

The Budget Act of 2006 requires DWR to report quarterly, beginning August 1, 2006, on expenditures of funds by project pursuant to AB 142 until such funds are exhausted. The attached report is submitted in compliance with these requirements and reports the cumulative expenditures and remaining commitments through the quarter ending November 30, 2009.

If you have any questions, please contact me at (916) 653-7007, or your staff may contact Dale K. Hoffman-Floerke, Deputy Director of Integrated Water Management, at (916) 654-7180.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark W. Cowin".

Mark W. Cowin  
Director

Attachments

Distribution List

Electronic copy of one-page summary distributed to all members of the Legislature

E. Dotson Wilson  
Chief Clerk of the Assembly  
State Capitol, Room 1311  
Sacramento, California 95814

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

Diane Boyer-Vine  
Legislative Counsel  
925 L Street, Suite 900  
Sacramento, California 95814  
Attention: Diane Anderson

Honorable Lester A. Snow  
Secretary for Natural Resources  
California Natural Resources Agency  
1416 Ninth Street, Room 1311  
Sacramento, California 95814

Chris Mowrer  
Deputy Secretary for Legislation  
California Natural Resources Agency  
1416 Ninth Street, Room 1311  
Sacramento, California 95814

Michael Prozio  
Legislative Secretary  
Governor's Office

✓ Kasey Schimke  
Legislative Affairs Office  
Department of Water Resources

Sue Sims  
Chief Deputy Director  
Department of Water Resources

Cathy Crothers  
Acting Chief Counsel  
Office of the Chief Counsel  
Department of Water Resources

**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
SACRAMENTO, CA 942360001  
(916) 653-5791



**The California Department of Water Resources  
Report on Assembly Bill 142 (Nunez, Chapter 34, Statutes of 2006)**

**A Summary of Expenditures and Commitments for the Quarter Ending  
November 30, 2009**

Assembly Bill 142 (Nunez, Chapter 34, Statutes of 2006) (AB 142) appropriated \$500 million from the General Fund to the Department of Water Resources (DWR) for levee evaluation and repair of critical erosion sites, and for flood control system improvements. The Governor's March 2006 Executive Order (S-01-06) identifies the critical levee erosion sites.

The Budget Act of 2006 requires DWR to report quarterly, beginning August 1, 2006, on expenditures of funds by project pursuant to AB 142 until such funds are exhausted. The attached report is submitted in compliance with these requirements for the quarter ending November 30, 2009.

As of November 30, 2009, DWR has expended \$314,583,481 of AB 142 funds, with \$17,178,660 in commitments, for a total of \$331,762,141. (The Budget Act of 2007 reverted \$168 million from the AB 142 appropriation and instead provided Proposition 1E and Proposition 84 funds to carry out planned activities, thus reducing funds available from \$500 million to \$332 million.)

**Report to Legislature**

**on**

**ASSEMBLY BILL 142 EXPENDITURES**

**As of November 30, 2009**



**State of California**

**California Natural Resources Agency**

**Department of Water Resources**

## INTRODUCTION

The Budget Act of 2006 requires the Department of Water Resources (DWR) to report quarterly, beginning August 1, 2006, on expenditures of funds by project pursuant to Assembly Bill 142 (Nunez, Chapter 34, Statutes of 2006) (AB 142) until such funds are exhausted. This report is submitted in compliance with these requirements for the quarter ending November 30, 2009.

## SUMMARY OF AB 142 EXPENDITURES AND COMMITMENTS BY PROJECT

The following table provides a summary of expenditures and commitments as of November 30, 2009, for projects funded by AB 142:

Project	Expenditures	Commitments <sup>1</sup>	Total Expend. & Commit.
2005 Critical Erosion Repairs (33 Sites)	\$144,810,997	\$87,639	\$144,898,636
2006 Critical Erosion Repairs (24 Sites)	\$88,177,931	\$12,397,741	\$100,575,672
PL 84-99 Rehabilitation Assistance	\$41,295,468	\$583,293	\$41,878,761
American River Common Features	\$5,850,562	\$506,391	\$6,356,953
Levee Evaluations Program	\$13,258,229	\$1,893,509	\$15,151,738
Flood Project Maintenance	\$4,378,694	\$11,894	\$4,390,588
Flood Fight Materials and Equipment	\$928,658	\$2,666	\$931,324
April 2006 Flood Fighting	\$6,593,116	\$0	\$6,593,116
Grants for Non-project Levees	\$619,255	\$0	\$619,255
Grants for Non-project Levees in the Delta	\$1,820,957	\$0	\$1,820,957
Delta Emergency Preparedness and Response	\$332,363	\$0	\$332,363
General Fund Baseline	\$6,517,251	\$1,695,527	\$8,212,778
<b>TOTAL</b>	<b>\$314,583,481</b>	<b>\$17,178,660</b>	<b>\$331,762,141</b>

1. The Budget Act of 2007 reverted \$168 million from the AB 142 appropriation and instead provided Proposition 1E and Proposition 84 funds to carry out planned activities. To reflect this fund shift, AB 142 obligations were reduced after August 31, 2007, and these reduced amounts appear in this quarterly report. DWR is continuing to keep the total expenditures and commitments less than \$332 million.

## CRITICAL EROSION REPAIRS

### DESCRIPTION

On February 24, 2006, Governor Arnold Schwarzenegger declared a state of emergency for California's levee system. Executive Order S-01-06 directs DWR to identify and repair critically eroded levee sites on California's levee system to prevent catastrophic flooding and loss of life. A levee survey conducted in 2005 identified 24 sites that were in critical condition and in need of immediate repair. Nine additional levee sites were later determined to be critical. Accordingly, a total of 33 locations were targeted for repair and are referred to as the "2005 Critical Erosion Repairs."

During the January and April 2006 flood events, levees were damaged throughout the Sacramento and San Joaquin River Flood Control Systems. In 2006, the U.S. Army Corps of Engineers (USACE) identified an additional 24 sites referred to as "2006 Critical Erosion Repairs" on the Sacramento River and its tributaries.

In addition, hundreds of damaged levee sites were prioritized by the USACE under the federal Public Law 84-99 Rehabilitation Assistance Program (PL 84-99 Program). Forty-seven of these sites were critically damaged, and immediate repairs were economically justified because the levees protect urban areas. In response to this emergency, the Governor issued Executive Order S-18-06 on October 3, 2006, to ensure that all necessary actions are taken to alleviate the emergency conditions posed by substantially degraded conditions throughout California's levees and other flood control systems.

Repair sites associated with the PL 84-99 Program were prioritized according to their classification. The first priority was *Order 1* which had 40 critically damaged levee sites that protected urban infrastructure. The second priority was *Order 2*, which included an additional 46 sites that were also critically damaged, but the levees predominately protected agricultural property. Seven of the *Order 2* sites were found to have a benefit-cost ratio greater than one; thus, the sites qualified for repair. In August 2007, the USACE revised its previously analyzed benefit-cost ratios and added six more *Order 2* sites in Reclamation District No. 150, raising the total number of *Order 1* and *2* sites to 53.

In total, there are 110 Critical Erosion Repairs and PL 84-99 Program sites for which DWR is authorized to use AB 142 funds. The total estimated cost of these repairs is \$345,443,000 as shown in Table 1.

By May 31, 2008, the USACE identified an additional 22 *Order 2* sites eligible for repair. *Orders 3, 4* and *5* included approximately 133 damaged sites which were not as critical; however, they are eligible for repair.

## **AGENCY COORDINATION**

In coordination with the USACE, DWR developed a plan to accomplish the work on a priority basis throughout the summer and winter of 2006-2007. DWR and the USACE shared responsibility for repairs due to the large number of sites, a compressed repair schedule, and the potential for sustained inclement weather conditions. The USACE led the planning, design and repair on 11 of the 2005 Critical Erosion Repairs sites; 14 of the 2006 Critical Erosion Repairs sites; and 28 of the PL 84-99 Program sites. Similarly, DWR led the planning, design and repair on 22 of the 2005 Critical Erosion Repairs sites; eight of the 2006 Critical Erosion Repairs sites; and 25 of the PL 84-99 Program sites. However, repairs at 13 of DWR's PL 84-99 Program sites were designed and constructed by the Brannan Andrus Levee Maintenance District, and DWR provided construction oversight.

Coordination amongst Resource agencies, USACE, and DWR is being done through a mutually agreed upon Action Plan for Alternative Endangered Species Consultation Procedures (Action Plan) for the State-federal expedited winter repairs. A technical team composed of representatives from the USACE, DWR, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries Service, Department of Fish and Game (DFG), and the State Water Resources Control Board (SWRCB) reviewed and approved design and mitigation plans for PL 84-99 Program sites, as well as, the 24 sites identified under the "2006 Critical Erosion Repairs."

The Action Plan enables timely completion of levee repairs and allows DWR to acquire all required federal environmental permits, including the Clean Water Act, Endangered Species Act, National Environmental Policy Act and other applicable federal laws. DWR consulted with the appropriate State agencies to ensure this project meets all State environmental requirements under the California Environmental Quality Act. Agencies included DFG, the Department of Parks and Recreation, State Lands Commission, the Central Valley Flood Protection Board (Board), SWRCB and the Central Valley Regional Water Quality Control Board.

## **LOCATION**

All of the 2005 and 2006 Critical Erosion Repairs sites are located in the Sacramento River Flood Control System within the eight counties of Glenn, Butte, Colusa, Sacramento, Solano, Sutter, Yolo and Yuba. These are mostly waterside repairs except for levee setback sites at Cache Creek Levee Miles 0.8, 1.1 and 2.4 and Sacramento River Mile 145.9. The PL 84-99 Program provides repairs for damaged levees throughout the Sacramento and San Joaquin River Flood Control Systems. Figure 1 shows the location of the 110 sites being repaired using AB 142 funds.

## **STATUS**

The construction schedule for all levee repairs was performed under a two-phase program. Phase I repair work provides structural integrity for the levee; whereas, Phase II repairs incorporated on-site mitigation features. As of August 31, 2008, final construction was completed at 102 critical erosion repair sites and negotiations with landowners continued for two critical erosion repair sites using AB 142 funds.

Final construction at the six remaining PL 84-99 Program sites was completed during summer 2009 using Proposition 1E funds. The current construction status and cost is summarized in Table 1. Status of each program is described in detail below.

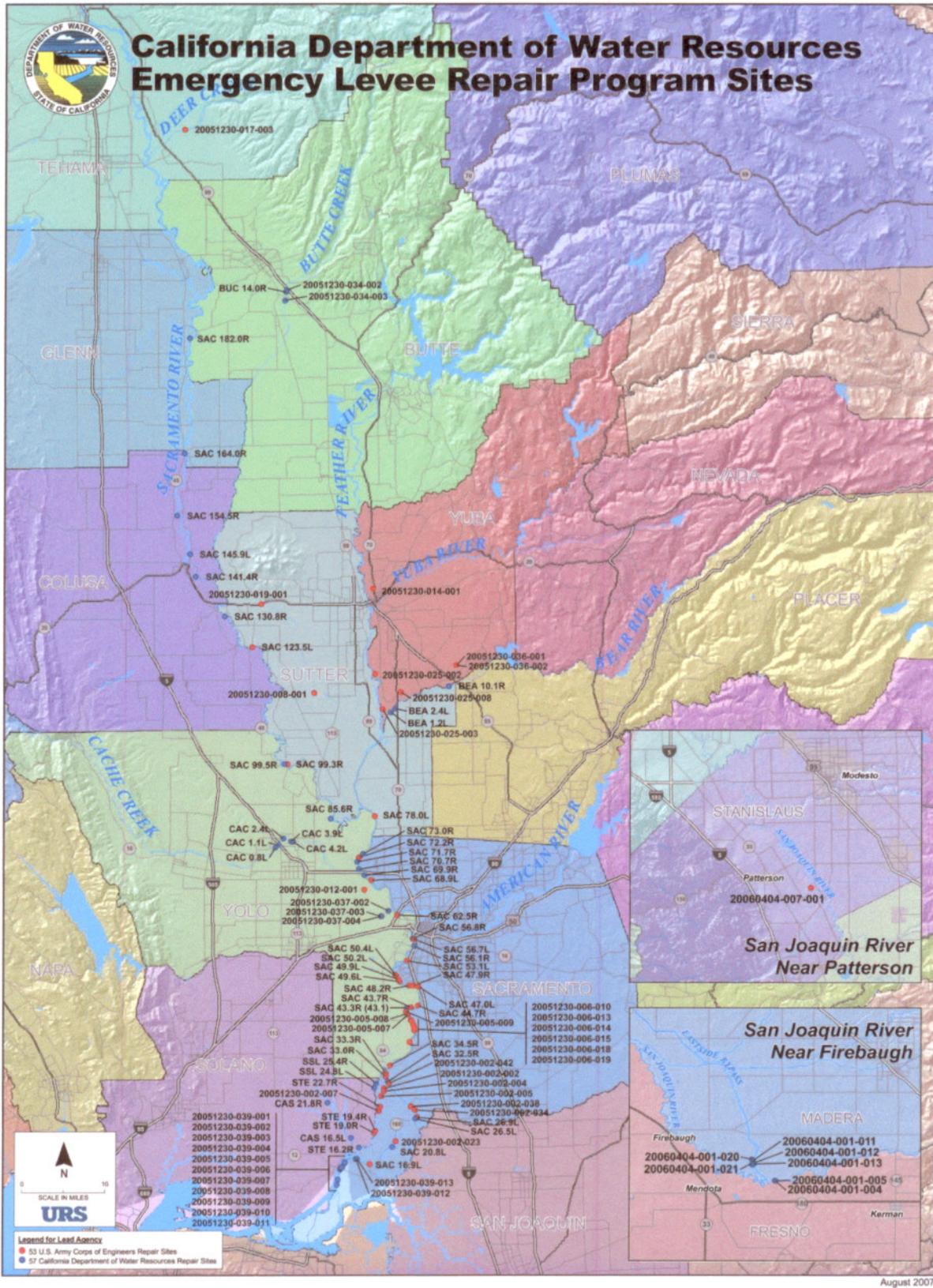
***2005 Critical Erosion Repairs (33 sites)***

Of the 33 erosion sites, DWR repaired 22 sites while the USACE, in partnership with the CVFPB, repaired the remaining 11 sites under the Sacramento River Bank Protection Project. All on-site environmental mitigation work at the 33 sites was completed by November 2006. The work consisted of placement of soil-rock mix and agricultural soil cover, plantings, in-stream woody materials, fascine bundles, pole cuttings, seeding and erosion control fabrics.

The four setback sites (Cache Creek Levee Miles 0.8, 1.1 and 2.4 and Sacramento River Mile 145.9) were completed in 2006. Plantings and mitigation features at these sites were completed by the summer of 2007, except for the installation of willow pole cuttings. Installation of the willow pole cuttings was temporarily postponed due to hot weather but was completed in December 2007.

As of November 30, 2009, DWR expended \$144.8 million on the 2005 Critical Erosion Repairs. The State advanced \$32,883,000 of AB 142 funds for repairs lead by the USACE 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-shared projects with the USACE. The total cost to repair all 33 critical erosion sites was estimated to be approximately \$191.7 million. Funding to support these repairs consists of \$152.7 million from AB 142 funds, \$15.8 million already paid from federal funds, and \$23.2 million from an additional federal commitment.

Figure 1 – Critical Erosion and PL 84-99 Repairs



## **2006 Critical Erosion Repairs (24 sites)**

Repairs to eight of the 10 DWR led sites, including soil work and plantings, were completed by December 2007. Property appraisals for the two Cache Creek setback sites have been completed. Although DWR has started negotiations with landowners, the repair work will not begin until negotiations are completed. The USACE completed repairs, including rock work, grading, soil work and plantings at the remaining 14 sites.

As of November 30, 2009, DWR expended approximately \$88.2 million on 2006 Critical Erosion Repairs which includes \$30 million provided to the USACE for construction of the 14 sites led by them due to a federal construction funding shortfall. DWR expects the \$30 million to be credited for future work under the Sacramento River Bank Protection Project.

## **PL 84-99 Program**

Phases I and II construction and landscape plantings at all of the 40 *Order 1* sites and seven of the *Order 2* sites are complete. Of a total of 53 originally identified *Order 1* and 2 sites, only six *Order 2* sites in RD 150 remain and are scheduled for repairs in 2009; however, these repairs will be completed using funds from Proposition 1E.

Of the 133 *Order 3*, 4, and 5 PL 84-99 Program sites initially identified by the USACE for repair, construction on six was completed by the end of 2007. Subsequently, the USACE identified an additional 28 sites, bringing the total to 161, including those that were previously repaired. The USACE completed repairs on 127 sites before the beginning of the 2008-09 flood season, and repairs to the remaining 28 sites were planned for completion in summer 2009. However, the USACE eliminated nine sites as deferred maintenance by locals and the remaining 19 sites were repaired by November 2009. The USACE is the lead agency for PL 84-99 Program repairs, and DWR provides environmental permitting, rights-of-way and borrow materials.

A Cooperation Agreement between the USACE and the Board enables the USACE to receive State funds to perform work. Normally, federal funds are used for the PL 84-99 Program; however, the USACE did not receive federal funding until May 2007. The USACE accepted \$14,713,000 in State funds and later provided a \$1,000,000 federal contribution. Since the USACE received \$40 million in federal funding, they are expected to spend that amount on the remaining *Orders 2*, 3, 4 and 5 sites. As of November 30, 2009, DWR expended over \$41.3 million in support of this federal program. The most recent expenditures include payments for rights-of-way and borrow materials delivered for completed repairs.

## **Project Costs**

Estimated total cost of all three programs (2005 Critical Erosion Repairs, 2006 Critical Erosion Repairs, and PL 84-99 Program sites) is presented in Table 1. Actual expenditures as of November 30, 2009, are shown in Tables 2 and 3.

**Table 1 – Estimated Costs of Critical Repairs Program**

Program Lead Agency	No. of Sites	Phase I Completion Date	Phase II Completion Date	Estimated Cost
<b>2005 Critical Erosion</b>				
USACE	10	N/A	10/31/2006	
USACE	1	N/A	1/10/2007	
		Construction Cost (11 Sites)		\$49,100,000
DWR	13	11/30/2006	7/31/2007	
DWR	4	N/A	10/31/2007	
DWR	5	N/A	10/31/2006	
		Construction Cost (22 Sites)		\$107,300,000
		Design, R/W, Permitting, and Legal		\$7,600,000
		Plant Materials		\$1,600,000
		Contract Administration, O&M, and Contingencies		\$26,110,000
<b>TOTAL</b>	<b>33</b>			<b>\$191,710,000</b>
<b>2006 Critical Erosion</b>				
USACE	6	2/24/2007	10/30/2007	\$61,517,000
	8	4/15/2007	10/30/2007	
DWR	8	1/20/2007	10/30/2007	\$40,179,000
DWR	2	N/A	11/30/2009	\$2,965,000
<b>TOTAL</b>	<b>24</b>			<b>\$104,661,000</b>
<b>2006 PL 84-99</b>				
USACE Order 1	17	1/15/2007	2/28/2007	\$13,361,000
	2	9/30/2007	11/30/2007	
DWR Order 1	7	12/14/2006	2/28/2007	\$2,888,000
	1	8/30/2007	10/30/2007	
BALMD Order 1	7	2/28/2007	9/12/2007	\$23,280,000
	6	6/28/2007	9/12/2007	
USACE Order 2	2	12/14/2006	1/10/2007	\$8,450,000
	1	7/30/2007	9/30/2007	
	6	N/A	11/30/2009	
DWR Order 2	4	12/15/2006	12/15/2006	\$1,093,000
<b>TOTAL</b>	<b>53</b>			<b>\$49,072,000</b>
<b>GRAND TOTAL</b>	<b>110</b>			<b>\$345,443,000</b>

**Table 2 – Critical Erosion Repairs Expenditures to Date**

Description	Amount
<b>2005 Critical Erosion Repairs (33 Sites)</b>	
DWR Contribution	\$144,810,997
USACE Contribution	\$ 15,800,000
<b>Total Project Costs</b>	<b>\$160,610,997</b>
<b>Federal Contribution</b>	<b>(\$15,800,000)</b>
<b>Total Expenditures</b>	<b>\$144,810,997</b>
<b>Total Commitments</b>	<b>\$ 87,639</b>
<b>Total Expenditures and Commitment</b>	<b>\$144,898,636</b>
<b>2006 Critical Erosion Repairs (24 Sites)</b>	
Design and Construction	
DWR Contracts	\$58,177,931
USACE Contracts	\$ 30,000,000
<b>Total Expenditures</b>	<b>\$ 88,177,931</b>
<b>Total Commitments</b>	<b>\$ 12,397,741</b>
<b>Total Expenditures and Commitments</b>	<b>\$100,575,672</b>
<b>Total Expenditures and Commitments</b>	<b>\$245,474,308</b>

**Table 3 - PL 84-99 Program Expenditures and Commitments to Date**

Description	Amount
Design and Construction	
DWR Contracts	\$27,582,468
USACE Contracts	\$14,713,000
<b>Total Project Costs</b>	<b>\$42,295,468</b>
<b>Federal Contribution</b>	<b>(\$1,000,000)</b>
<b>Total Expenditures</b>	<b>\$41,295,468</b>
<b>Total Commitments</b>	<b>\$ 583,293</b>
<b>Total Expenditures and Commitments</b>	<b>\$41,878,761</b>

## AMERICAN RIVER COMMON FEATURES

### DESCRIPTION

The American Rivers Common Features Project provides flood damage reduction improvements along the lower American River and the Sacramento River. Levee improvements and repairs were done under two different contracts totaling \$6.3 million in AB 142 funds.

DWR obligated \$4.2 million in AB 142 funds through a contract with Sacramento Area Flood Control Agency (SAFCA) for the State's share of construction costs associated with emergency levee repair at the east levee of the Sacramento River at River Mile 75.1 near Pritchard Lake. This work, which is authorized by the State under the Governor's 2006 Emergency Declaration, consists of correcting a chronic seepage problem that became acute in January 2006. Initial repairs performed in late 2006 consisted of driving sheetpiles along the waterside levee slope. Additional levee stabilization activities funded by AB 142 include: removing anomalies in the levee foundation, removing pumping station components, filling the pumping plant intake channel and reconstructing the levee. This site is in an area currently being studied by the USACE for federal authorization.

In addition to the SAFCA contract, \$2.1 million was paid to the USACE in June 2006 due to a federal funding shortfall. An amendment to the Project Cooperation Agreement (PCA) between the USACE and the Reclamation Board allowed the State to advance funds to the USACE. Based on this amendment, construction of the following features for FEMA certification was scheduled:

- 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 1,500 feet of the Sacramento River East Levee in the "Pocket Area" to control excessive seepage (Reach 2).
- Installing a 40-foot-deep slurry wall for a distance of approximately 1,600 feet of the Sacramento River East Levee in the Pocket Area to control excessive seepage (Reach 9).

### LOCATION

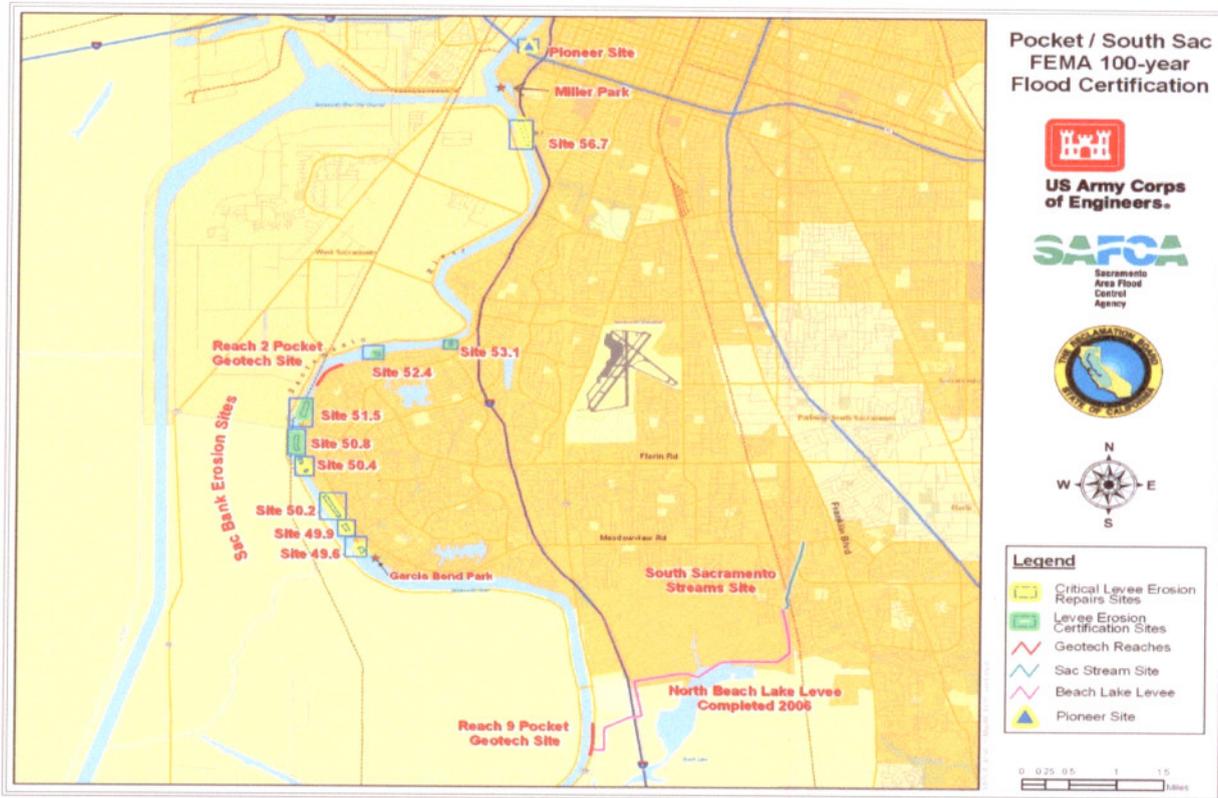
All of the improvements or repairs funded by AB 142 for this project are located within Sacramento County and the City of Sacramento. Figure 2 shows the work in Reaches 2 and 9 of the Pocket Area, as well as the Pioneer Reservoir site. Figure 3 shows the project site location for Sacramento River at River Mile 75.1 near Pritchard Lake. This levee is adjacent to the Natomas Basin and is part of the Federal Sacramento River Flood Control Project.

## **STATUS**

Construction work on the levee near Pritchard Lake began in 2007. To stabilize the levee for the FY 07-08 flood season, sheetpiling was installed on the waterside of the levee; a shallow pipeline crossing was removed; and part of the levee was reconstructed.

Of the \$4.2 million SAFCA obligation, \$1.6 million was expended through payments to SAFCA and for State operations costs. The remaining \$2.6 million has been obligated under a contract for work near Pritchard Lake. The construction is complete. Project closeout is underway and the Project is scheduled to be completed with final payment by July 2010.

**Figure 2: Pocket and Nearby Areas Map Depicting Locations of Flood Control Improvements**



**Figure 3: Sacramento River at RM 75.1 near Pritchard Lake**



The \$2.1 million payment to the USACE enabled them to open bids in July 2006 and complete the scheduled work on-time. No further AB 142 expenditures will be made. Upon federal appropriation, the USACE may credit the total advancement toward the non-federal share of future project costs.

The Board requested credit from the USACE for the federal share of costs related to the seepage remediation at River Mile 75.1. Upon federal authorization of this work, the USACE may credit up to sixty-five percent of the total cost toward the non-federal share of future project costs. The federal authorization for crediting is in Section 104 of the Water Resources Development Act of 1986.

As of November 30, 2009, DWR expended \$5,850,562 in AB 142 funds as shown in Table 5. There were no new expenditures for this project since the prior report. Additional expenditures of over \$500,000 are anticipated over the next few months as part of the Project closeout, which will utilize all of the available commitments.

**Table 5: American River Common Features - Expenditures and Commitments to Date**

Description	Amount
Pritchard Lake	\$3,750,562
USACE PCA	\$2,100,000
<b>Total Expenditures</b>	<b>\$5,850,562</b>
Pritchard Lake Commitment	\$506,391
<b>Total Commitments</b>	<b>\$506,391</b>
<b>Total Expenditures and Commitments</b>	<b>\$6,356,953</b>

## LEEVE EVALUATIONS

### **DESCRIPTION**

The objective of the Levee Evaluations Program is to achieve a 200-year level of flood protection for urban areas. Approximately 350 miles of State-federal project levees are being assessed. These levees protect urban areas in the Sacramento and San Joaquin Valleys, and are being evaluated with respect to static and seismic stability, seepage, settlement and erosion. The program performs geotechnical exploration, laboratory testing, analyses and pre-feasibility design. Work performed under this program is closely coordinated with the USACE and local stakeholders.

A significant amount of initial work for the Levee Evaluation Program has been funded by AB 142; however, the allocated funding is not sufficient to fully fund all of the work required. As a result, Proposition 1E funds are being utilized to complete the work. For the purpose of this report, only the work specifically funded by AB 142 will be discussed.

### **LOCATION**

The initial evaluation work for the levees at the locations listed below was funded by AB 142. Completion of the work is currently being funded by Proposition 1E.

- Marysville/Yuba City
- Sutter Basin
- Reclamation District No. 784 which includes Olivehurst and southern Yuba County
- Natomas
- West Sacramento
- Lower American River
- Sacramento
- Stockton
- The greater Stockton area which includes portions of Reclamation District No. 17

Levee evaluations in Davis and Woodland are funded exclusively by Proposition 1E.

### **STATUS**

URS Corporation (URS) is assisting DWR with its levee evaluation efforts through a \$35 million, three-year contract that expired on December 31, 2009. The contract was funded with approximately \$15 million in AB 142 funds and \$20 million in Proposition 1E funds.

The work funded by AB 142 and completed under the URS contract consisted of the following:

1. Performing subsurface explorations, and field and laboratory tests
2. Compiling and analyzing field piezometer readings
3. Performing slug testing
4. Presenting data in a Preliminary Geotechnical Data Report (PGDR)
5. Conducting two geotechnical studies
6. Conducting a Light Detection and Ranging (LiDAR) survey
7. Developing a GIS database to store collected information

The geotechnical studies consisted of a seismic study to develop a method of assessing the seismic vulnerability of levees and a metals study to establish the background level of metals in levee material. The seismic study resulted in the submission of the *Seismic Vulnerability Protocol Development Guidance* document, which assisted DWR in developing a methodology for initially analyzing urban levees for seismic vulnerability. The metals study resulted in the collection of initial soil data that can be used to further assess the condition of urban levees.

In the spring of 2007, a series of low-level helicopter flights was conducted on 300 miles of urban project levees and 150 miles of non-project levees stretching from Oroville to Lathrop. Aerial topographic surveys were performed using LiDAR technology which electronically gathers surface data to assist in determining the topography and configuration of flood control levees. Results from the completed work were incorporated into a GIS database that URS is developing for DWR.

URS has done initial analyses and evaluations of the levees for underseepage, seepage, slope stability, settlement and erosion. Phase 1 Geotechnical Evaluation Reports and the supplemental work plans for the West Sacramento, Marysville/Yuba City and RD 17 areas have been prepared. URS is reviewing and analyzing existing geotechnical data and studies completed by several local flood control agencies. Results of the studies will be presented in technical memorandums. The remaining work to complete the evaluations will be funded by Proposition 1E.

Aside from the URS contract, DWR executed a Letter of Agreement (LOA) with the USACE to provide technical and field oversight support. The technical support includes developing or reviewing geotechnical exploration plans, logging templates and other specialized tasks by geotechnical, civil or hydraulic engineers. The field oversight support includes providing quality assurance of exploration activities during the course of the evaluation study. In addition, the USACE is participating in planning and coordinating informational, public and technical meetings as requested by DWR. No further AB142 expenditures are anticipated for the work performed by the USACE as full payment was required at the time the LOA was executed.

Lastly, DWR established an independent consultant board (ICB) to provide independent, expert review of geotechnical policies and procedures with regards to safety, performance, state-of-practice and economy. The ICB consists of Dr. Raymond Seed (UC Berkeley), George Sills (USACE Engineering Research and Development Center) and Chris Groves (Shannon & Wilson). Meetings are held approximately six times per year depending on workload and deliverables.

**Costs**

As of November 30, 2009, DWR expended \$13,258,229 in AB 142 funds. Approximately \$12,420,620 was used for the URS contract and management support; \$766,000 was used for USACE services under a LOA; and \$71,609 was used for the ICB.

**Table 6: Levee Evaluations - Expenditures and Commitments to Date**

Description	Amount
Expenditures	\$13,258,229
Commitments	\$ 1,893,509
<b>Total Expenditures and Commitments</b>	<b>\$15,151,738</b>

## FLOOD PROJECT MAINTENANCE

The Flood Project Maintenance Program utilized funds from AB 142 for repairs on the Sutter Bypass Weir #2, Willow Slough Weir, Fremont Weir and pumping plants along the Sutter Bypass. Each specific project is outlined in detail below, and a table summarizing all projects is shown in Table 11.

### **SUTTER BYPASS WEIR #2**

#### **DESCRIPTION**

In 1925, Weir #2 was built in the Sutter Bypass to maintain water surface elevations in the Sutter Bypass East Borrow Canal (EBC) for diversion of water to farms. In 1946, the original structure was replaced by the current structure. Recent inspections of the weir have discovered that the downstream apron is worn and the underlying soil is exposed. This unsafe condition was caused by seepage eroding the soil; therefore, it is imperative that the weir be replaced. If the weir were to fail, DWR could be liable for crop loss, as irrigation flows from the EBC would be interrupted.

Despite the presence of an existing fish ladder, fish passages into the Lower Butte Creek system remain impeded. The existing fish ladder at the weir does not meet current standards. Fish passage is difficult due to the ladder's low flow capacity and lack of sufficient steps. The Endangered Species Act (ESA) listing of spring-run Chinook salmon and steelhead, which are both found in the Sutter Bypass, requires that adequate passage at the weir be provided. In the event this structure is not replaced, DWR and its employees could be found in violation of ESA obligations and may be held liable for the incidental take of stranded salmon.

This project will correct existing deficiencies by replacing Weir #2 with a new structure that will improve delivery of irrigation water supply, reduce risks to DWR personnel and improve fish passage by:

- (1) Ensuring DWR's ability to meet its water supply obligations to upstream diversions;
- (2) Improving personnel safety by controlling water levels in the EBC mechanically rather than manually using stop logs; and
- (3) Enhancing migration of adult and juvenile anadromous fish in the EBC.

#### **LOCATION**

Figure 4 illustrates the site plan for Sutter Bypass Weir #2 near Yuba City.

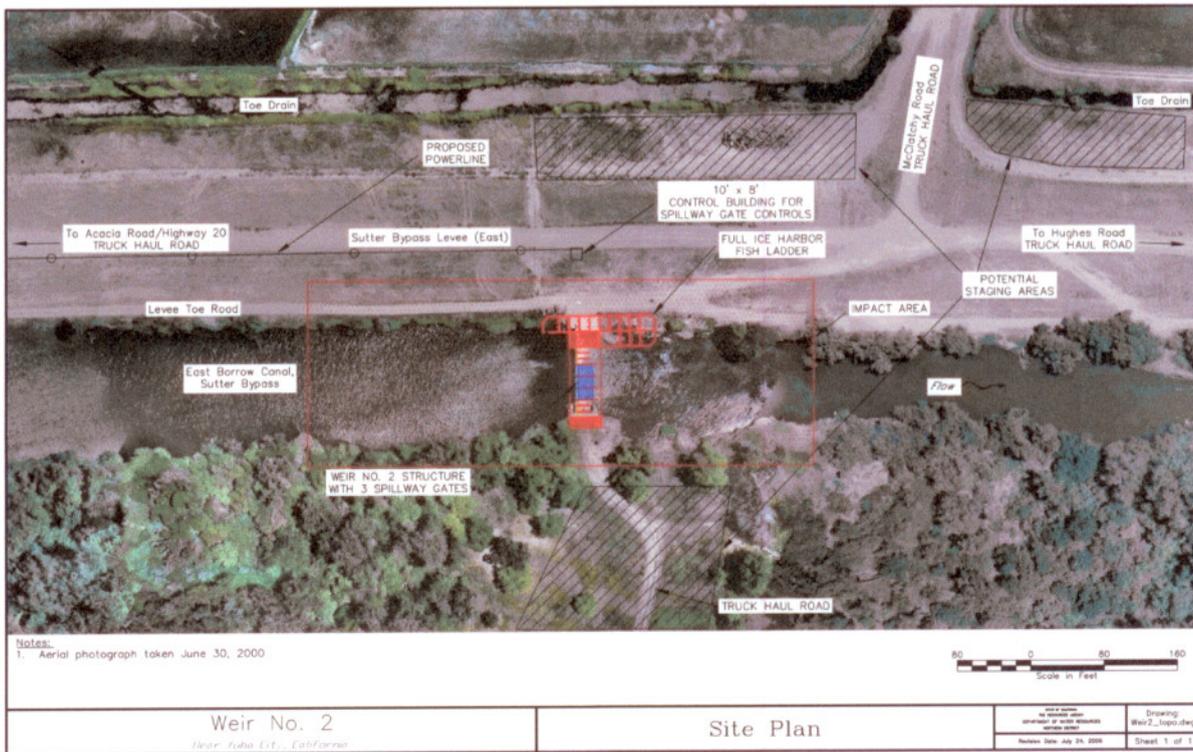
#### **STATUS**

As of November 30, 2009, DWR expended \$419,444 in AB 142 funds for engineering analyses, environmental compliance and development of final contract documents as shown in Table 7. The project will be completed using Proposition 1E funds, so no additional AB 142 funds will be expended.

**Table 7: Sutter Bypass Weir #2 Expenditures to Date**

Description	Amount
Project Management	\$ 8,515
Project Design/Analysis	\$410,929
<b>Total Expenditures</b>	<b>\$419,444</b>

**Figure 4: Site Plan for Sutter Bypass Weir #2**



## WILLOW SLOUGH WEIR

### DESCRIPTION

The Willow Slough Weir is an earthen dam with three 60-inch-diameter culverts, each with slide gates that control flow from the lower end of the Sutter Bypass Eastside Channel into Willow Slough. In 1925, the structure was completed to control water levels downstream of Weir #2 in the Eastside Channel so irrigation water could be diverted to farms. A fish ladder was constructed through the weir in the 1980s.

The existing structure is not designed to quickly drain water by gravity out of adjacent drainage canals. By rebuilding this structure, DWR will improve the efficiency of the irrigation water supply operations by doubling the flow capacity of the Willow Slough structure. This action will allow for increased gravity drainage of adjacent canals and reduce the amount of pumping required by DWR. Additionally, the rebuilt fish ladder will

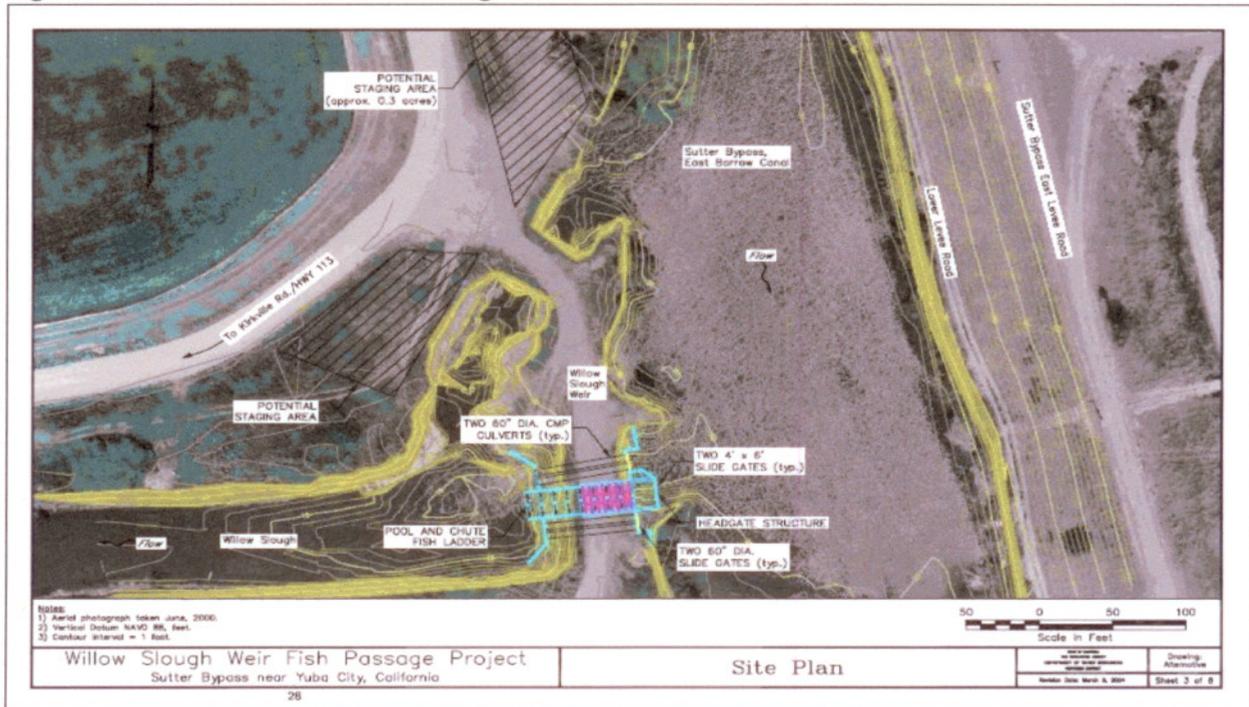
reduce the migration delays of salmon and reduce the incidental take of stranded salmon. If this structure is not rebuilt, DWR and its employees could be found in violation of ESA obligations and may be held liable for the incidental take of stranded salmon. Benefits of the project are listed below:

- (1) Ensure DWR's ability in meeting its obligations to supply water to upstream diversions, and
- (2). Enhance migration of adult and juvenile anadromous fish in the EBC.

**LOCATION**

Figure 5 illustrates the site plan of Willow Slough Weir which is located at the junction of the EBC and Willow Slough of the Sutter Bypass near Yuba City.

**Figure 5: Site Plan for Willow Slough Weir**



**STATUS**

As of November 30, 2009, DWR expended \$116,350 in AB 142 funds for engineering analyses, environmental compliance and development of final contract documents as shown in Table 8. The project will be completed using Proposition 1E funds, so no additional AB 142 funds will be expended.

**Table 8: Willow Slough Weir Expenditures to Date**

Description	Amount
Project Management	\$ 2,326
Project Design/Analysis	\$114,024
<b>Total Expenditures</b>	<b>\$116,350</b>

## FREMONT WEIR

### DESCRIPTION

DWR is obligated to operate and maintain the Fremont Weir at the northern end of the Yolo Bypass in accordance with Section 8361 of the California Water Code. Sediment deposits in the Yolo Bypass reduce the flow capacity of the weir and the efficiency of the flood control system by blocking water from entering the bypass and forcing flows to remain in the Sacramento River. As a result, higher flood stages occur in the Sacramento River. Sediment removal contracts were awarded in 1986, 1987 and 1991 as part of the maintenance of the Yolo Bypass. In 1986, approximately 560,000 cubic yards of sediment were removed from the west end of Fremont Weir. The following year approximately 930,000 cubic yards were removed from the Yolo Bypass at the Fremont Weir. Lastly, 1.9 million cubic yards were removed from the east side of the Fremont Weir in 1991.

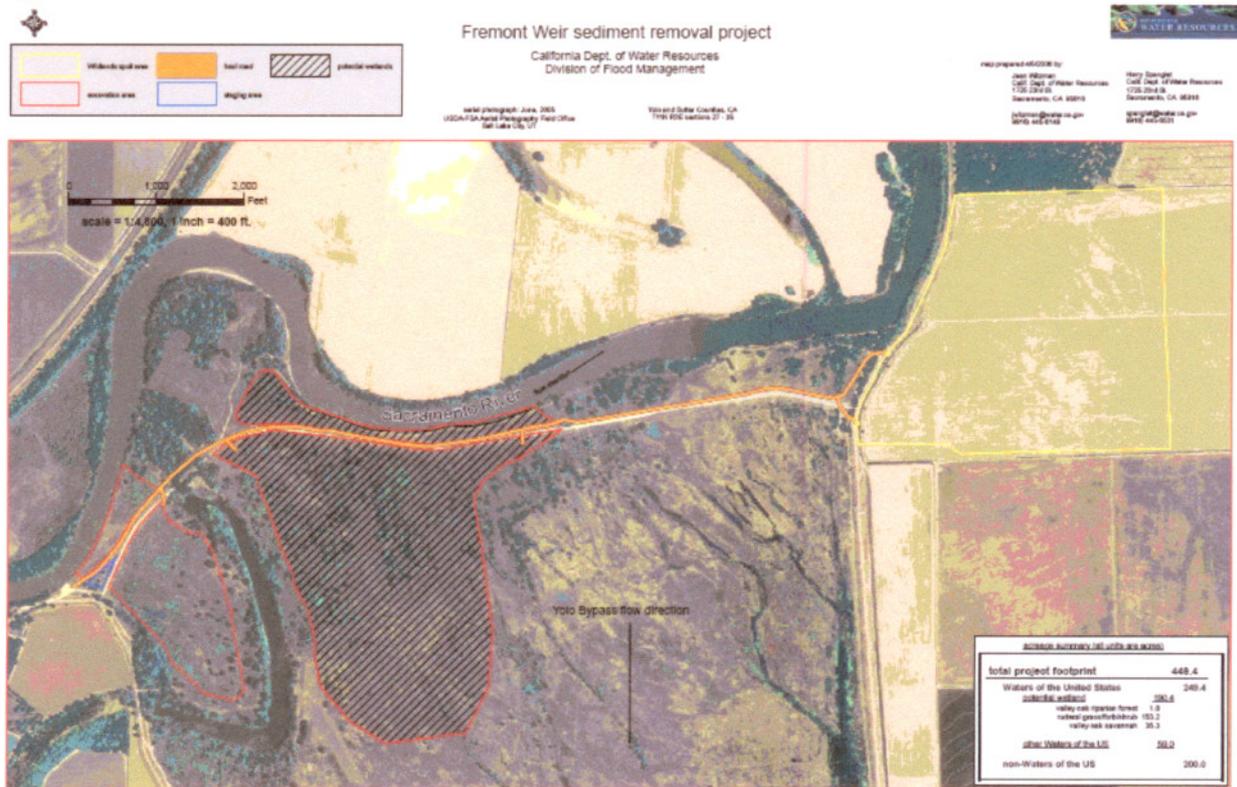
### LOCATION

Figure 6 illustrates the locations of sediment removal for the Fremont Weir in Yolo and Sutter Counties.

### STATUS

In order to fulfill DWR's maintenance responsibility, AB 142 funds were expended to remove approximately 800,000 cubic yards of sediment upstream and downstream of the weir. In addition, two scour holes were repaired, and the protective rock apron was restored. This work was completed in the fall of 2006 for \$2,208,902, as shown in Table 9. No additional expenditure of AB 142 funds is anticipated.

**Figure 6: Fremont Weir – Extent of Sediment Removal**



**Table 9: Fremont Weir Expenditures to Date**

Description	Amount
Project Contract Administration	\$ 1,966
Project Contractor Payments	\$2,206,936
<b>Total Expenditures</b>	<b>\$2,208,902</b>

## PUMP REHABILITATION

### DESCRIPTION

The Sutter Maintenance Yard operates and maintains three pumping plants along the east levee of the Sutter Bypass. These pumping plants are used to pump agricultural return water and rainfall runoff into the bypass, so water can be safely moved through the flood control system. Nearby ditches drain water from as far away as Yuba City, and the pumping of water into the Sutter Bypass prevents localized flooding throughout Sutter County. Pumping Plants Nos. 1 and 3 have four electric motors and pumps, and Pumping Plant No. 2 has six electric motors and pumps.

These plants were put into service approximately 25 years ago. The motors and pumps are reaching the end of their normal life expectancy. DWR staff have indicated that the pumps have lost efficiency. To maintain flood protection and lower operational costs, the motors and pumps will be removed and refurbished.

This project supports DWR's initiative to rehabilitate the State's flood control structures by making repairs or replacing flood control structures in bypasses, channels, maintenance areas and maintenance facilities. Benefits of this project include: protecting lives and infrastructure from floods; minimizing the State's exposure to flood damage liabilities while lowering operational costs; and reducing the risk to the lives of DWR personnel.

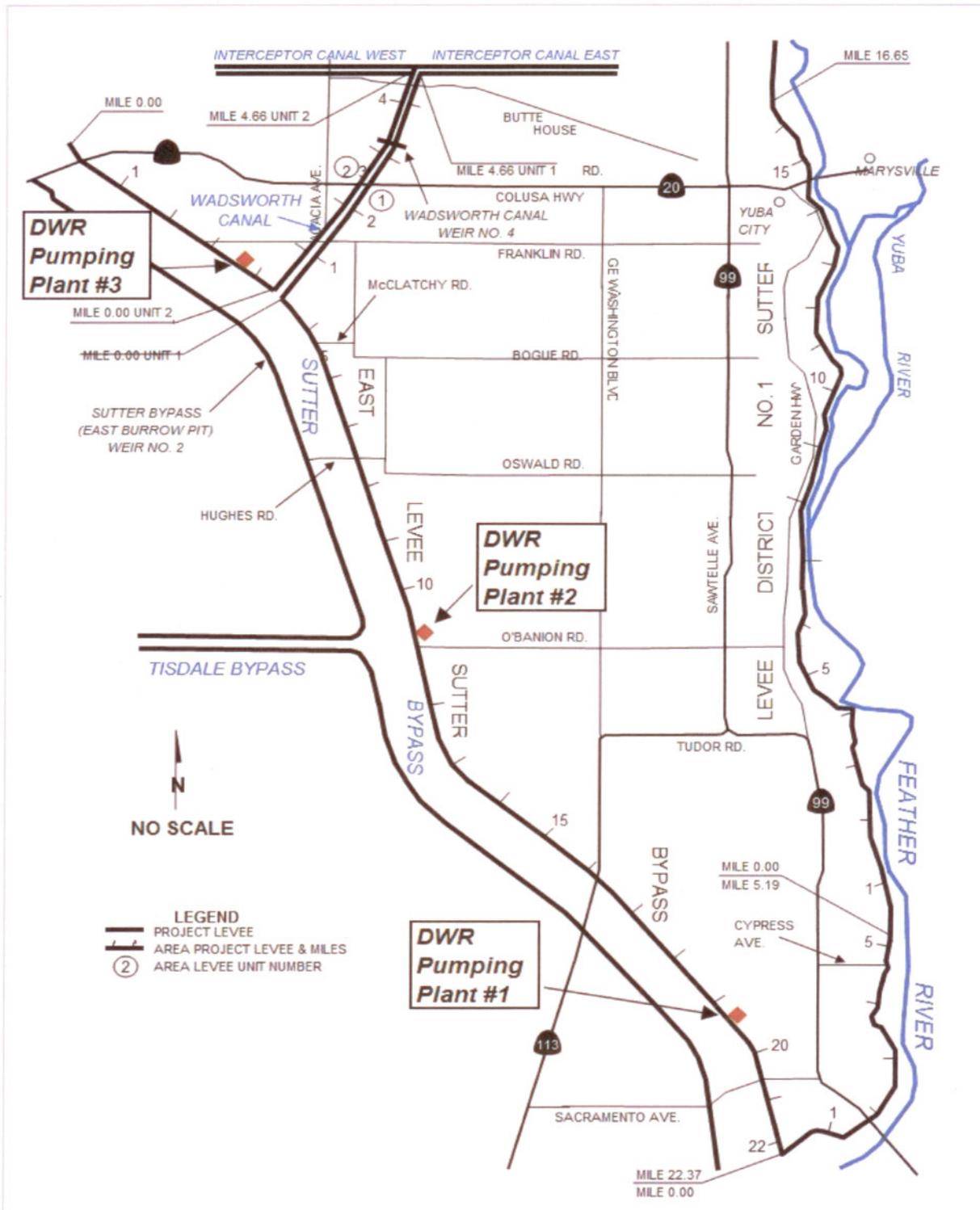
## **LOCATION**

Figure 7 illustrates the location of pumping plants in Sutter County for the Pump Rehabilitation Project.

## **STATUS**

As of November 30, 2009, DWR expended \$1,669,998 in AB 142 funds. At present, all motors and pumps have been refurbished and are back in service. Currently, the pump operating manual is being updated, and remaining invoices are being paid. Liquidation or release of remaining commitments and reconciliation of expenditures is ongoing. Table 10 summarizes the expenditures and commitments for this project.

**Figure 7: Location of Pumping Plants for Pump Rehabilitation Project**



**Table 10: Pump Rehabilitation - Expenditures and Commitments to Date**

Description	Amount
Project Management	\$ 5,105
Project Design/Analysis	\$ 10,402
Project Contract Admin	\$ 60,785
Project Contractor Payments	\$1,557,706
<b>Total Expenditures</b>	<b>\$1,663,998</b>
Pump Rehabilitation Commitment	\$ 11,894
<b>Total Commitments</b>	<b>\$ 11,894</b>
<b>Total Expenditures and Commitments</b>	<b>\$1,675,892</b>

Table 11 summarizes the total expenditures and commitments for all projects of the Flood Project Maintenance Program.

**Table 11 – Summary of Flood Project Maintenance - Expenditures and Commitments to Date**

Description	Amount
Sutter Bypass Weir #2	\$ 419,444
Willow Slough Weir	\$ 116,350
Fremont Weir	\$2,208,902
Pump Rehabilitation	\$1,633,998
<b>Total Expenditures</b>	<b>\$4,378,694</b>
Pump Rehabilitation Commitment	\$ 11,894
<b>Total Commitments</b>	<b>\$ 11,894</b>
<b>Total Expenditures and Commitments</b>	<b>\$4,390,588</b>

## FLOOD FIGHT MATERIALS AND EQUIPMENT

### DESCRIPTION

Under the direction of Executive Order S-18-06, DWR has purchased flood fight materials and equipment to improve the State's emergency response capability. Supplies purchased with AB 142 funds included: sandbags, plastic sheeting, twine, stakes, geotextile fabrics and large polypropylene bags. These flood fight materials are important for improving DWR's emergency response capabilities in the event of a major flood. In addition, DWR experienced significant communication problems between field crews and staff at the Flood Operations Center during recent flood events. Therefore, DWR purchased two emergency communication trailers.

### STATUS

Expenditures for flood fight materials and equipment were \$717,500. In addition, a total of \$211,159 was expended for trailer shells and communication equipment, including training on how to use the IT and telecom equipment, which will enhance cell phone communication and provide two-way radio communication, facsimile transmission and land-line connection capability. Actual expenditures totaled \$928,659 as shown in Table 12. No additional expenditure of AB 142 funds is anticipated.

**Table 12: Flood Fight Materials and Equipment - Expenditures and Commitments to Date**

Description	Amount
Flood fight materials and equipment	\$717,500
Trailer shells and communication equipment	\$211,159
<b>Total Expenditures</b>	<b>\$928,659</b>
<b>Total Commitments</b>	<b>\$ 2,666</b>
<b>Total Expenditures and Commitments</b>	<b>\$931,023</b>

## APRIL 2006 FLOOD FIGHTING

### DESCRIPTION

In early April 2006, DWR mobilized its flood fighting resources due to forecasted warm storms that produced higher than normal levels of snowmelt and runoff, resulting in increasing releases from many reservoirs in Northern and Central California. The Department of Finance authorized the use of AB 142 funds for the flood fight to offset the General Fund deficiency.

### LOCATION

Flood fighting occurred in various locations along the San Joaquin River and its tributaries.

### STATUS

DWR's initial flood fight estimate was \$8,983,000. However, actual expenses were only \$6,593,116 as shown in Table 13. No additional expenditure of AB 142 funds is anticipated.

*Table 13: April 2006 Flood Fighting Expenditures to Date*

Description	Amount
April 2006 Flood Fight	\$6,593,116
<b>Total Expenditures</b>	<b>\$6,593,116</b>

## GRANTS FOR NON-PROJECT LEVEES

### **DESCRIPTION**

DWR originally allocated \$50 million of AB 142 funds as grants to local flood control agencies to provide the State's cost-share for the construction of urgent repairs and geotechnical evaluations on existing local levees. The funds were to be disbursed through competitive and directed grants. Funding for this grant program was subsequently switched to Proposition 84, with only a few directed grants being awarded using AB 142 funds as described below. Guidelines to administer the grant program using Proposition 84 funds have been developed and are currently under review.

### **LOCATION**

Projects can be located throughout the State. The projects utilizing AB 142 funds are located in the counties of Glenn, Yolo and Santa Barbara.

### **STATUS**

DWR developed draft guidelines, applications and other supporting documents for the program. Expenditures also included staff hours to review proposed projects, as well as develop and negotiate agreements for funded projects.

The following four projects were committed under the AB 142.

- Yolo County – Huff's Corner Setback Levee) – Yolo County received a total of \$58,803 for completion of this project.
- Yolo County – Huff's Corner Permanent Erosion Repair – Yolo County received a total of \$99,043 for completion of this project.
- Santa Barbara County – Santa Maria River Levee Repair – Santa Barbara County received a total of \$37,549 for completion of this project.
- Glenn County – Hamilton City "J" Levee Erosion Repair – Glenn County received a total of \$192,368 for completion of this project.

As of November 30, 2009, DWR expended \$619,255 in AB 142 funds as shown in Table 14. The remaining balances were disencumbered and no additional AB 142 funds will be expended.

**Table 14: Grants for Non-Project Levees - Expenditures and Commitments to Date**

Description	Amount
Program/Project Management	\$231,492
Huff's Corner – Temporary Repairs	\$ 58,803
Huff's Corner – Permanent Repairs	\$ 99,043
Santa Maria River Levee Repairs	\$ 37,549
Hamilton City "J" Levee Temporary Repairs	\$192,368
<b>Total Expenditures</b>	<b>\$619,255</b>
<b>Total Commitments</b>	<b>\$ 0</b>
<b>Total Expenditures and Commitments</b>	<b>\$619,255</b>

Description	Amount
RD 830 - Jersey Island -- Blind Point Critical Erosion Repairs-Final	\$976,126
RD 830 - Jersey Island -- Headquarters Critical Erosion Repairs- Final	\$844,831
<b>Total Expenditures</b>	<b>\$1,820,957</b>
<b>Total Commitments</b>	<b>\$ 0</b>
<b>Total Expenditures and Commitments</b>	<b>\$1,820,957</b>

## GRANTS FOR NON-PROJECT LEVEES IN THE DELTA

### DESCRIPTION

Grants for non-project levees in the Delta are given to levee maintaining agencies that participate in the Delta Levee System Integrity Program for critical levee repairs and evaluations. Two critical levee sections on Jersey Island were identified in urgent need of repair along the San Joaquin River. Sections of these levees had stability problems that required rock work and rehabilitation. DWR authorized two \$1 million grants for these critical repairs to fund engineering work, environmental permitting, geotechnical evaluations, construction and construction oversight.

### LOCATION

The critical levee sections on Jersey Island in Reclamation District No. 830 (RD 830) are located at Blind Point (Stations 540+00 to 575+00) and at Headquarters (Stations 450+00 to 500+00).

### STATUS

The projects at Blind Point and Headquarters are complete. DWR conducted final inspections and received Completion Reports for both projects.

As of November 30, 2009, the final expenditure for both projects was \$1,820,957 as shown in Table 15. Originally RD 830 was advanced \$1,898,270. RD 830 returned \$77,313 to the Program (\$55,169 unused funds and \$22,144 accrued interest). The Projects were completed under budget and the unused portion of the monies advanced, including interest accrued, was returned as required in the funding agreements.

**Table 15: Grants for Non-Project Levees in the Delta - Expenditures and Commitments to Date**

Description	Amount
RD 830 - Jersey Island -- Blind Point Critical Erosion Repairs- <b>Final</b>	<b>\$976,126</b>
RD 830 - Jersey Island -- Headquarters Critical Erosion Repairs- <b>Final</b>	<b>\$844,831</b>
<b>Total Expenditures</b>	<b>\$1,820,957</b>
<b>Total Commitments</b>	<b>\$ 0</b>
<b>Total Expenditures and Commitments</b>	<b>\$1,820,957</b>

## DELTA EMERGENCY PREPAREDNESS AND RESPONSE

### **DESCRIPTION**

An Emergency Operations Plan (EOP) specific to DWR's strategy for emergency preparedness and response to a natural or human-caused failure of levees in the Sacramento-San Joaquin Delta is in the final stages of development. This plan will include descriptions of the individual actions DWR might use in its response to a levee failure event and identify the responsibilities of organizational units within DWR. The EOP will be designed to address both large and small scale Delta levee failures and will undergo periodic updates as emergency response techniques and options change.

### **LOCATION**

The EOP will address levees in the Sacramento-San Joaquin Delta.

### **STATUS**

DWR has completed an interim EOP titled "Delta Emergency Operations Plan, Concept Paper." The interim EOP recommends several ways that DWR's current pre-event response capabilities could be enhanced within the next few years. DWR is proceeding with some of these recommendations utilizing Proposition 1E funding. Work continues with 1) designing channel barriers that could be used to improve the quality of water in the Delta; 2) designing typical levee breach closures for several different regions; 3) purchasing additional flood fight and levee repair materials; and 4) pre-negotiating emergency response contracts.

The interim EOP was presented to Delta stakeholder groups and will be presented to additional stakeholders to gain public input into the development of a formal EOP. DWR is consulting with emergency responders and technical experts to provide additional recommendations for enhancing DWR's ability to respond to a Delta levee failure.

Lease agreements for three emergency response material transfer/storage facilities in the Delta were established at Hood, Rio Vista and the Port of Stockton. In addition, a rock conveyor for use at the Port of Stockton facilities was established. Over 100,000 tons of rock was purchased and placed at the Port of Stockton and Rio Vista facilities.

As of November 30, 2009, DWR expended \$332,363 in AB 142 funds as shown in Table 16. All continuing work on this project is funded by Proposition 1E and is reported in the applicable reporting documents. No additional work is planned against AB 142 funds.

**Table 16:** Delta Emergency Preparedness and Response – Expenditures and Commitments to Date

Description	Amount
Delta Emergency Preparedness and Response Expenditures	\$332,363
Delta Emergency Preparedness and Response Commitments	\$ 0
<b>Total Expenditures and Commitments</b>	<b>\$332,363</b>

## GENERAL FUND BASELINE

### DESCRIPTION

In an effort to reduce the demand on the General Fund (GF), DWR proposed using AB 142 funds in place of GF increases for three programs in its third-year Flood Strategic Budget Change Proposal (BCP). Specifically, the Fiscal Year 2007-08 BCP proposed using \$7,980,000 in baseline funds and \$465,000 in one-time funds for a total of \$8,445,000 for the following programs: 1) Flood Project Maintenance Program, 2) Emergency Response Program, and 3) Floodplain Management Program. AB 142 funds will be switched with GF for Fiscal Year 2007-08 only. GF will be used as the baseline funding for these programs in subsequent fiscal years.

### STATUS

As of November 30, 2009, DWR expended \$6,517,251 in AB 142 funds as shown in Table 17.

**Table 17: General Fund Baseline - Expenditures and Commitments to Date**

Description	Amount
Flood Project Maintenance	\$1,208,059
Emergency Response	\$2,965,698
Floodplain Management	\$2,343,494
<b>Total Expenditures</b>	<b>\$6,517,251</b>
Flood Project Maintenance	\$ 11,894
Emergency Response	\$ 980,562
Floodplain Management	\$ 958,208
<b>Total Commitments</b>	<b>\$2,639,456</b>
<b>Total Expenditures and Commitments</b>	<b>\$8,307,403</b>