

**REPORT OF ACTIVITIES
OF THE
DEPARTMENT OF WATER RESOURCES**

By

**Keith E. Swanson, Chief,
Division of Flood Management
Department of Water Resources
California Natural Resources Agency
State of California***

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FLOOD EMERGENCY RESPONSE (FER)

Flood ER prepares for and responds to flood threats in close coordination with local, state, and federal entities. Preparing for flood response requires continuous data collection, regular flood system inspections and evaluations, forecasts and information dissemination, annual training and exercises, review and replenishment of supplies and equipment, and preseason coordination.

REAL-TIME FLOOD CONDITIONS, STATUS, & WARNING

The purpose of the Real Time Flood Conditions, Status, and Warning element is to provide information needed to manage floods as they are occurring. This element supports flood operations by 1) inspecting, documenting, and assessing the integrity of the Sacramento and San Joaquin Flood Control Project levees, 2) storing and managing information so that it is accessible to flood managers and the general public, 3) providing emergency flood information and warnings based upon existing and forecasted conditions and field reports, and 4) developing information management tools to support emergency operations.

Staff continued to improve the Levee Vulnerabilities web-application on the Flood Emergency Response Information Exchange (FERIX) platform. The web-application displays the levee locations that could be susceptible to failure in future high water events.

HYDRO-CLIMATE DATA COLLECTION & PRECIPITATION/RUNOFF FORECASTING

This element supports Flood Emergency Response by providing information on current and forecasted water conditions, and by providing meteorological and climate information. Additionally, this element includes evaluating and improving the data collection and exchange network and forecasting models, providing water supply and watershed runoff information and forecasting, and the development of a new generation of forecasting and data collection tools to improve the quality, timeliness, and length of watershed and river forecasts. Real-time data, its timely availability, and quantities and quality are all critical to improving forecasting quality and timeliness.

As of May 31, statewide hydrologic conditions were as follows: precipitation, 75 percent of average to date; runoff, 50 percent of average to date; snow water content, 0 percent of average to date (0 percent of the April 1 average); and reservoir storage, 60 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2015, observed through May 31, 2015 was about 8.0 million acre-feet (MAF), which is about 51 percent of average. In comparison to Water Year 2014, the observed Sacramento River Region unimpaired runoff through May 31, 2014 was about 6.2 MAF, or about 40 percent of average.

On May 31, the Northern Sierra 8-Station Precipitation Index Water Year total was 35.2 inches, which is about 74 percent of the seasonal average to date and 70 percent of an average water year (50.0 inches). During May, the total precipitation for the 8-Stations was 1.2 inches, or about 57 percent of average for the month. Last year on May 31, the Water Year 2014 seasonal total for the 8-Stations was 28.8 inches, or about 61 percent of average.

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On May 31, the San Joaquin 5-Station Precipitation Index Water Year total was 17.4 inches, which is about 45 percent of the seasonal average to date and 43 percent of an average water year (40.8 inches). During May, the total precipitation for the 5-Stations was 1.4 inches, or about 78 percent of average for the month. Last year on May 31, the Water Year 2014 seasonal total for the 5-Stations was 19.2 inches, or about 49 percent of average.

Daily Precipitation (in inches) for Selected Stations as of 06/01/2015					
Station	October 1 to Date 2014-2015	% Average	Season to Date 2013-2014	% Average	% Average Oct 1 – Sep 30
Mount Shasta	33.55	82	12.05	29	77
Eureka	29.86	78	16.88	44	74
Redding	22.51	68	16.12	49	65
South Lake Tahoe	11.65	64	13.15	72	57
Sacramento Executive Airport	15.37	86	8.92	50	83
Santa Rosa (Sonoma Co AP)	22.25	63	13.70	38	61
San Francisco	17.43	75	11.95	51	74
Stockton	10.58	77	6.99	51	75
Yosemite	15.64	43	16.48	46	41
Monterey	14.51	92	8.30	53	90
Paso Robles	8.21	66	4.91	40	64
Fresno	6.42	58	4.91	44	56
Bakersfield	5.29	84	2.41	38	82
Death Valley	1.05	55	1.02	54	44
Los Angeles	8.39	58	5.74	39	56
Riverside	4.83	41	1.87	16	39
Palm Springs	2.19	46	0.92	19	38
San Diego	8.73	87	4.90	49	84

Key Reservoir Storage (1,000 AF) as of 05/31/2015								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,024	2,114	48	2,448	42	---	1,424
Shasta Lake	Sacramento	2,404	3,901	62	4,552	53	-2,148	2,148
Lake Oroville	Feather	1,565	2,990	52	3,538	44	-1,973	1,973
New Bullards Bar Res	Yuba	558	837	67	930	60	-408	408
Folsom Lake	American	535	821	65	977	55	-442	442
New Melones Res	Stanislaus	453	1,519	30	2,400	19	-1,967	1,967
Don Pedro Res	Tuolumne	826	1,553	53	2,030	41	-1,176	1,204
Lake McClure	Merced	129	701	18	1,025	13	-838	896
Millerton Lake	San Joaquin	177	403	44	520	34	-343	343
Pine Flat Res	Kings	265	722	37	1,000	27	-735	735
Isabella	Kern	44	299	15	568	8	-318	524
San Luis Res	(Offstream)	1,090	1,617	67	2,041	53	---	949

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for June 2015, issued May 31, 2015, suggests equal chances of wet or dry conditions for almost all of California, except for the extreme northwest portion of the state where below average precipitation is suggested.

RESERVOIR OPERATIONS & RIVER FORECASTING

This element supports Flood Emergency Response through a coordinated effort with various agencies' operating reservoirs in the system to enhance reservoir operations. The goal of coordinated operation of the reservoirs will be to reduce peak flood flows downstream of the reservoirs. Additionally, this element supports Flood Emergency Response through river forecasting activities conducted in coordination with the National Weather Service River Forecast Center located at the Joint Operations Center in Sacramento. By conducting real-time and long-range hydrologic and watershed analyses, this element provides accurate and timely runoff and river peak flow forecasts.

No new information this month.

FLOOD EMERGENCY PREPAREDNESS & OPERATIONS

This element includes preparing the Department to respond to flood emergencies by providing emergency response training, flood fight training, coordinating emergency preparedness endeavors with the various flood response partners, analyzing season flood threats, and assuring the staffing and function of the State-Federal Flood Center to coordinate state response to flood events.

Delta Flood Emergency Preparedness, Response, and Recovery Program

Staff continued to improve the Delta Emergency Response Tool which estimates the cost and time of repairs and export reductions caused by levee damage or failure in the Delta. Improvements include the ability to simulate real-time operations and current hydrologic forecasts.

Delta Emergency Response Tabletop Exercise

Staff are preparing the After Action Report for the exercise that will include recommendations for improving the Department's emergency preparedness and response in the Delta.

Statewide Flood Emergency Response Grants

Staff continued to manage the 14 executed grant contracts with local agencies to improve their flood emergency response capabilities. Initial funding recommendations totaling \$5 million dollars have been approved by the Director for the second round of the Statewide Flood Emergency Response Grant. The 30-day public comment period began June 25, 2015 and ends July 25, 2015.

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Flood ER Grants – Statewide Round 2 Funding Recommendations			
Lead Agency	Participating Agencies	Project Components Recommended for Funding	Recommended Funding
Ventura County Watershed Protection District	8	Flood Safety Plans, ALERT2	\$780,674
Reclamation District 108	11	Flood Safety Plans, Early Warning System, LMA Radios, Flood ER	\$682,713
San Joaquin County Office of Emergency Services	1	Flood Safety Plans, SEMS/NIMS Training, Flood Fight Supplies	\$598,250
Marin County Flood Control and Water Conservation	4	Flood Safety Plans, SEMS/NIMS Training, ALERT2	\$520,102
Yolo County Office of Emergency Services	7	Flood Safety Plans, SEMS/NIMS Training	\$393,500
San Joaquin County Flood Control and Water	1	Flood Safety Plans, Flood Fight Supplies, ALERT2	\$317,205
Monterey County Water Resources Agency	4	Flood Safety Plans, ALERT2	\$312,124
Stanislaus County Office of Emergency Services	3	Flood Safety Plans, SEMS/NIMS Training, Flood ER Exercises	\$205,000
Sacramento County Office of Emergency Services	7	Flood Safety Plans, ALERT2, LMA Radios	\$203,700
City of West Sacramento	8	Flood ER Exercises	\$169,380
City of Roseville	6	ALERT2	\$130,013
Sonoma County Fire and Emergency Services District	7	Flood Safety Plans, Flood ER Exercises	\$120,124
Arcata Fire Protection District	4	Flood Safety Plans, SEMS/NIMS Training, Flood ER Exercises	\$96,000
City of Pico Rivera Community & Economic Development	3	Flood Safety Plans, Flood ER Exercises	\$95,040
Yuba County Office of Emergency Services	9	Flood Safety Plans, SEMS/NIMS Training, Flood ER Exercises	\$87,500
City of Corona Department of Water and Power	3	Flood Safety Plans, Flood ER Exercises	\$75,000

Orange County Public Works	4	Flood Safety Plans, Early Warning System	\$75,000
City of Angels Camp	5	Flood Safety Plans, SEMS/NIMS Training, Flood ER Exercises	\$68,700
City of Folsom	4	ALERT2	\$47,475
Lompoc Fire Department	3	SEMS/NIMS Training, Flood ER Exercises	\$22,500
Sutter Butte Flood Control Agency	5		\$0
San Bernardino County Flood Control District	1		\$0
West Sacramento Area Flood Control Agency	5		\$0

FLOOD MANAGEMENT PLANNING (FMP)

FMP formulates strategies, plans, and investment priorities for implementation of flood management projects and development of flood risk management policy. It includes the Statewide Flood Management Planning Program and the Central Valley Flood Management Planning Program, which developed California’s Flood Future: Recommendations for Managing the state’s Flood Risk (California’s Flood Future) and the 2012 Central Valley Flood Protection Plan (CVFPP).

CENTRAL VALLEY FLOOD MANAGEMENT PLANNING (CVFMP)

The CVFMP focuses on working with stakeholders to formulate plans for reducing flood risk and increasing the resiliency of the State Plan of Flood Control (SPFC). As recommended in the CVFPP, this program is currently implementing major planning efforts: locally led Regional Flood Management Planning which is working with more than 180 local entities to prepare regional flood management plans; state led Basin-wide Feasibility Studies (BWFS); the Central Valley Flood System Conservation Strategy (CS); and the CVFPP Financing Plan. Each of these planning efforts will inform the 2017 update of the CVFPP, the first five-year update as required by the California Water Code (CWC).

Basin-wide Feasibility Studies

No new information this month.

Basin-Wide Feasibility Study Atlases

No new information this month.

Regional Flood Management Planning (RFMP) Phase 2

The six directed funding agreements between DWR and our regional partners have been amended for time, budget, and scope, allowing for the continuation of the RFMP effort into a “Phase 2”. RFMP Phase 2 is intended to extend the constructive collaboration, coordination, and meaningful engagement developed in Phase 1 through adoption of the 2017 CVFPP update. RFMP Phase 2 activities through June 2017 include Project Management, Coordination, Communications and Engagement, Regional Governance, and developing strategies to deal with Institutional Barriers. Regional coordinators are currently working with each region to develop their yearly work plan which will describe the budget and activities for this first year of RFMP Phase 2 funding.

Public Engagement

A public workshop supporting development of the 2017 CVFPP was held on June 24 at the Howe Avenue Park Community Center in Sacramento.

CVFPO staff makes monthly presentations on the progress of development of the 2017 CVFPP at each monthly CVFPB meeting. The presentation can be viewed via archived video available at the CVFPB website CVFPB.ca.gov.

FLOODPLAIN RISK MANAGEMENT (FRM)

FRM promotes prudent management of floodplains to reduce flood risks by working closely with local governments and federal agencies including the Federal Emergency Management Agency (FEMA) and the USACE. Policies, guidance documents, and technical products are developed to guide actions taken in floodplains. An important program of successful floodplain risk management includes educating the general public about flood risks so they can plan, prepare, and take individual actions to reduce flood risk for themselves, families, and property.

CALIFORNIA FLOODPLAIN RISK MANAGEMENT (CFRM)

The CFRM works with individuals, communities, and professionals to reduce the risk of flooding. It is a comprehensive integrated program that preserves and enhances the natural and beneficial functions of floodplains, and identifies opportunities to minimize the impacts of flooding. The goal of CFRM is to reduce the frequency and severity of flood loss, loss of life, damage to property, and damage to the natural resources of floodplains. One of the basic foundations of CFRM is the identification and delineation of flood hazard areas within the state. This program promotes awareness of flood risks through risk assessment and risk mapping; the community assistance program; Flood Risk Notification (FRN); floodplain management mitigation planning; and mitigation cost recovery.

FLOODPLAIN MANAGEMENT ASSISTANCE

Floodplain Management Assistance provides statewide technical support to federal, state and local agencies as well as the public for flood hazard maps, levee data, and the National Flood Insurance Program (NFIP) activities including the Community Rating System (CRS). As part of

the NFIP Community Assistance Program (CAP) grant-partnership with the Federal Emergency Management Agency (FEMA), DWR conducts audits of communities participating in the NFIP, provides technical assistance to the public, and trains community officials.

No new information this month.

Flood Risk Notification (FRN)

No new information this month.

Coastal Floodplain Evaluation and Planning

The final Coastal Floodplain Management Focus Group meeting took place on June 18 in Oakland. The Focus Group meeting supported work being carried out by DWR, the Scripps Institute of Oceanography and the Ocean Science Trust in support of the NOAA funded Sea Level Rise research grant awarded to DWR. SLR grant work products are being developed by DWR, the Scripps Institute of Oceanography and the Ocean Science Trust.

CONSERVATION STRATEGY

The Central Valley Flood Protection Act of 2008 directs DWR to achieve multiple objectives through implementation of the CVFPP. Among these are environmental objectives to improve natural dynamic hydrologic and geomorphic processes; habitat quantity, diversity, and connectivity; and native species populations. The Conservation Strategy (CS) describes DWR's approach for achieving these objectives. It outlines actions to improve programmatic environmental permitting, provide advance mitigation for flood projects, improve systemwide vegetation management, integrate environmental stewardship into multi-benefit flood improvement projects, promote agricultural stewardship, and improve the quality of scientific and planning information needed for wise decision making.

Conservation Strategy Document:

DWR held a public workshop on the CVFPP, including the Conservation Strategy, in Sacramento on June 24. The workshop provided participants with information on the scope, purpose, and timing of 2017 CVFPP Update activities; how planning activities are being integrated; and DWR's outcome based planning approach and the value of partnering with DWR on this approach. DWR, in turn, received input on transparency in its process, support for the Conservation Strategy, and concerns related to protection of agricultural interests.

In July, DWR will initiate the 60 day public review period for the Draft Central Valley Flood System Conservation Strategy and all appendices, in coordination with the CVFPB. The 60-day public review period began on July 14.

Advance Mitigation Projects:

Grasslands Mitigation Preserve (Advanced Mitigation for Giant Garter Snake)

Westervelt Ecological Services (WES) received approval from the U.S. Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), US Environmental Protection Agency, and

CA Department of Fish and Wildlife (CDFW) on the Bank Enabling Instrument (BEI), a key milestone in receiving mitigation credits for the bank. Construction is expected to begin in mid-July.

Bullock Bend Salmonid Mitigation Bank

Yolo County issued an Initial Study / Mitigated Negative Declaration (MND) and Notice of Completion on the Bullock Bend Mitigation Bank on July 1. Westervelt Ecological Services (WES) expects a two-step approval process: first the Planning Commission review and, 2) the Board of Supervisors. WES is scheduled to meet with the CVFPB on July 29. WES received comments from National Marine Fisheries Service, CDFW, and USFWS and is awaiting comments from the U.S. Army Corps of Engineers (USACE).

WES expects to resubmit the BEI by the end of July, following further discussions with USACE regulatory staff.

TRLIA Feather River Floodway Corridor Restoration Project

TRLIA received notification from CDFW on June 17 that the Prospectus TRLIA submitted for CDFW and USFWS review was complete. This approval kicks off a 90-day period (starting June 18) where CDFW and USFWS will review the Prospectus and solicit additional clarifying information. Once they issue a written determination, TRLIA and the Sacramento Valley Conservancy will develop the BEI documents.

TRLIA issued an Initial Study/MND for the project on June 26. The 30-day public review period for this document ends on Wednesday, July 29. TRLIA intends to consider adoption of the document at its regularly scheduled meeting on August 18.

STATEWIDE INTEGRATED FLOOD MANAGEMENT PLANNING (SIFMP)

*Statewide Integrated Flood Management Planning (SIFMP) has identified flood risks facing Californians and proposed mitigation measures to manage the risks. SIFMP presented recommendations to improve flood management in a comprehensive report titled **California's Flood Future: Recommendations for Managing the State's Flood Risk**. The report identified that more than 7 million Californians, or one in five, live within a 500-year level of flood risk floodplain, and approximately \$580 billion in assets (crops, structures, and public infrastructure) are exposed to flooding. It was produced working jointly with the USACE and more than 140 public agencies and presented comprehensive information about exposure to flood risk in each of California's counties, and about specific projects and associated costs that local agencies are planning to implement to reduce flood risks to their communities. Information developed for "California's Flood Future" was used to create flood management content and recommended flood related risk reduction management actions presented in the "California Water Plan Update", published in October 2013.*

The SIFMP program is currently working to further define ways to implement the *California's Flood Future* recommendations. A primary focus is on development of funding strategies for a long-term, outcome-based approach to flood risk management throughout California within the

context of overall water management investment. In addition, the program has wrapped up an expanded information gathering effort, in which approximately 240 flood and water management agencies were interviewed. A draft report titled *Investing in California's Flood Future* is being developed that will describe the state's investment priorities and finance options necessary to support the programs and projects that help improve flood management and reduce residual flood risk using an outcome-based approach. The report will support *Action 8* of the *California Water Action Plan*.

FLOOD RISK REDUCTION PROJECTS (FRRP)

Flood Risk Reduction Projects (FRRP) works in coordination with local and federal agencies to implement new flood projects; provide funding that enables local agencies to repair and improve levees and other flood management facilities statewide; provide advanced mitigation for the SPFC to aid project delivery; and enhance ecosystems associated with the flood system. A primary responsibility of this program is to work closely with USACE.

DELTA LEVEE SYSTEM INTEGRITY (DLSI)

This program focuses on levee repair, maintenance, and improvements within the Sacramento-San Joaquin Delta. Funding is also available for planning, research, and habitat enhancement. The program includes the following components:

Delta Levees Maintenance Subvention Program

This is a cost-share program providing financial assistance to local agencies for maintenance, rehabilitation, and improvement of approximately 700 miles of project and non-project levees. Due to the public-private partnership nature of this program, it provides significant improvement to critical levees at a very reasonable cost. Staff, on behalf of the Board initiates and manages work agreements to fund levee maintenance and rehabilitation. The current status of work agreements is as follows:

Work Agreements for FY 2013-2014

- The Board's Executive Officer executed 67 work agreements.
- Staff received 62 final claims by the November 1, 2014 deadline totaling approximately \$12 million in work.
- Staff conducted 62 joint levee inspections with the California Department of Fish and Wildlife and local agencies.
- Staff has reviewed all 62 claims for eligible reimbursements. Fifty eight claims for \$5.8 million are being processed for payment. Four claims need final CDFW approval before payment can be made.

Work Agreements for FY 2014-15

- On October 24, 2014, the Board approved the FY 2014-15 funding plan for \$12 million.
- Work agreements are due June 30, 2015.
- Final claims for work completed July 1, 2014 through June 30, 2015 are due to DWR by November 1, 2015.

Work Agreements for FY 2015-16

- Letters requesting applications for participation in the FY 2015-16 Delta Levees Subventions Program have been sent to participating Local Levee Maintaining Agencies.
- Applications are due July 1, 2015.

Delta Stewardship Council (DSC) Interagency Agreement (IA)

The DSC IA funds the Delta Levees Investment Prioritization Study. The DSC has been collecting information and developing the framework for its investment strategy tool. The first draft Technical Memorandums (TMs) have been received by the DSC for review. The TMs support the analyses and reports that are IA deliverables. The TMs and Delta Levees Issue Paper are available on the DSC website. The DSC issued a CEQA Notice of Preparation (NOP) for the Delta Levee Investment Strategy (DLIS). The Council held two CEQA-NOP scoping meetings for the documents; the first on June 30 in West Sacramento and the second on June 30 (PM) in Stockton. Comments on the NOP were due July 1.

Delta Protection Commission (DPC) Interagency Agreement (IA)

The DPC IA funds the study to investigate the feasibility of a statewide benefit assessment district for the Delta. The study is underway and is led by the DPC.

USACE/CVFPB PROJECTS

The Central Valley Flood Protection Board (CVFPB) participates with the United States Army Corps of Engineers (USACE) to ensure that state flood management needs and mandates are met, and provides required non-federal cost-share funds and technical assistance to repair or upgrade the Central Valley's flood management systems. These congressionally authorized State Plan of Flood Control (SPFC) projects are being constructed to improve flood protection for urban or urbanizing areas to a 200-year level of flood protection; reduce flood risk in rural areas; reduce the risk to life, infrastructure, and property; and reduce the state's liability. The following are USACE/CVFPB projects:

American River Common Features (ARCF) Project

The ARCF project improves levee systems along the American and Sacramento Rivers.

Construction of Site L10, R7, L7 and NEMDC Extension is ongoing.

American River Watershed – Natomas Basin Project

The Natomas Basin Project was approved by President Obama as part of the Water Resources Reform and Development Act in June 2014. It includes significant improvements to the Natomas Basin levees resulting in a minimum of 100-year level of flood protection for the basin. This project, in combination with Folsom Dam improvements, will provide the Natomas Basin with 200-year level of flood protection consistent with the SB5 Urban Level of Flood Protection requirements.

- Project partnership agreement (PPA) for construction of the Natomas basin project is pending USACE HQ release of the Water Resources Reform and Development Act (WRRDA) implementation guidance, expected in late 2015. PPA execution is planned in early 2016.
- Phase 1, Reach 1, design completed on June 30, 2015. However, Phase 1, Reach 1, scope is changed to include the water side cutoff walls from Phase 2. Phase 1 and Phase 2 are renamed to contract 1 and contract 2 to avoid confusion because of the scope changes. New design contracts for contract 1 and 2 are planned to be awarded in July 2015. Contract 1 construction contract award is planned in October 2016; contract 1 construction start is planned for 2017 construction season.
- Design Agreement amendment #2 was approved by CVFPB at the June 26, 2015 Board meeting. This amendment increases the total design cost to \$3,846,150.

Folsom Dam Modifications Joint Federal Project (JFP)

The purpose of the JFP is to construct an auxiliary spillway at Folsom Dam that will work in conjunction with the existing spillways to help the Sacramento region achieve a 200-year level of flood protection. The estimated construction completion date is October 2017.

- Construction and Design – The project status as of June 1, 2015 is as follows:

Phases	Planning & Design	Construction
Preconstruction Engineering and Design	100%	N/A
Phase III – Control Structure	100%	98%
Phase IV – Approach Channel, Chute, and Stilling Basin	100%	50%
Phase V – Site Restoration	46%	8%
Project Overall	94%	71%

- Phase III – Control Structure work is nearing completion. A ribbon cutting ceremony is currently scheduled to be held on the morning of August 27, 2015 to celebrate this major milestone accomplishment.
- USACE has initiated training USBR operations staff for the operations and maintenance of the Control Structure. Training will be on-going through July 2015.

Folsom Dam Raise Project

The Folsom Dam Raise Project will provide flood damage reduction by increasing the reservoir storage capacity by 3.5 feet and performing structural modifications to the existing Folsom Dam tainter gates for operational safety.

- The design for the gate improvement will have a safety assurance review conference on July 28, 2015. Design is scheduled to complete in January 2016.
- The Project Partnership Agreement (PPA) and Local Project Participation Agreement (LPPA) are tentatively scheduled to be presented to CVFPB for approval during the September 2015 Board meeting.

- The construction contract award of the first out of four contracts for the Dam Raise project is planned for September 2016.

Lake Kaweah Enlargement Project (Terminus Dam, Kaweah River Project)

The Lake Kaweah Enlargement Project was completed in 2006, and the remaining administrative, financial, and turnover work is planned to be complete by September 2015.

No new information this month.

Marysville Ring Levee Improvement Project

The Marysville Ring Levee Project will provide a 200-year or greater flood protection level to the city of Marysville by constructing cut-off walls, levee strengthening, and reshaping of the existing levee systems surrounding Marysville.

The solicitation process for the construction of levee improvements for Phase 4A began on July 2, 2015. Contract Award is expected in fall 2015.

South Sacramento County Streams Project

The South Sacramento County Streams Project will increase the level of flood protection for south Sacramento County's urbanized area and an area to the south and east of the city of Sacramento.

USACE has awarded a construction contract (2D1) for \$7.2 million for Florin Creek construction project to PRS Newland JV on June 26, 2015. Construction includes channel widening, invert channel lining, and installing parapet and retaining walls from Franklin Blvd to Highway 99. The construction is planned to begin by mid-August.

USACE/CVFPB STUDIES

The CVFPB participates with USACE to ensure that state flood management needs and mandates are met, and provides required non-federal cost share funds and technical assistance for studies to repair or upgrade the Central Valley's flood management systems. These studies identify recommended project alternatives that lead to congressionally authorized projects. These multi-benefit projects will improve flood protection for urban or urbanizing areas; reduce flood risk in rural areas that are protected by the facilities of the State Plan of Flood Control (SPFC); reduce the risk to life, infrastructure, and property; and reduce the state's liability. The following are USACE/CVFPB studies:

American River Common Features (ARCF) General Reevaluation Report (GRR)

The GRR will provide a 200-year level of flood protection for the Lower American River, downstream of the Folsom Dam, the Sacramento River (downstream of the Natomas Cross Canal), and the Natomas Cross Canal.

USACE held their Agency Decision Milestone (ADM) meeting on June 30, 2015. The ADM establishes support for the Tentatively Selected Plan (TSP) from USACE Headquarters and the non-federal sponsors moving forward into the feasibility level design of the TSP.

Central Valley Integrated Flood Management Study (CVIFMS)

This study will identify federal interest in the Sacramento River Basin by identifying opportunities to reduce flood risk and protect floodplain and environmental assets.

USACE's 2015 work plan funding request of \$350,000 to finish the watershed report for CVIFMS was approved in June 2015 by the U.S. Congress.

Cache Creek Settling Basin Project GRR

This settling basin was initially constructed in 1937 and modifications were completed in 1993. As a part of the federal authorization for the most recent improvements completed in 1993, the project authorization specified additional improvements to be considered at year 25, or when the sediment trapping efficiency fell below 30%.

No new information this month.

Lower San Joaquin River Feasibility Study (LSJRFS)

The LSJRFS will evaluate feasible flood risk reduction alternatives focused in the Stockton, Lathrop and Manteca areas, identify a project having federal interest that is consistent with the Central Valley Flood Protection Plan and complete a Final Chief's Report.

No new information this month.

Merced County Streams Project – Bear Creek GRR

This project will evaluate options to increase the Merced urban area level of flood protection from a 50-year to 200-year event.

No new information this month.

Sutter Basin Feasibility Study

This multipurpose study will address levee improvement measures for existing levee systems protecting Yuba City and the surrounding communities in the Butte/Sutter basin, as well as environmental restoration and recreation opportunities.

No new information this month.

Sacramento River Bank Protection Plan Phase 3 GRR

The GRR will evaluate flood risk reduction alternatives within the Sacramento River Flood Control Project area, identify a project having federal interest that is consistent with the Central Valley Flood Protection Plan and complete a Final Chief's Report.

- The Feasibility Cost Share Agreement (FCSA) and Project Management Plan (PMP) have been signed by USACE and the Board, as of June 19, 2015.
- USACE has scheduled a 3-day long Scoping Charrette to begin on September 30, 2015; DWR and stakeholders will be expected to provide input to the alternative selection process (i.e., Yolo Bypass Implementation, etc.).

West Sacramento Project GRR

The GRR will evaluate flood risk reduction alternatives within the West Sacramento area, identify a project having federal interest that is consistent with the Central Valley Flood Protection Plan and a final USACE Chief's Report.

No new information this month.

Woodland/Lower Cache Creek Feasibility Study

This study is a state, USACE, and city of Woodland coordinated effort to investigate the feasible 200-year level flood protection and risk reduction alternatives and opportunities for floodplain restoration, recreational enhancements, and ecosystem restoration for the city of Woodland and surrounding areas. The study will continue efforts, suspended in 2004, after significant local resistance to the USACE-selected flood barrier option alternative halted the study.

No new information this month.

Yuba River Basin Project GRR

The Yuba River Basin Project GRR consists of increasing the Yuba River Basin flood protection level in Marysville, Linda, Olivehurst and Arboga.

No new information this month.

URBAN FLOOD RISK REDUCTION PROGRAM (UFRR)

*This program was created to address state investment priorities as a result of the adoption of the Central Valley Flood Protection Plan (CVFPP). UFRR supports implementation of regional flood damage reduction projects for urban and urbanizing areas protected by SPFC facilities in the Sacramento-San Joaquin Valley to achieve at least a 200-year level of flood protection. UFRR provides cost-share funding to local agencies to repair and improve levees and facilities of the SPFC. UFRR is based on competitively awarded grants and directed funding. Projects must be multi-benefit flood projects consistent with the CVFPP and State Systemwide Investment Approach. The program evolved from the **Early Implementation Program (EIP)** developed in 2007 in response to the passage of Propositions 1E and 84. The following are EIP and UFRR projects:*

Knights Landing Levee Repair Project (EIP)

This project will repair 3.4 miles of levee along the left (east) bank of the Knights Landing Ridge Cut back to the USACE 1957 Design Profile.

Construction was anticipated to begin in June 2015 after receipt of the USACE Section 404 permit. The permit has not been received yet. Construction will begin upon receipt of the permit.

Lathrop Study and Preliminary Design (UFRR)

This project has a long-term plan to fully comply with SB5 requirements, which is well beyond the RD-17 seepage project funded under EIP. State is requiring the area to regain federal interest and meet the Central Valley Flood Protection Plan requirements, which will require looking at floodplain development and a multi-benefit project.

- The city of Lathrop was given until June 30, 2015 to submit the full project application; they have submitted a letter requesting a time extension.
- DWR staff will continue to work closely with the city of Lathrop to support developing a preferred plan.

Reclamation District 17 (RD-17) – 100-Year Levee Seepage Area Project (EIP)

RD-17 levees have low safety factors due to under-seepage and through-seepage. These issues are being addressed by constructing seepage berms, slurry walls, and a setback levee to increase the flood protection level for south Stockton, Lathrop and Manteca.

No new information this month.

Sacramento Area Flood Control Agency (SAFCA) – Levee Accreditation Project (UFRR)

SAFCA proposes levee improvements along 3-4 miles of levees along Arcade Creek and NEMDC in the Sacramento North area and 5-6 miles of levees along the Sacramento River between downtown and the town of Freeport. Improvements are required to meet requirements under the Urban Levee Design Criteria Program (ULDC) and FEMA standards. This project is still under review for state funding from DWR.

- DWR committed up to \$112 million to this project.
- SAFCA met June 30, 2015 full project application submittal date; the project application is being reviewed by DWR staff.
- North Area Streams Levee Improvement Project (NASLIP) design is 65% complete.

SAFCA – Natomas Cross Canal Project (EIP)

This Natomas Levee Improvement Program project will install cutoff walls to prevent seepage, under-seepage, and raise the levee to improve the Natomas Basin's flood protection and create a 200-year minimum flood protection level.

No new information this month.

SAFCA – Sacramento River East Levee Project (EIP)

This Natomas Levee Improvement Program project will install cutoff walls to prevent seepage, under-seepage, and raise the levee to improve the Natomas Basin's flood protection and create a 200-year minimum flood protection level. SAFCA plans to complete components to element 12A (RM 67) along the Sacramento River and have the USACE complete the remaining work.

No new information this month.

San Joaquin Area Flood Control Agency (SJAFC) – Smith Canal Closure Structure Project (EIP & UFRR)

The Smith Canal Closure Project will construct a miter gate at the mouth of the Smith Canal on the San Joaquin River/Stockton Deep Water Ship Channel to provide a 100-year level of flood protection to a portion of the City of Stockton.

SJAFC requested an extension to the June 30, 2015 deadline, to August 31, 2015 to submit the full project application to construct the Smith Canal closure structure. DWR is processing the time extension request.

Sutter Butte Flood Control Agency (SBFCA) – Feather River West Levee Project (FRWLP) (EIP & UFRR)

FRWLP repairs approximately 35 miles of levees along the west bank of the Feather River from the Thermalito Afterbay to the north end of Star Bend. This project includes construction of slurry walls and seepage berms to protect Gridley, Biggs, Live Oak, Yuba City, and parts of Sutter and Butte counties. FRWLP's highest priority segment is identified as Project Area C. DWR chose Project Area C for the first construction contract.

SBFCA had a public event on July 1, 2015 to mark the beginning of this year's construction on the project. Construction had been delayed due to issues related to cultural discoveries on the site. The event was attended by Congressman John Garamendi, State Senator Jim Nielsen, and Assemblyman James Gallagher.

Three Rivers Levee Improvement Authority (TRLIA) – 200-year Goldfields Levee Project (UFRR)

This project proposes to construct a new levee south of the Goldfields (Yuba River) area to complete 200-year flood protection for the Yuba Basin east of the Feather River.

TRLIA was given until June 30, 2015 to submit the full project application; it was submitted on time and is now under staff review.

Three Rivers Levee Improvement Authority (TRLIA) – Feather River Levee Improvement Project (EIP)

This project will result in a 200-year flood protection level for Highway 65 and 70, and will also improve flood protection for Olivehurst, Linda, Plumas Lake, Marysville, and Yuba City. This

project includes one of the largest setback levees west of the Mississippi River, and creates 1,600 acres for on-site mitigation, agricultural use, and habitat.

No new information this month.

TRLIA – Upper Yuba River Levee Improvement Project (EIP)

This project will result in a 200-year level of flood protection for Highway 65 and 70, and will also improve flood protection for Olivehurst, Linda, Plumas Lake, Marysville, and Yuba City. This project includes a portion of the Yuba River's south levee.

No new information this month.

West Sacramento Area Flood Control Agency (WSAFCA) – North Area Improvement Project (EIP)

The California Highway Patrol Academy, Rivers, and I-Street Bridge projects are part of the North Area Plan. All construction is complete for these sites. These projects correct through-seepage and foundation under-seepage that have excessive hydraulic gradients, embankment instability, and erosion problems. All three projects are designed to provide a 200-year flood protection level for about 47,000 residents.

No new information this month.

West Sacramento Area Flood Control Agency (WSAFCA) – Southport Improvement Project (EIP & UFRR)

The Southport Improvement Project will construct flood risk reduction measures along approximately 5.6 miles of the Sacramento River right (west) bank levee. The project consists of approximately 1.6 miles of strengthen-in-place measures and 4 miles of setback levee. For setback levee areas, the work will include the breaching and degrading of the existing levee and allow for natural restoration of the Sacramento River floodplain.

WSAFCA was given until June 30, 2015 to submit the full project application; it was submitted on time and is now under staff review.

Woodland Study and Preliminary Design (UFRR)

This project's long-term objective is to provide flood protection to the City of Woodland while improving flood system elements in Yolo County. The state is requiring the City to continue to work with USACE to determine federal interest in the project and to meet Central Valley Flood Protection Plan requirements. The city is working to develop a multi-benefit project which will consider deep floodplain development, existing maintenance issues, and residual risk measures.

- City of Woodland was given until June 30, 2015 to submit the full project application; they have submitted a letter requesting a time extension. DWR is processing the time extension request.

- DWR staff will continue to work closely with Woodland in support of developing a preferred plan.

FLOOD CORRIDOR PROGRAM (FCP)

The FCP is a statewide grant program in which non-structural flood risk reduction is the primary goal, with habitat and agricultural conservation incorporated as prominent program components. The goal of FCP is to reduce flood risk by enabling waterways to function more naturally, while enhancing native wildlife habitat, and preserving agricultural uses. To do this, the program provides grant funding to local agencies statewide for Flood Risk Reduction Projects (FRRP) that improve floodwater conveyance and transitory floodwater storage, using primarily non-structural methods while preserving or enhancing agricultural production and/or wildlife habitat.

No new information this month.

LOCAL LEVEE ASSISTANCE PROGRAM (LLAP)

The LLAP was created to help fund projects implemented by flood management agencies, mainly outside of the Sacramento-San Joaquin Delta. The goals of LLAP include minimizing flood risk; identifying deficiencies in flood control structures and levees; and eliminating high flood insurance costs related to FEMA unaccredited levees. LLAP projects must fulfill at least one of the two goals of inspection and evaluation of the integrity and capability of existing flood control project facilities; or improvement, construction, modification, or relocation of flood control levees, weirs, or bypasses, including repair of critical bank and levee erosion.

Statewide Flood Grants/Local Levee Assistance Program – DWR staff have completed initial review of grant applications for flood risk reduction projects submitted during the Proposal Solicitation that closed on March 17, 2015. Preliminary list of qualified projects to receive grants will be posted by end of July 2015. Final list of approved projects is planned for completion during fall 2015.

YUBA-FEATHER FLOOD PROTECTION PROGRAM

The Yuba-Feather Flood Protection Program provides Proposition 13 financial assistance to local entities that can demonstrate nonstructural flood management projects that show a peak flood flow reduction, flood stage, and flood risk in the Yuba and Feather River and Colusa Basin (including wildlife habitat enhancement and/or agricultural land preservation).

No new information this month.

SAN JOAQUIN RIVER RESTORATION PROJECT (SJRRP)

Division of Flood Management has created the SJRRP to assist the United States Bureau of Reclamation (USBR) in assessing flood risks associated with the San Joaquin River Restoration Program. The San Joaquin River Restoration Program is a comprehensive long-term effort to restore flows to the upper San Joaquin River and restore a self-sustaining Chinook salmon

fishery while avoiding adverse water supply impacts. USBR, lead agency for the SJRRP, has initiated Interim releases from Friant Dam and is evaluating alternatives for releases and routing of restoration flows up to 4,500 cubic feet per second to support reintroduction of fish into the San Joaquin River as required by the Stipulation of Settlement (Settlement). DWR has offered technical and funding assistance to the program in recognition of the DWR's role in habitat restoration and flood management.

The purpose of the SJRRP is to assist the San Joaquin River Restoration Program in assessing the flood risk impacts of Restoration flows under this program due to seepage and stability and identifying potential remedies to address increased flood risks under Restoration flows in coordination with the CVFPP.

The work plan for further studies to understand the flood risk with respect to seepage and stability on priority 1, Reach O, was completed. Field exploration work on this reach is planned to start late July or during August.

FLOOD SYSTEM OPERATIONS AND MAINTENANCE (FSO&M)

FSO&M focuses on maintaining individual elements such as levees, hydraulic control structures, pumping plants, bridges, and channels to continue to achieve risk reduction benefits the system was designed to provide riverside communities, rural areas and the state. Local agencies and the state share responsibility for this work. LMAs operate and maintain a majority of the system through management of their individual levee systems, while the state is required to operate and maintain those portions of the State Plan of Flood Control (SPFC) identified in the California Water Code (CWC). Local agencies and the state work closely with the CVFPB, the USACE, and environmental resource agencies to ensure that operation and maintenance activities meet statutory requirements that promote public safety, environmental stewardship, and economic stability.

CHANNEL EVALUATION AND REHABILITATION

As part of the FSO&M mega program, the Channel Evaluation and Rehabilitation Program is responsible for operating, maintaining, and repairing SPFC channels identified in assurances to the federal government and defined in CWC Section 8361. DWR operates and maintains approximately 1,200 miles of SPFC channels of the Sacramento River Flood Control Project to ensure proper flood protection function and conveyance capacity.

*Proposition 1E funding is being used for extraordinary operations and maintenance activities, including SPFC channel evaluations, mercury characterization and control implementation, and channel conveyance capacity deficiency correction. Routine operations and maintenance requirements are **funded by the General Fund.***

Specific Channel Evaluation and Rehabilitation Program activities include channel inspections and evaluations, as well as developing and utilizing hydraulic models to identify critical areas within channels requiring the removal of vegetation or sediment to maintain channel capacity and flood protection function.

Channel responsibilities also include those under the Central Valley Regional Water Quality Control Board's adopted Total Maximum Daily Loads (TMDLs) and Basin Plan Amendment, wherein DWR is assigned responsibility for monitoring, evaluating and reducing total mercury and methyl mercury loads passing through the Flood Control System and into the Yolo Bypass and the Delta. DWR is mandated to conduct characterization and control studies for activities including flood control improvements, modifications, and wetland mitigation work with the potential to impact methyl mercury concentrations in the Yolo Bypass and Delta.

The Channel Evaluation and Rehabilitation Program reports progress within the following components:

- *Inspection and Evaluation*
- *Routine Operations and Maintenance*
- *Non-Routine Projects*

INSPECTION AND EVALUATION:

Bear River Hydraulic Model

Staff conducted a field review of current channel conditions to determine in any modifications or updates were needed to the model to account for maintenance. The model is fairly recent and appears to accurately reflect current conditions.

Butte Creek Hydraulic Model

No new information this month.

Cache Creek Hydraulic Model

No new information this month.

Cache Creek Settling Basin

Staff received draft reports summarizing the control studies performed by the University of California, Davis, in response to the Central Valley Regional Water Quality Control Board's Total Maximum Daily Load (TMDL) requirements for the basin and adjacent Yolo Bypass. Staff also received a similar draft report from the United States Geological Survey. The draft reports provide calculated estimates on the sediment trapping efficiency of the basin and form the baseline conditions for subsequent feasibility study evaluations to improve the trapping efficiency of the basin.

Cherokee Canal Hydraulic Model

Land use assumptions were updated for the model. The model report was updated to include the entire channel and latest revisions. The model will be used to develop a Channel Management Plan in fiscal year (FY) 15/16.

Chico Area Streams Hydraulic Model

No new information this month.

East Side Canal (aka Coon Creek Interceptor, Sacramento County)

No new information this month.

Knights Landing Ridge Cut/Colusa Drain Hydraulic Model

Staff is modifying the geometry from the existing CVFED model for Colusa Drain to incorporate additional detail to include the flood plain as well as the main channel.

Llano Seco Riparian Sanctuary

At staff's request, River Partners provided staff with copies of the RMA2 model used to evaluate the proposed project for the EIS/EIR previously completed. DWR has begun developing a 2-D Sacramento River/Butte Basin model using HEC-RAS 5.0 (Beta Version). Staff wants to compare model results once the 2-D HEC-RAS model is complete. The model set River Partners provided did not include the scenario evaluating the potential Camp 2 Bend cutoff in the Sacramento River and staff proceeded to request that model set. River Partners has forwarded the request to the consultants who provided the 2-D modeling for the Llano Seco Project.

Middle Creek Hydraulic Model (Lake County)

The Northern Region Office (NRO) is finalizing the model. Staff expects to use the model in FY 15/16 to evaluate potential channel maintenance activities.

Natomas East Main Drainage Canal (NEMDC)

Staff is updating the Channel Management Plan to include work completed in 2014 and also provide improved graphics to identify proposed maintenance activities.

Putah Creek Hydraulic Model

Staff discovered an error in assumed pier width for the Mace Boulevard Bridge in the existing hydraulic model. Staff conducted field measurements to correct bridge geometry and modified the model accordingly. Staff is updating model results and the report to incorporate the correction.

Sutter Bypass Pumping Plant Fish Screen Investigation

No new information this month.

Tisdale Bypass Hydraulic Model

Staff conducted a field review of current channel conditions to determine if any modifications or updates were needed to the model to account for maintenance. The recent model appears to accurately reflect current conditions.

Wadsworth Canal Hydraulic Model

Staff conducted a field review of current channel conditions to determine if any modifications or updates were needed to the model to account for maintenance. The recent model appears to accurately reflect current conditions.

Willow Slough Bypass

No new information this month.

Yuba River Hydraulic Model

No new information this month.

ROUTINE OPERATIONS AND MAINTENANCE:

The Maintenance Yards' routine channel maintenance is limited to vegetation management through such methods as spraying, mowing, and trimming. These activities are planned at the end of flood season and are completed before the next flood season. Although DWR manages large areas in channels, only a small percentage is actively maintained by DWR. Reporting on planned activities in actively maintained areas starts on November 1, 2014 and ends on October 31, 2015. Additional work that is completed as needed includes removing debris, removing trees, removing sediment, and removing beaver dens. These activities are reported as they are completed.

The following activities were completed in the month of June:

- 4 beaver dens were removed from Linda Creek.
- 22 beaver dens were removed from Natomas East Main Drain.
- 10 acres of vegetation in Elder Creek were sprayed.
- 25 acres of vegetation in the Sutter seepage ditches and drainage canals were sprayed.

NON-ROUTINE ACTIVITIES:

No new information this month.

FLOOD CONTROL FACILITIES EVALUATION AND REHABILITATION (FCFER)

The FCFER program includes evaluating, operating, maintaining, and repairing Sacramento River Flood Control Project facilities defined in CWC Section 8361 and state assurance to the federal government. DWR is responsible for operating and maintaining SPFC facilities including 11 weirs, 5 gate structures, 4 pumping plants, and specific bridges associated with the east levee of the Sutter Bypass, ensuring proper flood protection functionality and facility condition. Rehabilitation and improvement work includes proactive repair of known and documented problems with prioritization based on flood risks and safety.

The Flood Control Facilities Evaluation and Rehabilitation program reports progress within the following components:

- *Inspection and Evaluation*
- *Routine Operations and Maintenance*
- *Non-Routine Projects*

INSPECTION AND EVALUATION:

Two times a year, once immediately after flood season and once prior to flood season, the Flood Maintenance Office (FMO) conducts inspections of structures, bridges, and pipes that penetrate the levee. Deficiencies are identified with corrective actions. Minor deficiencies can be remedied through maintenance practices while larger issues will require a project level effort.

The following activities were completed in the month of June:

- The following structure inspections were completed:
 - Cache Creek Low Flow Outlet
 - Cache Creek Settling Basin Weir
 - Freemont Weir
 - Knights Landing Outfall Gates
 - Merit Dam
 - Sacramento Weir
 - 3 Bs Overflow area
 - Butte Slough Drainage Structure
 - Colusa Weir
 - Goose Lake Overflow
 - Little Chico Creek Diversion Structure
 - M&T Ranch Overflow area
 - Middle Creek Pumping Plant
 - Moulton Weir
 - Nelson Slough Weir
 - 3 Sutter Bypass Pumping Plants
 - Tisdale Weir
 - Wadsworth Canal Weir
 - Willow Slough Weir

- An inspection and recommendation report will be drafted and submitted to each maintenance yard in July.

Butte Slough Outfall Gates (BSOG)

Plans are 95% complete and construction is planned to start in the summer of 2016.

ROUTINE OPERATIONS AND MAINTENANCE:

The Maintenance Yards' routine maintenance for flood facility structures varies based on the type of structure. Pumping plants require periodic mechanical and electrical maintenance while weir maintenance primarily consists of concrete repairs. Additional work that is completed as needed includes removing debris and sediment, and emergency repairs. These activities are reported as they are completed.

The following activities were completed in the month of June:

No new information this month.

NON-ROUTINE PROJECTS:

Bridge CC-2 Repair

FMO is evaluating alternatives for repairing Bridge CC-2 in Sutter County. The bridge is part of the drainage system of Project No. 6 east of the Sutter Bypass. As part of the Sutter Maintenance Bridge Inspection Program, Bridge CC-2 was identified as needing immediate repair. DWR has operations and maintenance responsibility for the bridge and the collecting canal it crosses as identified in California Water Code, Section 8361(c). The bridge provides access for DWR to conduct required maintenance activities and for Westervelt Ecological Services to manage the Sutter Basin Conservation Bank for Giant Garter Snake mitigation.

Bryte Yard Groundwater Investigation

Under approval from the Central Valley Regional Water Quality Control Board, staff arranged for the destruction of seven groundwater monitoring wells and seven temporary observation points installed during characterization activities performed in association with former leaking underground storage tanks at the site. The well destruction activities were completed on June 19.

Butte Slough Outfall Gates (BSOG) - Completion Contract

This is a project to address issues with the latest projects including all three Sutter pumping plants, Weir 2, Willow Slough Weir, and Knights Landing outfall gates. The project should go out for public bidding late this summer.

Hughes Road Culvert Replacement Project

The culvert replacement was completed by the Sutter Maintenance Yard on June 2, 2015. This project entailed removing a deteriorated and undersized 36" corrugated metal pipe from under Sutter County's Hughes Road. The culvert was replaced with 65' of 7' x 4' precast concrete culvert and two headwalls. The culvert conveys water traveling through the collecting canal system to the Sutter Bypass Pumping Plants.

LEEVE OPERATIONS AND MAINTENANCE COMPONENTS

The Levee Maintenance Program, like the Channel Maintenance Program, is generally organized around the continual and ongoing maintenance of specific levee structures in the Sacramento River Flood Control Project. Both the Sacramento and Sutter Yards have assigned responsibilities for specific levee reaches to provide performance-based levee operating and maintenance to help ensure the levee will perform satisfactorily during any high water flood event.

When a levee evaluation and inspection report indicates that a significant repair or rehabilitation is required, the design and construction will be turned over to the levee repair program and constructed as a capital outlay project under the flood risk reduction mega-program. Otherwise the three component activities are considered as “operations and maintenance”.

The Levee Operation and Maintenance Program reports progress within the following components:

- *Routine Operations and Maintenance*
- *Non-Routine Projects*

ROUTINE OPERATIONS AND MAINTENANCE:

The Maintenance Yards’ routine levee maintenance includes vegetation management through spraying, mowing, and trimming, maintaining levee geometry through dragging levee crown roads, dragging levee slopes, repairing minor erosion, and maintaining water side and land side toe roads where they exist, protecting levees from rodent damage and repairing damage that has occurred through FMO’s Rodent Abatement/Damage Repair and Rehabilitation Program, and removing or remedying encroachments. Reporting on routine maintenance activities started on November 1, 2014 and ends on October 31, 2015. Additional activities that are completed as needed include repairing or replacing gates, barricades, and mile markers; placing gravel on crown roads; and repairing or replacing pipes that penetrate the levee. These activities are reported as they are completed.

The following activities were completed in the month of June:

- At Cache Creek (21.63 miles), the following activities were completed:
 - The remaining 10.22 miles of slope were mowed.
 - Tree trimming occurred along 3 miles.
 - Spot spraying vegetation occurred along 6 miles.
 - 2 miles of waterside and 3 miles of landside toe received road maintenance.
 - 12 miles of slope were burned.
 - 2 road gates were repaired.

- At the upper 2 miles of the East Yolo Bypass Levee, the following activities were completed:
 - 1 mile of slope mowing, and
 - 0.5 miles of waterside toe road maintenance.
- At Maintenance Area 4 (MA 4) (3.4 miles), the following activities were completed:
 - Spot spraying vegetation occurred on all 3.4 miles.
- At MA 9 (19.61 miles), the following activities were completed:
 - Spot spraying vegetation occurred on 10.5 miles, and
 - 3 encroachments were removed.
- At Putah Creek (16.29 miles), the following activities were completed:
 - 12 miles of slope mowing,
 - Spot spraying vegetation occurred along 6 miles, and
 - 2.5 miles of slope burning.
- At Sacramento Bypass (3.56 miles), the following activities were completed:
 - 2 miles of slope burning.
- At the west Yolo Bypass levees Units 1-4 (15.42 miles), the following activities were completed:
 - 9.36 miles of slope mowing,
 - 3 miles of slope burning,
 - Spot spraying vegetation occurred along 1.50 miles, and
 - 3.79 miles of waterside toe road maintenance.
- At Willow Slough Bypass (12.82 miles), the following activities were completed:
 - 1 mile of slope dragging, and
 - 4 miles of waterside and landside toe road maintenance.
- At the East Levee of the Sacramento River (20.31 miles), the following activities were completed:
 - The remaining 18 miles of slope were mowed.
 - Spot spraying vegetation occurred on all 20.31 miles.
 - Tree trimming occurred on all 20.31 miles.
 - All 20.31 miles of slope were burned.
 - Rodent baiting occurred.
- At MA 1 (17.12 miles), the following activities were completed:
 - 17.12 miles of slope were mowed.
 - Spot spraying vegetation occurred on all 17.12 miles.
 - Tree trimming occurred on all 17.12 miles.
 - Rodent baiting occurred.
 - Pipe inspections occurred.
- At MA 5 (33.42 miles), the following activities were completed:
 - 10 miles of slope were mowed.
 - 16.7 miles of waterside and landside toe road received maintenance.
- At MA 13 (41.97 miles), the following activities were completed:
 - 21 miles of waterside and landside toe road received maintenance.
- At Tisdale Bypass (9 miles), the following activities were completed:
 - Spot spraying vegetation occurred on 4.5 miles of the Bypass.

- At Wadsworth Canal (9.32 miles), the following activities were completed:
 - 3 miles of slope were dragged.
 - 9.32 miles of slope were burned.

NON-ROUTINE PROJECTS:

No new information to report.

FLOOD SYSTEM EVALUATION AND REHABILITATION (FSER)

The FSER program includes evaluating, operating, maintaining, and repairing SPFC facilities pursuant to state assurances to the federal government. This FSER program supports implementation of the CVFPP-SSIA. The program improves DWR's integrated flood protection mission. Specific FSER activities include: program management; policy development; support for Board permitting and encroachment enforcement; corridor management strategy development; Title 23 regulation updates; easement identification and reconciliation; management of state-owned properties and easements; and integrated water management activities.

Lower Feather River Corridor Management Plan

No new information this month.

Small Erosion Repair Program (SERP)

Correction: The June 2015 Board report erroneously stated that "Construction occurred in May to repair four erosion sites along the Willow Slough Bypass levee." The correct statement is: "Vegetation removal in preparation for construction occurred in May for planned repair of four erosion sites along the Willow Slough Bypass levee."

All SERP sites on Willow Slough Bypass and Wadsworth Canal are on hold until a California Endangered Species Act Incidental Take Permit (Department of Fish and Wildlife Code, Section 2081) is obtained for potential impacts to the Giant Garter Snake.

LEVEE REPAIRS

The Levee Repairs Program in the Division of Flood Management, Flood Maintenance Office, makes repairs to the State Plan of Flood Control (SPFC) facilities (primarily levees) through several projects. Among these are the Flood System Repair Project (FSRP), the Sacramento River Bank Protection Project (SRBPP), and the Federal Public Law 84-99 Emergency Repair Project (PL 84-99). FSRP is a bond funded program that repairs rural SPFC facilities of the Sacramento and San Joaquin River Systems under a state-local cost share. SRBPP is a USACE-led program that repairs urban SPFC critical erosion sites along the Sacramento River and tributaries. PL 84-99 repairs minor damages incurred from a significant flood event. DWR is a cost-sharing partner and manages the state's responsibilities for the SRBPP and PL 84-99 projects.

Flood System Repair Project (FSRP)

Project agreements for future FSRP repairs have been finalized after final review by DFM and CVFPB staff. FMO staff is working with local reclamation districts to implement projects based on these new agreements. FMO staff will present the FSRP program status, including projects currently under contract as well as contracts being developed.

Sacramento River Bank Protection Project (SRBPP)

No new information this month.

Federal Public Law 84-99 Emergency Repair Project (PL 84-99)

No new information this month.