

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

**By**

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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 kicked off the Real-Time Inundation Modeling project. The project will include the development of hydraulic models and interface tools to predict flood inundation timing and extents. The models will use hydrologic forecast data from the River Forecasting Section and the California-Nevada River Forecast Center.

The Inspection Section completed its Spring Inspection and posted the associated reports online at: [http://cdec/detail\\_reports.html](http://cdec/detail_reports.html). The Spring Inspection Reports are provided in two formats, full and maintenance only. The Full Reports provide details for all issues discovered during the inspection which include maintenance, enforcement, and system obsolescence issues. The Maintenance Only Reports provide focus for the Levee Maintaining Agencies by removing all non-maintenance type issues from the report. Local Maintaining Agencies will use these reports to improve maintenance on the levees over the next few months.

### **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 April 30, statewide hydrologic conditions were as follows: precipitation, 105 percent of average to date; snow water content, 55 percent of average to date (40 percent of the April 1 average); runoff, 110 percent of average to date; and reservoir storage, 90 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2016, observed through April 30, 2016 was about 14.2 million acre-feet (MAF), which is about 106 percent of

average. In comparison to Water Year 2015, the observed Sacramento River Region unimpaired runoff through April 30, 2015 was about 7.5 MAF, or about 56 percent of average.

On April 30, the Northern Sierra 8-Station Precipitation Index Water Year total was 54.7 inches, which is about 120 percent of the seasonal average to date and 109 percent of an average water year (50.0 inches). During April, the total precipitation for the 8-Stations was 2.8 inches, or about 72 percent of average for the month. Last year on April 30, the Water Year 2015 seasonal total for the 8-Stations was 34.0 inches, or about 75 percent of average.

On April 30, the San Joaquin 5-Station Precipitation Index Water Year total was 38.7 inches, which is about 104 percent of the seasonal average to date and 95 percent of an average water year (40.8 inches). During April, the total precipitation for the 5-Stations was 2.8 inches, or about 78 percent of average for the month. Last year on April 30, the Water Year 2015 seasonal total for the 5-Stations was 16.0 inches, or about 43 percent of average.

On April 30, the Tulare Basin 6-Station Precipitation Index Water Year total was 25.2 inches, which is about 94 percent of the seasonal average to date and 86 percent of an average water year (29.3 inches). During April, the total precipitation for the 6-Stations was 1.6 inches, or about 61 percent of average for the month. Last year on April 30, the Water Year 2015 seasonal total for the 6-Stations was 11.2 inches, or about 42 percent of average.

Daily Precipitation (in inches) for Selected Stations as of 04/30/2016					
Station	October 1 to Date 2015-2016	% Average	Season to Date 2014-2015	% Average	% Average Oct 1 – Sep 30
Mount Shasta	37.38	97	31.95	83	86
Eureka	43.20	118	29.85	81	107
Redding	35.10	113	22.17	71	101
South Lake Tahoe	19.97	117	9.64	56	98
Sacramento Executive Airport	15.75	91	15.30	89	85
Santa Rosa (Sonoma Co AP)	30.01	88	22.24	65	83
San Francisco	21.97	98	17.34	77	93
Stockton	16.25	124	10.57	81	116
Yosemite	35.02	102	14.29	42	92
Monterey	21.25	139	14.21	93	132
Paso Robles	7.37	61	8.13	67	58
Fresno	13.98	131	5.85	55	122
Bakersfield	4.89	80	4.61	76	76
Death Valley	1.61	86	1.05	56	68
Los Angeles	6.30	44	7.46	52	42
Riverside	4.99	43	4.23	37	40
Palm Springs	2.48	54	2.07	45	43
San Diego	7.29	73	6.53	66	71



Key Reservoir Storage (1,000 AF) as of 04/30/2016								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,494	2,020	74	2,448	61	---	954
Shasta Lake	Sacramento	4,233	3,924	108	4,552	93	-319	319
Lake Oroville	Feather	3,400	2,877	118	3,538	96	0	138
New Bullards Bar Res	Yuba	881	767	115	966	91	-18	85
Folsom Lake	American	826	729	113	977	85	18	151
New Melones Res	Stanislaus	622	1,505	41	2,400	26	-1,610	1,798
Don Pedro Res	Tuolumne	1,365	1,487	92	2,030	67	-362	665
Lake McClure	Merced	480	607	79	1,025	47	-253	545
Millerton Lake	San Joaquin	295	366	81	520	57	-226	225
Pine Flat Res	Kings	520	613	85	1,000	52	-402	480
Isabella	Kern	88	231	38	568	16	-273	480
San Luis Res	(Offstream)	957	1,822	53	2,041	47	---	1,082

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for June 2016, issued May 19, 2016, suggests average precipitation for all of California.

## 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 DWR 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 Emergency Response Grants

Staff continued to manage executed contracts with local agencies. The 30 day public comment period for Delta ER Grant Round 2 Draft Guidelines closed May 31st. Guidelines are posted on

our website at <http://www.water.ca.gov/floodmgmt/funding/delta.cfm>. Two public workshops to solicit comments and answer questions were held. One in-person meeting was held at San Joaquin County OES (2101 E. Earhart Ave, Stockton, CA 95206) on May 18, and one WebEx was held on May 19, which was recorded and placed on the website for all to view. DWR received no formal comments during the comment period. Discussion items from the public workshops have been posted on the website.

### **Delta Flood Emergency Facility Improvement Projects**

Construction activities at the Rio Vista site, part of the Facility Improvement Project, have been completed. Over the next several weeks, rock will be moved onto the site by truck. Facility Improvement at the South Weber Avenue parcel, located in Stockton, CA, began on May 16, 2016.

### **Delta Agency Coordination**

Staff continues to meet monthly with Delta Stewardship Counsel in support of the Delta Levee Investment Strategy, with State Water Contractors, and with CalOES. Staff also continues to meet quarterly with USACE Emergency Response staff and with the Delta Working Group. The quarterly Delta Working Group Meeting is scheduled for June 7, 2016 from 9:30am to 11:30am at Sacramento County Office of Emergency Services.

Staff continued improving the Delta Emergency Response Tool. The tool estimates the impacts following Delta levee failures, including the cost and time to make levee repairs and export disruptions for the State Water Project and Central Valley Project. The improvements include optimizing the operation of the Delta Cross Channel gates, simulating flushing flows from the San Joaquin River, and estimating channel barrier install rates and costs. Staff led a tabletop exercise with the State Water Project Operations Control Office to establish coordination procedures to run the tool and make operational decisions.

### **Statewide Flood Emergency Response Grants- Round 1**

Staff continued to manage the 14 executed grant contracts with local agencies to improve their flood emergency response capabilities. Of the \$5 million awarded, approximately \$2.9 million has been invoiced for by the grantees.

On May 24, staff represented DWR at the Governor's Office of Emergency Services (CalOES) Family Day and Open House Event held at the CalOES Headquarters in Mather. This event was open to employees and families of multiple emergency response and partner agencies. DWR partnered with the National Weather Service, U.S. Army Corps of Engineers, and California Conservation Corps to educate attendees about floodplains and flood emergency response.

### **Statewide Flood Emergency Response Grants- Round 2**

A total of \$5 million was awarded in October 2015, to 20 local agencies to improve their flood emergency response capabilities through various project components such as flood safety plans, stream gage upgrades, flood emergency response exercises and training, and flood fight materials. Staff is working with local grantees to develop 20 grant contracts for the second

round of Statewide Flood Emergency Response Grants. Three grants have been executed to date: Arcata Fire Protection District, Ventura County Watershed Protection District, and Yuba County Office of Emergency Services.

### **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 2012 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).*

### **2017 Central Valley Flood Protection Plan**

DWR is developing an Administrative Draft 2017 CVFPP Update, expected for Board review in August 2016. Staff briefed DWR executive management on the CVFPP Update on May 25. DWR continues to develop a CVFPP Overview Document to guide development of the CVFPP Update in coordination with the Board.

### **2017 Central Valley Flood Protection Plan Supplemental Program EIR**

Following receipt of comments during the public scoping period, DWR has prepared a draft scoping report. Within the report, DWR is formulating responses to NGO comments.

### **2016 State Plan of Flood Control Descriptive Document Update**

- No new information this month.

### **2017 Flood System Status Report Update**

DWR is coordinating and managing the update to the Flood System Status Report (FSSR). Updates specific to flood inspections of channels, levees, pump stations, and weirs, as well as vegetation and erosion that have been developed internally by DFM staff are currently in review by CVFPO staff. These updates will then be compiled and technical editing for an administrative draft will begin.

Staff is also developing updates pertaining to the completed Urban and Non-Urban Levee Evaluations Program as well as 2015 DWR levee inspections program.

### **Basin-wide Feasibility Studies**

DWR released a stakeholder review draft of the Sacramento River BWFS on April 1, 2016. The comment period closed May 6 and a revised draft is expected in July 2016.

The San Joaquin BWFS is undergoing communications and engagement with stakeholders on its findings and tentative recommendations, including a successful Board-convened special workshop on May 13 at the San Luis National Wildlife Refuge. A stakeholder review draft San Joaquin River BWFS is expected in late summer 2016.

### **Basin-Wide Feasibility Study Atlases**

- No new information this month.

### **Regional Flood Management Planning (RFMP) Phase 2**

- No new information this month.

### **Small Communities Flood Risk Reduction Program**

- No new information this month.

### **Public Engagement**

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](http://CVFPB.ca.gov). Past presentations can be found on the CVFMP website at [www.water.ca.gov/cvfmp/](http://www.water.ca.gov/cvfmp/).

## **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 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**

- No new information this month.

### **Advanced Mitigation Projects**

The CVFPB approved the encroachment permit for Westervelt's Bullock Bend Advanced mitigation project in March 2015. Westervelt is considering construction bids received in late May; project construction is expected to begin in July, following final approval of the Bank Enabling Instrument by fish and wildlife agencies.

### **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.*

Staff conducted a NFIP Floodplain Management and Duties of the Local Administrator course on May 18, 2016 in the city of Thousand Oaks, CA. Staff conducted a NFIP Elevation Certificate Workshop on May 19, 2016 in the city of Thousand Oaks, CA.

### **USACE/CVFPB Studies**

*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:*

#### **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.*

- No new information this month.

#### **Sacramento River 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.*

- No new information this month.

### **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 collaborate and work closely with U.S. Army Corps of Engineers (USACE).***

### **USACE/CVFPB PROJECTS**

*The Central Valley Flood Protection Board (CVFPB) participates with the 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 ongoing USACE/CVFPB projects:*

#### **American River Common Features (ARCF) Project**

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

- Site R7 restoration work will be completed once the asphaltic concrete is placed - scheduled for June 6, 2016. A final walk through will follow sometime in June 2016; afterwards, the project closeout phase will begin.

### **American River Watershed – Natomas Basin Project**

*The Natomas Basin Project was approved by President Obama in 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 other projects will provide the Natomas Basin with 200-year level flood protection.*

- Comments were provided to USACE on May 10, 2016, for the Reach I, Contract 1 Plans and Specifications, the Design Documentation Report, the Cost Estimate, and the final real estate mapping.
- The Reach D, 60 percent design submittal is due in June 2016.
- USACE decided this project is a new start; therefore, a Project Partnership Agreement (PPA) is needed. USACE indicated the PPA must be signed by August 2016 to qualify for federal fiscal year (FY) 2017 funding. A Local PPA between CVFPB and the Sacramento Flood Control Agency (SAFCA), and a PPA between CVFPB and USACE is being prepared for execution on June 24, 2016.

### **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 May 1, 2016, is as follows:

Phases	Planning & Design	Construction
Preconstruction Engineering and Design	100%	N/A
Phase III – Control Structure	100%	99%
Phase IV – Approach Channel, Chute, & Stilling Basin	100%	91%
Phase V – Site Restoration	100%	8%
Project Overall	100%	93%

- ✓ Phase III: Granite continues finalizing closeout items on the Control Structure.
- ✓ Phase IV: Kiewit started wet-excavation in the Approach Channel and continues to conduct final punch-out items of the concrete chute, steps, and stilling basin.
- ✓ Phase V: Right Bank Stabilization construction work scheduled to start by middle of June 2016.
- ✓ Phase V: 100 percent design of restoration activities was completed in the beginning of May 2016. Contractor anticipates starting the haul road and other construction restoration activities by the beginning of June 2016.
- ✓ Guard rail installation along Folsom Crossing started in early May 2016, with all work conducted during the night-time to minimize traffic impacts. Work on the guard rail is scheduled to be completed by August 2016.

### **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.*

- USACE is expected to complete the Final Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) in October 2016 and complete the National Environmental Policy Act review in November 2016. The Board may choose to consider the approval of the Final SEIS/EIR at the December 2016 meeting to complete the California Environmental Quality Act process.
- USACE is currently conducting an economic re-evaluation of the Folsom Dam Raise project to update project costs and benefits due to complete in June 2016.

### **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.*

- Negotiations to acquire real estate rights on Phase 2A continued with the Union Pacific Railroad, USACE, the Marysville Levee District and the Department of Water Resources (DWR). The project team is working to deliver rights acceptable to USACE for a contract award in this federal FY.

### **South Sacramento County Streams Project**

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

- USACE continued to revise the take map based on input received from the stakeholders. The schedule to send the take letter is delayed again, and is now expected in late June 2016. This effort is to acquire operation and maintenance easements along the Morrison Creek alignment.
- The Florin Creek construction (contract 2D1) started on May 2, 2016, and is progressing on schedule. Construction is expected to be completed by the end of September 2016. The work includes channel widening, channel concrete lining, retaining walls, and installing sheer pile walls.

### **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 project 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.*

- The Chief's Report for the GRR was signed on April 27, 2016. This will allow the project to be included in the WRDA 2016, which is currently under consideration by Congress.
- The CVFPB conditionally approved the resolution to certify the EIS/EIR on April 22, 2016.
- DWR will file the Notice of Determination upon receipt of the signed amended resolution.

### **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.*

- No new information this month.

### **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 percent.*

- A Letter of Support to USACE was submitted on May 24, 2016, for the initiation of a GRR.

### **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.*

- At the May 20, 2016, CVFPB meeting, DWR staff and a Merced County representative provided an informational briefing on The Merced Streams Project. The intent of the briefing was to follow up at the June CVFPB meeting and request Board approval of a letter of intent to initiate the project with the USACE. After the briefing, the Board raised concerns that a single organization representing the local sponsors was not in place. The proposed local sponsors, referred to as the Merced County Streams Group and consisting of Merced County, the city of Merced, and the Merced Irrigation District are not part of a Joint Powers Authority (JPA) or equivalent. The Board stated that it needs to enter into a project cooperation agreement with a single entity and that the entity needs to represent the local interests with a single voice. The Merced County representative stated the Merced County Streams Group is in the process of forming a JPA, and the JPA is expected to be formed this year.

### **Success Reservoir Enlargement Project (SREP) GRR**

*The Success Reservoir is a multi-purpose facility built to provide flood control and irrigation.*

*The Success Reservoir is currently under evaluation for flood risk; USACE and the non-Federal sponsors intend to move forward with improvements which reduce the risk of the Dam and provide the multipurpose flood control and irrigation improvements.*

- Through use of an updated probabilistic wind and wave analysis prescribed by the USACE Risk Management Center, it was determined that the over-wash failure mode for Success Dam was no longer actionable. Since over-wash was the only failure mode to be analyzed, there is no need to proceed with a Dam Safety Modification Report. This means that the SREP can be reinitiated. USACE Sacramento District (SPK) will identify a funding source to fund the reinitiated SREP that will require a Non-federal Sponsor cost share. Next steps will include a revaluation of the scope, benefits, and cost of the Enlargement Project and to determine if either an amendment to the existing Project Cooperation Agreement or a new Project Participation Agreement is the course of action. SPK will also have to complete a validation report prior to resumption of Design for Construction. SPK is preparing a 2018 President's Budget request; upon submission, the Enlargement Project would compete for FY 2018 line item funding and FY 2017 Work Plan funds, assuming FY 2017 Work Plan funds are available.

### **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 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.*

- No new information this month.

### **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 complete a Final 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.*

- No new information this month.

#### **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. The 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.*

- No new information this month.

#### **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 North East Main Drainage Canal 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.*

- The Levee Accreditation Project (LAP) was approved to be included under the UFRR Program. DWR staff will start negotiating a design and construction Funding Agreement in support of the LAP with the local agency, SAFCA. A signed Funding Agreement is expected in July 2016, after SAFCA has successfully established a new assessment district.

**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.*

- No new information this month.

**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 procured an amendment to Board Permit No. 18793-1 to include cutoff wall gap closure work required to complete the Project Area C segment of the Feather River West Leve Project. Construction of the cutoff wall gap closures will be completed in 2016.

**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.*

- No new information this month.

**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.*

- TRLIA procured Board permits 19020 and 19020-1 for construction of the 200-year improvements along the Western Pacific Interceptor Canal. Construction is planned to begin in June 2016.

**West Sacramento Area Flood Control Agency (WSAFCA) – Design (EIP)**

*Design agreement funds all design activities for project elements in the North basin and majority of the project design in Southport.*

- No new information this month.

**West Sacramento Area Flood Control Agency (WSAFCA) – Construction (EIP & UFRR)**

*Construction for the California Highway Patrol Academy, Rivers, and I-Street Bridge projects in the north basin is complete. These projects corrected through-seepage and foundation under-seepage that had excessive hydraulic gradients, embankment instability, and erosion problems. 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.*

- No new information this month.

**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.*

- No new information this month.

**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 the 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 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 the LLAP include minimizing flood risk; identifying deficiencies in flood control structures and levees; by 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, relocation of flood control levees, weirs, or bypasses, including repair of critical bank and levee erosion.*

- No new information this month.

#### **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 reduction, and flood risk reduction in the Yuba, 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)**

*The 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 selected fish species 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, as well as identifying potential remedies to address increased flood risks under Restoration flows in coordination with the CVFPP.*

- No new information this month.

## **FLOOD SYSTEM OPERATIONS AND MAINTENANCE (FSO&M)**

*FSO&M focuses on maintaining system features 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 operations 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:**

### **Cache Creek and Cache Creek Settling Basin Hydraulic Model**

- No new information this month.

### **Feather River Hydraulic Model**

- Staff is continuing to work on model development for the Feather River.

### **Llano Seco Riparian Sanctuary (Butte Basin 2-D Model)**

- The model was revised based on comments received during the Independent Technical Review. There are continuing issues in trying to move the model from the Beta version used for development to the latest official release of HEC-RAS 5.0.1. Until errors resulting from changing versions can be resolved, FMO is testing the model using Steady State Design flows and the Beta version of HEC-RAS.

### **Middle Creek Hydraulic Model**

- No new information this month.

### **Mercury Characterization Studies**

- No new information this month.

### **Sacramento River (Colusa Weir)**

- 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 started on November 1, 2014, and ended 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 May:

- In the Bear River, 3 acres of vegetation were sprayed.
- In Big Chico Creek, 1 acre was mulched.
- In Elder Creek, 20 acres of vegetation were sprayed.
- In the Tisdale Bypass, 100 cubic yards of debris were removed.



## **NON-ROUTINE ACTIVITIES:**

### **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.*

- Spring inspections are complete and the recommendations report has been provided to the maintenance yards.

## **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 May:

- "No Trespassing" signs were placed at M&T Ranch.

## **NON-ROUTINE PROJECTS:**

### **Collecting Canal Bridge CC-2 and CC-4 Repair**

- No new information available for this month.

### **Sacramento Maintenance Yard Paving Project**

A project to repave the Sacramento Maintenance Yard (SMY) was initiated. The project will include routing overhead electrical and communication lines underground prior to repaving and developing a grading plan to address existing drainage issues. In addition, FMO will evaluate the feasibility of incorporating renewable energy generation in the form of solar photovoltaic parking structures which will support DWR's Sustainability Policy which includes maximizing the use of renewable energy sources for DWR's business operations. Work for the remainder of this fiscal year will include a detailed survey of the SMY and review of available as-builts for the yard.

### **Bryte Yard Groundwater Investigation**

The fourth groundwater sampling collection event to support a request to close the site under the low-risk underground storage tank closure policy has been completed. Upon receipt of the analytical data, a report requesting consideration for closure will be prepared. The report is scheduled for submittal to the Central Valley Water Quality Control Board by May 15, 2016.

### **Butte Slough Outfall Gates (BSOG)**

Environmental staff is working with state and federal regulatory agencies to try and obtain long term operations and maintenance coverage for the proposed rehabilitation work. DWR Real Estate continues to work on access and right of entry agreements. Additional electrical updates are being incorporated into the design plans.

### **Completion Contract**

This is a project to complete some items that were not included in the contracts for recent projects. The completion contract covers the Weir 2 project, Willow Slough project, Pumping Plant project, and Knights Landing Outfall Gates project. The contract was awarded to Valentine Construction with the notice to begin work on December 24. Construction is expected to commence in the summer of 2016.

### **Flood Emergency Response Information Exchange (FERIX) Application for FMO**

FMO is working with HAFOO and GEI to expand the DFM's Flood Emergency Response Information Exchange (FERIX) application to include specific FMO references and map layers. This tool will improve informational management for FMO and allow FMO to retrieve, analyze, and store geo-referenced information. It is expected that this effort will streamline project review, permitting, design, construction, maintenance, and monitoring efforts. Available information will include past maintenance activities, environmental studies, FMO structure inspection reports, and other relevant information. FMO Beta testing for this application is expected to begin in late June.

### **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 waterside and landside 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 May:

- At Cache Creek (21.63 miles), the following activities were completed:
  - Vegetation was mowed along 19 miles,
  - Trees were trimmed along 5 miles,
  - Spot spraying of vegetation occurred along 6 miles,
  - Waterside toe road maintenance occurred along 12 miles,
  - Landside toe road maintenance occurred along 5 miles, and
  - One gate was repaired.
- At the upper 2 miles of the East Yolo Bypass Levee(2 miles), the following activities were completed:
  - Vegetation was mowed along 1.5 miles, and
  - Vegetation was spot sprayed along 1.5 miles.
- At Maintenance Area (MA) 4 (3.4 miles), the following activities were completed:
  - Vegetation was mowed along 19.61 miles, and
  - Trees were trimmed along 4 miles.
- At MA 9 (19.61 miles), the following activities were completed:
  - Vegetation was mowed along 19.61 miles, and

- Two gates were repaired.
- At Putah Creek (16.9 miles), the following activity was completed:
  - Road grading along 3 miles.
- At the Sacramento bypass (3.56 miles), the following activity was completed:
  - Vegetation was mowed along 1 mile.
- At the West Yolo Bypass levees Units 1-4 (9.35 miles), the following activities were completed:
  - Vegetation was mowed along 3.5 miles, and
  - Spot spraying of vegetation occurred along 1.5 miles.
- At the Willow Slough Bypass (12.82 miles), the following activities were completed:
  - Vegetation was mowed along 12 miles,
  - Waterside toe road maintenance occurred along 2 miles, and
  - Landside toe road maintenance occurred along 6 miles.
- At the East Levee of the Sacramento River (20.31 miles), the following activities were completed:
  - Vegetation was mowed along 10.5 miles,
  - Vegetation spot spraying along 20.31 miles,
  - Waterside toe road maintenance occurred along 20.31 miles, and
  - Rodent baiting occurred along 12 miles.
- At the East Levee of the Sutter Bypass (22.37 miles), the following activities were completed:
  - Vegetation spot spraying along 22.37 miles, and
  - Waterside toe road maintenance occurred along 22.37 miles.
- At MA 1 (17.12 miles), the following activities were completed:
  - Rodent baiting occurred along 12 miles, and
  - Waterside toe road maintenance occurred along 17.12 miles.
- At MA 3 (5.19 miles), the following activity was completed:
  - Rodent baiting occurred along 5.19 miles.
- At MA 5 (33.42 miles), the following activities were completed:
  - Vegetation was mowed along 18 miles,
  - Tree trimming occurred along 5 miles,
  - Vegetation spot spraying along 33.42 miles,
  - Road grading occurred along 10 miles,
  - Waterside toe road maintenance occurred along 20 miles, and
  - Rodent baiting occurred along 33.42 miles.
- At MA 12 (11.31 miles), the following activities were completed:
  - Vegetation was mowed along 12 miles, and
  - Vegetation spot spraying along 11.31 miles.
- At Tisdale Bypass (9 miles), the following activity was completed:
  - Vegetation was mowed along 9 miles.

**NON-ROUTINE PROJECTS:**

- No new information this month.

## **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)**

- No new information this month.

## **LEEVE 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 on behalf of the CVFPB.*

### **Flood System Repair Project (FSRP)**

As of May 2016, FSRP has completed a total of six construction projects; one a proactive erosion repair in State Maintained Area ST008, and four all-weather access road repairs in RD 1500, RD 1600, RD 2063 and the Lower San Joaquin Levee District (75 miles total). The total cost of these projects was approximately \$5.4 million, which includes \$700,000 in local cost share. Additionally, FSRP has committed approximately \$38.5 million for all-weather access road improvements and levee repair projects to rural portions of the SPFC. This amount includes approximately \$4 million in local-share contributions. These committed projects are in various stages of permitting/design/construction. Projects supported with these funds include nine all-weather levee access road repair projects (64 miles total), seven critical erosion repair projects (total length of 8,500 lf) and one control structure repair project. FMO staff continues to develop work agreements to commit additional FSRP funding for these types of rural levee repair projects.

On May 25, 2016, the status of FSRP was presented to the Central Valley Flood Protection Board Coordinating Committee.

**Sacramento River Bank Protection Project (SRBPP)**

USACE completed the Project Review Board assessment of the status of the erosion repair project located on the left bank of the Sacramento River at river mile 16.8. It was determined to proceed with construction of this project in fall 2016, while some remaining regulatory agency permitting issues are finalized. Construction is anticipated to be completed in December 2016.

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

- No new information this month.