REPORT OF ACTIVITIES
OF THE
DEPARTMENT OF WATER RESOURCES

By

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**Prepared for the Central Valley Flood Protection Board Meeting – May 20, 2016.*

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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.

The Flood Project Inspection Section is actively performing the spring inspection. This work started March 1 and will continue through the month of May.

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 March 31, statewide hydrologic conditions were as follows: precipitation, 110 percent of average to date; snow water content, 85 percent of average to date (85 percent of the April 1 average); runoff, 115 percent of average to date; and reservoir storage, 85 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2016, observed through March 31, 2016 was about 12.2 million acre-feet (MAF), which is about 111 percent of average. In comparison to Water Year 2015, the observed Sacramento River Region unimpaired runoff through March 31, 2015 was about 6.9 MAF, or about 63 percent of average.

On March 31, the Northern Sierra 8-Station Precipitation Index Water Year total was 51.9 inches, which is about 125 percent of the seasonal average to date and 104 percent of an average water year (50.0 inches). During March, the total precipitation for the 8-Stations was 16.4 inches, or about 238 percent of average for the month. Last year on March 31, the Water Year 2015 seasonal total for the 8-Stations was 31.7 inches, or about 76 percent of average.

On March 31, the San Joaquin 5-Station Precipitation Index Water Year total was 35.8 inches, which is about 107 percent of the seasonal average to date and 88 percent of an average water year (40.8 inches). During March, the total precipitation for the 5-Stations was 8.7 inches, or about 143 percent of average for the month. Last year on March 31, the Water Year 2015 seasonal total for the 5-Stations was 13.7 inches, or about 41 percent of average.

Daily Precipitation (in inches) for Selected Stations as of 03/31/2016					
Station	October 1 to Date 2015-2016	% Average	Season to Date 2014-2015	% Average	% Average Oct 1 – Sep 30
Mount Shasta	35.50	99	30.58	86	81
Eureka	41.03	123	27.29	82	102
Redding	31.85	111	20.99	73	92
South Lake Tahoe	17.68	110	8.29	51	87
Sacramento Executive Airport	14.72	91	13.45	83	79
Santa Rosa (Sonoma Co AP)	28.65	89	20.84	65	79
San Francisco	20.51	97	16.04	76	87
Stockton	13.42	110	9.45	78	95
Yosemite	32.32	102	11.39	36	85
Monterey	20.64	146	13.32	94	128
Paso Robles	7.21	63	7.70	67	56
Fresno	12.87	132	4.60	47	112
Bakersfield	3.91	70	4.53	81	60
Death Valley	1.28	73	1.05	60	54
Los Angeles	6.06	45	7.33	55	41
Riverside	4.67	43	3.85	36	38
Palm Springs	2.45	55	2.07	46	43
San Diego	6.84	75	6.51	71	66

Key Reservoir Storage (1,000) AF) as of 03/31/2016								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,280	1,927	66	2,448	52	---	1,168
Shasta Lake	Sacramento	4,027	3,691	109	4,552	88	258	525
Lake Oroville	Feather	3,060	2,696	114	3,538	86	183	478
New Bullards Bar Res	Yuba	816	701	116	966	84	17	150
Folsom Lake	American	691	628	110	977	71	52	286
New Melones Res	Stanislaus	617	1,510	41	2,400	26	-1,428	1,803
Don Pedro Res	Tuolumne	1,218	1,483	82	2,030	60	-472	812
Lake McClure	Merced	338	565	60	1,025	33	-379	687
Millerton Lake	San Joaquin	345	366	94	520	66	-175	175
Pine Flat Res	Kings	387	564	69	1,000	39	-399	613
Isabella	Kern	61	201	30	568	11	-301	507
San Luis Res	(Offstream)	1,059	1,846	57	2,041	52	---	980

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for May 2016, issued April 21, 2016, suggests above normal precipitation for almost all of California, except the southwest quarter of the State where normal precipitation is indicated.

Seasonal and Water Year Runoff Forecasts

The May 1, 2016 Bulletin 120 forecast has been finalized. The seasonal runoff (April-July) ranges from 49 percent on the Kern River to 96 percent on the Mokelumne and Stanislaus Rivers. The Water Year runoff forecast ranges from 50 percent on the Kern River to 113 percent on the Trinity River.

The May 1, 2016 Water Supply Index (WSI) forecasts are also finalized. The Sacramento River Index (SVI) remains in the Below Normal water year classification. The San Joaquin Valley Index (SJI) remains in the Dry water year classification.

Precipitation

Following a very wet March in the Northern and Central Sierra Nevada, precipitation accumulated at a below average pace during April for the entire Sierra Nevada. Water Year-to-date precipitation is above average for both the Northern and Central Sierra Nevada (San Joaquin), but slightly below average for the Southern Sierra Nevada (Tulare Basin) Precipitation for the 2015-2016 water year accumulated at the following rates of average:

Region/Index	WY accumulated precipitation (%) through April 30, 2016	Precipitation (%) for April 2016
N. Sierra 8-Station Index	120 (54.7 inches)	72 (2.8 inches)
San Joaquin 5-Station Index	104 (38.7 inches)	78 (2.8 inches)
Tulare Basin 6-Station Index	94 (25.2 inches)	61 (1.6 inches)

Snowpack

Snow accumulated at a below-average pace during the month of April as spring melt began. Statewide, the snow pack sits at 54 percent of the May 1 average.
The results of the April 2016 statewide snow surveys are as follows:

Region	No. Courses Measured	Average WC	% Average May 1
North Coast	9	15.1	57
Sacramento	65	14.6	52
San Joaquin Valley	56	18.6	60
Tulare Lake	32	10.6	46
North Lahontan	5	11.0	50
South Lahontan	4	9.0	53
Statewide Average (weighted)			54

On May 1, the automated snow sensor network showed similar numbers to the, albeit slightly higher for the Northern and Central regions than the snow survey results. In general, the snowpack lost water content according to the sensors in all regions since April 1. The snowpack as of the morning of May 1, 2016 stands at the following (based on snow sensors):

Region	Snow Water Equivalent (inches)	% of Average (Apr 1)
Northern	13.0	63
Central	16.0	68
Southern	10.0	46
Statewide	13.0	61

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.

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.

Ten members of the U.S. Army 92nd Civil Affairs Battalion were hosted at the FOC on Monday 5/2 as part of a 2 day training program by CalOES on the topic of the Sac-San Joaquin Delta; specifically the successes had aligning local, county, state, and federal partners to improve Delta flood emergency preparedness.

DFM and O&M staff deployed a communications trailer from the West Sacramento vehicle compound to the 8th annual California Mobile Command Center rally (MCC Rally) at McClellan Park. Concurrently, staff performed a communications drill, testing communications equipment and processes.

Staff initiated a task order to continue improvements to 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 planned 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 made a presentation on the tool at the California Water and Environmental Modeling Forum's Annual Meeting in Folsom, California on April 12.

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 $2.7 million has been invoiced for by the grantees. Staff presented on the Flood Emergency Response Grants at the 26th Flood Warning Systems Training Conference and Preparedness Workshop in Fish Camp, California on April 20.

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 opened on May 2. 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 will be held. One in-person meeting will be held at San Joaquin County OES (2101 E. Earhart Avenue, Stockton, CA 95206) on May 18, and one WebEx will be held on May 19, which will be recorded and placed on the website for all to view.

Delta Flood Emergency Facility Improvement Projects
The Rio Vista site is currently undergoing construction as part of the Facility Improvement Project. The work includes road widening, civil improvements, and the placement of additional rock stockpiles. Facility Improvement at the South Weber Avenue parcel, located in Stockton, California, will break ground on May 16, 2016, and include renovation of an existing warehouse, construction of a new warehouse, civil improvements, and the placement of 75,000 tons of emergency rock stockpile. All required permits have been received for work on the North Weber Avenue parcel. These permits include the 404 Nationwide Permit, 401 Water Quality Certification, and a 1600 Streambed Alteration Agreement. Improvements on the north parcel are scheduled to go out for contractor bidding in early 2017.

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 tentatively scheduled for June 7, 2016.

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. 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

A public scoping meeting was conducted April 8 at Sacramento City Hall. DWR is preparing a Supplemental EIR Scoping Report that includes response to comments received during public scoping. The Scoping Report is anticipated for late May.

2016 State Plan of Flood Control Descriptive Document Update

DWR has developed an initial draft high-level outline for an update to the 2010 SPFC Descriptive Document and is in the process of collecting and reviewing associated reference documentation to draft the update.

2017 Flood System Status Report Update

DWR is coordinating and managing the update to the Flood Control System Status Report (FCSSR). The update will incorporate information with respect to flood inspections of channels, levees, pump stations, and weirs, as well as vegetation and erosion. Interdepartmental coordination is ongoing with multiple branches within DFM contributing information. CVFPO has also engaged the CVFPB and USACE, as needed, during the update process.

Basin-wide Feasibility Studies

DWR released a stakeholder review draft of the Sacramento River BWFS on April 1, 2016. The comment period will close 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 planned 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
Staff are identifying support staff and updating the draft Guidelines and the Proposal Solicitation Package for the Small Communities Flood Risk Reduction (SCFRR) Program based on comments received during the comment period, which ended on December 28, 2015. DWR expects to finalize the documents and start the application period in June. A presentation on the SCFRR was given to the "Levee State-of-the-Practice" Symposium on April 22. The symposium was sponsored by the GEO Institute of the American Society of Civil Engineers and by AEG.

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. Past presentations can be found on the CVFMP website at 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
No new information this month.

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.

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.

- An informational briefing on the recommendations included in the CVIFMS Watershed Plan was held at the March Board meeting. The CVIFMS Watershed Plan is a federal companion document to the 2012 CVFPP that establishes a partnership with USACE to allow necessary coordination of state flood risk management goals outlined in the CVFPP.

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.

- The GRR is nearing the completion of the first milestone, the Alternative Milestone, where USACE management agrees on the proposed process for continuing analysis and evaluation of a focused array of alternatives. The Alternative Milestone completion is due at the end of April or the beginning of May 2016.

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 a "water management effectiveness framework", which is the foundation of providing for investment for flood and water management. This framework will provide 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. This report supports *Actions 8 and 10* of the *California Water Action Plan.*

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.

- Water Resources Development Act (WRDA) 96/99 project completion ribbon cutting ceremony, which Congresswoman Matsui and Congressman Ami Bera attended, was held on April 8, 2016. Several Department of Water Resources (DWR) personnel, including Gary B. Bardini and Keith E. Swanson, and CVFPB president Bill H. Edgar attended the event.
- Site R7 restoration resumed on April 21, 2016, and is scheduled to be complete by mid-May 2016. Work includes the removal of the exit ramp, back-fill under the bridge, final grading, grinding and aggregate base, asphalt concrete patching, and hydro seeding.

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 April 13, 2016, for the Reach H Geotechnical Basis of Design Report and 60% plans, specifications, and cost estimates.

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 April 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%	90%
Phase V – Site Restoration	95%	8%
Project Overall	99%	93%

- ✓ Phase III: Granite continues finalizing closeout items on the Control Structure.
- ✓ Phase IV: The Last major concrete pour occurred on April 28, 2016, in the upper chute. Kiewit continues to conduct final punch-out items and wet-excavation of the Approach Channel.
- ✓ Phase V: The Phase V Supplemental Environmental Assessment/Environmental Impact Report was certified by CVFPB at the April 22, 2016, Board Meeting.

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 (NEPA) review in November 2016. The Board may choose to consider the approval of the Final SEIS/EIR at the November 2016 meeting to complete the California Environmental Quality Act (CEQA) 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.

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.

- No new information this month.

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 is revising the take map based on inputs received from the stakeholders. The revised take letter submittal to DWR is due mid May 2016 to acquire operation and maintenance (O&M) easements along the Morrison Creek alignment.
- Florin Creek construction (contract 2D1) is scheduled to begin on May 2, 2016, and be completed by the end of September 2016. Work includes channel widening and lining.

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:

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.

- The Chief's Report for the GRR was signed on April 27, 2016. This will allow the project to be included in the Water Resources Development Act 2016, which is currently under consideration by Congress.
- 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.

- 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.

- Flood Projects Office staff will provide an informational briefing on the background and status of the Merced County Streams GRR to CVFPB during the May 20, 2016, Board meeting.

Success Reservoir Project 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.

- 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 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 Alternatives Milestone, to gain Vertical Team alignment, was held on April 26, 2016. During the Alternatives Milestone conference USACE District presented the problems and opportunities the GRR is intended to address, reviewed the focused array of alternatives, presented the proposed evaluation criteria to identify the final array of alternatives, and discussed the significant risks moving forward.

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.

- The GRR Chief's Report was signed on April 27, 2016. This will allow the project to be included in WRDA 2016, which is currently under consideration by Congress.

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 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.

- No new information this month.

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 (SJAFCA) – 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.

- No new information this month.

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 1600 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) – 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).

- **Gridley Bridge Project Design (Feather River)** - SBFCA published a Draft Supplemental Environmental Impact Report on April 20, 2016, starting a 45-day public comment period.

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)
Model calibration was completed and the model was sent to a consultant for an Independent Technical Review and comments were received back. FMO Staff is supporting the Flood Projects Office to address the comments.

Middle Creek Hydraulic Model
The Flood Maintenance Office (FMO) was contacted by the Lake County Water Resources Department requesting a copy of the Middle Creek HEC-RAS model and associated documentation developed by the Northern Region Office for FMO. Lake County will be applying for a Small Communities Flood Risk Reduction Program to conduct a feasibility study to determine what improvements are necessary, to provide 100-improved flood protection to the community of Upper Lake and hopes to use the model to support that effort. The model and report are still considered to be a Draft and Not Final. FMO staff provided a copy of the Draft model and model documentation to Lake County with the understanding the model and report are not yet final and are subject to revision.

Mercury Characterization Studies
No new information this month.

Sacramento River (Colusa Weir)
Draft evaluation completed. Maintenance of vegetation on the "Island" in front of the weir would result in about a 1% increase in the flow over the Colusa Weir. Benefits from sediment removal or cutting a new channel through the island have not yet been evaluated.

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 April:

- In the Bear River, 1 acre of vegetation was mowed and 1 acre of vegetation was cleared by hand.
- In Big Chico Creek, 60 cubic yards of debris was removed.
- In Butte Creek, 60 cubic yards of debris was removed.
- In Cherokee Canal, 40 cubic yards of debris was removed.
- In Colusa Bypass, 50 cubic yards of debris was removed.
- In Elder Creek, 20 acres of vegetation was sprayed.
- In Little Chico Creek, 20 cubic yards of debris was removed.
- In Lindo Creek, 20 cubic yards of debris was removed.
- In the Sutter Bypass Channel, 200 cubic yards of debris was removed.
- In Sycamore Creek, 80 acres of vegetation was mowed.
- In Magpie Creek Diversion, 0.5 cubic yards of debris was removed.
- In the Tisdale Bypass, 60 cubic yards of debris was 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 have commenced and will be completed in May.

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 April:

- All pumping plants were prepared for the upcoming Completion Contract work.

NON-ROUTINE PROJECTS:

Collecting Canal Bridge CC-2 and CC-4 Repair
No new information available for this month.

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.

LEVEE 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 April:

- At Cache Creek (21.63 miles), the following activities were completed:
  - Vegetation was burned along 2 miles,
  - Trees were trimmed along 2 miles,
  - Spot spraying of vegetation occurred along 15 miles,
  - Pipes were inspected along 21.63 miles,
  - Mile markers were repaired or replaced along 21 miles, and
  - One (1) gate was repaired.
- At Maintenance Area (MA) 4 (3.4 miles), the following activity was completed:
  - Vegetation was mowed along 3.4 miles.
- At MA 9 (19.61 miles), the following activity was completed:
  - Vegetation was mowed along 19.61 miles.
- At Putah Creek (16.9 miles), the following activities were completed:
  - Spot spraying vegetation along 8 miles, and
  - Road grading along 6 miles.
- At the West Yolo Bypass levees Units 1-4 (9.35 miles), the following activities were completed:
  - Vegetation was burned along 1 mile,
  - Trees were trimmed along 1 mile,
  - Spot spraying vegetation occurred along 7.5 miles,

    - Pipes were inspected along 5.72 miles, and
    - Mile markers were replaced along 5.72 miles.
- At the Willow Slough Bypass (12.82 miles), the following activity was completed:
    - Land side toe road maintenance along 5 miles.
- At the Colusa Bypass (4.58 miles), the following activity was completed,
    - Vegetation spot spraying along 4.58 miles.
- At the East Levee of the Sacramento River (20.31 miles), the following activities were completed:
    - Vegetation spot spraying along 20.31 miles, and
    - Mile markers were repaired or replaced along 2 miles.
- At the East Levee of the Sutter Bypass (22.37 miles), the following activity was completed:
    - Vegetation spot spraying along 22.37 miles.
- At MA 1 (17.12 miles), the following activities were completed:
    - Tree trimming occurred along 3 miles,
    - Vegetation spot spraying occurred along 17.12 miles,
    - Rodent baiting along 17.12 miles, and
    - One (1) gate was repaired or replaced.
- At MA 3 (5.19 miles), the following activity was completed:
    - Vegetation was mowed along 2.5 miles.
- At MA 5 (33.42 miles), the following activities were completed:
    - Tree trimming occurred along 16 miles, and
    - Vegetation spot spraying along 33.42 miles.
- At MA 12 (11.31miles), the following activity was completed:
    - Vegetation spot spraying along 11.31 miles.
- At MA 13 (41.97 miles), the following activities were completed:
    - Vegetation spot spraying along 41.97 miles,
    - Rodent baiting along 41.97 miles, and
    - 24 gates were repaired or replaced.
- At MA 17 (3.14 miles), the following activities were completed:
    - Vegetation spot spraying along 3.14 miles, and
    - Road grading along 3.14 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.

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 on behalf of the CVFPB.

Flood System Repair Project (FSRP)
As of April 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. The total cost of these projects was approximately $5.5 million, which includes $705,000 in local cost share. Additionally, FSRP has committed approximately $34.6 million for all-weather access road improvements and levee repair projects to rural portions of the SPFC. This amount includes approximately $3.5 million in local-share contributions. These committed projects are in various stages of permitting/ design/construction. Projects supported with these funds include eight all-weather levee access road repair projects, seven critical erosion repair projects 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.

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.