Agenda Item 13

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.

The Flood Project Inspection Section is inspecting, documenting, and assessing the integrity of the Sacramento and San Joaquin Flood Control Project levees for the fall inspection season.

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 September 30, the end of Water Year 2015, statewide hydrologic conditions were as follows: precipitation, 75 percent of average to date; runoff, 45 percent of average to date; and reservoir storage, 55 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2015, observed through September 30, 2015 was about 9.3 million acre-feet (MAF), which is about 51 percent of average. In comparison to Water Year 2014, the observed Sacramento River Region unimpaired runoff through September 30, 2014 was about 7.5 MAF, or about 41 percent of average.

On September 30, the Northern Sierra 8-Station Precipitation Index Water Year total was 37.2 inches, which is about 74 percent of the seasonal average to date and 74 percent of an average water year (50.0 inches). During September, the total precipitation for the 8-Stations was 0.4 inches, or about 44 percent of average for the month. Last year on September 30, the Water Year 2014 seasonal total for the 8-Stations was 31.3 inches, or about 63 percent of average.

On September 30, the San Joaquin 5-Station Precipitation Index Water Year total was 19.0 inches, which is about 47 percent of the seasonal average to date and 47 percent of an average water year (40.8 inches). During September, the total precipitation for the 5-Stations was 0.2 inches or about 29 percent of average for the month. Last year on September 30, the Water Year 2014 seasonal total for the 5-Stations was 20.4 inches, or about 50 percent of average.

Daily Precipitation (in inches) for Selected Stations as of 09/30/2015					
Station	October 1 to Date 2014-2015	% Average	Season to Date 2013-2014	% Average	% Average Oct 1 – Sep 30
Mount Shasta	35.32	81	14.96	34	81
Eureka	30.74	76	20.05	50	76
Redding	23.67	68	19.54	56	68
South Lake Tahoe	14.01	69	17.18	84	69
Sacramento Executive Airport	15.45	83	9.39	51	83
Santa Rosa (Sonoma Co AP)	22.77	63	14.53	40	63
San Francisco	17.70	75	12.65	53	75
Stockton	10.68	76	7.59	54	76
Yosemite	18.50	49	17.21	45	49
Monterey	14.61	91	8.71	54	91
Paso Robles	8.45	66	4.91	38	66
Fresno	6.62	58	5.10	44	58
Bakersfield	5.29	82	2.42	37	82
Death Valley	1.05	44	1.34	57	44
Los Angeles	11.06	74	5.79	39	74
Riverside	7.70	62	2.27	18	62
Palm Springs	2.64	46	2.11	37	46
San Diego	11.27	109	4.98	48	109

Key Reservoir Storage (1,000) AF) as of 09/30/2015								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	546	1,666	33	2,448	22	---	1,902
Shasta Lake	Sacramento	1,602	2,725	59	4,552	35	-2,950	2,950
Lake Oroville	Feather	1,057	2,188	48	3,538	30	-2,293	2,481
New Bullards Bar Res	Yuba	396	593	67	966	41	-514	570
Folsom Lake	American	174	554	31	977	18	-803	803
New Melones Res	Stanislaus	268	1,343	20	2,400	11	-2,006	2,152
Don Pedro Res	Tuolumne	644	1,371	47	2,030	32	-1,128	1,386
Lake McClure	Merced	87	464	19	1,025	9	-765	938
Millerton Lake	San Joaquin	193	210	92	520	37	-327	327
Pine Flat Res	Kings	119	338	35	1,000	12	-881	881
Isabella	Kern	30	187	16	568	5	-274	538
San Luis Res	(Offstream)	398	955	42	2,041	19	---	1,641

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for October 2015, issued September 30, 2015, suggests equal chances of wet or dry conditions 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.

FLOOD EMERGENCY PREPAREDNESS & OPERATIONS

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

Flood Operations Center staff conducted twelve Preseason Flood Coordination Meetings in September and October across the state. Three meetings were held in Southern California, six in the Central Valley, and three in coastal counties. These meetings for flood emergency responders provide the opportunity to review flood emergency procedures, roles, responsibilities, and protocol, discuss areas of concern, and receive updates from local agencies in that particular region. In addition to DWR, partner agencies presenting information at each meeting include the National Weather Service, Governor's Office of Emergency Services, California Conservation Corps, County Offices of Emergency Services, and the USACE. Over 750 attended this year, more than double the 2014 attendance. In addition, Flood Operations Center staff presented at two preseason meetings hosted by San Diego County Office of Emergency Services and Santa Clara Valley Water District. In addition, Flood Operation Center staff is scheduling a greatly increased number of requests from local agencies for Flood Fight Training.

Delta Emergency Planning

Flood Operations Branch is currently reviewing the second draft of the DWR-USACE Delta Emergency Operations Integration Plan and reviewing the final iteration of the Delta Flood Emergency Management Plan prior to publication.

Delta Emergency Response Grants

Staff continued to manage executed contracts with local agencies.

Delta Flood Emergency Facility Improvement Projects
The Rio Vista site is currently receiving the False River Emergency Drought Barrier rock which will be stored there. For the Webber Avenue sites, negotiations on permit requirement are currently taking place between staff, consultants, and regulatory agencies. These permits include the 404 Nationwide Permit, 401 Water Quality Certification, and a 1600 Streambed Alteration Agreement.

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 December 1, 2015. Staff has also assisted with Flood Fighting Methods class instruction for local agencies as well as local and regional Pre-season flood preparedness meetings throughout the state.

FLOOD MANAGEMENT PLANNING (FMP)

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

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

2017 CVFPP
DWR has developed a high-level outline for the 2017 CVFPP and is in the process of developing draft content for the plan from draft supporting documents and information provided by partners as the information becomes available.

Basin-wide Feasibility Studies
The Sacramento Basin-Wide Feasibility Study is in the later stages of the planning process. DWR staff has identified a tentatively recommended plan to be openly discussed with stakeholders. Stakeholder meetings are scheduled throughout October and November to discuss the planning process, objectives, evaluation criteria, options, results, and receive stakeholder input on the tentatively recommended plan. The San Joaquin Basin-Wide

Feasibility Study is also in the later stages of the planning process. Once DWR identifies a tentatively recommended plan, stakeholder meetings will be scheduled similar to the Sacramento BWFS.

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:
The Department of Water Resources released a draft grant guidelines document on October 13, 2015, for public comment. The draft Guidelines for the Small Communities Flood Risk Reduction (SCFRR) Program will guide the selection and funding of SCFRR Program projects beginning in the Fiscal Year 2015-16 funding cycle. The release of the draft Program Guidelines started the 60-day comment period.

Public workshops addressing the SCFRR Program Guidelines will be held in Willows on November 12, 2015, and later in Sacramento. A webinar is also being planned as part of the Sacramento workshop. The date of the workshop and webinar will be posted on the DFM website.

Comments on the draft guidelines are due no later than 5:00 pm, Friday, December 11, 2015. They may be submitted via email to Stuart.Farley@water.ca.gov , or mailed to: 3464 El Camino Avenue, Suite 200, Sacramento, CA 95821, Attention: S. Greg Farley.

The documents and information about the workshops is available to download at: http://www.water.ca.gov/floodmgmt/docs/Cost-Share-Guidelines-Final-12-11-14.pdf.

Public Engagement
DWR staff collaborated with the California Water and Environmental Modeling Forum (CWEMF) to host a Technical Workshop on Flood Management in Davis, CA, October 7-9, 2015. DWR staff prepared materials and presented at this workshop, which introduced a number of models developed by DWR (on flood hazard, flood consequence, flood management system operation, and economic and life risk within the Central Valley) to support decision making for flood system improvement efforts to reduce flood risk in California. The objective of the workshop was to describe those models, including their development, availability, and use. Applications of the models for floodplain mapping, economic risk analysis, and flood management planning as well as their retrieval from the Library of Models were also demonstrated.

On October 9, 2015, DWR, in coordination with the California Central Valley Flood Control Association, took staff from the Legislative Affairs Office and Senate Budget Subcommittee on a tour of the Sacramento River Flood Control System.

DWR and CVFPB staff participated in the USACE Sacramento River General Reevaluation Report (GRR) Charettte from September 28th to October 1st. The general reevaluation will be assessing opportunities to restore ecosystem function along the Sacramento River and improve flood risk reduction capabilities of the Sacramento River Flood Control Project originally constructed in 1917. The charrette discussed the project area, problems, objectives, opportunities, constraints, and plan formulation strategies.

The Sacramento River GRR, a USACE project, is at the feasibility study level (as compared to a watershed study level) and is currently being implemented to identify potential federal interest in multipurpose (flood risk/ecosystem) projects. The study will leverage work completed for DWR's Sacramento Basin-Wide Feasibility Study and opportunities to concurrently work with local stakeholders in identifying a constructable and preferred alternative. DWR and CVFPB staff are partnering with the USACE in the Sacramento River GRR on an ongoing basis. This planning project is anticipated to take 3 years to complete.

On October 23, 2015, DWR staff, in coordination with California Central Valley Flood Control Association, briefed legislative staff on the Urban Level of Protection Criteria and deadlines. 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/.

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.

California Preparedness Week
California Flood Preparedness Week was held on October 19 through 24. During CFPW, 24 cities and counties sponsored 60 events. As a result, and most probably due to the anticipated El Nino winter conditions, there was good coverage by the media including 30 broadcasts and 27 news articles. This is the fourth year for CFPW and participation has grown. One community participated in 2012. The CFPW message, "Be Aware, Be Prepared, and Take Action!" will continue throughout the flood season. At the September 25 CVFPB meeting, the Board passed a resolution supporting California Flood Preparedness Week.

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 proctored a Certified Floodplain Manager Examination in Redding on October 23, 2015. Staff from the North Central Region Office conducted a Community Assistance Visit (CAV) with Yolo County on October 29, 2015.

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**: On October 9, the Central Valley Flood Protection Board held a public workshop focused on the Draft Central Valley Flood System Conservation Strategy. FESSRO and CVFPO staff reported on public comments received on the Draft Conservation Strategy. The approximately 400 comments from 15 entities covered specific technical input on the document as well as broader policy and implementation related comments. Sample themes included Measurable Objectives, Implementation and Funding, Agriculture, Regional Permitting, and Involvement and Outreach. DWR also outlined next steps for Conservation Strategy and Central Valley Flood Protection Plan development. The Workshop concluded with discussion by Board members and the public about the role of

the proposed CVFPB Technical Advisory Committee on informing integration of the Conservation Strategy into the 2017 CVFPP.

- **Bullock Bend Advance Mitigation Project:** The CEQA document for this proposed Bank, which will provide DWR with 57.5 salmonid credits (NMFS), was approved by the Yolo County Board of Supervisors. The Notice of Determination (NOD) for CEQA was expected to have been filed by October 30th. The permit applications will now be submitted for the CVFPB and USACE, including that for NEPA approval. The bank is slated to have all permits complete by March 2016, and a bank signature received by April 2016. Construction is proposed for next summer.

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)

FRRP works in coordination with local and federal agencies to implement new flood projects, provides funding that enables local agencies to repair and improve levees and other flood management facilities statewide, provides advanced mitigation for the State Plan of Flood Control (SPFC) to aid project delivery, and enhances ecosystems associated with the flood system. A primary responsibility of this program is to collaborate and work closely with the U.S. Army Corps of Engineers (USACE).

DELTA LEVEE SYSTEM INTEGRITY (DLSI)

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

Delta Levees Maintenance Subvention Program

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

Subventions Program FY 2013-2014

- On October 13, 2013, the Board approved the FY 2013-14 funding plan for $12 million.
- Staff has reviewed 62 claims for eligible reimbursements. Fifty nine claims for $5.6 million have been processed for payment. Three claims need final CDFW approval before payment can be made.

Subventions Program FY 2014-15

- On October 24, 2014, the Board approved the FY 2014-15 funding plan for $12 million.
- Final claims for work completed between July 1, 2014 and June 30, 2015 have recently been received by DWR for review, inspection and reimbursement.

Subventions Program FY 2015-16

- The Department received 71 applications for participation in the FY 2015-16 Delta Levees Subventions Program.
- On October 23, 2015, the CVFPB approved $12 million from Proposition 1E funds for the FY 2015-16 Subventions Program.
- Work Agreements for the FY 2015-16 Subventions Program are being prepared for signature.

Delta Stewardship Council (DSC) Interagency Agreement (IA)

The DSC IA funds the Delta Levees Investment Prioritization Study. The DSC had a special Council meeting October 12 to demonstrate the decision support tool (Tool) that the DSC's

consultant Arcadis has developed to facilitate the development of the investment strategy. Council members and members of the public were able to direct questions to Arcadis and Council staff and there was a brief comment period at the end. The levee prioritization methodology is still being refined. When the Council is satisfied with the revisions Council staff will reissue the technical memorandum that was submitted to an independent peer review panel in May 2015, along with the Council's response to the panel's report.

Delta Protection Commission (DPC) Interagency Agreement (IA)
The DPC IA funds the study to investigate the feasibility of a statewide benefit assessment district for the Delta. The study is underway and is led by the DPC.

USACE/ CENTRAL VALLEY FLOOD PROTECTION BOARD (CVFPB) PROJECTS
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 to repair or upgrade the Central Valley's flood management systems. These congressionally authorized 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.

- R7's waterside blanket construction continues and is scheduled to be complete by early February 2016 depending on flood season risks that may arise. The contractor submitted an emergency contingency plan allowing the work to continue through the flood season. DWR's environmental staff, on CVFPB's behalf, reviewed the work plan for California Environmental Quality Act (CEQA) compliancy and found no additional significant impacts with their emergency contingency plan. An October 6, 2015, Memo to File is the method used to maintain an administrative record of the events.
- USACE, the Department of Water Resources (DWR), and the Sacramento Area Flood Control Agency (SAFCA) approved a contractor's change order proposal for extended work hours (9-hour workdays, Monday-Saturday) to expedite R7's waterside blanket construction, starting October 26, 2015, at an additional $26,000 cost. The change order will expedite the construction schedule and make the levee flood-worthy by the first week in January 2016, after which, the normal schedule will resume. Final inspection walkthroughs were conducted at the Natomas East Main Drainage Canal (NEMDC) extension and L10 (Howe Avenue Bridge, Left Bank) sites on October 15 and 19, 2015, respectively. No significant issues were identified.

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 Natomas Basin levees, resulting in a minimum of a 100-year level of flood protection. This project, in

combination with other projects, will provide the Natomas Basin with a 200-year level of flood protection.

- Amendment 1 was approved by the Department of General Services (DGS); Amendment 2 is at DGS approval; and Amendment 3 is in the pipeline to go to DWR Contract Services.
- USACE held a Design Charrette on October 5, 2015, to discuss the project's scope and the lessons learned from the Natomas Levee Improvement Project (NLIP) by SAFCA.

Folsom Dam Modifications Joint Federal Project (JFP)

JFP's purpose 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 October 1, 2015, 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, and Stilling Basin	100%	68%
Phase V – Site Restoration	50%	8%
Project Overall	94%	81%

  - Phase III – Granite is finalizing closeout items on the Control Structure.
- Phase IV Progress:
  - ✓ Interim Excavation #2 within the Approach Channel continues;
  - ✓ Stepped Chute steps and walls were completed in mid-October 2015;
  - ✓ Slab leveling of the upper chute and baffle blocks in the stilling basin; and
  - ✓ 18,000 cubic yards of concrete were poured in October 2015.
- Phase V Progress:
  - ✓ DWR submitted review comments to USACE on 65% design documents;
  - ✓ Right Bank Stabilization: USACE placed the contractor (Newland Entities) on suspension due to failure to deliver the project within a timely manner per the proposed schedule. USACE is currently working with the contractor to complete necessary submittals prior to the summer of 2016 to complete the work.

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 Headquarters completed their review of the draft Project Partnership Agreement (PPA); the Assistant Secretary of the Army (ASA) intends to complete a final review by February 2016; and Flood Projects Office staff are planning to present the PPA for CVFPB signature by the March 2016 CVFPB meeting.
- Project design reviews and cost estimate analyses are anticipated to be completed prior to PPA's execution.

- The supplemental National Environmental Policy Act (NEPA)/CEQA Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) environmental documentation will be completed in the July/August 2016 timeframe; at which time, Flood Projects Office staff will present the CEQA documentation to CVFPB for project approval.

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 existing levee systems surrounding Marysville.

- PPA amendment language, allowing the state to receive credit for improvements in the Yuba River Basin, should be approved by USACE Headquarters in November 2015. PPA execution will require CVFPB approval and execution. A presentation before CVFPB will be scheduled for the December 18, 2015, CVFPB meeting.

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.

- 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 Central Valley 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 SPFC facilities; reduce the risk to life, infrastructure, and property; and reduce the State's liability. The following are USACE/CVFPB studies:

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

- USACE scheduled the Civil Works Review Board for this project on December 8, 2015; executive representatives from DWR and CVFPB will be attending in Washington DC.

Central Valley Integrated Flood Management Study
This Study will identify federal interest in the Sacramento River Basin by identifying opportunities to reduce flood risk and protect floodplain and environmental assets.

- The draft Watershed Report was made available for DWR and CVFPB review on October 27, 2015. A Letter of Support for the Watershed Report was prepared and will be presented at the November 20, 2015, CVFPB meeting.

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.

- The October 5, 2015, Agency Decision Milestone (ADM) was successful. The ADM purpose is to secure USACE Vertical Team approval to move forward with the study and the Tentatively Selected Plan, as formulated in the Draft Chief's Report. The next step will be the Civil Works Review Board, which has not been scheduled at this time.

Merced County Streams Project – Bear Creek GRR
This project will evaluate options to increase the Merced urban area level of flood protection from a 50-year to 200-year event.

- No new information this month.

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

- No new information this month.

Sacramento River GRR (previously known as Sac Bank Phase 3)
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 USACE Planning Charrette was held during the week of September 28, 2015. The purpose of the scoping charrette is to determine an array of alternatives that will be studied to determine a final array of alternatives.

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.

- USACE scheduled the Civil Works Review Board for this project on December 8, 2015; executive representatives from DWR and CVFPB will be attending in Washington DC.

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.

- USACE held a meeting with DWR and the City of Woodland on October 21, 2015, to discuss cost estimates related to the proposed array of alternatives and the refinement of a Locally Preferred Plan.

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.

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.

- During the CEQA 30-day public review period, Teichert Construction filed suit against TRLIA over the proposed levee alignment. TRLIA will work with Teichert to resolve any issues.

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

This project will result in a 200-year flood protection level for Highway 65 and 70, and will also improve flood protection for Olivehurst, Linda, Plumas Lake, Marysville, and Yuba City. This project includes one of the largest setback levees west of the Mississippi River, and creates 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.

- DWR has executed a contract amendment for an additional $6 million to complete the project's design.

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.

- DWR has executed an EIP contract amendment for an additional $97 million to construct the setback portion of the Southport Setback Levee Project. The rest of this project will be funded under the UFRR Program.

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.

- DWR and the city continue to meet to define the scope of work that will be under this UFRR contract.

FLOOD CORRIDOR PROGRAM (FCP)

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

- No new information this month.

LOCAL LEVEE ASSISTANCE PROGRAM (LLAP)

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

- On October 21, 2015, DWR posted to its Local Levee Assistance Program (LLAP) website the draft recommendation to fund thirteen new projects from six different agencies at a $15,342,700 state share value and a $40,897,741 total project cost. Public comments on the recommendation are due by November 21, 2015.

YUBA-FEATHER FLOOD PROTECTION PROGRAM

The Yuba-Feather Flood Protection Program provides Proposition 13 financial assistance to local entities that can demonstrate nonstructural flood management projects that show a peak flood flow reduction, flood stage 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)

Division of Flood Management has created the SJRRP to assist the United States Bureau of Reclamation 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 and 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:

Bear River Hydraulic Model

Staff is incorporating relevant comments provided during the QA/QC review by Northern Regional Office (NRO) into the model.

Cache Creek Settling Basin

Staff is producing the requisite report of findings summarizing control studies performed by the University of California, Davis, and the United States Geological Survey in response to the Central Valley Regional Water Quality Control Board's (CVRWQCB) Total Maximum Daily Load (TMDL) requirements for the basin. The report of findings is due to the CVRWQCB on November 20. The report will provide mercury and methylmercury load estimates and calculated estimates on the sediment trapping efficiency of the basin as well as evaluate baseline conditions and provide conceptual feasibility study evaluations to improve the trapping efficiency of the basin.

Cherokee Canal Hydraulic Model

The draft Channel Management Plan (CMP) is complete.

Linda and Arcade Creek Hydraulic Model

Staff requested and received a copy of MBK's HEC-RAS models for Linda and Arcade Creeks, reviewing and comparing Linda and Arcade reaches in the MBK Model and USACE Sac Basin Release 5 model to use as starting point for model development/refinement. Staff is reviewing As-Built project to determine USACE's river alignment and stationing used in the 1957 Design Profile to be able to compare to model outputs.

Llano Seco Riparian Sanctuary

Staff are continuing to work with the Flood Planning Office on development of the Butte Basin 2-D Model.

Marcuse Road Bridge Replacement
Initial evaluation based on high-watermark data resulted in high flow estimates. Staff conducted a field visit to measure existing water surface elevation and is working with the Project Manager to try to obtain channel flow information to use in the evaluation that may better reflect actual conditions than the high-watermark data.

Middle Creek Hydraulic Model (Lake County)
No new information this month.

Natomas East Main Drainage Canal (NEMDC)
FMO staff and SAFCA made a site visit to NEMDC and Arcade Creek to discuss SAFCA's proposed Corridor Management plan for these channels and view recent maintenance activities that were completed in NEMDC.

Putah Creek Hydraulic Model
Staff is using Land Use Data developed during the model process to evaluate potential channel management actions to develop the initial Draft Channel Management Plan.

Tisdale Bypass Hydraulic Model
No new information this month.

Wadsworth Canal Hydraulic Model
No new information this month.

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

The following activities were completed in the month of October:

- In Butte Creek, a dozer removed 60 cubic yards of debris over a 10 acre site.
- In the Butte Slough Wildlife Area, 32 acres of vegetation were mulched.
- In Lindo Creek, 30 cubic yards of debris were removed and 7 acres of vegetation were mulched.
- At O' Conner Lakes, 5 acres were mowed.
- In the Sutter Bypass, 390 acres were mowed, 200 acres were dozed over, and 15 acres were mulched.

- At Sycamore Creek, 20 acres of vegetation were sprayed.
- In Tisdale Bypass, 175 acres were mowed.
- In Cache Creek Settling Basin, 120 acres were mowed and tree trimming occurred on 20 acres.
- At the Freemont Weir, 10 acres were mowed.
- At the Natomas East Main Drain, 24 acres of vegetation were sprayed.
- In the Sacramento Bypass, tree trimming and removal occurred on 1 acre.
- At the Shreiner's and Furlon Properties, 140 acres were mowed.

NON-ROUTINE ACTIVITIES:

DWR/FMO Emergency Support
DWR/FMO was tasked by the California Office of Emergency Services (Cal OES - Task #T2115) for construction and engineering support (Request #15285) to assist in coordination and implementation of a stream crossing along Cache Creek at Yolo County Road 40 where an existing low water bridge exists but does not support significant loads. This crossing was needed to support the firefighting efforts for the Rocky and Jerusalem fires in Lake County. An on-site meeting was held on August 11, 2015, at 1400 hours, which included a group of about 30 individuals from Cal OES, Cal Fire, CDFW, National Guard, Yolo County, Caltrans, Tribal, and likely a few others. FMO offered culvert pipe from the Sutter Yard and stated that a graveled culvert crossing could be installed in two days at a cost of around $40,000. Several alternatives for the Cache Creek crossing were discussed during the meeting, and the preferred alternative appeared to be the culvert and gravel crossing. A telephone conference was held on August 12, 2015, at 0800 hours, and FMO was tasked by Cal OES to design and build a culvert and gravel crossing at Cache Creek. FMO's Sutter and Sacramento Maintenance Yards delivered material to the site and started constructing the crossing on August 12, 2015. The crossing utilized three 40 foot long culverts and 600 tons of gravel. FMO monitored the crossing until October 27, 2015, when the Sutter Maintenance Yard removed the crossing. The culverts were transported back to the Sutter Maintenance Yard and the gravel was delivered to the Yocha Dehe Wintun Nation firefight training facility for beneficial re-use.

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

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

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

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

The following activities were completed in the month of October:

- All of the hydraulic structures maintained by the Sacramento and Sutter Maintenance Yards were re-inspected to check on repair progress. The repair report will be completed in November.

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 October:

- In front of the Colusa Weir, 10 acres were burned.
- At the Little Chico Creek Diversion Structure:
    - 10 cubic yards of vegetation were removed from the access road,
    - 2 acres were mowed on the downstream side,
    - 20 cubic yards of debris were removed from the upstream side, and
    - 60 cubic yards of sediment were removed from the upstream side.
- At the Middle Creek Pumping Plant, electricians from Oroville worked on trouble shooting the pumps.
- A new stoplog was built for Weir 2 fish ladder.
- At the Sacramento Weir, 20 weir needles and a weir beam wire cable were replaced.
- At the Cache Creek Weir, the headwall was repaired.

NON-ROUTINE PROJECTS:

Bridge CC-2 Repair
FMO is evaluating alternatives for repairing Bridge CC-2 in Sutter County. The bridge is part of the drainage system of Project No. 6 east of the Sutter Bypass. As part of the Sutter Maintenance Bridge Inspection Program, Bridge CC-2 was identified as needing immediate repair. DWR has operations and maintenance responsibility for the bridge and the collecting canal it crosses as identified in California Water Code, Section 8361(c). The bridge provides

access for DWR to conduct required maintenance activities and for Westervelt Ecological Services to manage the Sutter Basin Conservation Bank for Giant Garter Snake mitigation.

Bryte Yard Groundwater Investigation
The third groundwater monitoring event to evaluate potential petroleum hydrocarbon rebound effects following remedial pilot testing is scheduled to be performed at the site during the week of November 9. Results from the first two monitoring events support that the pilot testing was successful in remediating the petroleum hydrocarbon contamination in the groundwater beneath the site. No significant increases in contaminant concentration have been reported since completion of the pilot test.

Butte Slough Outfall Gates (BSOG)
Environmental staff is coordinating with regulatory agencies on the remaining environmental permits that are needed for the proposed rehabilitation work. Environmental and engineering staff are working on a path forward on the USACE engineering 408 permit so operations and maintenance coverage can be obtained from the federal regulatory agencies. 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 project has been advertised with construction to commence in the summer of 2016.

Sacramento Weir
There was erosion repair completed on the downstream side of the Sacramento Weir in front of Bay 28. Eight hundred (800) tons of rock was placed in the scour hole.

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 October:

- At Cache Creek (21.63 miles), the following activities were completed:
    - Vegetation burning along 2 miles, and
    - 1 gate was repaired.
- At Maintenance Area (MA) 4 (3.4 miles), the following activity was completed:
    - Tree trimming along 2 miles.
- At MA 9 (19.61 miles), the following activities were completed:
    - Spot spraying vegetation along 10 miles,
    - Grouting of rodent holes along 17.5 miles,
    - Mile markers were replaced along 4.5 miles, and
    - 1 gate was repaired.
- At the Sacramento Bypass (3.56 miles), the following activity was completed:
    - Pipes were inspected along 3.56 miles.
- At the West Yolo Bypass levees Units 1-4 (15.42 miles), the following activity was completed:
    - Pipes were inspected along 9.31 miles.
- At Willow Slough Bypass (12.82 miles), the following activity was completed:
    - Pipes were inspected along 12.82 miles.
- At Colusa Bypass (4.58 miles), the following activities were completed:
    - Rodent baiting along 4.58 miles, and
    - Grouting of rodent holes along 4.58 miles.
- At the East Levee of the Sacramento River (20.31 miles), the following activities were completed:
    - Tree trimming occurred along 4 miles,

  - Rodent baiting along 20.31 miles, and
  - Grouting of rodent holes along 20.31 miles.
- At the East Levee of the Sutter Bypass (22.37 miles), the following activity was completed:
  - Rodent baiting along 22.37 miles.
- At MA 1 (17.12 miles), the following activities were completed:
  - Rodent baiting along 17.12 miles, and
  - Grouting of rodent holes along 17.12 miles.
- At MA 3 (5.19 miles), the following activities were completed:
  - Rodent baiting along 5.19 miles, and
  - Grouting of rodent holes along 5.19 miles.
- At MA 5 (33.42 miles), the following activity was completed:
  - Mile markers were repaired or replaced along 5 miles.
- At MA 12 (11.31 miles), the following activity was completed:
  - Grouting of rodent holes along 11.31 miles.
- At MA 13 (41.97 miles), the following activity was completed:
  - Mile markers were repaired or replaced along 5 miles.
- At MA 17 (3.14 miles), the following activities were completed:
  - Pre-emergent spraying along 3.14 miles, and
  - Mowing along 3.14 miles,
  - 2 erosion repairs, and
  - Pipes were inspected along 3.41 miles.
- At Moulton Bypass (2.3 miles), the following activities were completed:
  - Rodent baiting along 2.3 miles, and
  - Grouting of rodent holes along 2.3 miles.

NON-ROUTINE PROJECTS:

No new information to report.

FLOOD SYSTEM EVALUATION AND REHABILITATION (FSER)

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

Lower Feather River Corridor Management Plan

No new information this month.

Small Erosion Repair Program (SERP)
FMO received SERP agency authorizations for 13 SERP sites. One site was repaired this year. The remaining 12 sites fall within Giant Garter Snake habitat. With the potential for impacting this species, DWR will first obtain a California Endangered Species Act 2081 permit before proceeding with the repairs. Repairs of the 12 sites will likely occur in 2016.

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 October 2015, FSRP has committed approximately $15.5 million for all-weather access road improvements and levee repair projects to rural portions of the SPFC. This amount includes approximately $1.2 million in local-share contributions.

Sacramento River Bank Protection Project (SRBPP)
Construction of an erosion repair project continues on the Sacramento River at mile 26.0 (near Walnut Grove in RD 556) by the USACE. Construction is anticipated to be completed by the end of November 2015. This site is being constructed under the SRBPP Phase II authority.

DWR continues construction of a setback levee on the left bank of Cache Creek at Levee Mile 2.8. This SRBPP project is being constructed by DWR as part of the Phase II authorization, and credit will be sought from USACE upon project completion. Site construction is anticipated to be completed by the end of November 2015.

Eight (8) repair sites located at SAC RM 50.2L, 51.5L, 72.2R, 99.3R, 177.8R, along with LAR 0.3L, 2.8L, and FEA 28.5R completed under SRBPP by the USACE in 2008-2009 were reviewed by FMO staff and turned over to the CVFPB for acceptance. The turnover packages included a transmittal letter from the USACE, revised O&M manuals, and as-built plans. Once accepted by CVFPB, the project site will be turned over to the LMAs.

Federal Public Law 84-99 Emergency Repair Project (PL 84-99)
No new information this month.