Agenda Item 8D

REPORT OF ACTIVITIES
OF THE
DEPARTMENT OF WATER RESOURCES

By

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

**Prepared for the Central Valley Flood Protection Board Meeting – February 26, 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.

Staff completed updating the Flood Emergency Response Information Exchange (FERIX) with the 2015 Levee Vulnerabilities data. The web-application will be used by Flood Emergency Responders to anticipate incidents, perform targeted levee patrols, and conduct flood fighting.

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 December 31, statewide hydrologic conditions were as follows: precipitation, 100 percent of average to date; snow water content, 105 percent of average to date (35 percent of the April 1 average); runoff, 60 percent of average to date; and reservoir storage, 55 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2016, observed through December 31, 2015 was about 1.7 million acre-feet (MAF), which is about 53 percent of average. In comparison to Water Year 2015, the observed Sacramento River Region unimpaired runoff through December 31, 2014 was about 3.6 MAF, or about 115 percent of average.

On December 31, the Northern Sierra 8-Station Precipitation Index Water Year total was 16.7 inches, which is about 94 percent of the seasonal average to date and 33 percent of an average water year (50.0 inches). During December, the total precipitation for the 8-Stations was 11.8 inches, or about 140 percent of average for the month. Last year on December 31, the Water Year 2015 seasonal total for the 8-Stations was 22.8 inches, or about 129 percent of average.

On December 31, the San Joaquin 5-Station Precipitation Index Water Year total was 15.7 inches, which is about 120 percent of the seasonal average to date and 38 percent of an average water year (40.8 inches). During December, the total precipitation for the 5-Stations was 8.8 inches or about 142 percent of average for the month. Last year on December 31, the Water Year 2015 seasonal total for the 5-Stations was 9.1 inches, or about 69 percent of average.

Daily Precipitation (in inches) for Selected Stations as of 12/31/2015					
Station	October 1 to Date 2015-2015	% Average	Season to Date 2014-2015	% Average	% Average Oct 1 – Sep 30
Mount Shasta	8.96	59	19.22	127	21
Eureka	20.08	126	17.84	112	50
Redding	9.83	76	16.29	127	28
South Lake Tahoe	8.12	102	3.79	48	40
Sacramento Executive Airport	3.44	55	10.41	166	19
Santa Rosa (Sonoma Co AP)	7.31	53	16.42	119	20
San Francisco	6.61	75	14.45	163	28
Stockton	4.59	97	7.84	166	33
Yosemite	17.78	141	7.74	62	47
Monterey	7.62	148	11.76	228	47
Paso Robles	1.99	54	5.72	156	16
Fresno	5.19	150	3.19	92	45
Bakersfield	1.33	68	2.67	136	21
Death Valley	1.08	196	0.53	96	46
Los Angeles	1.02	25	4.62	115	7
Riverside	1.12	40	2.30	82	9
Palm Springs	0.17	9	0.87	47	3
San Diego	2.85	92	4.87	157	28

Key Reservoir Storage (1,000) AF) as of 12/31/2015								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	497	1,642	30	2,448	20	---	1,951
Shasta Lake	Sacramento	1,427	2,828	50	4,552	31	-1,944	3,125
Lake Oroville	Feather	1,017	2,174	47	3,538	29	-2,007	2,521
New Bullards Bar Res	Yuba	395	546	72	966	41	-401	571
Folsom Lake	American	239	476	50	977	24	-338	738
New Melones Res	Stanislaus	310	1,382	22	2,400	13	-1,660	2,110
Don Pedro Res	Tuolumne	707	1,339	53	2,030	35	-983	1,323
Lake McClure	Merced	88	452	19	1,025	9	-587	937
Millerton Lake	San Joaquin	177	271	65	520	34	-258	343
Pine Flat Res	Kings	151	408	37	1,000	15	-530	849
Isabella	Kern	33	159	21	568	6	-137	535
San Luis Res	(Offstream)	436	1,388	31	2,041	21	---	1,603

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for February 2016, issued January 21, 2016, suggests above normal precipitation for almost all of California, except for the extreme northeastern region of the State where equal chances of wet or dry conditions are suggested.

RESERVOIR OPERATIONS & RIVER FORECASTING

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

- No new information this month.

FLOOD EMERGENCY PREPAREDNESS & OPERATIONS

This element includes preparing the 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.

Flood Project Inspection Section (FPIS) Inspectors provided technical assistance to Hamilton City and State Parks with the installation of 2,800 feet of wave-wash protection on their non-project levees. These services were provided at their request and were not part of an emergency response. The wave-wash protection was installed to prevent erosion along the waterside of the levee that had been exacerbated by rodent activities over many years. FPIS inspectors assisted RD 817 in Wheatland with the evaluation of erosion occurring in the channel of the Bear River.

Staff completed improvements to the Delta Emergency Response Tool which estimates the cost and time of repairs and export reductions caused by levee damage or failures in the Delta. The improvements made to the tool include the ability to optimize real-time operational actions in response to Delta levee failures. Staff provided demonstrations of the tool for the State Water Contractors and the Delta Levees and Habitat Advisory Committee.

Staff completed compiling flood concerns from local agencies throughout the State. This information will be used for situational awareness, advance planning, and to maintain a common operating picture. The concerns will be validated and updated prior to each flood season.

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 $2.5 million has been invoiced for by the grantees.

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 Program
No new information this month.

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.

Basin-wide Feasibility Studies
No new information this month.

Basin-Wide Feasibility Study Atlases
No new information this month.

Regional Flood Management Planning (RFMP) Phase 2
Meetings have been scheduled to be held in February with each of the six regions to develop a shared understanding of the CVFPP development process and current status, and discuss how regional actions will be incorporated into the 2017 CVFPP Update. To date we have met with three of the regions and anticipate meeting with the remaining three before the end of February. DWR will schedule follow up meetings for March to discuss regional portfolios based

on their input to the screening process suggested by DWR, and review of the initial selection presented.

Small Communities Flood Risk Reduction Program
The draft Guidelines for the Small Communities Flood Risk Reduction (SCFRR) Program are in the process of being updated based on comments received in the comment period, which concluded on December 28, 2015. The following milestones are anticipated:

Schedule:

- **April 15**: Complete review of comments and approval of guidelines.
- **April 30**: 15-day public review of guidelines and response to comments ends. Guidelines become final.
- **May 1-30**: Application period.

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 -** Because of the extended time period between IAC meetings, the Conservation Strategy Management Team has initiated a series of "check-in" meetings for February with our IAC team partners to update them on progress on completing the Final Draft Conservation Strategy document.

• **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.

Staff proctored a Certified Floodplain Manager Examination in Concord, CA. on January 28, 2016. Staff attended a FEMA RiskMAP Discovery meeting in Tehama County on January 13, 2016 and in Butte County on January 14, 2016. The Flood Risk Notification for 2015 is complete; over 275,000 individual mailers were delivered to the owners of approximately 360,000 properties in the 17 counties comprising the Central Valley. DWR staff responded to approximately 200 flood risk inquiries received from property owners who received the notices. Currently the FRN program is working with Contracting Services to prepare an Invitation For Bid for a printing contractor for 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 State Plan of Flood Control (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).

U.S. ARMY CORPS OF ENGINEERS (USACE)/CENTRAL VALLEY FLOOD PROTECTION PLAN (CVFPB) PROJECTS

The 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 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.

- No new information this month.

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.

- Reach I consists of two contracts. Contract 1 includes the entire cutoff wall and blanket on the waterside. Contract 2 includes all of the landside slope flattening, maintenance road construction, landslide utility relocations, and tree removal. Comments on the Contract 1 60 percent plans and specifications submittal was submitted late January 2016.
- Reach H preferred alternative has been selected. Design schedule will be 60 percent complete on March 21, 2016, and 90 percent complete on May 20, 2016. Construction is scheduled to start in the 2018 construction season.
- Reach D modification design contract, to relocate the Vestal Drain and the Pumping Plant 4, has been submitted to contracting. 60 percent design submittal is due in June 2016. Construction is scheduled to start in the 2018 construction season.

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 January 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%	84%
Phase V – Site Restoration	50%	8%
Project Overall	94%	89%

- Phase III – Granite is finalizing closeout items on the Control Structure.
- Phase IV - Kiewit continues work on the Upper Chute and the Approach Channel.
- Phase V - Environmental Assessment/Environmental Impact Report (EA/EIR) for site restoration was submitted for public comment on January 7, 2016, followed with a public meeting held on January 20, 2016; eight members of the public attended this meeting.

✓ Cofferdam Seepage Issue: On January 20, 2016, increased seepage from the cofferdam was observed on-site. All personnel evacuated the site and the cofferdam was stabilized by Kiewit. High priority work was completed in-the-dry inside of the Approach Channel. Water was pumped in the impounded area between the cofferdam and the Control Structure, bringing water elevation against the Control Structure to the lake elevation on January 27, 2016.

Folsom Dam Raise Project

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

- USACE returned the Project Partnership Agreement (PPA) to the Department of Water Resources (DWR) for review. DWR will coordinate with USACE to clearly define creditable costs and procedures before presenting to the Board for approval, tentatively scheduled for September 2016.

- USACE began technical coordination meetings with the non-Federal sponsors regarding the proposed redesign of the trunnion assembly. USACE plans to submit the 95 percent design package for the tainter gates modification in March 2016. The total project cost for the gates modification and dike raises is estimated to be $229 million.
- USACE proposes to place top seals over only the emergency tainter gates, which is a change from their design in June 2014, to place top seals over the service tainter gates also. DWR does not support the new proposal and is seeking additional information.
- USACE is expected to complete the Final Supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) in September 2016 and National Environmental Policy Act review in October 2016. The Board may choose to consider approval of the Final Supplemental EIS/EIR at the September 2016 meeting to complete the California Environmental Quality Act process.
- USACE plans to begin developing a 65 percent design for raising Dikes 4, 5 & 6 in March 2016.
- USACE is currently conducting an economic reevaluation of the Folsom Dam Raise project to update project costs and benefits and should be completed by May 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.

- A resolution to accept and delegate authority to sign an amendment to the Marysville Ring Levee PPA between USACE, CVFPB, and the Marysville Levee District is on the consent calendar for the February Board Meeting. The purpose of the PPA amendment is to credit state and local agencies for work done in the Yuba River Basin and use a portion of the credit towards the remaining Non-Federal Marysville Ring Levee project cost share.

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 approved the Contractor's construction schedule; construction start and completion dates are May 2, 2016 and late July 2016, respectively.

USACE/CVFPB Studies

The CVFPB participates with USACE to ensure that state flood management needs and mandates are met, and provides required non-federal cost share funds and technical assistance for studies to repair or upgrade the Central Valley's flood management systems. These studies identify recommended project alternatives that lead to congressionally authorized projects. These multi-benefit projects will improve flood protection for urban or urbanizing areas; reduce flood risk in rural areas that are protected by the facilities of the 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 USACE Civil Works Review Board (CWRB) approved the ARCF GRR on December 8, 2015. Any updates to ARCF GRR will be provided to DWR before presenting to the Board for approval in March 2016.
- Flood Projects Office staff is working with Department of General Services to process the Contract Amendment #1 to increase total study costs to $15.5 million as approved by the Board in October 2015.

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.

- A Letter of Support for the recommendations included in the CVIFMS Watershed Plan will be presented at the February Board meeting. The CVIFMS Watershed Plan will be 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.

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 CVFPP and complete a Final Chief's Report.

- No new information this month.

Merced County Streams Project – Bear Creek GRR

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

- No new information this month.

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 CVFPP and complete a Final Chief's Report.

- No new information this month.

West Sacramento Project GRR)

The GRR will evaluate flood risk reduction alternatives within the West Sacramento area, identify a project having federal interest that is consistent with the CVFPP and complete a Final Chief's Report.

- No new information this month.

Woodland/Lower Cache Creek Feasibility Study

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

- The state and the city of Woodland have submitted a letter to USACE requesting a pause in the study for approximately 6 months. The intent is for DWR and the city of Woodland to perform additional investigations to either support the USACE's Tentatively Selected Plan, or to develop 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 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 Natomas East Main Drain Canal in the Sacramento North area and 5-6 miles of levees along the Sacramento River between downtown and the town of Freeport. Improvements are required to meet requirements under the Urban Levee Design Criteria Program and FEMA standards. This project is still under review for state funding from DWR.

- No new information this month.

SAFCA – Natomas Cross Canal (NCC) 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.

- DWR received NCC Phase 2 and 2B Project Completion Reports on January 22, 2016.

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 1,600 acres for on-site mitigation, agricultural use, and habitat.

- No new information this month.

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

- No new information this month.

West Sacramento Area Flood Control Agency (WSAFCA) – 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.

- WSAFCA has started construction of the Interim Village Parkway replacement for the existing levee roadway. Construction of the first phase of the setback levee is scheduled to begin in spring 2016.

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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 CVFPP requirements. The city is working to develop a multi-benefit project which will consider deep floodplain development, existing maintenance issues, and residual risk measures.

- UC Davis, under a contract with DWR, will develop a model that is required for the study. The model completion schedule is end of July 2016.

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.

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

- No new information this month.

YUBA-FEATHER FLOOD PROTECTION PROGRAM

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

- No new information this month.

SAN JOAQUIN RIVER RESTORATION PROJECT (SJRRP)

The Division of Flood Management has created the SJRRP to assist the United States Bureau of Reclamation (USBR) in assessing flood risks associated with the San Joaquin River Restoration Program. The San Joaquin River Restoration Program is a comprehensive long-term effort to restore flows to the upper San Joaquin River and restore a self-sustaining Chinook salmon fishery while avoiding adverse water supply impacts. USBR, lead agency for the SJRRP, has initiated Interim releases from Friant Dam and is evaluating alternatives for releases and routing of restoration flows up to 4,500 cubic feet per second to support reintroduction of selected fish species into the San Joaquin River, as required by the Stipulation of Settlement. 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 (BANK)

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 continuing work on the Channel Management Plan.

Cache Creek Settling Basin
Staff began work updating the Cache Creek Channel Model. The initial model was developed approximately five years ago using 1-D version of HEC-RAS. The updated model will use the latest version of HEC-RAS with 2-D capabilities used for the Settling Basin reach.

Linda and Arcade Creek Hydraulic Model
Staff are working on a draft Channel Management Plan for Arcade Creek.

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

Putah Creek Hydraulic Model
No new information this month.

Yuba River Hydraulic Model
No new information this month.

ROUTINE OPERATIONS AND MAINTENANCE:
The Maintenance Yards' routine channel maintenance is limited to vegetation management through such methods as spraying, mowing, and trimming. These activities are planned at the end of flood season and are completed before the next flood season. Although DWR manages large areas in channels, only a small percentage is actively maintained by DWR. Reporting on planned activities in actively maintained areas 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 January:

- In Big Chico Creek, 40 cubic yards of debris were as removed.
- In Cherokee Canal, 3 acres of vegetation were mulched.
- In Elder Creek, 200 cubic yards of debris were removed.
- In Lake of the Woods, 225 acres of vegetation were mowed.
- In Little Chico Creek, 20 cubic yards of debris were removed.
- In Magpie Creek Diversion, 3 beaver dens were removed.
- In Natomas Cross Canal, 2 beaver dens were removed.

NON-ROUTINE ACTIVITIES:

FLOOD CONTROL FACILITIES EVALUATION AND REHABILITATION (FCFER)

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

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

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

INSPECTION AND EVALUATION:

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

- No new information available for this month.

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 January:

- At the Middle Creek Pumping Plant, pumping began on January 15th. Crews are checking the pumping operations regularly.
- Debris removal occurred at bridges, pumping plants, and weirs during high water.
- At Knights Landing Outfall Gates, the new fish screens constructed by RD 108 are up and running. Sacramento Maintenance Yard crews are working out some operational issues.

NON-ROUTINE PROJECTS:

Bridge CC-2 Repair (Marcuse Road Bridge)
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
Staff submitted the third groundwater monitoring report evaluating potential petroleum hydrocarbon rebound effects following remedial pilot testing at the facility. The report further included an evaluation of how current site conditions compare to prescribed low-risk closure criteria. Results from the groundwater monitoring events support that significant increases in contaminant concentration have not returned since completion of the pilot test and that the site meets most closure criteria.

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 Section 408 permit so operations and maintenance coverage can be obtained from the federal regulatory agencies. 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 January:

- At Cache Creek (21.63 miles), the following activities were completed:
    - Pre-emergent was sprayed along 21 miles,
    - Vegetation was burned along 3 miles,
    - Trees were trimmed along 10 miles, and
    - Mile markers were repaired or replaced along 21 miles.
- At Cache Creek Settling Basin (3.89 miles), the following activity was completed:
    - Vegetation was burned along 3 miles.
- At the upper 2 miles of the East Yolo Bypass Levee (2 miles), the following activity was completed:
    - Vegetation was burned along 1 mile.
- At Maintenance Area (MA) 4 (3.4 miles), the following activities were completed:
    - Trees were trimmed along 3 miles,
    - Spot spraying vegetation occurred along 3.1 miles,
    - Five (5) erosion sites were repaired,
    - Repaired rodent damage along 0.5 miles,
    - Repaired fence along 0.25 miles, and
    - Mile markers were repaired or replaced along 1 mile.
- At MA 9 (19.61 miles), the following activities were completed:

    - Trees were trimmed along 3.5 miles,
    - Spot spraying vegetation occurred along 19.6 miles,
    - Mile markers were repaired or replaced along 10 miles, and
    - Two (2) gates were repaired or replaced.
- At Putah Creek (16.9 miles), the following activities were completed:
    - Pre-emergent was sprayed along 7 miles,
    - Pipe inspections occurred along 16 miles, and
    - Five (5) gates were repaired or replaced.
- At the Sacramento Bypass (3.56 miles), the following activity was completed:
    - Pipe inspections occurred along 3.5 miles.
- At the West Yolo Bypass levees Units 1-4 (9.35 miles), the following activities were completed:
    - Pre-emergent was sprayed along 3 miles,
    - Vegetation was burned along 2 miles,
    - One (1) erosion repair was completed,
    - Pipe inspections occurred along 3.61 miles, and
    - Mile markers were repaired or replaced along 4.5 miles.
- At Willow Slough Bypass (12.82 miles), the following activity was completed:
    - Six (6) erosion repairs were completed and
    - Pipe inspections occurred along 12 miles.
- At the East Levee of the Sutter Bypass (22.37 miles), the following activities were completed:
    - Crown road grading occurred along 22.37 miles and
    - Mile markers were repaired or replaced along 22.37 miles.
- At the East-West Interceptor Canal (4.76 miles), the following activity was completed:
    - Mile markers were repaired or replaced along 4.76 miles.
- At MA 1 (17.12 miles), the following activity was completed:
    - Spot spraying vegetation occurred along 17.12 miles and
    - Repaired a leaking culvert.
- At MA 3 (5.19 miles), the following activity was completed:
    - Mile markers were repaired or replaced along 5.19 miles.
- At MA 5 (33.42 miles), the following activity was completed:
    - Mile markers were repaired or replaced along 33.42 miles.
- At MA 7 (12.07 miles), the following activity was completed:
    - Crown road grading occurred along 4 miles.
- At MA 13 (41.97 miles), the following activities were completed:
    - Mile markers were repaired or replaced along 41.97 miles and
    - Five (5) gates were repaired or replaced.
- At Tisdale Bypass (9 miles), the following activities were completed:
    - Spot spraying vegetation occurred along 9 miles and
    - Mile markers were repaired or replaced along 9 miles.
- At Wadsworth Canal (9.32 miles), the following activities were completed:
    - Mile markers were repaired or replaced along 9.32 miles.

NON-ROUTINE PROJECTS:
During the high water in January, 72,000 sandbags were delivered to Riverside and 54,000 sandbags were delivered to Lakeport. High water patrolling occurred from January 17th through January 24th.

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 January 2016, FSRP has committed approximately $19.6 million for all-weather access road improvements and levee repair projects to rural portions of the SPFC. This amount includes approximately $1.7 million in local-share contributions. Projects supported with these funds include nine all-weather levee access road repair projects, four critical erosion repair projects and one control structure repair project. These projects are in various stages of planning, design and construction. FMO Staff continue to develop work agreements to commit additional FSRP funding for these types of rural levee repair projects.

Sacramento River Bank Protection Project (SRBPP)
Repair Site at RM 26.0L: Construction of a 1,450 ft. long waterside erosion repair project was completed in mid-November 2015. The USACE is currently in the process of advertising for the bid of the one year maintenance and establishment portion of the project, anticipated to be awarded in spring 2016.

Cache Creek Setback Levee at LM 2.8L: Construction was completed in October 2015; however, after some rain, the aggregate base crown road was found to be unacceptable due to poor material and compaction methods. Some corrective action work has been done by the Sacramento Maintenance Yard and the contractor, with the understanding that more work is needed once the rainy season is complete. Currently, the area is being monitored by the Sacramento Maintenance Yard, and has performed acceptably through recent rain events.

Federal Public Law 84-99 Emergency Repair Project (PL 84-99)
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 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 Natomas East Main Drain Canal in the Sacramento North area and 5-6 miles of levees along the Sacramento River between downtown and the town of Freeport. Improvements are required to meet requirements under the Urban Levee Design Criteria Program and FEMA standards. This project is still under review for state funding from DWR.

- No new information this month.

SAFCA – Natomas Cross Canal (NCC) 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.

- DWR received NCC Phase 2 and 2B Project Completion Reports on January 22, 2016.

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 1,600 acres for on-site mitigation, agricultural use, and habitat.

- No new information this month.

TRLIA – Upper Yuba River Levee Improvement Project (EIP)

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

- No new information this month.

West Sacramento Area Flood Control Agency (WSAFCA) – 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.

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