

**CALIFORNIA DEPARTMENT OF WATER RESOURCES**

# **REPORT OF ACTIVITIES**

**MAY 2019**

## THE PURPOSE OF THIS REPORT...

is to provide a brief update to Central Valley Flood Protection Board (CVFPB) members on California Department of Water Resources (DWR) activities that occurred in the previous month. This report is organized by the five DWR mega-programs:

- Flood Emergency Response
- Flood Management Planning
- Floodplain Risk Management
- Flood Risk Reduction Projects
- Flood System Operations and Maintenance

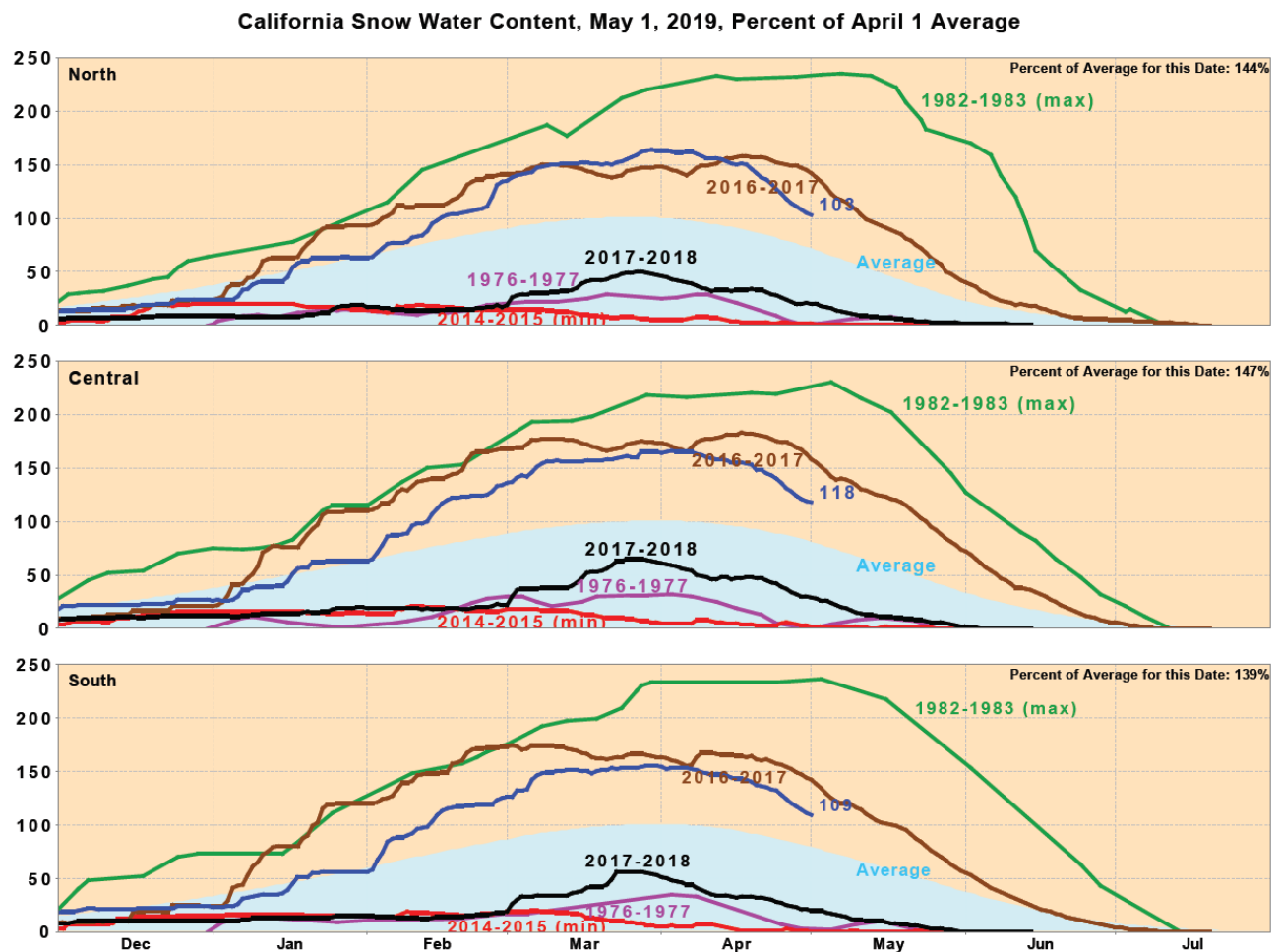
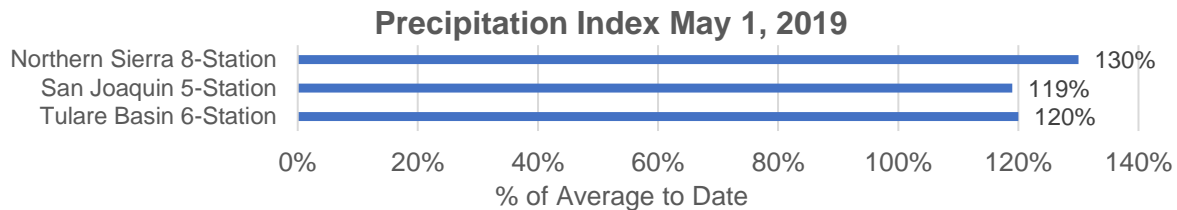
Only programs with updates for this month have been included in this report. Programs not listed in this month's report may be included in future reports if updates are provided.

A full list of programs and program descriptions are available upon request. If you have any questions or concerns regarding this report, please call Ricardo Pineda at (916) 574-0632 or email [Ricardo.Pineda@water.ca.gov](mailto:Ricardo.Pineda@water.ca.gov).

## FLOOD EMERGENCY RESPONSE (FER)

### FER // HYDRO-CLIMATE DATA COLLECTION & PRECIPITATION / RUNOFF FORECASTING

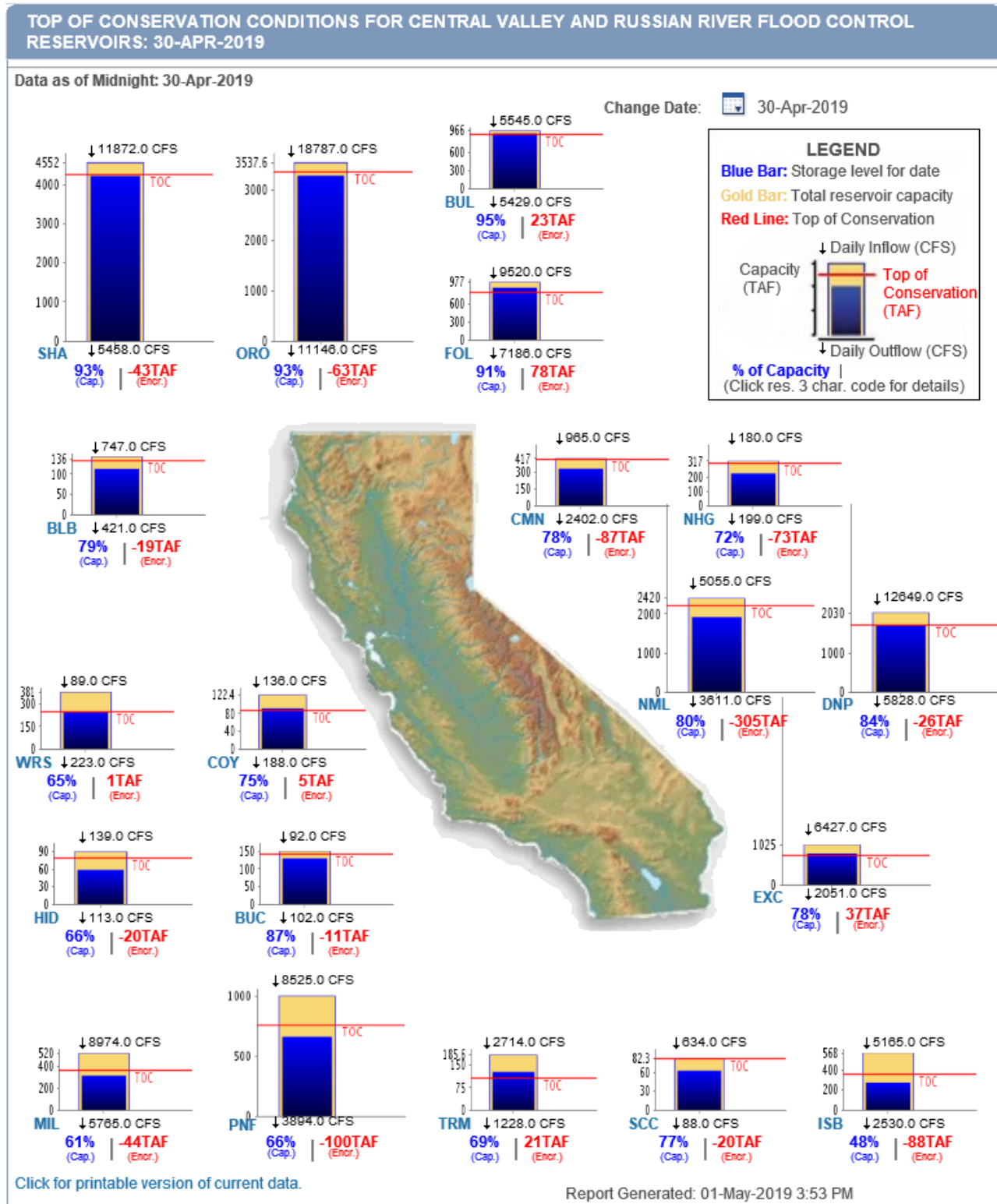
For the month of April, slightly above average precipitation occurred in Northern California and below average precipitation occurred in Central and Southern California. The seasonal total in all three regions remained above average. Mild temperatures persisted in all three hydrologic regions. Snowpack throughout California also remained above average.



Statewide Percent of April 1: 111%

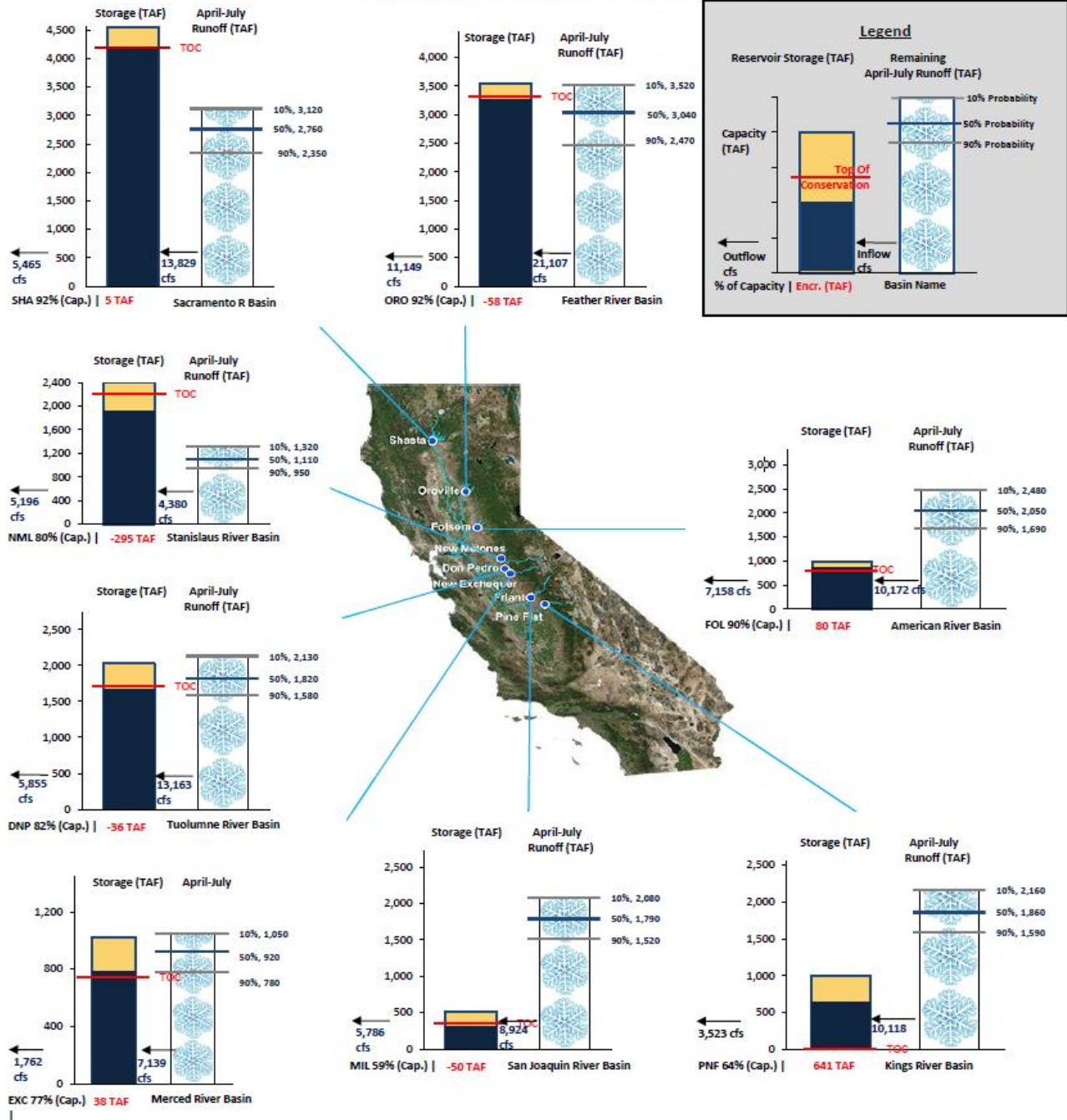
Statewide Percent of Average for Date: 143%

Almost all reservoirs are at or near top of conservation flood control limits. In April, notable flood control releases were made at Keswick, Englebright, Natoma, Goodwin, La Grange, Crocker-Huffman, Friant, and Oroville.





## Reservoir Conditions and A-J Runoff as of 4/28/2019



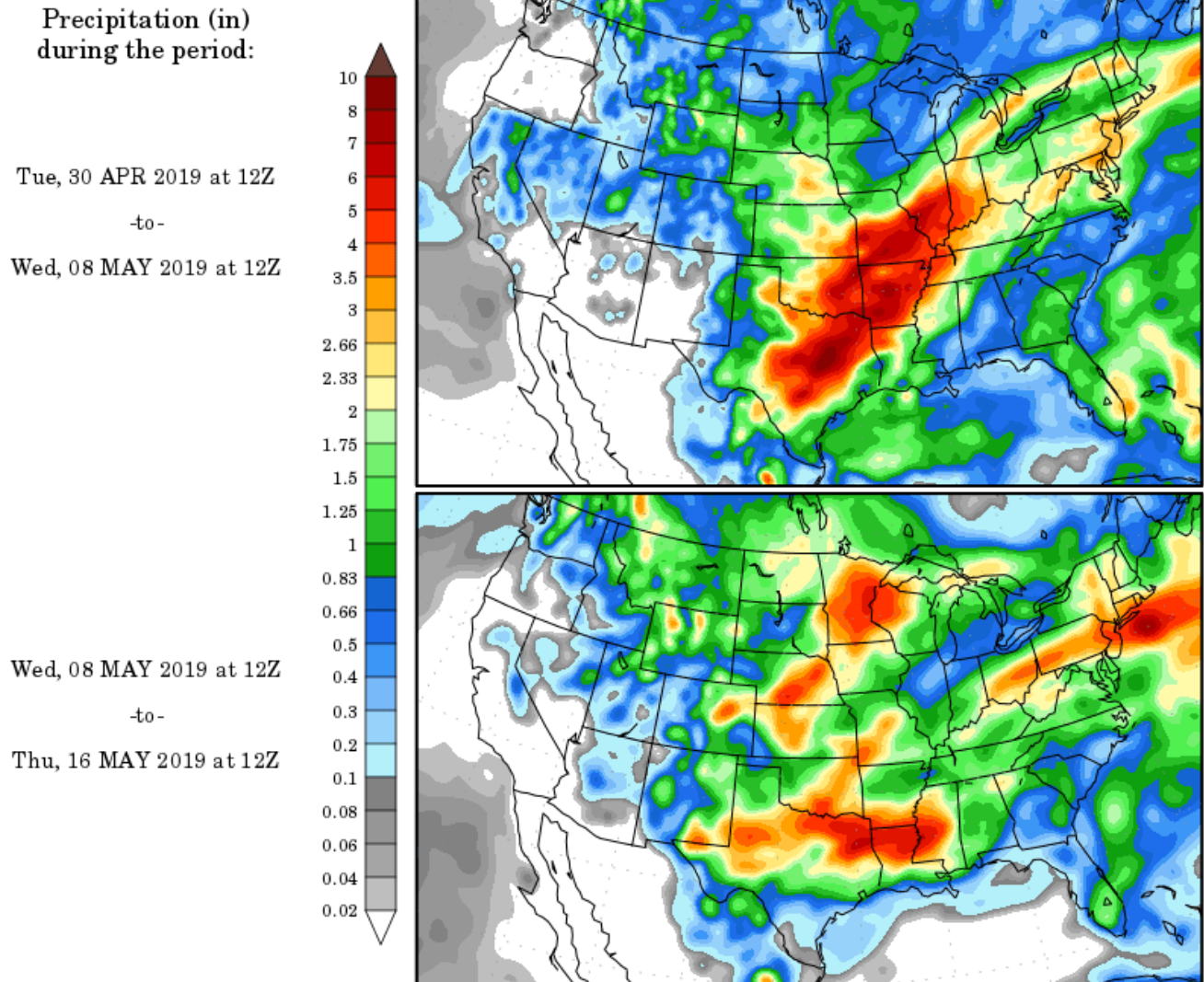
Daily reservoir data as of 4/28/2019 (CDEC)

Snowmelt runoff forecast as of 4/23/2019 (B-120 Forecast April-July runoff)

Charts generated on 04/29/2019 at 4 pm



During the first week of May, California is expected to experience up to 1 inch of precipitation in Northern California and very dry conditions in Southern California. The second week of May is expected to bring up to 1 inch of precipitation in the Sierra Nevada Mountains and very dry weather throughout the rest of California. The two 8-day panel graphics (4/30-5/08 and 5/08-5/16) from the Global Forecast System weather model show this result.



**National Weather Service (NWS) Climate Prediction Center** long-range, 1-month precipitation outlook for May 2019 suggests:

- Below average precipitation for the northern third of California
  - Above average precipitation for the southern two-thirds of the state
- Staff issued Bulletin 120 and Water Supply Index forecasts for conditions as of April 1, 2019. The projected statewide median April-July forecast is 24.2 million acre-feet (136 percent of the historic average). The Sacramento Valley Index was forecast at 10.1 based on the 50 percent exceedance and is classified as Wet. The San Joaquin Valley Index was forecast at 4.3 based on the 75 percent exceedance level and is classified as Wet. Barring any major snow accumulation events in April and May, the statewide snowpack peaked for the year on March 31 with a water content of 45.4 inches which equates to 162 percent of the April 1 average.
- In April, the Statewide Monitoring Network Section serviced Whispering Pines gauge along the Putah Creek River Basin, St. Helena 4WSW gauge along the Napa River basin, USBR hydrometeorological stations, Silver Lake and Caples Lake, in the American River Basin, and installed a temporary weather station for PG&E at Caribou Power House in the Feather River Basin.

## **FER // RESERVOIR OPERATIONS & RIVER FORECASTING**

- Statewide reservoir storage totaled 29 million-acre-feet as of March 31, 2019.
  - 111 percent of average to date.
  - 77 percent of capacity for this time of year.
- On April 2 and 10, the North American Vertical Datum conversion team conducted public outreach meetings with primary stakeholders in the Sacramento Valley. A web meeting was conducted with the stakeholders in the Upper Feather River Basin on April 9. The schedule and launch date of October 1, 2019 were shared with the local agencies. LMAs provided feedback on potential impacts of the datum change.
- On April 11, staff conducted a last weather/hydrology briefing for the season; however, additional briefing(s) may be held if hydrologic conditions or forecasts warrant.
- On April 11 & 25, staff met with Flood Projects Office (FPO) to discuss modeling scenarios for Sacramento Weir improvements project. Staff provided feedback on hydrologic and hydraulic modeling scenarios.
- On April 12, staff conducted a Lower San Joaquin coordination call to inform local agencies of the potential highwater outlook during the spring snowmelt.
- On April 15, staff met with U.S. Army Corps of Engineers (USACE) Water Management staff to discuss snowmelt conditions in the San Joaquin tributaries.
- On April 15 & 17, staff continued model development of the next generation of watershed models for assessing snowmelt runoff.
- On April 16, staff met with the Bay Delta Office regarding Sacramento Valley accretions modeling and forecasting.
- On April 19, staff participated in the Flood-Managed Aquifer Recharge (Flood-MAR) Program's 3rd Research Advisory Committee Workshop. Representatives of the thirteen Flood-MAR themes met to review research, data, and tool development priorities that will be included in the Research and Development Plan.

- On May 2, staff hosted a Forecast Coordinated Operations exercise with San Joaquin Basin reservoir operators and USACE.

## **FER // FLOOD EMERGENCY PREPAREDNESS & OPERATIONS**

- On April 10, Flood Operations Branch (FOB) staff presented to FEMA Region IX (Oakland) staff to share DWR's roles and responsibilities during a flood event.
- On April 17, Flood Operations Center (FOC) staff participated in the Placer County Water Agency Middle Fork American River Emergency Action Plan (EAP) Functional Exercise in Foresthill. This exercise reviewed agency roles and responsibilities, as well as test the EAP document during a dam emergency.
- On April 25, the FOB co-hosted a full-scale exercise with USACE to test a unified command structure for joint site visits, technical evaluations, and the process for obtaining PL 84-99 direct assistance. 113 participants engaged from different locations: DWR FOC, USACE Emergency Operations Center, and some Delta Islands. Participants produced a shared GIS map and a joint incident action plan. The after-action report is expected to be completed by June 14, 2019.
- On April 30, the FOB staff conducted the second quarter Yuba-Feather Working Group meeting in Yuba City. Participants included LMA's, cities, counties, Cal OES, and NWS representatives. Discussion topics covered reservoir operations and snow pack, DWR flood fight materials and training, and a lengthy discussion on the homeless population impacts in floodways.
- On April 24, staff presented at the 2019 California Water and Environmental Modeling Forum on the Real-time Inundation and Modeling Tool (RTIM). RTIM has the capability to simulate the impacts of levee failures along the Sacramento River system using forecasted hydrologic conditions. Simulated impacts include area of inundation, arrival time and depth of inundation, and duration of inundation.

## **FER // REAL-TIME FLOOD CONDITIONS, STATUS, & WARNING**

- The Flood Project Integrity Section (FPINTS) staff completed an additional 412 miles of Levee Log QA/QC in the month of March, with a total of approximately 1,140 miles of the 1,600 miles of Levee Log updates completed so far in 2019.
- The FPINTS staff trained the CVFPB staff, Flood Maintenance Office (FMO) Staff, and Sacramento Yard Staff on the new FERIX UCIP 2.0 program during the month of April.
- Flood Project Inspection Section (FPIS) staff closed 17 CVFPB permits in the month of April, closing a total of 177 permits so far for 2019.
- FPIS Inspectors completed 898 miles of the spring inspection this month. To date, approximately 1,143 miles have been completed.
- Inspectors collected 99 miles of street view imagery (pilot study) this month for a total of 253 miles so far for 2019.
- FPIS staff participated in the USACE/CVFPB Coordination Meeting.
- FPIS staff participated in the Inspection Compliance Work Group Meeting.



## **FLOOD RISK REDUCTION PROJECTS (FRRP)**

### **FRRP // DELTA LEVEE SYSTEM INTEGRITY**

#### **Delta Levees Maintenance Subvention Program**

- **Subventions Program FY 2016-17**
  - 67 final claims received.
  - 50 final claims for \$5.6 million are being processed for reimbursement.
- **Subventions Program FY 2017-18**
  - 72 applications were received and reviewed.
  - CVFPB approved \$12 million for the FY 2017-18 Funding Plan on June 23, 2017.
  - 72 work agreements have been executed.
- **Subventions Program FY 2018-19**
  - 72 applications for \$54 million were received and reviewed.
  - The CVFPB approved \$12 million for the FY 2018-19 Funding Plan on May 18, 2018.

### **FRRP // USACE/CVFPB PROJECTS**

#### **American River Watershed Project – WRDA 2016**

- Seepage, Stability and Overtopping:
  - Reach D, Contract 1 package complete, construction to begin June 2019.
  - Sacramento River East Levee (SREL) Contract 1 under design by Sacramento Area Flood Control Agency (SAFCA), 65% design submittal June 2019.
  - SREL Contracts 2 Design RFP will go out May 2019.
  - SREL Contract 3 Ready to Advertise (RTA) package scheduled for July 2019.
  - Resources from the consultant have been identified to support SAFCA's constructed North Area Streams – a schedule is being developed.
- Erosion:
  - U.S. Geological Survey and USACE are continuing drilling on both American and Sacramento Rivers. Drilling will be in two phases with the second phase to start in the fall.
  - American River- Contract 1 design is continuing, and the Project Delivery Team (PDT) is charging forward towards 35% design in May. The decision has been made to try and get to construction award in fiscal year 2020 (one year ahead of the scheduled milestone).
  - American River Contract 2 - Erosion assessment is complete. The Expert Opinion Elicitation took place in early May and 10% concept designs are being produced.
  - Sacramento River - The PDT has initiated the erosion assessment on the Sacramento River. Surface comparison and modeling is getting underway which helps inform the design.
- Sacramento Weir & Bypass:
  - 35% design review is underway, expected to be completed June 2019.
  - Geotechnical explorations started early May 2019.
  - Survey is starting May 2019.

- DWR is continuing work on the Sacramento Bypass widening effort as part of the Lower Elkhorn Basin Levee Setback Project (LEBLS) scheduled for contract award in early 2020.
- Mitigation:
  - Beach Stone Lake Mitigation Site CEQA documents are on the agenda to be certified at the CVFPB meeting, May 24, 2019.

**Folsom Dam Modifications Joint Federal Project**

- USACE has contractor on site for punch list items, Small Works, site cleanup, etc. U.S. Bureau of Reclamation will provide work permit for spring 2019 construction.
- USACE is scheduling High Velocity Oxy-Fuel mitigation testing.
- Modeling for the Bulkhead Gates completed, both scholastic and physical reports are under QA review.

**Folsom Dam Raise Project**

- Project Schedule - first construction package, to be released in May 2019 (Dike 8)
- USACE design for Dikes 1-6 underway with selected Architecture – Engineering Firm (AE). AE working on 65% submittal. Next submittal may be delayed due to needed geotechnical work.
- USACE design for Dikes 7 & MIAD underway, 65% submittal due in 2nd quarter 2019.
- CVFPB, SAFCA & USACE have approved the Project Partnership Agreement and Local Project Partnership Agreement on March 29, 2019.
- USACE continues the search for a Resident Office to be used during construction.

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

- USACE provided a letter dated April 9, 2019, to DWR summarizing the Project Cooperation Agreement (PCA) final accounting and written notice for project completion and closeout on the project. USACE determined that \$1,445,594.57 will be returned to the State. Pursuant to the Local Project Cooperation Agreement and the final accounting for the project, \$470,994.37 of the \$1,445,594.57, will be refunded to the Kaweah Delta Water Conservation District.

**Yuba River Basin, California Project – Marysville Ring Levee**

- The Draft Supplemental Environmental Assessment/Initial Study/Mitigated Negative Declaration (EA/IS/MND) for the Phase 2B and 3 closed April 28.
  - Modifications primarily consist of refinements to the cut-off wall construction, levee service roads, relocation of utilities, and the construction schedule.
  - A public meeting was held in Marysville on April 10 to allow the public another opportunity to submit comments.
  - DWR presented an informational briefing on the project and the EA/IS/MND at the Board's April 26 meeting and anticipated being on Consent at the May 24 meeting.

**Sutter Basin, California Project**

- Construction activities started May 1, 2019. USACE is expecting to hold a groundbreaking ceremony sometime in June they will be inviting Sutter Butte Flood Control Agency, CVFPB, and DWR.

**San Joaquin River Basin, Lower San Joaquin River California Project (PED)**

- On Friday, April 26, 2019, the CVFPB adopted Resolution 2019-10 that approved the Design Agreement, Local Design Agreement, and the Board President to sign the Agreements.

**FRRP // URBAN FLOOD RISK REDUCTION PROGRAM (UFRR)****SAFCA – Natomas Cross Canal Project (EIP)**

Amendment #6 for the Natomas Cross Canal (NCC) project has been signed and routed to the Department of General Services (DGS) for execution. This amendment is for time only to allow completion of Real Estate and closeout activities.

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

On April 26, the Central Valley Flood Protection Board approved the encroachment permit for the project. This encroachment permit is for the Urban Flood Risk Reduction Program Smith Canal Gate Project.

**Woodland Study and Preliminary Design (UFRR)**

Amendment #1 for the Woodland project has been signed and routed to DGS for execution. This amendment adds additional time to the contract and reduces the overall project cost from \$10M to \$2.4M.

**FRRP // SYSTEMWIDE FLOOD RISK REDUCTION PROGRAM (SFRR)****Lower Elkhorn Basin Levee Setback (LEBLS) Project**

- Public comment period (May 25, 2018 to July 9, 2018) has ended.

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

*Flood Maintenance Office (FMO) is responsible for two areas of State Plan of Flood Control (SPFC) facilities, State Maintained Areas (SMAs), which are authorized by CWC Section 8361, and ten Maintenance Areas (MAs), which are described in CWC Section 12878. SMAs are funded by state general fund, while MAs are on reimbursable accounts funded by property owners protected by the MA levees and facilities.*

*State Maintained Areas (SMAs)*

- *Levees: ~145 miles*
- *Channels: ~1,200 miles*
- *Flood Structures: ~30 (11 weirs, 5 gate structures, 4 pumping plants, crossing bridges, etc.)*
- *Collecting Canals: ~60 miles*

*Maintenance Areas (MAs)*

*Currently, FMO maintains ten MAs: MA01, 03, 04, 05, 07, 09, 12, 13, 16, & 17.*

- *Levees: ~150 miles*
- *Structures: ~1 pumping plant and 1 diversion weir*

## **OPERATIONS & MAINTENANCE (O&M)**

*Listed activities are mandated by O&M manuals for facilities in SMAs or MAs. This work is performed by two maintenance yards located in West Sacramento and Sutter with technical and environmental support from JOC.*

- *Levee and channel vegetation management*
- *Access road and levee crown maintenance*
- *Debris and obstruction removal*
- *Rodent abatement*
- *Rodent damage repair*
- *Levee erosion repair*
- *Channel scour repair*
- *Minor sediment removal*
- *Pumping plant, weir, outfall gates, and bridge operation, maintenance, and repair*
- *Pipe/Culvert repair*

*FMO is in the process of developing a new program, Flood Maintenance Assistance Program (FMAP), with annual funding to increase the level of maintenance in SMAs and support Local Maintaining Agencies (LMAs), including MAs, to do the same.*

### **SMA Activities**

#### **Sacramento Yard**

- *Cache Creek Levees: 22 cubic yards (cy) of vegetation from high water is being piled up in 2 cy piles for burning (complete).*
- *Cache Creek Levees: 15 cy of debris over 5 acres has been removed due to high water (complete).*
- *Cache Creek Levees: 22 miles of vegetation spot spraying (in progress).*
- *Cache Creek Levees: Repair/replace 9 signs (complete).*
- *Cache Creek Levees: 22 miles of road grading (in progress).*
- *Cache Creek Settling Basin Levees: Repair/replace 1 sign (complete).*

- East Yolo Bypass Levee: Repair/replace signs (complete).
- Magpie Creek Diversion: 100 cy aquatic vegetation removal (in progress).
- Magpie Creek Diversion: Rodent depredating (in progress).
- Putah Creek: Vegetation spot spraying (in progress).
- Putah Creek: Levee gate repair/replacement (in progress).
- Putah Creek: Road grading (in progress).
- Putah Creek: Rodent baiting (in progress).
- Sacramento Bypass Levees: Levee gate repair/replacement (in progress).
- Sacramento Bypass Weir: Structure maintenance (in progress).
- Sacramento River (Collinsville to Knights Landing): 150 cy scour repair at Ponds 10 and 12 (in progress, on hold).
- Sacramento River (Collinsville to Knights Landing): 3.2 miles of vegetation mowing around Prospect Island on Miner Slough (in progress, on hold).
- West Yolo Bypass levees, Units 1-4: 6.5 miles of vegetation spot spraying (complete).
- West Yolo Bypass levees, Units 1-4: Repair/replace signs (complete).
- West Yolo Bypass levees, Units 1-4: 3 cy of debris removal (complete).
- West Yolo Bypass levees, Units 1-4: Road grading (in progress).
- Willow Slough Bypass levee: Road grading (in progress).
- Willow Slough Bypass levee: Rodent baiting (in progress).

***Sutter Yard***

- Colusa Bypass Weir: Debris removal over 2 acres (complete).
- East Levee Sacramento River: Rodent fumigation (in progress).
- East Levee Sutter Bypass: Repair/replace 30 signs (complete).
- East Levee Sutter Bypass: Rodent depredation (in progress).
- Lake of the Woods: 300 acres vegetation mowing (complete).
- Little Chico & Butte Creek Diversion Weirs: 2 cy of debris removal (complete).

**MA Activities*****MA01***

- Rodent fumigation (in progress).
- Rodent baiting (in progress).

***MA03***

- Rodent depredation (in progress).

***MA05***

- Encroachment removal (in progress).
- Erosion repair (complete).



**MA07**

- 1.7 miles road grading (complete).
- 10.6 miles of vegetation broadcast spraying (complete).

**MA09**

- 21.3 acres vegetation cutting and limbing (in progress).

**MA12**

- Rodent fumigation (in progress).

**MA13**

- 9.75 miles road grading (complete).
- 15 miles of road gravel placed (complete).
- 44 miles of vegetation broadcast spraying (complete).

**Flood Maintenance Assistance Program (FMAP)**

- To date, a total of 59 FMAP applications have been submitted to DWR.
- Total commitment for 2018/2019 is up to \$8.7M.
- OMRR&R agreements to be finalized by May 10, 2019.
- Funding agreements to be executed by June 30, 2019.
- Funding anticipated to be issued in next fiscal year (FY) 2019/20.
- Currently accepting submittals for FY 2019/2020.

**STUDIES & EVALUATIONS**

*Activities related to evaluating all SPFC facilities to identify any deficiencies, and prioritizing (emergency, critical, serious, monitor) them for repair, rehabilitation, or replacement. These evaluations include:*

- *Levee stability*
- *Levee penetrations, such as pipes and culverts*
- *Channel capacity*
- *Structure functionality*
- *Levee Tree Assessment*
- *Encroachments*
- *O&M right-of-way*

**Channel Evaluation*****Cherokee Canal Evaluation***

- DWR's Northern Region Office is performing bathymetric surveys at the HEC-RAS model cross-section locations.

## **Levee Evaluation**

### *Pipe/Culvert Evaluation*

- Phase 1 video inspections:
  - 154 of 258 pipes passing through SMA levees have been video inspected by FMO.
  - 32 DWR directed funding agreements have been executed. The LMAs are in the process of inspection and evaluation of their pipes.

### *Levee Tree Assessment (LTA)*

- LTAs will resume when trees leaf out in Spring 2019.

### *Encroachments*

- FMO continues to coordinate with Hydrology & Flood Operations Office, California Data Exchange Center, FPO, and CVFPB to prepare a comprehensive list of encroachments in the SMAs and MAs.
- The draft lists for the following have been completed and are under review and field confirmation:
  - System 521 - MA03, MA07, MA16, SBP2, ST05, ST10
  - System 641 - ST07 Putah Creek North Levee, ST11 West Levee Yolo Bypass, ST12 Willow Slough Bypass, South Levee
  - System 561 – MA01; System 903 - ST08 (SAC2); and System 1411

## **DEFERRED MAINTENANCE**

*Maintenance that has not been completed to keep the facilities in an acceptable and operable condition will result in deferred maintenance. If the work is not completed as part of O&M activities, it will lead to a larger maintenance issue and cost significantly more.*

## **2017 Emergency Rehab**

- All Phase III (2018) site construction work has been completed. Plant maintenance activities are planned for December 2019.
- Construction is planned for fall 2019 on up to 27 previously identified serious sites.

## **Levee Rehab**

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

- DWR is completing LMA outreach and field reconnaissance to prioritize eligible repairs and continue to enter into project agreements with the remaining program funding. Reclamation Districts are reporting their high priority sites as part of this reconnaissance.

*Storm Damage DWR Rehabilitation (SDDR), Phases 4 and 5*

- Staff continues to work on environmental compliance and permitting documents for the SDDR, Phases 4 and 5 levee repair sites. A draft CEQA document (Initial Study/Mitigated Negative Declaration [IS/MND]) for the project was released for public comment on April 15, 2019. The public comment period for the IS/MND is 30 days.

**Pipe Rehab**

- As part of the pipe lining operation, new flood control gates will be installed. FMO has received a partial delivery of the flood control gates, but we are still waiting for delivery of four gates. The remaining order is expected to be delivered in May 2019.

The following table provides an overall status update of the pipe inspection/ rehabilitation work:

<b>DMP-Pipes Program      Status Update: 3/31/19</b>			
	<b>MAs/SMAs</b>	<b>Non-Participating LMAs</b>	<b>Participating LMAs<sup>1</sup></b>
<b>Phase 1</b>			
Total pipes for C&I (Cleaning & Inspection):	258	161	995
Total pipes completed:	154	134	TBD
Irrigation Impacted Pipes:	50	7	TBD
Continuous water Pipes:	28	10	TBD
Vault access required:	23	--	TBD
<b>Geophysical Evaluation*</b>			
"Not-Found" Pipe Location:			
Total Pipes for Geophysics (GP)	137	174	221
Total Pipes GP Complete	137	172	221
<b>Phase 2 - R/R/R</b>			
CIPP Slip-Lining Rehabilitation Completed**	30	TBD	TBD
Removal and Replacement***	TBD	TBD	(See footnote 1)
Removal	TBD	TBD	TBD
Abandonment in Place	TBD	TBD	TBD

\* DWR Contractor completing geophysical evaluation in MAs/STs, Non-Participating LMAs, and where requested by participating LMAs

\*\* DWR has a contract for Cured-In Place Pipe (CIPP) Slip-Lining Rehabilitation; 35 pipes are ready for rehab along Willow Slough and Putah Creek. Additional pipe locations for CIPP are being assessed and will be added soon.

\*\*\* RD784 has 1 pipe in Phase 2 agreement with DWR for removal/replacement; Design/permitting work in progress.

1 - Many participating LMAs are reporting difficulty in contracting geophysics, pipe cleaning, and video inspection work.

## **Channel Rehab**

### *Elder Creek Channel Rehab*

- Year 2 of sediment removal has been completed. Year 3 (of 5) is scheduled to begin when the channel dries out, likely in July 2019.

## **Structural Rehab**

### *Butte Slough Outfall Gate Rehabilitation*

- DWR is updating the project description and design plans based on input from natural resource agencies with the goal of contracting the rehabilitation work in Summer 2020.

### *Tisdale Weir Rehabilitation and Fish Passage Project*

- DWR is planning to prepare a draft EIR for the Tisdale Weir Rehabilitation and Fish Passage Project. DWR has issued a Notice of Preparation to provide responsible agencies, trustee agencies, and other interested parties with information describing the proposal and its environmental effects.
- DWR held a scoping meeting on April 25, 2019, to receive written and oral input on the scope and content of the EIR.

### *Knights Landing Outfall Gates Fish Barrier*

- Previous fish exclusion barrier became inoperable and was removed in Fall 2016.
- FMO is working with Reclamation District 108 to enter into an agreement to replace the barrier.

## **Yard Rehab**

### *Sacramento Yard Improvements*

- Phase 1 work has restarted after the weather cleared. The remaining asphalt has been removed, and underground water pipes and electrical conduits are planned for May 2019. Phase 1 is expected to be complete by Summer 2019.
- Phase 2 work, which includes electrical upgrades, has been delayed due to incomplete design. Therefore, a contract will not be issued before the end of the fiscal year. A new scope of work is in progress which includes ADA accessibility and fire sprinklers.

## **ENVIRONMENTAL INITIATIVES**

*Environment coordination, advance mitigation, and other holistic measures to expedite our project delivery. FMO is looking to find long-term solutions that will allow more effective and efficient O&M by identifying and implementing environmental measures as part of the system.*

### **Environmental Permitting for Operations and Maintenance Project (EPOM)**

Tentative offers were made and accepted for the Permanent Intermittent Environmental Scientist (ES) positions for the Sacramento and Sutter Maintenance Yards. Pending DWR approval, the new ESs are expected to start around mid-May 2019.

The new ESs will assist with permitting requirements, and with mitigation planning and agency collaboration.

#### **O&M Habitat Conservation Plan (HCP)**

This effort is on hold due to how the Systemwide Improvement Framework (SWIF) Endangered Species Act nexus process works out.

#### **SWIF - Endangered Species Act, Section 7 Nexus**

The USACE has agreed to provide a nexus for the Endangered Species Act for SWIF through a workplan review and approval process. FMO will be proposing rodent damage abatement and repair activities along MA05 to the USACE under the SWIF. FMO will be meeting with the USACE to discuss how environmental consultation and review will proceed.

## **FEDERAL PROGRAM**

*FMO's interaction with federal agencies, mainly USACE, in rehabilitation of deferred maintenance projects.*

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

USACE completed repairs to 15 damaged sites in 2017, and 7 damaged sites in 2018. These are PL 84-99 eligible repairs identified from the 2017 high water events. Up to 22 additional sites are targeted for repair in 2019 and 2020. DWR and CVFPB are working closely with USACE to manage the state's interest in these projects.