

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

By

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

This functional area includes work to better prepare for, respond to, and recover from flood emergencies. A program for flood emergency response is a necessary part of flood management because California will always face flood emergencies, even when system improvements reduce the frequency of flooding. Program activities include inspection and assessment of flood projects' integrity; reservoir operations and river forecasting; flood data collection, management, and dissemination; precipitation and runoff forecasting; Delta flood preparedness, response, and recovery; and statewide flood emergency response functions.

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.

INSPECTIONS

Copies of the *Inspection and Local Maintaining Agency Report* are being distributed to the LMAs. Preparations for Spring Inspections are proceeding and inspections are anticipated to start in March.

FLOOD PROJECT INTEGRITY/VULNERABILITY ASSESSMENT ACTIVITIES

The Supplemental Levee Erosion Survey section continued work on the final version of the improved erosion site scoring and ranking criteria, and continued to assist in the desk study and field survey tasks of Utility Crossing Inventory Surveys. In addition, staff performed a technical review of the Lower Sacramento River Basin Bypass System Element Refinement of the CVFPP.

FLOOD PROJECT INTEGRITY/VULNERABILITY ASSESSMENT ACTIVITIES

Levee Instrumentation Pilot Study

The project has been constructed and data collection has been initiated.

DWR Utility Crossing Inventory Program (UCIP)

Recent activities in this reporting period include the completion of 52 miles of Desk Studies that identify and locate utility crossings within the levees. One mile of levee was inspected for utility crossings. One staff member attended ICS 300/400 training and three attended Wilderness First Aid Training.

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.

SNOWMELT & SEASONAL VOLUME RUNOFF FORECASTING

Progress remains steady on Yuba and Merced PRMS model development. A PRMS Development team meeting will be held in March to scope out future PRMS models. Our partners from the USGS and PG&E will be included in that meeting.

SNOW SURVEYS AND SNOW COURSE MAINTENANCE

As of February 19, 2012, the regional snow pack conditions as reported by the remote snow sensors are as follows:

- **Northern Sierra** - 17" of SWC for 60% of April 1 Avg. and 73% to date
- **Central Sierra** - 18" of SWC for 57% of April 1 Avg. and 71% to date
- **Southern Sierra** - 13" of SWC for 50% of April 1 Avg. and 65% to date
- **Statewide** - 16" of SWC for 56% of April 1 Avg. and 70% to date

On February 1, snow sensors recorded a snow pack that was 92 percent of average in the Northern Sierra, 90 percent of average in the Central Sierra, and 85 percent of average in the Southern Sierra. Statewide, snow water equivalent based on snow pillow data was 90 percent of the historical February 1 average and 56 percent of the historical statewide April 1 average.

Results from the 213 snow courses measured this month revealed comparable snow pack conditions. Measurements in the Sacramento River Valley watersheds recorded a snow pack that is 80 percent of the historical February 1 average. Measurements in the San Joaquin Valley watersheds indicated a snow pack that is 93 percent of the February 1 average while the snow pack for the Tulare Lake region was 90 percent of the February 1 average. Statewide the snow pack was measured at 88 percent of the February 1 average and 55 percent of the historical April 1 average.

The difference between the Northern Sierra snow sensor reading of 92 percent to date and the Sacramento River Valley snow course tally of 80 percent to date has much to do with which watersheds are included in each regional value. For example, the Northern Sierra snow sensor region includes the Trinity Watershed which is currently reporting a higher percent of average snow pack than the Sacramento River region. Conversely, the Sacramento River Valley snow course region does not include the wetter Trinity snow survey results.

The second round of snow surveys for this season was conducted on or around February 1, 2013. For the stations along Highway 50 near Echo Summit the manual readings were as follows:

Location	Elevation	Snow Depth	Water Content	% of Average
Alpha	7600'	32.5"	13.5"	64
Phillips Station	6800'	37.3"	12.7"	66
Lyons Creek	6700'	42.6"	14.6"	74
Tamarack Flat	6500'	44.0"	14.9"	78

The next snow course measurements will occur during a 10-day window surrounding March 1, 2013.

Hydrologic Data Management

The Snow Surveys section continues to collect, review, Quality Control, and enter Full Natural Flow (FNF), precipitation, snow, and reservoir storage data for thousands of locations statewide

on a daily basis. With this data staff continues to issue daily, monthly, and seasonal water condition reports on California Data Exchange Center (CDEC). The extreme dry conditions during January and February have brought a lot of media attention and a lot of question from cooperating agencies. During the month Snow Surveys staff alone responded to over one dozen media requests.

Bulletin 120 and Water Supply Index Forecasts

From the February 1, 2013 Bulletin 120, the projected median April-July runoff in the major Sierra river basins ranges from 55 percent on the Tule River to 94 percent on the East Carson River. Forecasted median Water Year runoff ranges from 54 percent for the Tule River to 100 percent on the Feather River. After a wet November and December, the extreme dry conditions in January have dropped water year runoff forecasts as would be expected.

The WSI forecast can be summarized as follows:

- **Sacramento River Unimpaired Runoff Water Year Forecast**
(17.2 MAF, 50% exceedance, 94% of normal)
- **Sacramento Valley Index (SVI)**
(7.5, 50% exceedance, Below Normal)
- **San Joaquin Valley Index (SJI)**
(2.4, 75% exceedance, Dry)

The SJI has fallen into the 'Dry' water year classification as it has decreased from 2.6 to 2.4 since the January 1, 2013 WSI. The SVI dropped from "Wet" to "Below Normal".

Variability has characterized the winter flows. During December, 11 major rivers in Northern California and the Sierra flowed at a rate greater than 200 percent of normal. This contributed to the statewide average of about 190 percent of normal. During January, however, no major Sierra rivers flowed at a rate greater than 75 percent of normal and the statewide average was about 40 percent. The January flows in the Sacramento River, San Joaquin River and Tulare Lake regions were either 45 or 46 percent of average.

A Bulletin 120 Update for conditions on February 19, 2013 will be available Thursday, February 21. The March 1, 2013 Bulletin 120 forecast will be available on March 8, 2013.

The NWS Climate Prediction Center's (CPC) 30-day outlook for February, last updated on January 31, 2013, suggests increased chances of below normal temperatures for Northern California with equal chances of above or below normal temperatures elsewhere. The same outlook calls for increased chances of below normal precipitation for most of Northern California, increased chances of above normal precipitation for portions of the Colorado River region, and equal chances of above or below normal precipitation elsewhere.

The CPC's three month outlook (February thru April) was last updated on January 17, 2013. This outlook suggests increased chances of above normal temperatures for portions of the Southern Sierra Nevada, the Owens River basin, and the Mojave Desert. For all other areas, this outlook calls for equal chances of above or below normal temperatures. For precipitation, this same outlook calls for increased chances of below normal precipitation for all of California except along the Oregon border.

WATER CONDITIONS

As of January 31, statewide hydrologic conditions were as follows: precipitation, 100 percent of average to date; runoff, 100 percent of average to date; snow water equivalent, 90 percent of average for the date (55 percent of the April 1 average); and reservoir storage, 105 percent of average for the date. Sacramento River Region unimpaired runoff, for Water Year 2013, observed through January 31, 2013 was about 5.9 million acre-feet (MAF), which is about 105 percent of average. For comparison during Water Year 2012, on January 31, 2012, the observed Sacramento River Region unimpaired runoff through that date was about 2.3 MAF, or about 41 percent of average.

In contrast to a very wet December, January had significantly below average rainfall, for almost all of California. On January 31, the Northern Sierra 8-Station Precipitation Index Water Year total was 34.3 inches, which is about 128 percent of the seasonal average to date and 69 percent of an average water year (50.0 inches). During January, the total precipitation for the 8-Stations was 1.4 inches; 16 percent of the monthly average. Last year on January 31, the seasonal total for the 8-Stations was 14.5 inches, or about 54 percent of average for the date.

On January 31, the San Joaquin 5-Station Precipitation Index Water Year total was 20.4 inches, which is about 99 percent of the seasonal average to date and 50 percent of an average water year (40.8 inches). During January, the total precipitation for the 5-Stations was 1.3 inches, which is about 17 percent of the monthly average. Last year on January 31, the seasonal total for the 5-Stations was 10.1 inches, or about 49 percent of average for the date.

Selected Cities Precipitation Accumulation as of 01/31/2013 (National Weather Service Water Year: July through June)					
City	Jul 1 to Date 2012 - 2013 (in inches)	% Average	Jul 1 to Date 2011 - 2012 (in inches)	% Average	% Avg "Water Year" Jul 1 to Jun 30 2012- 2013
Eureka	23.40	99	18.63	79	58
Redding	20.09	102	12.15	62	58
Sacramento	12.25	119	4.78	47	66
San Francisco	13.59	100	6.05	44	57
Fresno	3.97	68	2.95	50	35
Bakersfield	1.62	50	1.75	54	25
Los Angeles	5.58	83	4.19	62	44
San Diego	4.38	83	4.97	94	42

Key Reservoir Storage (1,000 AF) as of 08/31/2012								
Reservoir	River	Storage	Average Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,943	1,763	110	2,448	79	---	505
Shasta Lake	Sacramento	3,474	3,133	111	4,552	76	-314	1,078
Lake Oroville	Feather	2,692	2,384	113	3,538	76	-373	846
New Bullards Bar Res	Yuba	779	581	134	966	81	-17	187
Folsom Lake	American	566	516	110	977	58	-11	411
New Melones Res	Stanislaus	1,636	1,392	118	2,420	68	-334	784
Don Pedro Res	Tuolumne	1,373	1,385	99	2,030	68	-317	657
Lake McClure	Merced	446	500	89	1,025	44	-228	579
Millerton Lake	San Joaquin	313	340	92	520	60	-118	207
Pine Flat Res	Kings	293	478	61	1,000	29	-377	707

Isabella	Kern	83	169	49	568	15	-87	485
San Luis Res	(Offstream)	1,212	1,626	75	2,039	59	---	827

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for February 2013, issued January 31, 2013, suggests below average rainfall for almost all of Northern California, except for the very northeastern region, where no tendency for above or below average is expected. No tendency for above or below average rainfall is also suggested for most of Central and Southern California, except for the southeastern portion of the State where above average precipitation is expected.

HYDRO-CLIMATE ANALYSES

Work continues on the University of California Task Orders for studies supporting climate change hydrology effort. In the past month the State Climatologist has been in contact with UC Davis, UC Merced, and Scripps personnel to discuss project activity and the relation of project products to other programmatic activity. The UC Davis Study contact focused on coordinating analysis efforts with other program activities including next steps in the Central Valley Flood Protection Plan (CVFPP) Climate Change Technical Work Group and 200-year Hydrology Framework. Discussions will move forward on the depiction of selected atmospheric river metrics that will be used in the design storm characterization. Discussions with the Scripps team and NOAA ESRL personnel are continuing on coordinating atmospheric river information into the 200-year Hydrology Framework and CVFPP work. These discussions continued at the 2012 Fall meeting of the American Geophysical Union where all parties were present.

The CVFPP Climate Change Technical Work Group is moving forward with another document describing the framework for climate change analyses in the execution of the CVFPP activities. The State Climatologist has been meeting weekly with the consultant team and has made email contact with members of the external science panel for further discussion and shaping of ideas. These efforts are continuing and progress is being made. A draft report is in review.

The climate variability sensitivity study (CVSS) pilot associated of CVHS is progressing. The third basin addition is feasible and the United States Army Corps of Engineers (USACE) Sacramento District has chosen the American River. Contract modifications are in progress to enable this activity. Efforts are also underway to line up the appropriate internal review for CVSS. A new schedule has been proposed by USACE and the State Climatologist will meet with USACE to discuss. The State Climatologist is reviewing the work conducted for the Feather River to date.

A draft outline of the framework for the 200-year hydrology with climate change is now being developed. Conversations are being had with the consultant team providing support and the scientists who are providing technical information for the framework. Current plans are to present the framework to the Department’s Climate Change Technical Advisory Group in January.

The State Climatologist is participating in workshops on extremes and climate change with members of federal agencies and the academic community. Efforts are leading to a prioritized list of projects to collaboratively pursue.

The State Climatologist is participating in workshops evaluating seasonal forecasting capabilities and needs. Efforts will lead to a prioritized list of projects to collaboratively pursue with the research community.

The State Climatologist is providing time to participate in document and program review for other agency activity.

REAL-TIME DATA COLLECTION NETWORK

Coordination between NOAA, DWR and Scripps continues as the 21st Century Extreme Precipitation Monitoring project moves forward. Discussions continue on the scope of a second memorandum of understanding to further implement and refine efforts for this new network. Data from this network was collected for the storm event at the end of November 2012. It will be analyzed to evaluate how the network performed and to see what data is relevant for planning activities.

HYDROLOGIC DATA MANAGEMENT

The State Climatologist is working with contractors to coordinate programmatic activity related to data quality control procedures that are applicable across multiple programs within Hydrology Branch.

RESERVOIR OPERATIONS & RIVER FORECASTING

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

FLOOD OPERATIONS EMERGENCY RESPONSE

This element includes all preparation and planning to execute flood fights, deploy teams, provide training, and coordinate local response needs and federal assistance in the event of a flood. This includes maintaining the readiness of the Flood Operations Center and all the staff that may have to staff it in the event of an emergency and assuring local response efforts can be integrated into the State response system.

EMERGENCY RESPONSE SUPPORT

This element includes various efforts that will further the Departments understanding of the flood system interactions with water supply systems and conjunctive use programs. It also includes the update of the Central Valley hydrology for use in risk assessment and project development. Another component includes developing a comprehensive plan to response to flood events in the Delta.

CENTRAL VALLEY HYDROLOGY STUDY (CVHS)

Continued work on development, review and approval of flood-flow frequency analysis, regulated flow time series, and rainfall-runoff modeling of ungaged streams. Internal coordination with USACE and DWR Central Valley Floodplain Evaluation and Delineation Program (CVFED) is continuing. Technical issues between CVHS and CVFED products are continuing to be resolved.

FUNCTIONAL AREA 2 OPERATIONS AND MAINTENANCE

Operations and Maintenance is a functional area under FloodSAFE established to ensure project facilities are operated and maintained in good working condition to function as designed. Although Operations and Maintenance has been a long-standing base program within DWR, FloodSAFE has expanded the program and provided additional funding. Historically, Operations and Maintenance projects were undertaken based on a backlog of deferred maintenance. Now, in addition to continuing to work on deferred maintenance, new projects are identified through a number of inspection programs. Operations and Maintenance must continue indefinitely into the future, even after the FloodSAFE functional objectives have been achieved although the needs are expected to change over time as system upgrades and modifications are implemented.

CHANNEL MAINTENANCE

DWR is responsible for maintaining channel flow capacity for Sacramento River Flood Control Project channels and for performing channel-specific maintenance activities identified in the USACE Operations and Maintenance Manuals, including channel clearance if required to maintain design flow capacity. Channel Maintenance consists of inspection and evaluation, routine operations and maintenance, and implementation of corridor management projects.

- Staff of the Maintenance Support Branch and Environmental Support Branch met with Sacramento Maintenance Yard staff at Natomas East Main Drainage Canal. Together they identified areas where they believe vegetation management activities that will improve channel capacity and can be done under the Existing Routine Maintenance Agreement with California Fish and Wildlife (formerly Fish and Game).
- Butte Creek Channel Evaluation (Report and hydraulic model) is 95 percent complete.

FLOOD FACILITIES OPERATION AND MAINTENANCE

DWR operates, maintains, and repairs or replaces flood control structures located throughout the Sacramento River Flood Protection Project to ensure readiness in the event of emergencies and that facilities function as designed. Actions include inspection and evaluation, routine operation and maintenance, and non-routine maintenance. Facilities include pumping plants that transfer runoff and excess water from the land-side of levees in the flood system to flood channels; bridges providing access over and to flood facilities; flow gages; and water control structures such as weirs.

- Debris removal is 100% complete at Knights Landing Outfall Gates (5 tons).
- Staff gauge at Knights Landing Outfall Gates was replaced.
- Catwalk repair is 100% complete at Venice Island and 40% complete at Mossdale Landing.
- Bridge rehabilitation is ongoing on the East Interceptor Canal.
- Installation of the SCADA system for remote control of the three pumping plants is ongoing with operator training scheduled for February 25th.

LEVEE MAINTENANCE

This element maintains levees and roads under DWR jurisdiction (State-maintained Maintenance Areas and bypasses) in accordance with USACE Operations and Maintenance Manuals. Annually, after high water recedes, levees are evaluated and repairs are made as necessary.

Routine and extraordinary maintenance are also performed as necessary to meet maintenance assurances provided to the federal government.

- Herbicide application on levee slopes and crown roadways is ongoing in all areas for Sutter Yard.
- Grading/graveling crown roadways at Sutter Bypass is ongoing.
- Rodent control is ongoing in all areas.
- Fire guarding/spraying is 90% complete at MA4 (2.5 miles), 90% complete at MA9 (15 miles), 100% complete at Putah Creek (19 miles), and 100% complete at Cache Creek (3 acres).
- Burning levee slopes at Willow Slough is 60% complete (2 acres) and 20% complete at Cache Creek (3 miles).
- Mowing levee slopes is 85% complete at Prospect Island (2.25 miles).
- Tree trimming at MA9 is 20% complete (3 acres) and 20% complete at Cache Creek (2 acres).

ENVIRONMENTAL INITIATIVES

DWR is responsible for planning projects in a way that avoids or minimizes environmental impacts, and for obtaining state and federal environmental permits and clearances for projects within the Operations and Maintenance Functional Area. Environmental Initiatives touches all aspects of this functional area and therefore is considered a close partner to the other maintenance elements and their activities. As such, it should be considered a part of each of the other major elements rather than a stand-alone element. Also, with DWR's established open collaborative process, various local, state, and federal agencies examine issues and develop integrated solutions to the complex environmental compliance requirements and resource opportunities as flood control maintenance activities are undertaken. Components include developing and managing environmental programs, and managing mitigation requirements for lands and habitats developed or acquired by the Department to mitigate for flood management maintenance and improvement projects.

Colusa-Sacramento River State Recreation Area

FMO Maintenance Environmental Support Branch staff is scheduled to meet with River Partners at the Colusa-Sacramento River State Recreation Area (SRA) to discuss future management of the 137-acre restoration site. Restoration was conducted at this site as mitigation for the Tisdale Bypass Channel Rehabilitation Project. River Partners conducted the plant establishment and site management for the restoration and provided irrigation to the plants for two years. To help support site success, DWR executed an agreement with the Department of Parks and Recreation (DPR) for an additional year of site management and irrigation, with technical support from River Partners. This agreement ends in March of this year. The meeting with River Partners was to address future management by DWR of the site that may include mowing or grazing. DWR is responsible for ten years of monitoring to support and document success of the site. DPR will maintain the site in perpetuity, with the exception of grasslands that will be managed by DWR.

Wadsworth Canal Sink Hole Repairs

On January 31, 2013, FMO Maintenance Environmental Support Branch staff conducted Giant Garter Snake monitoring during the excavation and repair of several sink holes on the waterside toe road of Wadsworth Canal. The repair was authorized, and the monitoring a condition of, an approved Verification Request Form under the California Department of Fish and Wildlife's Streambed Alteration Agreement Notification No. 1600-2010-0108-R2.

LEVEE REPAIRS

The Levee Repairs Program consists of projects for repair, rehabilitation, reconstruction, or replacement of levees, weirs, bypasses, channels, and other facilities of the State Plan of Flood Control. Types of repairs are critical (has likelihood of failure during next high water event), serious (can withstand one high water event; likelihood of failure on subsequent high water events), and proactive (small deficiencies that are worsening rapidly and that can be designed and constructed by the Local Maintaining Agency (LMA)). Levee repair projects are implemented through collaboration with federal and State resource agencies, USACE, and LMAs. Levee repairs are done under three federal authorized programs; Sacramento River Bank Protection Project (SRBPP), Levee Stability Project (LSP), and PL84-99 Rehabilitation Assistance Project (PL84-99). In addition, the State is developing guidelines for a new project, Flood System Repair Project (FSRP), to address deficiencies in the entire SPFC Facilities in the Central Valley Watershed; FSRP replaces the San Joaquin River Bank Protection Project.

Flood System Repair Project (FSRP)

- Draft Guidelines for development of work and cost-sharing agreements with DWR have been made available for public comment and review. Two public outreach meetings have been scheduled during this 45-day public review period, in Marysville and Stockton.
- After the 45-day public review, when comments have been received and addressed, the FSRP Guidelines will be final and DWR will begin to engage prioritized LMAs to address repair of identified critical sites.

-

Sacramento River Bank Protection Project (SRBPP)

USACE is working on resolution of slurry wall construction issues for the setback levee being constructed in West Sacramento on the right bank of the Sacramento River at river mile 57.2. Construction is anticipated to be completed in fall of 2013.

Levee Stability Program

San Joaquin River Levee Repair Site SJR 71.5R was completed in early December, 2012. This repair consisted of placement of rock slope protection, soil, and mitigation plantings along a 2,000-ft erosion site.

Rural Levee Repair Criteria (RLRC)

As directed by the CVFPB, DWR, in coordination with local levee maintainers, USACE, and other affected parties, has begun developing repair criteria for levees in rural areas associated with SPFC facilities. Draft criteria are anticipated to be completed by October 2013.

FUNCTIONAL AREA 3 FLOODPLAIN RISK MANAGEMENT

The primary purpose of Floodplain Risk Management is to empower local communities through floodplain management program support and technical assistance to make wise land use decisions in flood prone areas that result in reduced flood risk and preservation of the beneficial uses of floodplains. FPM projects and programs work towards development of a statewide integrated approach for flood risk reduction and long term floodplain sustainability that reduces loss of life and property damage and minimizes the economic impacts associated with flooding.

FLOODPLAIN MANAGEMENT ASSISTANCE

Floodplain Management Assistance provides statewide technical support to federal, state and local agencies, and the public for flood hazard maps, levee data, and the National Flood Insurance Program 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 with communities participating in the NFIP, provides technical assistance to the public, and trains community officials.

- Provided approximate 48 hours of technical assistance to local communities, other State agencies, and the public who had questions regarding the NFIP (including building codes), Certified Floodplain Manager certification, and Federal grants.
- Specific assistance provided to CalSTRS regarding the location of future data storage facilities.
- Provided technical assistance to the Delta Stewardship Council on the 1965 Cobey-Alquist Act, Water Code Sections 8400 through 8415.
- Provided technical assistance to the City of Elk Grove related to the USACE PL-8499 Program for non-federal levees and FEMA's role in providing assistance for levee repairs damaged during flood events.

STATEWIDE FLOODPLAIN EVALUATION AND DELINEATION

Floodplain Evaluation and Delineation works to estimate the frequency, depth, and limits of potential flooding throughout the state providing building blocks in terms of floodplain assessments, standards, methodologies, tools, and analyses supporting multiple applications including FloodSAFE programs and projects and FEMA's National Flood Insurance Program.

Alluvial Fan Floodplain Evaluation and Delineation (AFFED)

The project team continues to make progress on developing preliminary flood hazard maps for the Riverside and Ventura counties. The project team plans to meet with Riverside and Ventura County flood control officials on February 25 and 26. At the meetings, the final AFFED mapping products including flood models and preliminary flood hazard delineation maps will be delivered.

Coastal Floodplain Evaluation and Delineation (CFED)

The Coastal Data Merge Project is a collaboration with the Ocean Protection Council (OPC) with the purpose of merging coastal California's topographic/bathymetric data into one formatted data set to provide a consistent application for the entire coast of California. Current status of the project:

- All merging and reclassification of topographic/bathymetric data in Production Block 1 (covering coastal San Diego, Orange, Los Angeles & Ventura Counties) have been completed.
- The confidence layers and final DEMs are currently in finalization for review.

CENTRAL VALLEY FLOODPLAIN EVALUATION AND DELINEATION

Floodplain Evaluation and Delineation works to estimate the frequency, depth, and limits of potential flooding in the Central Valley by providing building blocks in terms of floodplain assessments, standards, methodologies, tools, and analyses supporting multiple applications including FloodSAFE programs and projects and FEMA's National Flood Insurance Program.

The current status of the CVFED Hydraulic Model Development Project is as follows:

Riverine Hydraulic Model Development (HEC-RAS):

- Upper Sacramento basin: 98 % completion
- Lower Sacramento basin: 95% completion
- Upper San Joaquin basin: 90 % completion
- Lower San Joaquin basin: 99 % completion

Overland Hydraulic Model Development (FLO-2D):

- Upper Sacramento basin: 99 % completion
- Lower Sacramento basin: 94 % completion
- Upper San Joaquin basin: 94 % completion
- Lower San Joaquin basin: 99 % completion

Combined HEC-RAS/FLO-2D System Model Development:

- Upper Sacramento basin: 52 % completion
- Lower Sacramento basin: 52 % completion
- Upper San Joaquin basin: 40 % completion
- Lower San Joaquin basin: 48 % completion

FLOOD RISK NOTIFICATION

Flood Risk Notification focuses on communicating flood risk and risk mitigation strategies to the public and to local, state and federal agencies for areas protected by the facilities of the State Plan of Flood Control.

- DWR and USACE are developing a video regarding residual flood risk that will be posted on the DWR Flood Risk Notification Program's website.

FLOOD RISK PLANNING

Flood Risk Planning is focused on incorporating flood risk management into statewide and local land use decision-making to identify potential flood hazards and mitigation strategies to reduce flood risks through creation of integrated planning approaches and datasets that help agencies, communities, and individuals make well informed decisions.

- Staff continues to work with the Division of the State Architect and FEMA regarding compliance with flood resistant California building codes currently in effect.
- Urban Level Of Protection (ULOP) - The DWR "Design Team" has resumed work on the draft ULOP Criteria document with the passage of SB 1278 and AB 1965 (2012). Both laws have directed significant changes to the ULOP requirements, including a DWR directive to prepare 200-year floodplain maps for urban and urbanizing areas and new compliance dates for amendments to city and county general plan and zoning ordinances. The DWR Design Team will continue to work on revised criteria in coordination with the stakeholder Work Group.

- General Plan Amendments with CVFPP Adoption - Pursuant to Government Code Section 65302.9, cities and counties within the SSJV are required to amend their respective General Plans to contain data and analysis from the CVFPP. The timeframe for compliance is within 24 months of July 2013 (as per SB 1278). Stakeholders have expressed concern and difficulties in understanding the requirements and as a result, DFM has initiated work to develop guidance on what CVFPP information is required to meet the law. This guidance is a follow up to the DWR report “Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities,” dated October 2010.

FUNCTIONAL AREA 4 FLOOD PROJECTS & GRANTS

Flood Protection Projects and Projects Grants has been a long-standing California Department of Water Resources (DWR) base program, and is expected to continue indefinitely, because of the ongoing need for system improvements and the long-lead time to implement federal flood control projects. The program is responsible for the majority of physical improvements to the flood management system and provides grant money in the Delta and Statewide. The State acknowledges the program need by continuing to be a significant partner in viable flood management projects in the Central Valley, Delta, and Statewide.

CENTRAL VALLEY FLOOD PROJECTS

This element is responsible for the review of flood projects and cost-sharing on federal feasibility studies. It contains three components: Feasibility Studies, Early Implementation Program (EIP) Projects, and Flood Control Projects.

USACE/CVFPB STUDIES SECTION

The State, represented by the CVFPB, participates and provides cost-share for feasibility studies with the USACE and local partners. Several studies are underway.

American River Common Features (ARCF) General Reevaluation Report (GRR)

This study will provide a 200-year level of flood protection for the Lower American River, downstream of the Folsom Dam, the Sacramento River, downstream of Natomas Cross Canal, and the Natomas Cross Canal. The Post Authorization Change Report evaluated alternative plans for the levee system around the Natomas Basin and acts as an interim general reevaluation study to the GRR.

- USACE is working toward the completion of the ARCF Tentatively Selected Plan (TSP) document by March 2014. The Non-federal Sponsors need to identify the Locally Preferred Plan (LPP) prior to completion of the TSP document. The State is in support of USACE's Alternative 2, which contains Sacramento Weir and Bypass improvements. USACE anticipates a vegetation variance for the bottom 1/3 of the levee's water-side embankment, plus 15 feet adjacent to the water-side toe to eliminate potential impacts to riverine habitat.
- The Sacramento Area Flood Control Agency (SAFCA) is also in support of Alternative 2 with a system-wide improvement framework (SWIF) plan for vegetation, encroachments, and access roads. The State and SAFCA needs to submit a non-federal Letter of Intent for a SWIF if that is the direction the Non-federal Sponsors intend to take. The State and SAFCA anticipate having an LPP prior to the end of February 2013. Details are anticipated for the next Project Management Group meeting for ARCF scheduled February 21, 2013.

Lower San Joaquin River Feasibility Study

This study is a coordinated effort by the State, USACE, and the San Joaquin Area Flood Control Agency (SJAFC) to investigate feasible 200-year level flood protection and risk reduction alternatives and opportunities for floodplain restoration, recreational enhancements, and ecosystem restoration and enhancement for the city of Stockton and surrounding areas.

- On February 4, 2013, the local sponsors met to discuss the future funding for the Study. In light of the recent Scope and Schedule Change Request (SACCR) prepared by USACE, the total cost share was reduced to account for expenditures to date, plus the remaining Planning Modernization (3x3x3 Rule) budget to complete the Study. The Study was excluded from the President's FY13 budget, and the potential for future federal funding is still uncertain.

The Non-federal Sponsors questioned the SACCR total Study costs. USACE is in the process of confirming those costs. Accelerated cash contributions will be required from the Non-federal Sponsors to continue the Study. It was discussed that certain previously submitted In Kind Contribution (IKC) could be rescinded and replaced with cash, if it became apparent that funds, immediately available to be accelerated, would not be enough to keep the Study active. It was also recognized that the Non-federal Sponsor's contributions, in applicable IKC or cash, must ultimately be shared equally.

Merced County Streams Project-Bear Creek-General Revaluation Report (GRR)

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

- Nothing new to report this month.

Rock Creek/Keefer Slough Feasibility Study

This study will generate an Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and feasibility study to evaluate federal, State, and local interests in planning, designing, mitigating, and improving existing levee systems of Rock Creek and Keefer Slough in Butte County.

- Nothing new to report this month.

Sacramento River Flood Control System Evaluation

The Sacramento River Flood Control System Evaluation will concentrate on deficiencies in non-urban levees that may be a threat to small/rural communities because of levee instability; and will identify and prioritize sites that will be presented in a final report. No projects will be created to correct deficiencies during this study.

- Nothing new to report 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.

- On January 23, 2013, there was a daylong Project Delivery Team meeting to update the Study Risk Analysis. The Risk Analysis is used to identify possible issues that would affect the cost and schedule of the project. This information is used by the Study to determine what contingency is applied to the estimated project cost.

West Sacramento GRR

The GRR is being conducted to study future work necessary to provide a minimum 200-year level of protection for the city of West Sacramento.

- USACE is exploring the possibility of combining the West Sacramento GRR with the American River Common Features GRR to economically justify improvements to the Sacramento Weir and Bypass. Each Study would remain a separate entity, but a single Chief's Report would be produced that covered both Studies. The environmental impact reports will need to be combined, which will result in new public notifications being sent out, with CVFPB as the lead agency.

West Stanislaus County - Orestimba Creek Feasibility Study

This study will evaluate feasible flood protection alternatives for the city of Newman and the surrounding agricultural areas to achieve a 200-year level of flood protection.

- Nothing new to report this month.

White River/Deer Creek Feasibility Study

This study will generate an EIS/EIR and feasibility study to evaluate federal, State, and local interests in planning, designing, mitigating, and improving existing levee system of White River and Deer Creek in Tulare County.

- Nothing new to report this month.

Woodland/Lower Cache Creek Feasibility Study

This study is a coordinated effort by the State, USACE, and the city of Woodland to investigate feasible 200-year level flood protection and risk reduction alternatives and opportunities for floodplain restoration, recreational enhancements, and ecosystem restoration and enhancements 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.

- An amendment to the Feasibility Cost Sharing Agreement, providing for acceleration of funds by the Non-federal Sponsors, is scheduled to be presented for approval at the March 22, 2013, CVFPB meeting. Acceleration of funding, not to exceed the approved budget amount, would be utilized to continue the study and maintain the schedule in the event that matching federal funds are delayed

Yuba River Basin Project GRR

The Yuba River Basin Project GRR consists of increasing the level of flood protection in the Yuba River Basin communities of Marysville, Linda, Olivehurst, and Arboga.

- Nothing new to report this month.

EARLY IMPLEMENTATION PROGRAM (EIP) PROJECTS

EIP includes projects ready to proceed in advance of the Central Valley Flood Protection Plan. An element of approval for these projects ensures they do not eliminate opportunities or prejudice the flood risk reduction alternatives that would provide regional or system wide benefits.

Levee District 1 - Setback Levee at Starbend Feather River (LD-1)

Levee District 1 constructed a 3,400 foot long setback levee at Star Bend near RM 18.0 on the right bank of the Feather River to provide increased flood protection for Yuba City.

- Closeout documents are under staff review. Some open real estate issues are being resolved.

Reclamation District 17 - 100-Year Seepage Area Project (RD-17)

The RD-17 levees have unacceptably low factors of safety 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 level of flood protection for South Stockton, Lathrop, and Manteca.

- DWR is working with RD-17 to establish the direction of the Phase III design. In January 2013, the funding agreement was approved for a three year extension.

Three Rivers Levee Improvement Authority – Feather River (TRLIA-FR)

This project offers 200-year flood event protection for both Highways 65 and 70, benefiting the areas of Olivehurst, Linda, Plumas Lake, Marysville, and Yuba City. This project includes one of the largest setback levees west of the Mississippi River and creates 1600 acres for on-site mitigation, agricultural use, and habitat.

- Construction is 100% complete.
- Project closeout documents are under staff review.
- Some open real estate issues are being resolved.
- The larger setback site is under consideration to receive a grant from FESSRO to create habitat for advanced mitigation to offset the environmental effects from flood system maintenance and construction.

Three Rivers Levee Improvement Authority – Upper Yuba River (TRLIA-YR)

This project offers 200-year flood event protection for both Highways 65 and 70, benefiting the areas of Olivehurst, Linda, Plumas Lake, Marysville, and Yuba City. This project includes a portion of the south levee on the Yuba River.

- In January 2013, the TRLIA-YR project was awarded the “2012 Outstanding Project of the Year Award” by the American Society of Civil Engineers, Sacramento Section.
- Construction is now 100% complete, excluding punch list items and some real estate issues. A final walk-through is planned in the near future.
- No closeout documents were submitted to date.

Sacramento Area Flood Control Agency – Natomas Cross Canal (SAFCA-NCC)

This project is part of the Natomas Levee Improvement Program and will improve the level of flood control protection in the Natomas Basin by providing a 200-year minimum level of flood protection. This will be accomplished by installing cutoff walls to prevent seepage, under-seepage, and raising the levee.

- Closeout documents for Phase II were reviewed by staff and returned to SAFCA with a request to supply missing or incomplete documentation prior to DWR paying SAFCA money for retention.

Sacramento Area Flood Control Agency – Sacramento River East Levee (SAFCA-SREL)

This project is part of the Natomas Levee Improvement Program and will improve the level of flood control protection for the Natomas Basin by providing a 200-year minimum level of flood protection. This will be accomplished by installing cutoff walls to prevent through-seepage, under-seepage, and raising the levee. SAFCA plans to complete components to Element 12A (approximately RM 67) along the Sacramento River and have USACE complete the remaining work.

- SAFCA continues to seek a funding agreement amendment for approximately \$37 million. EIP is awaiting previously requested supporting documentation.

West Sacramento Area Flood Control Agency, North and Southport Improvement (WSAFCA)

The California Highway Patrol Academy, the Rivers, and the I-Street Bridge projects are part of the North Area Plan. All major construction is complete for these sites. These projects correct through-seepage and foundation under-seepage with excessive hydraulic gradients, embankment instability and erosion, and scouring. All three projects are designed to provide a 200-year level of

protection for about 47,000 residents. The Southport area is under design and may include a large setback levee.

- A 65% design review meeting for the Southport area will be held in March 2013.

Sutter Butte Flood Control Agency, Feather River West Levee Design Project (SBFCA)

The Feather River West Levee Project plans to design the repair of approximately 35 miles of levee along the west bank of the Feather River from Thermalito Afterbay to the north end of Star Bend. The design will include use of slurry walls and seepage berms to protect the communities of Gridley, Biggs, Live Oak, Yuba City, and parts of Sutter and Butte counties.

- Staff reviewed SBFCA's financial plan submitted on December 21, 2012. Currently, there are discussions between SBFCA and EIP to clarify some issues. This document is needed to support a decision memo required for executive approval and to proceed with a construction funding agreement for \$56 million for critical levee improvements adjacent to Yuba City.
- SBFCA is working with DWR under the existing contract to finalize the design of the project.

USACE/CVFPB PROJECTS

The Board continues to participate with USACE on non-federal cost-share funding for projects to upgrade the State-federal flood management system in the Central Valley.

American River Common Features Project

The American River Common Features Project is improving the levee system along the American and Sacramento Rivers in Sacramento.

- In January, 2013 ARCF, Site R6 project was awarded the "2012 Outstanding Flood Control Project of the Year Award" by the American Society of Civil Engineers, Sacramento Section.
- Sites L10 and R3A designs are at 90% with the intent of a FY13 award. Site L7 and R7 designs are at 90%, but will not be awarded until FY2014 due to a lack of federal funding.
- Work on the Natomas Basin and American River design and construction component was postponed indefinitely until federal authorization and funding is approved.
- USACE requested a non-federal payment of \$6,226,000 for FY13.

American River Common Features – Natomas Basin

The American River Common Features – The Natomas Basin Project is a branch of the ARCF project in the Natomas Basin as part of the GRR for the ARCF project. It is not yet authorized by Congress, but SAFCA and DWR have spent approximately \$350M on improvements under the Early Implementation Project - the Natomas Levee Improvement Project. Significant improvements remain to be completed in the Natomas Basin to improve flood protection to current standards.

- On January 31, 2013, Senators Dianne Feinstein and Barbara Boxer introduced the Natomas Basin Flood Protection Improvements Act of 2013. This act authorizes USACE to improve levees in Natomas, valued at approximately \$921M in federal contributions. The State and SAFCA already contributed over \$350M toward the Natomas Levee Improvement Program. The federal authorization would open the door for federal appropriations to finish work to improve flood protection for the Natomas Basin.
- If approved by Congress, the State and SAFCA's contributions to date on this project would serve as the State and local match to the federal contribution so that all or most of the remaining work in the Natomas basin would be federally funded.

Folsom Dam Raise and Bridge Element

The Folsom Dam Raise and Bridge Element Project provide flood damage reduction and dam safety benefits to Sacramento.

- USACE is asking for the dam raise funding with possible construction beginning in 2015. DWR, SAFCA and USACE are discussing the priority and funding for construction projects in the Sacramento region. If the dam raise is selected as the highest priority, a project partnership agreement is scheduled for discussion and potential execution in 2014.
- USACE is working on revising the project management plan. The State's priority is the modification of the emergency gates and the 3.5-foot raise for the dam and dikes. The State submitted its views on the priority of work to be completed.
- The temperature control shutter design is 35% complete and will be shelved for its low priority. The design work will now focus on updating three existing emergency spillway gates.

Folsom Dam Modifications (Joint Federal Project)

The purpose of the Folsom Dam Modifications Project (JFP) is to construct an auxiliary spillway at Folsom Dam that will work in conjunction with the existing Folsom Dam spillways to help the Sacramento region achieve a 200-year level of flood protection. The estimated completion for the JFP is October 2017.

- Construction – The phase III control structure construction completion is as follows: 28% of concrete pours, 41% of assembling tainter gates, and 40% of assembling the bulkhead gates. The Phase III Earned Value Report shows the overall progress for the control structure is close to 40% complete.
- Design – The Phase IV contract includes the construction of the approach channel, chute, and stilling basin of the new auxiliary spillway. On December 26, 2012, the Phase IV contract solicitation was posted to the Federal Business Opportunities website. The award for the Phase IV contract will be made in early May.
- Environmental – On December 21, 2012, the final supplemental Environmental Impact Statement/Environmental Impact Report for the Folsom Dam Modification Project Approach Channel, Phase IV construction was published online. In the March 22, 2013, meeting, CVFPB will consider approval of certification of the Final Supplemental EIS/EIR, adopt the findings, and adopt the mitigation and monitoring plan for the Folsom Dam Modification Project Approach Channel.
- Folsom Dam Water Control Manual Update –The project team is scheduling second sets of stakeholder outreaching meetings in February 2013.

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

The Lake Kaweah Enlargement Project was completed in 2006. The remaining work is focused on turning over the O&M to the local sponsors, finalizing all financial balancing, and completing final real estate documents.

- DWR anticipates preparing a crediting package for LERRD expenses by April 2013. Initial estimates are approximately \$1.5 million in creditable costs. DWR expects to receive credit or cash reimbursement from USACE after approval of the crediting package.
- DWR and KDWCD are in the process of writing easements for SSJDD. Easement documents will require research and probable land surveying prior to DWR approval.
- USACE continues to work on this project's list of minor items for completion. Changes in project management have delayed some items and USACE plans to request CVFPB concurrence on a cost increase for the project closeout.
- DWR and KDWCD completed financial balancing through December 2012.

Marysville Ring Levee Improvement Project

The Marysville Ring Levee Project will provide a 200-year or greater level of flood protection to the city of Marysville by constructing cut-off walls, levee strengthening, and reshaping of the existing levee systems surrounding the Marysville urban area.

- Phase 1 cutoff wall construction was completed in 2012. The contractor is finishing punch list items and obtaining certification.
- Phase 4A design is 90% complete with Phase 4A construction beginning in the fall of 2013.
- Phase 2A design is 60% complete.
- Phase 2B design will begin the summer of 2013.
- Phases 2C and 3 designs will begin the winter of 2013.

Mid-Valley Area Levee Reconstruction Project

The Mid-Valley Reconstruction Project extends from the Tisdale Bypass to the Sacramento Bypass, and includes levees adjacent to the Sacramento River, Feather River, Yolo and Sutter Bypasses, and Knights Landing Ridge Cut.

- The Environmental Assessment/Initial Study, which includes a “Finding of No Significant Impact” and Mitigated Negative Declaration, is expected to be finalized in early April 2013.

South Sacramento Streams Project

The South Sacramento County Streams Project will increase the level of flood protection for the urbanized area of South Sacramento County and an area to the south and east of the city of Sacramento. Portions of the project were completed on the four creeks, and additional improvements are planned.

- Approximately 95% of construction on a 3,000-foot floodwall was completed in 2012 and construction will continue in May 2013. DWR continues to work with SAFCA and USACE to certify the floodwall as “functionally complete” so the City of Sacramento can submit plans to FEMA for modification of the flood insurance rate maps.
- DWR attorneys and management are negotiating with the USACE on three issues: 1) repairs to a private sound wall that fell into the construction site in October 2012, 2) a change order that DWR believes is too expensive, and 3) a real estate take letter for Florin Creek flood control improvements currently at 35% design. Florin Creek construction is planned to begin in the spring of 2014.

- **West Sacramento Area Project, Slip Repair**

The West Sacramento Area Project raised and strengthened five miles of levees by a maximum of five feet on the east side of the Yolo Bypass and the south side of the Sacramento Bypass. Initial repairs were completed in 2001, but additional slips were identified during the high water events of 2006 and March 2011.

STATEWIDE FLOOD PROGRAMS

The Statewide Flood Programs provide financial support to local entities for flood and ecosystem restoration related projects throughout the State. These programs include Flood Control Subventions Program (FCSP), Flood Corridor Program (FCP), Local Levee Assistance Program (LLAP), and Yuba-Feather Flood Protection Program (YFFPP).

FLOOD CORRIDOR PROGRAM (FCP)

FCP provides local assistance grants for flood risk reduction projects that include ecosystem restoration or agricultural land conservation components.

- Flood Corridor Grant Program – Two additional funding agreements were signed in early February 2013 for projects selected in the 2010-11 funding cycle. They were for Floodplain Expansion and Ecosystem Restoration at Dos Rios Ranch Phase 2 in Stanislaus County, and the Salt River Ecosystem Restoration Project that improves flood protection in Humboldt County. The funding agreements for the Santa Clara River and Opal Basin projects were cleared by the Chief Counsel's Office and are being circulated for signatures. Eight funding agreements are expected to be signed by DFM management within the next several weeks.
- Elkhorn Basin – River Ranch Conservation Easement Acquisition Project – The Real Estate Branch completed its review of the appraisal of the easement's fair market value. The appraisal was not approved. A number of identified issues were related to the methods used to arrive at the appraised value and need to be addressed by the grantee's appraiser before the appraisal can be approved.
- Magpie Creek – SAFCA will review the resolution of the formal dispute between the California Department of Toxic Substances Control and the U.S. Air Force regarding toxicity issues at the site, as previously noted. A decision on whether to proceed with the proposed project is expected to be made once information from DTSC is received.
- Middle Creek Flood Reduction and Ecosystem Restoration Project – Appraisals for acquiring four additional homes within Maintenance Area 17 received State approval, allowing Lake County to continue purchasing homes. This is in addition to the four homes acquired in the summer of 2012. When completed, these new purchases will equal 16 homes in this flood-prone area that were purchased and the residents relocated. This leaves three remaining residences to be acquired; two of which are owned by unwilling sellers. After the remaining willing home sellers are relocated, the remaining grant funds will go toward the purchase of flood-prone agricultural lands in MA 17.
- Alamo Creek Flood Corridor Grant – Plans to build a transitory storage basin to protect the city of Vacaville (City) were halted last fall when cultural resources were discovered in the location planned for the inlet channel of the basin. The City is working with the various stakeholders for the project to come to an acceptable resolution. It appears that the ongoing negotiations for a solution may delay the project until 2014 or later. Kimberly Johnston-Dodds, DWR Tribal Liaison and Policy Advisor, is monitoring the situation. The City has hired Far Western, an Anthropological consultant firm, to look for any additional cultural resources that might be on the site, and to recommend suitable mitigation measures. Construction of the basin was originally slated to be completed by October 15, 2012.

FLOOD CONTROL SUBVENTIONS PROGRAM (FCSP)

FCSP provides financial assistance to local agencies cooperating in the construction of federally authorized flood control projects outside of the Central Valley and the State Plan of Flood Control.

- One claim, totaling \$144,900, was approved for payment.
- Eleven claims, totaling \$20.7 million, are under review.
- Two audit payments, totaling \$416,195.96, were processed.
- In total, 40 funding reimbursement requests, totaling about \$72.9 million, are pending review (excluding amount pending SCO audit release).
- FCSP is continuing with cost share evaluation for the Los Angeles County Drainage Authority (LACDA) project.
- FCSP is in the process of updating Program Guidelines.

LOCAL LEVEE ASSISTANCE PROGRAM (LLAP)

LLAP provides financial assistance to local agencies to evaluate and perform urgent repair on their flood control facilities outside of the Central Valley and the State Plan of Flood Control.

- Program Status – A program status report and graphics were developed as program briefing materials, including program highlights, a critical path diagram, and fiscal expenditures chart.
- Grant Agreements – FPO staff finalized internal order numbers and has requested funding strips for the new grant agreements. Order numbers for staff charges were requested.
- Alameda County LLAP Grant Agreements – Alameda County’s grant agreements for the 7 Projects were signed by the sponsor.
- County of Ventura LLAP Grant Agreements – 10 grant agreements were signed and executed by the DFM Chief.
- King’s River Conservation District LLAP Grant Agreement – Contract language for an Agreement with Kings River Conservation District was updated to better reflect cost share. The Agreement was re-sent to Kings River Conservation District for signature.
- San Francisquito Creek Joint Powers Authority Projects – Two grant agreements were signed by SFCJPA and were sent to DWR legal for signature.
- City of Oroville LLAP Grant Agreement – The fourth invoice from the City of Oroville was reviewed by FPO staff, approved by management, and is being processed. A service entry was created in SAP. The office memo, approving Amendment #1 to the Grant Agreement, was signed by the Division Chief and sent to the sponsor for signature. The sponsor did not sign, but submitted a request to update the Amendment to extend the term for one year, instead of the original request for a 6-month extension. An updated office memo is being circulated.
- Contra Costa County LLAP Grant Agreement – Agreement language regarding cost share was updated and new documents for two projects were sent to Contra Costa County for signature.

YUBA-FEATHER FLOOD PROTECTION PROGRAM

YFFPP provides Proposition 13 financial assistance to local entities demonstrating non-structural flood management projects showing a potential significant reduction of peak flood flows, flood stage, flood risk (including wildlife habitat enhancement and/or agricultural land preservation) on the Yuba and Feather Rivers.

- TRLIA Goldfields Feasibility Study Project – Two million dollars in Prop 13 funds were committed for the project in February 2013.
- Yuba County Water Agency Forecast Coordinated Operations Implementation Project Invoice #5 was approved and transmitted to the budget office for payment.

PROGRAM SUPPORT

The program support function is designed to ensure the various programs and their projects receive sufficient technical and administrative support to be successful. These support functions are Grant Guidelines, Environmental Services, Technical Assistance, and Federal Coordination.

GRANT GUIDELINES & PROGRAM SOLICITATIONS

- Nothing new to report this month.

ENVIRONMENTAL SUPPORT

The FCP and Environmental Support Branch provide environmental technical support to FPO programs and projects.

- Most activities are described under the individual project headings.
- Lower Feather River Corridor Management Plan – Low-flow modeling for existing conditions is completed, and modeling efforts are now shifting to the proposed future conditions proposed in the Plan. The low-flow modeling identifies areas subject to frequent inundation of sufficient duration to be biologically significant, and determines which areas might receive sediment deposition that might have to be removed periodically to plan how often and how much sediment removal might be needed.
- Lower San Joaquin Feasibility Study – USACE scheduled a two day SMART Planning Charette on January 15-16, 2013. The objective is to have consensus at all levels of USACE on the future direction of this study.
- FESSRO Mitigation Grant Proposal Reviews – FPO staff participated in the February 12 evaluation meeting with FESSRO and regulatory agency representatives to finalize scoring for 10 proposed grant funded restoration projects intended to provide advance mitigation for State Plan of Flood Control facilities.

TECHNICAL ASSISTANCE

LLAP has resources to provide technical assistance in flood modeling, geographic information systems, technical consultation, design criteria development, and databases to various programs in FPO.

DELTA FLOOD PROJECTS

This is a grants program that works with more than 60 reclamation districts in the Delta and Suisun Marsh to maintain and improve the flood control system and provide protection to public and private investments in the Delta, including water supply, habitat, and wildlife. The program, through its two major components; Delta Levees Maintenance Subventions Program and Delta Levees Special Flood Control Projects, works with the local agencies to maintain, plan, and complete levee rehabilitation projects. One of the requirements to qualify for available funds is for the project to result in no net loss of habitat in the Delta. Additional responsibilities under the Bay-Delta Levees Branch are to support the levee system and habitat development; improve the flood fight capability of the Delta through planning, cooperative efforts, encouraging the development of emergency response plans for each Delta island; and conduct studies and contract efforts necessary for program purposes.

DELTA LEVEES MAINTENANCE SUBVENTION PROGRAM

DWR staff, on behalf of CVFPB, initiates and manages work agreements to fund levee maintenance and rehabilitation. To date, the status of work agreements is as follows:

Work Agreements for FY 2011-2012

- DWR staff completed 57 joint levee inspections.

Work Agreements for FY 2012-2013

- The FY 2012-2013 funding allocation plan, presented to the Board on September 28, 2012, was approved by the Board. The plan allocates the funding of \$12 million to 67 reclamation districts.
- DWR staff mailed work agreements to 67 reclamation districts for signature, and to date, received signed work agreements from 46 districts. Agreements received will be forwarded to the Board's executive office for execution.

DELTA LEVEES SPECIAL FLOOD CONTROL PROJECTS

DWR initiates and manages project funding agreements in support of local agencies' levee rehabilitation, habitat, or other projects. DWR executes agreements authorizing the work proposed under Project Solicitation Packages (PSPs).

- Nothing new to report this month.

Current information can be found at:

<http://www.water.ca.gov/floodmgmt/dsmo/bdlb/spp/>

FUNCTIONAL AREA 5 EVALUATION & ENGINEERING

Evaluation & Engineering is a FloodSAFE Functional Area established to address assessments of existing flood management facilities to identify deficiencies and needed improvements. This is a new Functional Area that is expected to continue after the FloodSAFE foundational objectives are met. Functional Area activities are performed in partnership with the USACE, which prior to FloodSAFE, conducted most evaluations and engineering for existing facilities. This Functional Area is based on the acknowledgement that changing conditions, new knowledge about system performance, and eventual facility deterioration will demand continued evaluation and engineering services.

URBAN LEEVE EVALUATION (ULE)

DWR is required to evaluate the current level of performance of the State-Federal flood protection system in the Central Valley. Urban levees are levees that provide protection to developed areas with a population of at least 10,000 people. The evaluation of current urban levee performance is to include an estimate of the risk of levee failure, a discussion of the inspection and reviews performed, and recommendations regarding the levees and future work activities. The geotechnical engineering being performed will help flood managers understand the overall flood risks to populated areas in the Central Valley and consider alternative changes to the flood management system to better manage the risks.

ULE is evaluating 470 miles of urban levees that include State-Federal project levees, as well as appurtenant non-project levees that provide protection to urban areas receiving some protection from the State-Federal flood system. Urban levees are being evaluated to determine whether they meet defined geotechnical criteria for landside and waterside slope stability, under- and through-seepage, erosion, freeboard, seismic and, where needed, to identify remedial measures and cost estimates to achieve the defined geotechnical criteria. The information developed to date has been used in support of the Central Valley Flood Management Planning Program to inform development of two required 2012 documents: the Flood Control System Status Report and the Central Valley Flood Protection Plan. Information currently shown in the table below is in process or pending, and will be used to support the 2017 updates to these documents.

The final analyses and Geotechnical Evaluation Report (GER) is the end result of a five-step process that includes the following steps: historical data collection, initial field investigation, preliminary analysis, supplemental field investigation, and final analyses and reporting. Each of these five steps results in the below listed deliverables.

The overall status of the ULE program intermediate and final deliverables for the 27 urban levee study areas are shown in the table below.

No.	Urban Study Area	Historic Data Collection (TRM)	Initial Field Investigations (P1GDR)	Preliminary Analyses	Supplemental Field Investigations (SGDR)	Final Analyses & Report (GER)
1	Chico	Done	Done	Done	Done	In Progress
2	Marysville	Done	Done	Done	Done	In Progress
3	RD 784	Done	Done	Done	Done	In Progress
4	Feather River West Levee	Done	Done	Done	Done	In Progress
5	Sutter Bypass Wadsworth	Done	Done	Done	Done	In Progress
6	American River	Done	Done	Done	Done	In Progress
7	Sacramento River	Done	Done	Done	Done	In Progress
8	Davis	Done	Done	Done	In Progress	In Progress
9	Woodland	Done	Done	Done	In Progress	In Progress
10	NEMDC East	Done	Done	Done	Done	In Progress

No.	Urban Study Area	Historic Data Collection (TRM)	Initial Field Investigations (P1GDR)	Preliminary Analyses	Supplemental Field Investigations (SGDR)	Final Analyses & Report (GER)
11	NEMDC West	Done	Done	Done	Done	In Progress
12	Natomas North	Done	Done	Done	Done	In Progress
13	Natomas South	Done	Done	Done	Done	In Progress
14	West Sacramento	Done	Done	Done	Done	Done
15	DWSC	Done	N/A	N/A	In Progress	In Progress
16	South Sac Streams	Done	N/A	Done	In Progress	Pending
17	RD 404	Done	Done	Done	Done	In Progress
18	RD 17	Done	Done	Done	In Progress	In Progress
19	Bear Creek	Done	Done	Done	Done	In Progress
20	Calaveras River	Done	Done	Done	In Progress	Pending
21	Lincoln Village	Done	N/A	N/A	Done	In Progress
22	Brookside	Done	N/A	N/A	Done	In Progress
23	Rough and Ready	Done	N/A	N/A	In Progress	In Progress
24	Boggs Tract	Done	N/A	N/A	In Progress	In Progress
25	Shima Tract	Done	N/A	N/A	In Progress	In Progress
26	SJAFCA upland levees	Done	N/A	N/A	In Progress	In Progress
27	Smith Canal	Done	N/A	N/A	In Progress	In Progress

Notes:

- 1) In areas where detailed recent studies were performed in advance of the GER five-step process, initial field investigations and preliminary analyses were not performed and the Technical Review Memorandum (TRM) incorporated these recent studies instead.
- 2) In Progress means that the work has been initiated and is in various stages of completion. Most of the In-Progress SGDR work is nearing completion.
- 3) Pending means that the work is either waiting on the results of the SGDR to be completed or waiting to be scheduled to even out the workload.

ULE Summary

- Overall, ULE is 82% complete.
- Over 2000 interview records and historic reports have been obtained and reviewed. These records/reports have not currently been entered into the database but will be after completion of the ULE program.
- 400 miles of urban levees were surveyed using low altitude, high accuracy (+/- 6 cm) LiDAR survey techniques to generate topographic survey data.
- A bathymetric survey, to generate underwater topographic survey data, was performed for over 100 miles of river systems and integrated with the LiDAR survey to provide levee cross-section profiles that have both landside and waterside topography.
- 300 miles of levees were subject to Helicopter-based Electro-Magnetic Geophysical Survey (HEM). The HEM was performed to assist in assessing the subsurface stratigraphy between borings and determine the need for additional explorations.
- To supplement the HEM in no fly zones, over 100,000 feet of land based geophysical surveys were performed.
- For each of the 27 urban areas, detailed geomorphic studies and associated mapping were conducted to support the field explorations and subsequent analyses.
- Over 5,300 explorations along with approximately 15,000 laboratory tests have been performed as part of this effort for the 27 urban levee study areas.
- The West Sacramento GER, the template for all GERs, was finalized in May 2012.
- Based on local stakeholder input, additional drilling was completed in the Sacramento study area.
- The current delivery date for completion of all GERs is currently planned for the end of 2014.

- Close coordination of the GER efforts and the EIP projects for RD 17 and Sutter Butte continues.
- The 18th Independent Consultant Board meeting will be held in March 2013. The Independent Consulting Board is currently reviewing GER deliverables.
- Comments from the ICB have been received and responses are being prepared. Impacts on GERs and other ULE work products and schedule are expected to be minor.

NON-URBAN LEVEE EVALUATION (NULE)

DWR is required to evaluate the current level of performance of the State-Federal flood protection system in the Central Valley. Non-urban levees are levees that provide protection to agricultural areas and developed areas with a population of fewer than 10,000 people. The evaluation of current system performance includes an estimate of the risk of levee failure, a discussion of the inspection and reviews performed, and recommendations regarding the levees and future work activities. The geotechnical engineering being performed will help flood managers understand the overall flood risks to populated areas in the Central Valley and consider alternative changes to the flood management system to better manage the risks.

NULE is evaluating approximately 1,500 miles of non-urban levees that include State-Federal project levees and appurtenant non-project levees that also provide protection to non-urban areas receiving some protection from the State-Federal flood protection system. Non-urban levees are being evaluated to determine whether they meet defined geotechnical design criteria at the 55/57 design water surface for slope stability, under- and through-seepage, erosion, and, where needed, identify remedial measures and cost estimates to achieve the defined geotechnical design criteria. The information being developed will be used in support of the Central Valley Flood Management Planning Program to inform development of the nine regional plans.

The overall status of the NULE program intermediate and final deliverables for the 21 non-urban levee study areas are shown in the table below.

No.	Non-Urban Study Area	Geotechnical Assessment Report (GAR)	Remedial Alternatives and Cost Estimate Report (RACER)	Geotechnical Data Report (GDR)	Geotechnical Overview Report (GOR)
1	Chico/North/South	Done	Done	Done	In Progress
2	Clarksburg	Done	Done	Done	In Progress
3	Colusa Drain	Done	Done	Done	In Progress
4	Colusa North	Done	Done	Done	In Progress
5	Colusa South	Done	Done	Done	In Progress
6	Gerber	Done	Done	Done	In Progress
7	Knights Landing	Done	Done	Done	Draft Complete
8	Sutter Bypass	Done	Done	Done	In Progress
9	Wheatland	Done	Done	Done	In Progress
10	Woodland South	Done	Done	Done	Draft Complete
11	Ash Slough	Done	Done	Final in progress	In Progress
12	Berenda Slough	Done	Done	Draft under review by DWR	In Progress
13	Black Rascal/Fairfield	Done	Done	Final in progress	In Progress
14	Diverting Canal/Mormon	Done	Done	Draft under review by DWR	In Progress

15	ESB/Chowchilla	Done	Done	Final in progress	In Progress
16	Fresno River	Done	Done	Draft under review by DWR	In Progress
17	Gravelly Ford	Done	Done	Draft being revised	In Progress
18	RD 2064	Done	Done	Final in progress	In Progress
19	RD 2075	Done	Done	In Progress	In Progress
20	RD 2095	Done	Done	Final in progress	In Progress
21	SJRRP/CCID	Done	Done	Draft under review by DWR	In Progress

NULE Summary

- Overall, Non-Urban Levee Evaluations are 68% complete.
- Over 8,000 records have been obtained and incorporated into a searchable Microsoft Access database.
- Over 7,000 points of interest have been recorded and incorporated in GIS-based maps that also link to the project records database.
- For the 21 non-urban areas, surficial geomorphic studies and associated mapping efforts were conducted. More detailed efforts were performed in selected areas. The surficial mapping was performed to aid the GAR, while the more detailed efforts were performed to aid field exploration efforts.
- Over 3,000 explorations along with approximately 6,000 associated laboratory tests were performed as part of this effort for the 21 leveed areas protecting populations greater than 1,000.
- No drilling occurred during this reporting period or is planned for the above reports.
- Laboratory testing is complete.
- Preparation of GDRs for NULE study areas is ongoing and nearly complete. Final GDRs for Sacramento River basin are complete; final GDRs for San Joaquin River basin are expected in the second quarter of 2013.
- Preparation of GORs is continuing, with the current delivery dates scheduled for mid-late 2013.
- Preparation of GORs continued for each of the study areas. The results presented in the GORs will support FMO, regional plans, and SJRRP studies.
- To support the CVFPP, the NULE effort has been/was redirected to prioritize support for the Flood System Repairs Program and nine Regional Plans.
- To support the Flood System Repairs Project (FSRP), contract task orders have been awarded to assist in assessing the need for repairs for areas identified in the GAR process. More information on the FSRP is presented below.
- The 18th Independent Consultant Board meeting will be held March, 2013. The Independent Consulting Board is reviewing GOR deliverables.
- Comments from the ICB have been received and responses are being prepared. Impacts on GORs and other NULE work products and schedule are expected to be minor.

Support of Other DWR and USACE Programs:

- CVFPP

In support of Central Valley Flood Planning Program (CVFPP), ULE and NULE data and preliminary analyses were used to define levees reaches requiring remediation to bring them up to appropriate design standards; develop corresponding conceptual cost estimates; and prepare

levee reliability curves and maps showing limits of deficiencies by failure mode (e.g., seepage, stability, erosion).

- **CVFED**
To support Central Valley Flood Evaluation and Delineation Program, ULE and NULE data and preliminary analyses were used to establish the height at which a levee no longer meets criteria for stability and seepage for 2100 miles of levees.
- **FSRP**
In support of the FSRP, NULE and ULE information is being used to perform detailed assessment of potential repair sites. The 8000 records and 7000 points of interest collected for NULE were used as a basis for FSRP. Information and processes developed under NULE and ULE have been used to screen, assess and estimate the initial remediation costs of specific repair sites. In addition, FSRP repair sites undergoing further feasibility and design studies will use field investigation and analyses data being performed under the NULE project. Field reconnaissance for the FSRP project was completed by eight teams comprised of a combination of DWR and contractor staff. The final Field Reconnaissance Summary Report for the Sacramento River Basin was prepared to support the preparation of the pre-feasibility cost estimate (underway for Tier 1 critical and serious sites). The draft Field Reconnaissance Summary Report for the San Joaquin River Basin is under review by DWR. Planning for outreach to LMAs is underway, with outreach expected during the second quarter of 2013.
- **San Joaquin River Restoration Program**
Task Order SJ105 is being implemented during the reporting period and draft geomorphology mapping is nearly complete. Field explorations have been completed along the majority of Priority 1 levees in the Restoration Project. Laboratory testing will be performed on soil samples from these explorations. Current field work plans are being developed for the remainder of the Priority 1 levees. A new Task Order is being developed, which will help define the next phase of work.

TECHNICAL REVIEW

Geotechnical analyses are being conducting on behalf of the CVFPB on an “as-needed” basis and to support proposed and ongoing capital improvement projects. Collaboration with the USACE is occurring with on-going geotechnical studies, including review of associated documents that may impact the CVFPP.

- Technical reviews are currently being performed for the Sutter Butte Area Flood Control Agency, the (LSJFS) Lower San Joaquin Feasibility Study, and RD 17.
- ULE/NULE continues providing additional supporting data to USACE for the LSJFS.
- ULE continues to review the SBFCA Feather River West design project.

TECHNICAL POLICY SUPPORT

A statewide seismic policy is being developed for levee performance, emergency levee remediation, and long-term levee remediation. Urban Levee Design Criteria (ULDC) are also being developed to guide local urban levee improvement projects. Research is being conducted to resolve gaps in knowledge associated with the effects that woody vegetation growing on or near levees has on levee integrity; and to provide technical support for the development of vegetation management policies as part of the CVFPP.

- Vegetation management policies and joint research with Sacramento Area Flood Control Agency (SAFCA) continues with ULE/NULE logistical and technical support. The following studies have been or are nearly completed:
 - Tree Root Architecture – How and where do tree roots grow on and near levees?
 - Levee Slurry Wall Investigations – Do tree roots penetrate slurry walls? What are their effects?
 - How Trees affect Seepage and Stability of Levees – Do tree roots become preferential seepage pathways through a levee and do trees contribute to levee slope instability?
 - Tree Windthrow – What are the forces necessary to topple trees on California Levees?
 - Burrowing Mammal Habitat Associations – How is burrowing mammal abundance related to the presence or absence of trees on levees?
 - Levee Mammal Burrow Characterization and Grouting Efficacy – What are the seepage and stability implications? Do standard grouting methods seal burrows in a levee?
 - Forensics – Has woody vegetation affected historic levee performance?
- In addition to the ULE five-step process, two seismic studies are being performed. The objective of the first study is to develop conceptual seismic remediation alternatives and associated costs for areas of levees that have been identified as being potentially compromised by earthquake loading in the GER. The second seismic study focuses on West Sacramento as a prototype to perform economic analyses and to develop a cost/benefit assessment for seismic remediation. As part of this effort, a draft Seismic Remediation Alternative Report was prepared during this reporting period. A meeting to discuss the ongoing seismic research was held in January 2013.
- Participated in various FloodSAFE FAXCTs (Functional Area Cross Coordination Teams).
- Continuing to provide support to the CVFED program.

FUNCTIONAL AREA 6 FLOOD MANAGEMENT PLANNING AND CONSERVATION STRATEGY

The Flood Management Planning and Conservation Strategy Functional Area refer to the planning and analysis necessary to evaluate flood systems as complete systems consistent with the intent of the FloodSAFE Implementation Plan rather than a set of individual, isolated projects. This functional area consists of three elements: Central Valley Flood Management Planning (CVFMP) Program, Statewide Integrated Flood Management Planning, and Conservation Strategies.

CENTRAL VALLEY FLOOD MANAGEMENT PLANNING (CVFMP)

The CVFMP Program is one of several programs being managed within FloodSAFE California. The CVFMP Program addresses most of the flood-related planning activities that were authorized by the Legislature during the 2007/2008 session within much of the Central Valley. The CVFMP Program consists of two primary projects - State Plan of Flood Control (SPFC) and the Central Valley Flood Protection Plan (CVFPP).

STATE PLAN OF FLOOD CONTROL (SPFC)

The SPFC primarily includes: (1) SPFC Descriptive Document and (2) Flood Control Systems Status Report (FCSSR), which were completed and provided to Central Valley Flood Protection Board (Board) in November 2010 and December 2011, respectively. The SPFC Descriptive Document is to be updated as the SPFC is modified. The FCSSR is to be updated in 2016, and in subsequent years ending in 1 and 6.

CENTRAL VALLEY FLOOD PROTECTION PLAN (CVFPP)

The CVFPP reflects a system-wide approach to protecting lands currently protected from flooding by the SPFC. The 2012 CVFPP was presented to the Board on schedule by January 1, 2012. The Board adopted the plan on June 29, 2012. The CVFPP is to be updated in 2017, and in subsequent years ending in 2 and 7. The 2012 CVFPP presents a State System-wide Investment Approach (SSIA) for making improvements to the SPFC over time through five flood management programs: (1) Flood Emergency Response Program, (2) Flood System Operations and Maintenance Program, (3) Floodplain Risk Management Program, (4) Flood System Assessment, Engineering, Feasibility, and Permitting Program, and (5) Flood Risk Reduction Program. Two important components in further refining flood system improvements include developing Regional Flood Management Plans (RFMP) and two State-led Basin-wide Feasibility Studies (BWFS).

Regional Flood Management Planning

RFMP is a DWR sponsored and locally lead planning process to develop a long-term vision of flood management in six regions in the Central Valley. Initial elements of the RFMP's include a Regional Flood Atlas, Regional Flood Management Priorities and a Regional Financial Plan. RFMP's are being coordinated with the two basin-wide feasibility studies being lead by DWR.

- DWR issued Letters of Commitment for Directed Funding for the Feather River, Upper/Mid-Sacramento River and Lower Sacramento River/Delta North Regions. DWR expects to issue Letters for the Mid-San Joaquin River and Lower San Joaquin River/Delta South Regions next week. Funding Agreements for those regions are also being drafted. Review of the Upper San Joaquin River application is completed.

Basin-Wide Feasibility Studies

The two basin-wide feasibility studies (Sacramento River Basin and San Joaquin River Basin) have been initiated. The studies are to describe the State's flood management objectives in each river basin, refine the scale and location of system elements in connection with regional

improvements in the SSIA, inform development of the CVFPP financing plan, and integrate a system-wide environmental conservation strategy.

- Work continues on refining flood system problems and needs, developing draft flood management objectives, and developing an integrated communications and engagement approach for the Sacramento River and San Joaquin River Basin-wide Feasibility Studies.

STATEWIDE INTEGRATED FLOOD MANAGEMENT PLANNING

The Statewide Integrated Flood Management Planning Program (SFMP) will assess the flood risk to life and property statewide, and develop recommendations to guide the state's flood risk management strategic policies and investment decisions. The program will inventory existing and future flood management needs in the state's regions, identify opportunities for integrated flood management, and formulate potential integrated flood management solutions. The program will publish a report titled "Report on Flood Future: Recommendations for Managing California's Flood Risk" (Flood Future Report). In addition, SFMP includes integration of flood management into the California Water Plan.

Flood Future Report

No new information this month.

Integrated Flood Management in the California Water Plan

No new information this month.

CONSERVATION STRATEGIES

The Conservation Strategies Element is designed to provide support and integrate environmental stewardship into the CVFMP Program. Therefore, major progress, such as the status of key documents, progress on major milestones, and upcoming events, is described under the Central Valley Flood Management Planning section above.

CONSERVATION STRATEGY

Interagency Advisory Committee

The IAC provides advice from resource agencies, DFM, and the Flood Board on flood system conservation planning and implementation. At the February 20th meeting, FESSRO and CVFPO staff updated participants on BWFS/CS alignment, including formulation of BWFS flood risk management objectives. Resource agencies provided input on the PSP project selection process and ways for regulatory agencies to acknowledge the likelihood of PSP projects providing advanced mitigation. Staff also solicited input on the refined Floodplain Restoration Opportunities Analysis (FROA) and targeted species accounts.

Conservation Strategy Development Subcommittee (CSDS)

The January CSDS (a subcommittee of the IAC) meeting reviewed the purpose and content of Targeted Conservation Planning Species Accounts, along with drafts of five of the seventeen planned species accounts. Staff updated subcommittee participants on the PSP process; programmatic permitting; the 2013 schedule and planned C&E activities for the development of the Conservation Strategy, and avoidance, minimization, and mitigation efforts.

Conservation Strategy/Basin-wide Feasibility Studies Coordination

FESSRO and CVFPO are collaboratively planning for the BWFS and CS Webinars and Technical Workshops, tentatively scheduled for March and April.

INTEGRATED FLOOD AND RESTORATION PROJECTS

PSP Proposal evaluation

Staff has been leading a team of DFM and resource agency staff to evaluate 11 funding proposals. In February, the team individually ranked these proposals and then developed overall consensus scores. Staff will next generate a list of recommended projects, to be posted for 30-day public review and comment. Staff reviewed a template for funding agreements to be used for all DWR financial assistance programs.

Yolo Bypass Coordination

Staff from DES, FESSRO and CVFPO is working on an integrated planning/modeling approach for the analysis and screening of system improvements to the Yolo Bypass. Meetings in January and February discussed proposed hydraulic and ecosystem restoration improvements in the Yolo Bypass.

REGIONAL CONSERVATION PLANNING

Regional Advance Mitigation Planning (RAMP)

The Pilot Area Subcommittee met in January. FESB staff described DWR's new approaches to ESA compliance through working within existing HCP/NCCPs and also creating new ones. The group discussed the critical nature of Regional Flood Management Planning in 2013 and how to get messages about RAMP to those groups.

Regional Permitting

DWR will be joining the Yuba/Sutter NCCP/HCP as a Special Participating Entity to provide programmatic permitting for a variety of future CVFPP-related flood management projects and activities in Yuba and Sutter counties. This gives DWR and potential LMA participants a unique opportunity to pay an in-lieu fee for mitigation related to impacts on Covered Species within the Yuba/Sutter Plan Area. The plan anticipates final approval within two years.

INVENTORY, ANALYSIS, AND MODELING

River Meander Migration Modeling Work group

Staff is working with contractors to identify ways that meander modeling results can improve the approach and use of the site-specific Standard Assessment Methodology (SAM). Contractors briefed staff on their analysis at Sacramento River Mile 191 and recommended future improvements on the use of SAM at other river sites.

Levee Vegetation Research Program (CLVRP)

Staff is continuing coordination with the CVLRP and met with DFM to continue discussions and planning for continuation of vegetation research activities. They are working to create a Task Order for development and peer review of a "Synthesis Report" for existing California Levees Vegetation Research Program (CLVRP) science. The CVLRP steering committee will meet to discuss future research direction, organizational structure, and funding options.

FUNCTIONAL AREA 7 LEGISLATION, BUDGETS, AND COMMUNICATION

The primary goal of the Legislation, Budget, and Communication functional area is to facilitate legislation, budget, and communication matters to aid the efficient work of all functional areas in improving flood safety. This functional area will work to secure sustainable funding to implement the FloodSAFE initiative and to secure legislative support for all other functional areas that must continue indefinitely into the future. It is also responsible for coordination and public outreach consistency.

COMMUNICATION AND BRIEFING MATERIALS

No new information this month.

FUNDING ADVOCACY & AGENCIES' ALIGNMENT

No new information this month.