Agenda Item 6

REPORT OF ACTIVITIES OF THE DEPARTMENT OF WATER RESOURCES

By

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FUNCTIONAL AREA 1 FLOOD EMERGENCY RESPONSE

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

The Flood Project Inspection Section is finishing fall inspections of the approximate 1,600 miles of Project levee and is working on generating the annual report in conjunction with the other Sections in the FPIIB. Inspectors continue to inspect CVFPB Encroachment Permits and other authorized activity. Coordination continues with LMAs, CVFPB staff, and USACE staff on a variety of topics. Staff continues to work to find ways to address the many encroachments they have documented as well as produce enhanced documentation as needed. Inspectors assisted the FOC in responding to the recent Winter Storms of November/December 2012 in the field and at the FOC.

FLOOD PROJECT INTEGRITY/VULNERABILITY ASSESSMENT ACTIVITIES

No new information this month.

LOCAL MAINTAINING AGENCY ANNUAL REPORTING PROGRAM (CWC 9140-9141)

Staff has completed summarizing the LMA information received by DWR on September 30 and beyond. This year the report is designed to combine the Flood Project Integrity and Inspection Branch activities, which means that the report will serve as a one-stop-shop for information on levee Inspections, LMA reports, erosion, and USACE's Periodic Inspections. DWR is also aiming to include a general assessment and recommendation for individual LMA in this report. This year, DWR received about 93% responses from the LMAs. DWR is on track to submit the combined report to the Board by the end of December, 2012.

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.

WATER CONDITIONS

As of November 30, statewide hydrologic conditions were as follows: precipitation, 110 percent of average to date; runoff, 90 percent of average to date; and reservoir storage, 100 percent of average for the date. Sacramento River Region unimpaired runoff observed through November 30, 2012 was about 1.5 million acre-feet (MAF), which is about 108 percent of average. For comparison, on November 30, 2011, the observed Sacramento River Region unimpaired runoff through that date was about 1.1 MAF, or about 77 percent of average.

During the last week of November, a series of strong weather systems brought widespread, very heavy rain to Northern California and portions of Central California. This significant wet pattern lasted through the first weekend of December and greatly enhanced the State's water supply.

On November 30, the Northern Sierra 8-Station Precipitation Index Water Year total was 15.4 inches, which is about 166 percent of the seasonal average to date and 31 percent of an average water year (50.0 inches). During November, the total precipitation for the 8-Stations was 12.7 inches, which is also about 202 percent of the monthly average. Last year on November 30, the seasonal total for the 8-Stations was 6.6 inches, or about 71 percent of average for the date.

On November 30, the San Joaquin 5-Station Precipitation Index Water Year total was 7.6 inches, which is about 112 percent of the seasonal average to date and 19 percent of an average water year (40.8 inches). During November, the total precipitation for the 5-Stations was 6.3, which is also about 134 percent of the monthly average. Last year on November 30, the seasonal total for the 5-Stations was 4.0 inches, or about 59 percent of average for the date.

Selected Cities Precipitation Accumulation as of 11/30/2012 (National Weather Service Water Year: July through June)					
City	Jul 1 to Date 2012 - 2012 (in inches)	% Avg	Jul 1 to Date 2011 - 2011 (in inches)	% Avg	% Avg "Water Year" Jul 1 to Jun 30 2012- 2013
Eureka	9.83	110	8.65	97	24
Redding	9.12	122	5.95	79	26
Sacramento	5.03	149	2.08	62	27
San Francisco	5.97	131	3.23	71	25
Fresno	1.34	71	1.57	83	12
Bakersfield	0.12	11	1.31	124	2
Los Angeles	1.46	74	2.33	119	11
San Diego	0.88	49	3.71	208	9

Key Reservoir Storage (1,000 AF) as of 11/302012								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,776	1,614	110	2,448	73	---	672
Shasta Lake	Sacramento	2,564	2,777	92	4,552	56	-688	1,988
Lake Oroville	Feather	1,862	2,192	85	3,538	53	-1,004	1,676
New Bullards Bar Res	Yuba	623	523	119	966	65	-173	343
Folsom Lake	American	404	467	86	977	41	-173	573
New Melones Res	Stanislaus	1,503	1,318	114	2,420	62	-467	917
Don Pedro Res	Tuolumne	1,190	1,311	91	2,030	59	-500	840
Lake McClure	Merced	373	449	83	1,025	36	-302	652
Millerton Lake	San Joaquin	263	218	121	520	51	-173	257
Pine Flat Res	Kings	214	376	57	1,000	21	-460	786
Isabella	Kern	84	150	56	568	15	-86	484
San Luis Res	(Offstream)	807	1,247	65	2,039	40	---	1,232

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for December 2012, issued November 30, 2012, suggests above average rainfall for the northern half of California and no tendency for above or below average rainfall for the southern half of the State.

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 Central Valley Flood Protection Plan (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.

HYDRO-CLIMATE ANALYSES

Hydrologic Modeling

Steady progress is being made on the Merced and Yuba models. We have received beta versions of the Merced model and have tinkered around with some of the parameterization and provided some feedback to the USGS.

For the Feather model, we've explored the use of gridded precipitation and temperature data available from the CNRFC as input into the model. Early results are promising.

On December 11, a PRMS exercise was held for the multi-agency PRMS development team and focused on modeling variations of the Atmospheric River storms of late November/early December 2012. Partner agencies included Turlock ID, SMUD, Hetch Hetchy Water and Power, Kings River Water Authority, Merced ID, PG&E, and the USGS.

REAL-TIME DATA COLLECTION NETWORK

Snow Surveys and Snow Course Maintenance

Despite the onset of winter in the Sierra Nevada, the Hydrology Branch continues in summer snow course maintenance mode. Some late season maintenance was performed prior to the late November storms and helicopter flight requests were granted for access to gages located within Sequoia-Kings Canyon National Park. We are awaiting clear weather to conduct the work.

Over the next few months we will be considering which supplier will provide the next generation of radios necessary to transmit the data to the CDEC servers. To assist, we are scheduling meetings with various manufacturers to learn more about the products available on the market. More meetings are scheduled for December.

Last month we hosted our 58th annual Meeting of the California Cooperative Snow Surveys program. Over 75 individuals attended the meeting. Topics ranged from forecasting and data review, forecasting improvements, academic research, field safety topics, improvements in instrumentation, and a demonstration on the new FERIX interface for CDEC.

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 CDEC.

During the month, Snow Surveys staff alone responded to over one dozen media requests as there was much interest in the late November storms. Other calls were handled by other Hydrology Branch staff.

BULLETIN 120 AND WATER SUPPLY INDEX FORECASTS
The last Bulletin 120 update was issued on June 7th and we will not issue another forecast until February 2013.

The final WSI forecast (from May 1) of the year can be summarized as follows:

Sacramento River Unimpaired Runoff Water Year Forecast
11.8 MAF (65% of Normal) at the 50% exceedance
Sacramento Valley Index (SVI)
6.9 (Below Normal) at the 50 percent exceedance
San Joaquin Valley Index (SJI)
2.2 (Dry) at the 75 percent exceedance

The next WSI forecast will be made in this month (December 2012) but was not ready by the time this report was compiled.

BULLETIN 120 AND WATER SUPPLY INDEX FORECASTS
No new information this month.

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.

RESERVOIR COORDINATED OPERATIONS
No new information this month.

RIVER FORECASTING
No new information this month.

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.

FLOOD OPERATIONS, TRAINING AND EXERCISES
No new information this month.

OUTREACH
No new information this month.

FLOOD SYSTEM ANALYSIS SECTION (FSAS)
No new information this month.

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)
Work continued on development, review and approval of flood-flow frequency analysis, regulated flow time series, unregulated-to-regulated flow transforms and stage-to-flow transforms and rainfall-runoff modeling of ungaged streams. Internal coordination continued with USACE and DWR Central Valley Floodplain Evaluation and Delineation Program (CVFED). We continued resolving technical issues between CVHS and CVFED products.

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 Operation and Maintenance has been a long-standing base program within DWR, FloodSAFE has expanded the program and provided additional funding. Historically, Operation 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. Operation 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.

- Mowing at Bear River is ongoing (10 acres).
- Debris removal is ongoing in seepage ditches in Sutter area (50 miles), Little Chico Creek (8 trees), Lindo Creek (5 trees), and at Little Chico Diversion.
- Beaver dam removal is ongoing in seepage ditches in Sutter area (50 miles) and in Cherokee Canal.
- Mulching Butte Creek is ongoing (10 acres).
- Toe Road maintenance of the East Levee of the Sutter Bypass is ongoing (5 miles).
- Tree trimming in Tisdale Bypass is ongoing (3 miles).
- Spraying is 75 percent complete in Willow Slough (5 miles).
- NEMDC Channel Evaluation (Hydraulic Model) is 70 percent complete. Evaluating potential vegetation management scenarios for NEMDC.
- Butte Creek Channel Evaluation (Hydraulic Model) is 90 percent complete. Currently addressing QA/QC comments received from NRO.
- Cherokee Canal Channel Evaluation (Hydraulic Model Highway 162 to Butte Sink) is 75 percent complete.
- Willow Slough Channel Evaluation (Hydraulic Model) is 40 percent complete. Used preliminary model version to support Ordinary High Water Mark determination for Wetland Delineation work.
- Wadsworth Canal Channel Evaluation (Hydraulic Model) is 40 percent complete.
- Mercury characterization of water, suspended sediment, and soil within the Cache Creek Settling Basin is ongoing.
- Sediment transport modeling and evaluation of trapping efficiency of the Cache Creek Settling Basin is ongoing.
- Modeling sediment transport, flow, and mercury loads along Cache Creek under future climate conditions is ongoing.
- Mowing at Lake of the Woods is 100 percent complete (165 acres) and is 100 percent complete at Freemont Weir (50 acres).
- Discing is 100 percent complete in the Butte Slough Wildlife Area (150 acres).

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.

- Repair of gates and barricades is ongoing in the Sacramento area.
- Concrete repairs at the Sutter Yard are 70 percent complete.
- Debris Removal is ongoing at all pumping plants in Sutter Bypass, Knights Landing Outfall Gates and Sacramento Weir.
- Seepage ditch bridge repair is 10 percent complete at the West Interceptor Canal.
- A new service wire was pulled at MA17.
- Weir 2 Construction – the contractor has finished up construction for the year and will resume work next year.
- Knights Landing Outfall Gates – an extension for time on permits was accepted to complete in-water work by November 30. All gates have been replaced and are currently operating under power with response to the water level sensor in the Colusa Drain. The remaining work will be completed out-of-water and will be done by December 31, 2012.
- Pumping Plant testing is ongoing at all three Sutter Bypass pumping plants.
- Waterline wash rack was repaired at the Sutter Yard.
- Seepage ditch bridge repair is 100 percent complete at the Sutter Bypass Main Drain.

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.

- Burning levee slopes are 90 percent complete at Cache Creek (27 miles).
- Rodent Program (poison, trapping) for all areas in Sacramento and Sutter are ongoing.
- Grouting rodent holes are 70 percent complete on MA9 (13 miles).
- Levee pipe repairs at MA5 are ongoing (2 sites).
- Grading crown roadways at Putah Creek are 50 percent complete (7 miles).
- Slope spraying is 100 percent complete at MA 9 (19.6 miles); 100 percent complete at Willow Slough (10 miles); 100 percent complete at Unit 4 (3 miles); 100 percent complete at Cache Creek, Unit 1, Unit 2, Unit 3 (30 miles).
- Mowing is 100 percent complete at MA13 (7 miles).
- Burning levee slopes are 100 percent complete at Cache Creek (30 miles).
- Grouting rodent holes are 100 percent complete on Cache Creek (25 miles).

- Grading/graveling crown roads on the East Levee of the Sutter Bypass is 100 percent complete (16 miles), 100 percent complete in MA1 (8 miles), and 100 percent complete in MA3 (2.5 miles).
- Resloping the levee at Sacramento Bypass is 100 percent complete (0.6 miles).
- Levee pipe repairs at MA 13 are 100 complete (5 sites).
- Levee gate repairs on the East Levee of the Sutter Bypass are 100 percent complete (2 gates).
- Repair/replacement of levee mile marks are 100 percent complete in the Sutter area (21 markers).
- Sink hole repairs are 100 percent complete at MA3 (2 sites).

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.

San Joaquin Flood Protection Project – Erosion Repair and Bank Protection – San Joaquin RM 71.5R

Erosion repair on the San Joaquin River at River Mile 71.5R was completed the first week of December. Full repair of the site has now been completed, along with mitigation plantings and placement of in stream woody material. The final inspection for the plantings is planned for the second week of December 2012.

Knights Landing Outfall Gates Rehabilitation Project

As noted above in the Flood Facilities section, an extension to November 30, 2012, for in-water work was granted by the permitting agencies. FMO's Maintenance Environmental Support Branch staff conducted a fish rescue effort with the dewatering of the remaining bays on Saturday, November 10, 2012. Erosion control measures have been implemented. In-water work is complete, and remaining work will be completed by December 31, 2012.

Maintenance Area 9 (MA9) Erosion Repairs

Erosion repair construction at three sites in MA9 was completed in September 2012. Remaining work includes maintaining erosion control measures and additional mitigation plantings of willow and other riparian species at all three sites. Each of the sites was hydro-seeded with native grass seed and flexible growth medium then overlain with hay and tackifier to prevent erosion.

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 SPFC. 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 State Plan of Flood Control Facilities in the Central Valley Watershed; FSRP replaces the San Joaquin River Bank Protection Project.

Flood System Repair Project (FSRP)

- Field reconnaissance efforts for FSRP began on July 12, 2012 to identify and evaluate levee deficiencies for the State Plan of Flood Control. This field reconnaissance was completed in mid-September, 2012. Repair site prioritization and development of agreements with the local reclamation districts have begun, as well as preliminary repair alternative and cost development.
- Draft Guidelines for development of work and cost-sharing agreements with DWR will be available for public comment and review pending internal approval. Public outreach meetings will be held during this 45-day public review period.

PL84-99 Rehabilitation Assistance Project (PL84-99)

- On September 20, 2012, CVFPB staff provided real estate certification package to USACE allowing awarding of contract for mitigation plantings for selected 2005-2006 PL 84-99 repair sites.
- At a September 28, 2012 meeting of CVFPB, DWR presented an informational briefing on current status and issues associated with the proposed 2005-2005 mitigation planting plans. With the acquired real estate certification, USACE will proceed with scheduled mitigation plantings at select repair sites. DWR has passed along to USACE and CVFPB the concerns of the local Reclamation Districts (RD) associated with these plans. The local concerns are primarily that the maintenance criteria are too onerous. DWR and USACE will continue to work to resolve these issues, but the mitigation planting will occur this year (2012).

Sacramento River Bank Protection Project (SRBPP)

- Construction of setback levee in West Sacramento at Sacramento River Mile 57.2 has stopped for the season, and is in the process of winterizing the site for construction to resume in the spring. There have been delays resulting from improper slurry wall construction that necessitate extending the work into another construction season.
- Phase III SRBPP Planning has been put on hold while the USACE determines their commitment to the program with respect to funding and program goals.

Levee Stability Program

Construction of erosion repair at SJR RM 71.5R is complete. High surface water elevation prevented the repair from being conducted the fall of 2011 as originally planned, and Rock Slope Protection (RSP) needed to be placed along the 2,000-foot repair during the 2011-2012 flood

season. Currently, finalizing mitigation planting installation with final project closeout expected in January 2013.

Rural Levee Repair Criteria (RLRC)
CVFPB issued a resolution to develop criteria for the repair of levees in the rural areas of the Central Valley. This criteria is intended to provide guidance to state and local entities in the planning, design and construction of these rural levee repairs. Currently, a draft project charter has been developed, and DWR is working with locals and DWR managers to develop the criteria. The draft RLRC is due to CVFPB by July 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.

- FPM staff provided approximate seventy hours of technical assistance to local communities, other State agencies, and the public regarding the NFIP (including within building codes), CFM, and Federal grants related questions this month.
- FPM staff conducted an eight hours NFIP Floodplain Management & Duties of the Local Administrator workshop in the Colusa County on November 7, 2012. Twenty-eight local communities' officials and consultants attended the training.
- Staff conducted an 8-hour Elevation Certificate Workshop in Orange County on November 27, 2012. Forty-six local communities' officials and consultants attended the training.
- Staff is finalizing the Community Assistance Visit (CAV) report for the County of Colusa.
- Staff has completed the CAV reports for the Cities of Fairfax and Soledad, the reports are now in final review.
- Staff is reviewing the updated Floodplain Management Ordinance for the City of Riverbank and for the City of Susanville, as part of the CAVs/audits.
- Staff scheduled a Certified Floodplain Manager (CFM) Exam in Madera County on January 11, 2013, as part of the State NFIP Management Office's effort, to enhance the flood risk mitigation knowledge and performance of local, state, federal, and private-sector floodplain managers.
- Staff is developing a detailed map showing flood control levees in Marin County based on data from the DWR's California Levee Database (CLD). The County is planning to use this map for their flood control and watershed program work, including county-wide sea level rise studies and plans.
- Staff participated in a Southern California CRS Users Group meeting.
- Staff will meet with the City of Roseville and Placer County on December 18 to discuss development of a model community emergency response plan for dam failure inundation as part of CRS Activity 630.
- Staff will meet with the City of West Sacramento on December 14 to discuss development of a model community emergency response plan for flooding due to levee failure as part of CRS Activity 620.

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.

No new information this month.

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 Central Valley Floodplain Evaluation and Delineation Program updated its schedule as follows:

- Topography Acquisition: completed.
- Riverine and Floodplain Hydraulic Model Development: June 2013.
- Floodplain Delineation – 200-Year ULOP: July 2013.

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

- Riverine Hydraulic Model Development (HEC-RAS)
  - Upper Sacramento basin: 95 % complete
  - Lower Sacramento basin: 93 % complete
  - Upper San Joaquin basin: 83% complete (formerly 97%)
  - Lower San Joaquin basin: 97% complete (formerly 83%)

- Overland Hydraulic Model Development (FLO-2D):
  - Upper Sacramento basin: 95 % complete
  - Lower Sacramento basin: 90 % complete
  - Upper San Joaquin basin: 90 % complete (formerly 97%)
  - Lower San Joaquin basin: 97 % complete (formerly 90%)

- Combined HEC-RAS/FLO-2D System Model Development:
  - Upper Sacramento basin: 25 % complete
  - Lower Sacramento basin: 40 % complete
  - Upper San Joaquin basin: 30 % complete
  - Lower San Joaquin basin: 20 % complete

In the month of November, FEB processed six requests from public agencies for data and transferred a total of 10,291 LiDAR tiles and 11,785 tiles of Aerial Imagery. The total amount of data transferred in November adds up to about 3,410 GB covering a land area of about 9,230 square miles.

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.

- Staff continues to respond to questions and comments from the recipients of the 2012 Flood Risk Notice. In the month of November, staff responded to 22 phone calls and three emails from the public.
- FPM staff briefed the Oroville Field Division staff about the Flood Risk Notification program. The Division of Operations and Maintenance is evaluating options for complying with their FERC directive to notify residents within dam inundation zones.
- Staff is evaluating the California Technology Agency's parcel dataset to determine whether it will meet the needs of the Flood Risk Notification program.
- Staff is coordinating with the Sacramento and San Joaquin County Assessors to determine whether they produce a document showing parcel changes annually.
- As part of a grant from FEMA to enhance the FRN Program, staff is preparing draft agreements for potential radio and billboard advertisements.

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.

No new information this month.

FUNCTIONAL AREA 4 FLOOD PROJECTS & GRANTS

Flood Protection Projects and Grants are responsible for the State's input to project selection and funding. The program is responsible for the majority of physical improvements to the flood management system and provides grant money in the Delta and Statewide. 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 into the future due to the ongoing need for system improvements and the long-lead time to implement federal flood control projects. The work is based on the acknowledgement that the State will continue 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 Central Valley Flood Protection Board (CVFPB), participates and provides cost-share for feasibility studies with the United State Army Corps of Engineers (USACE) and local partners. Several studies are underway.

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

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

- SAFCA has voiced their concerns with the consideration of the I-Street Structure. The inconsistencies between the Locally Preferred Plan (LPP) and the I-Street Structure are anticipated to worked through in the LPP meetings and upcoming USACE workshops and planning meetings. The LPP is anticipated to fix the majority of levees in place while meeting State and Federal Standards for design, while the I-Street Structure will eliminate the need to improve levees along the Sacramento River downstream of the structure. SAFCA's concern is that the remaining levees on the Sacramento River left unimproved will leave the communities vulnerable to unknown risk and within the FEMA 100-year floodplain. State has expressed interest to evaluate this new alternative, because it has system-wide improvements that can potentially be authorized under this project.

Frazier Creek Feasibility Study

This study will generate an Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) and feasibility study to evaluate federal, State, and local interests in planning, designing, mitigating, and improving existing levee system of Frazier Creek and Strathmore Creek in Tulare County.

- Nothing new to report this month.

Lower San Joaquin River Feasibility Study (LSJRFS)

This study is a coordinated effort by the State, USACE, and San Joaquin Area Flood Control Agency (SJAFCA) to investigate feasible 200-year level flood protection alternatives and opportunities for floodplain restoration and recovery, recreational enhancements, and ecosystem

restoration for the City of Stockton and surrounding areas. The cost estimate for the study is $10.6 million with a projected 2016 completion date.

- The remaining study budget and schedule goals have been reset by the Executive Committee to an estimated $2.75 million and a December 2014 completion date goal as a result of the USACE SMART Planning guidelines (3x3x3). This should assure overall cost savings and a more timely completion for the study.
- The Project Development Team (PDT) is preparing for the upcoming Planning Charrette scheduled for mid-January. This charrette presents potential flood risk reduction alternatives and is a final requirement for the first of three significant Milestones before the Chief's Report, which will complete the study as Milestone 4.
- USACE announced that currently available funds will extend into the 2nd quarter and additional funds will be required at that time to complete the FY13 work effort. A shortfall of approximately $800,000 is estimated for the remainder of FY13. These funds can come from the acceleration of Non-federal funding, advancing or volunteering additional funding or additional valuable work-in-kind contributions, or by reconsidering credit requests for previous in-kind contributions and replacing it with cash.
- The Project Delivery Team, working with their respective counsels, is considering a strategy for advancing contributions to USACE in order to facilitate the schedule. With reduced federal funding, accelerating the Non-federal Sponsors contributions to the maximum allowed by the Feasibility Cost Sharing Agreement (FCSA) may not be enough to adequately complete studies and obtain Federal Authorizations for recommended alternatives in a timely fashion. This would require another amendment to the FCSA. In addition, the State and the Local Sponsor are exploring a way to reimburse the Local Sponsor for previously performed work advanced to the Study in order to maintain the 50% -50% Non-federal cost share. This will require an amendment to the Local Feasibility Cost Share Agreement. If either, or both, of these strategies are fully developed and accepted by the Board, it will likely be applied to other studies as needed.

Merced County Streams Project-Bear Creek GRR

This project's purpose is to 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 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 due to levee instability as well as identify and prioritize sites that will be presented in a final report. There will be no formulation of projects to correct deficiencies during this study.

- Nothing new to report this month.

Sutter Basin Feasibility Study
This multipurpose study aims to address levee improvement measures for existing levee systems as well as environmental restoration and recreation opportunities.

- On November 2, 2012, USACE held the Decision Point #2 Meeting. The purpose of this meeting was to present the Project Delivery Team's recommendation for the Tentatively Selected Plan (TSP) to USACE HQ. The TSP is the Study alternative that is carried forward for detailed analysis and is used to determine the federal interest in the Study area. USACE HQ postponed their decision and requested additional information be provided to them.

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

- Nothing new to report this month.

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.

- USACE HQ has endorsed the Project Delivery Team's waiver to recommend the LPP. The draft public review report and waiver have been sent to ASA for final approval and review. Once ASA approval is complete the report will be released for public review.
- Updates on the schedule for the Public review meeting are anticipated for the next PDT meeting Scheduled for December 13, 2012.

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
USACE will develop alternatives for a new feasibility study to determine if there is an NED plan that is federally justified. The study will continue efforts suspended in 2004 after local resistance to the USACE-selected Flood Barrier Option alternative.

- Nothing new to report this month.

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 that are 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.

- Close-out documents are currently under staff review.

Reclamation District 17 - 100-Year Seepage Area Project (RD-17)
The RD-17 levees have unacceptably low factors of safety for 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.
- DWR is working with RD-17 to extend the funding agreement for three years.

Three Rivers Levee Improvement Authority – Feather River (TRLIA-FR)
This project will offer 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 site mitigation, agricultural use, and habitat.
- Some open real estate issues are currently being resolved.
- Project construction documents are currently under staff review.
- This project is entering the closeout phase.

Three Rivers Levee Improvement Authority – Upper Yuba River (TRLIA-YR)
This project will offer 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.
The final construction element of the Upper Yuba Project (Shad Pad, Yuba Levee from station 5+80 to 9+00) has been completed. With exception of real estate acquisitions, the Upper Yuba Project is now 100% complete.
- This project will now enter the project closeout phase.

Sacramento Area Flood Control Agency – Natomas Cross Canal (SAFCA-NCC)
This project is part of the Natomas Levee Improvement Program and would improve the level of flood control protection in the Natomas Basin by providing at the least a 200-year level of flood protection. This will be accomplished by installing cutoff walls to prevent seepage, under-seepage, and raising the levee.
- EIP is working with SAFCA staff to close out NCC Phase Two to release additional funds to SAFCA. DWR construction staff is reviewing documentation provided by SAFCA.

Sacramento Area Flood Control Agency – Sacramento River East Levee (SAFCA-SREL)
This project is part of the Natomas Levee Improvement Program and would improve the level of flood control protection to the Natomas Basin by providing at the least a 200-year 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 in 2012 and have USACE complete the remaining work in 2014.
- SAFCA is in discussions with EIP for an approximate $37 million increase in the funding agreement amount due to increased project costs. SAFCA has submitted a revised work plan outlining the increased costs and EIP staff is reviewing the work plan in order to prepare an amendment to the funding agreement (FA). Recent changes by SAFCA have caused delays

in completing the FA amendment. DWR has requested documentation to support an increase of roughly $10M in the real estate plan.

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, and all major construction is complete for these sites. These projects correct through-seepage and foundation under-seepage with excessive hydraulic gradients, embankment instability, 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 currently under design and may include a large setback levee.

- WSAFCA is scheduled to complete the 65% plans and specifications in February 2013.
- The Southport EIS/EIR final administration draft was circulated for review. DWR Division of Flood Management and FloodSAFE Environmental Stewardship and Statewide Resources Office provided their comments to WSAFCA on November 20, 2012.

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 is seeking management approval to execute a construction funding agreement for $56.78 million for critical levee improvements next to Yuba City.

USACE/CVFPB PROJECTS

The Board continues to participate with the 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.

- Jacob Lane C project –staff filed a CEQA notice of exemption for excavations to locate underground utilities.
- Howe Avenue and R6 construction is complete. Contractors are hydroseeding and restoring staging areas to pre-project conditions. A Sacramento County Parks water pipeline at Howe Avenue is being cut, grouted and capped.
- FY13 award sites L7, R7, L10 and R3A designs are at 60%.
- Work on the Natomas Basin and American River design and construction component has been postponed indefinitely until federal authorization and funding has been approved.

American River Watershed – Natomas Features Project

This project was fully constructed in 1998 and it increased flood protection by controlling flows and reducing the flood stage in four creeks in the Natomas area. The Federal Government approved a significant portion of the project for reimbursement eligibility, and the State reimbursed SAFCA for the State share of the project. After making final payment on outstanding obligations for this project in July 2012, the State is in the process of closing the project.

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

- A Project Partnership Agreement (PPA) is scheduled for discussion and execution in 2014. The temperature control shutters design is 35% complete and will be shelved to focus on updating three existing emergency spillway gates.
- The USACE is currently working on the dam raise funding stream with possible construction beginning in 2017.

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 is now estimated to be 35% complete. All concrete pours are executed at night operation for Monolith #1 to #5.
- Design – The Phase IV chute, stilling basin, and approach channel design final back check was completed on November 16. The 100% design package is due on November 30. The Phase IV contract RFP will be distributed in December and is expected to be awarded in May 2013.
- LERRDs –The USACE awarded a site preparation contract on November 5, 2012 for the Folsom Prison property for a Phase IV staging area. This staging area is leased from the State CDCR.
- Folsom Dam Modification (JFP) Approach Channel Spur Dike, and Transload Facility – USACE edits and responses to comments for the Supplemental EIS/EIR. – After discussions with staff from DWR Office of Chief Counsel and DFM management, it was determined that the changes incorporated into the document by the USACE, although substantial in number and extent, did not cross the thresholds defined in the State CEQA Guidelines that would require additional circulation for public comments. But recirculation is advised by the OCC, so it is being discussed with USACE since the schedule would accommodate recirculation.

Lake Kaweah Enlargement Project (Terminus Dam, Kaweah River Project)
The Lake Kaweah Enlargement Project was completed in 2006. 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 in early 2013. Initial estimates are approximately $1.5 million in creditable costs. DWR would expect to receive credit or cash reimbursement from the USACE after approval of the crediting package.
- DWR is working with the CVFPB staff and members to resolve the Davis Ranch mitigation site land (506 acres). A letter of resolution is pending review comments and will be delivered to the local sponsor in the next few weeks.

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 coupled with levee strengthening and reshaping of features to the existing levee systems surrounding the Marysville urban area.

- Phase 1 cutoff wall construction is substantially complete. The contractor is completing the outstanding inspections and certification items.

- Phases 2A and 4A design will continue in January with Phase 4A construction beginning in the spring of 2013.
- Phase 2B design will begin the summer of 2013.
- Phases 2C and 3 designs will begin in the fall 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.

- USACE submitted the draft Project Cooperation Agreement (PCA) Amendment to the South Pacific Division for review. It will also require approval by USACE Headquarters and the Assistant Secretary of the Army. The amendment will allow for credit under Section 221 for in-kind contribution construction.

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.

- Construction on a 3,000-foot floodwall began along Morrison Creek on May 1, 2012. The work is now approximately 95% complete. The USACE, DWR, and SAFCA were regularly involved with on-site activities. Work was delayed and may be finished by December, 2012.
- The USACE is quickly exhausting federal funds for this project due to excessive cost change orders on the floodwall project. Work is likely to be cancelled by USACE in the near future due to lack of funds. This may leave flood protection improvements unfinished on Florin Creek.

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.

- Work has been completed to replace three piezometers removed for construction at the north slip repair site.

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)
The FCP provides local assistance grants to local governments, special districts, and non-profit organizations for flood risk reduction projects using non-structural methods. Each project must also include an ecosystem restoration or agricultural land conservation component.

- Elkhorn Basin: River Ranch Conservation Easement Acquisition Project – Despite earlier objections to DWR's standard indemnification language, the landowners have decided to accept the $8.7 million Flood Corridor Program grant to place a conservation easement on

approximately 3,000 acres. The landowner had previously requested relaxation of the indemnification requirement, but this request was denied by DFM management.

- Middle Creek Flood Damage Reduction and Ecosystem Restoration Project – Staff from DWR, USACE, the Central Valley Regional Water Quality Control Board, and Lake County met on November 5, 2012 for a site visit and to discuss next steps for project implementation. Four homes have recently been acquired from willing sellers. To date, 12 homes have been acquired and removed from the floodplain using Flood Corridor Program funding. Six homes remain to be acquired, and Lake County has arranged for market value appraisals to be done for the remaining homes in the coming weeks.

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.

- FCSP is reviewing seven funding reimbursement requests for the total amount of $5.5 million.
- No audit payments were processed. FCSP is in the process of verifying (retention) payments, pending reimbursement for five completed State Controller's Office (SCO) audit reports that were originally submitted to DWR back in 1992.
- In total, forty six funding reimbursement requests totaling $76.5 million are pending review (excluding amount pending SCO audit release).
- FCSP is performing the 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.

- Management approval is in progress for 38 Service Requisitions for new projects.
- Project Managers have reviewed and approved contract work plans for many of the new projects and have negotiated finalized Grant Agreements with several of the grantees.
- Staff continues to work with the remaining grantees on contract negotiations over project work plans and contract language.

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.

- The Director's Decision Memo for the YFFPP 2013 PSP has been finalized. The Final Decision Memo has been forwarded to DWR Executive for approval.

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

LLAP finalized program guidelines and published a Program Solicitation Package in 2011.

- The draft Director's Decision Memo (DDM) for the approval of the Final List of LLAP Grantees was approved by the Division of Flood Management (DFM) Chief. The DDM has been put into a finalized format and signed by DWR Legal counsel and Deputy Director of DWR. The final DDM is now being reviewed by the Director.
- Non-Urban Flood Risk Management (NFRM) Program – FPO staff has updated the two-page summary of NFRM program purpose, scope and funding constraints. A draft guidelines document has been created and staff will continue to develop this document over the next several weeks. Reappropriation requests on NFRM funds have been developed for next fiscal year.

ENVIRONMENTAL SUPPORT

FCP has a number of environmental resources that provide technical assistance to various FPO projects.

- Most activities are described under the individual project headings.
- The Lower Feather River Corridor Management Plan (CMP) preparation is continuing. A river meander model that will project where the river channel might migrate in the next 50 years was presented to DWR and consultant staff working on the CMP. The model was developed by Dr. Eric Larson of U.C. Davis and applied to the Feather River study area under a contract between Dr. Larson and FESSRO. The results of the model are useful to the study, because they show where channel improvements installed in accordance with the CMP might be vulnerable to future erosion damage.

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.

- Program staff hosted a brown-bag seminar on water modeling software, hosting a USACE HEC modeling specialist.

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 the project to result in no net loss of habitat in the Delta. Additional responsibilities under the Bay-Delta Levees Branch are in support of 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 2010-2011

- DWR staff mailed work agreements to 68 reclamation districts and received signed work agreements from 65 reclamation districts.
- Final claims were received from 61 reclamation districts totaling $17.9 million.
- DWR staff completed joint levee inspections and received California Department of Fish and Game (DFG) approval for all final claims received.
- All reimbursements have been processed totaling $11.4 million.

Work Agreements for FY 2011-2012

- DWR staff mailed work agreements to 66 reclamation districts and received signed work agreements from 64 reclamation districts.
- Final Claims were received from 55 reclamation districts totaling $10.8 million by the deadline of November 1, 2012.
- DWR staff has completed 16 joint levee inspections.

Work Agreements for FY 2012-2013

- The FY 2012-2013 funding allocation plan, presented to the Board on September 28, 2012, has been approved by the Board. The plan allocates the funding of $12 million to 67 reclamation districts.
- DWR staff has mailed work agreements to 67 reclamation districts for their signature. To date, staff has received signed work agreements from 16 districts. As agreements are received, they 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).

- DWR has committed approximately $350 million dollars for levee work in the Delta, of which about $135 million has been allocated to PL 84-99 projects and $85 million to HMP Projects. To date, 42 miles of levee work has been completed.
- 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 LEVEE 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 26 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

No.	Urban Study Area	Historic Data Collection (TRM)	Initial Field Investigations (P1GDR)	Preliminary Analyses	Supplemental Field Investigations (SGDR)	Final Analyses & Report (GER)
10	NEMDC East	Done	Done	Done	Done	In Progress
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	Pending
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	Shima Tract	Done	N/A	N/A	In Progress	In Progress
25	SJAFCA upland levees	Done	N/A	N/A	In Progress	In Progress
26	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 80% 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 25 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 25 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 the end of 2013.

- Close coordination of the GER efforts and the EIP projects for RD 17 and Sutter Butte continues.

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	In Progress	In Progress
12	Berenda Slough	Done	Done	In Progress	In Progress
13	Black Rascal/Fairfield	Done	Done	Draft complete	In Progress
14	Diverting Canal/Mormon	Done	Done	In Progress	In Progress
15	ESB/Chowchilla	Done	Done	In Progress	In Progress
16	Fresno River	Done	Done	In Progress	In Progress
17	Gravelly Ford	Done	Done	Draft complete	In Progress
18	RD 2064	Done	Done	Draft complete	In Progress
19	RD 2075	Done	Done	In Progress	In Progress
20	RD 2095	Done	Done	Draft complete	In Progress
21	SJRRP/CCID	Done	Done	In Progress	In Progress

NULE Summary

- Overall, Non-Urban Levee Evaluations are 65% 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 first quarter of 2013.
- Preparation of GORs is continuing, with the current delivery dates scheduled for the middle of 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.

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. Second Draft of the Field Reconnaissance Summary Reports was prepared to support the preparation of the pre-feasibility cost estimate (underway for Tier 1 critical and serious sites).

- San Joaquin River Restoration Program
  Task Order SJ105 is being implemented during the reporting period and geomorphology mapping is in progress. Current work plans are being developed based being able to quantify if levees meet defined geotechnical criteria based on different flow regimes.

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.

- 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.

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 every five years. 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 nine regions in the Central Valley. Elements of the RFMP's will include a Regional Flood Atlas, Regional Flood Management Priorities and a Regional Financial Plan. RFMP's will be integrated with the two basin-wide feasibility studies being lead by DWR.

- DWR has received RFMP Directed Funding applications from the Feather River Region and from the Lower Sacramento/Delta North region. DWR has reviewed the draft applications and provided initial feedback to the regions. DWR provided informational briefings on key technical data availability to the RFMP Regions on November 28.
- DWR continues assisting the Upper and Mid-San Joaquin regions with their RFMP Directed Funding applications.
- The RFMP team has received comments from local lead agencies regarding the following flood atlases: Lower Sacramento, Delta North, Upper Sacramento, Mid-Sacramento and Feather River.
- The Flood Atlas comments are being reviewed and DWR is making revisions accordingly.

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 the SSIA, inform development of the CVFPP financing plan, integrate a system-wide environmental conservation strategy, define and describe a State preferred plan elements for State-federal feasibility studies, indentify implementation roles and responsibilities for the SSIA, and recommend State actions to implement the SSIA.

- The Central Valley Flood Planning Office (CVFPO) continues developing post CVFPP adoption activities focusing on refining resources, problems, and BWFS objectives. This effort includes technical memorandums for Resource Conditions and the Lower Sacramento River Basin Bypass System Elements Refinement.
- CVFPO participated in the second USACE sponsored Central Valley Integrated Flood Management Study (CVIFMS) Planning Charette on December 13.
- CVFPO continues coordination with Conservation Strategy Development.

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

- California's Flood Future Report products will include: Technical Memoranda, Flood Future Report, Highlights, and Policy Brief.
- A draft California's Flood Future Highlights document has been approved for public review by the DWR Director.
- Work has begun on the Policy Brief for the California's Flood Future report.
- Work continues on the California's Flood Future report, with a public review draft anticipated in March 2013.

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
Conservation Strategy – Basin-wide Feasibility Study Integration
FESSRO and CVFPO staffs continue to work closely together to integrate planning for the Conservation Strategy and the Basin-wide Feasibility Studies. The team is:

- developing information to help inform the regional flood management planning efforts,
- developing coordinated plans for stakeholder communication and engagement,
- collaborating on CVFPP/CS progress indicators and coordinating these with those of the California Water Plan's Sustainability Indicators Framework,
- drafting a Regional Conditions Technical Memorandum, and
- developing a brochure to explain this integrated planning.

Conservation Strategy (CS) Development subcommittee
Staff continues to develop portions of the Conservation Strategy, in coordination with other DWR programs and resource agencies. Recent work has focused on target species conservation planning, avoidance and minimization measures, and planning for 2013 activities.

Conservation Strategy Interagency Advisory Committee
The Committee will discuss the 2nd Working Draft Conservation Strategy at the upcoming December meeting.

Outreach
Staff gave presentations on the Conservation Strategy in November at the California Cattlemen's Association Annual Convention in Santa Clara, and the California Association of Resource Conservation Districts in San Diego, CA.

HABITAT *PROJECTS*
Proposal Solicitation Package (PSP)
The first Conservation Strategy PSP closed in October with 41 preliminary proposals received. In November, a subset of these applicants was invited to submit full proposals for further evaluation.

Project Mitigation MOA
Staff is working with regulatory agency staff on a Memorandum of Agreement (MOA) for habitat crediting for projects funded through the Conservation Strategy PSP. Agencies requested that new DFG mitigation banking procedures, to take effect in January 2013, be incorporated.

REGIONAL CONSERVATION PLANNING
Regional Advance Mitigation Planning (RAMP)
The interagency RAMP Work Group is currently working to get formal support letters from agencies for the Statewide Framework, coordinating planning with existing HCP and NCCP planning efforts in the pilot region, and pursing implementation of an on-the-ground project.

NCCP development
After evaluating multiple regions within the CVFPP planning area, the Feather River region was selected for initiation of a pilot regional permitting process. A Planning Agreement for a flood-focused Feather River Conservation Plan NCCP/HCP is currently being drafted. Staff has also met with the Yuba/Sutter HCP/NCCP Working Group to discuss potential coordination and/or integration with that planning effort.

INVENTORY, ANALYSIS, AND MODELING
Fine-scale vegetation mapping
The fine-scale map continues on schedule for June 2013 delivery. Large portions of the upper and lower Sacramento River areas are nearing completion.

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

Members of a Federal Agency Workgroup*, headed by FEMA-HQ in Washington, D.C., will be meeting with California's High Water Mark team, headed by USACE-Sac on Friday, December 14 in Sacramento. The City of Sacramento, County of Sacramento and City of Roseville have confirmed that they would like to participate in FEMA's HWM pilot outreach project as the "Greater Sacramento Region." This will be one of six pilot projects in the Nation aimed at placing visible High Water Mark signage in key community locations in 2013, a new outreach effort to showcase local flood risk and steps residents can take to protect their homes and families. DWR has been asked to represent the State in this flood awareness activity, as an advisor. Signage will be funded by FEMA.

*Federal Agency Workgroup Members include:

- Federal Emergency Management Agency
- National Oceanic and Atmospheric Administration
- National Park Service
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture
- U.S. Department of Housing and Urban Development
- U.S. Geological Survey
- U.S. Small Business Administration

FUNDING ADVOCACY & AGENCIES' ALIGNMENT

Effective coordination between State, federal, and local agencies will be required at all stages from project concept through completion of construction. FloodSAFE implementation will not be possible without federal funding. Proposition 1E requires that the State secure the maximum feasible amounts of federal and local matching funds. This group will, in coordination with DWR Executive Office, serve as the primary State advocate for securing the necessary federal funding. Primary federal partners also include USACE and FEMA.

A draft bill was released by Senate Environment and Public Works (EPW) on November 8, 2012. EPW Chairwoman Barbara Boxer said she and incoming ranking member David Vitter hope to get a WRDA bill out of committee within the first 30 days of the next session. The draft bill contains some of the items the Federal Advocacy Team has been working on and some that will need more work. Some examples are:

- Our concept of transfer of excess credits across projects is contained in Section 2009 as a 5-year program.
- Section 221 crediting reform is in Section 2010.
- Conversion of reimbursement to credit (one of our proposals within our regional cross crediting proposal) is in Section 2011.

- Vegetation policy is in Section 2017 (it appears to omit the two improvements we proposed to the Matsui version).
- A pilot program to allow locals to build USACE projects is in Section 2019.

The Federal Advocacy Team is in the process of preparing the FY 2014 Appropriations Request with the help of the DWR's/Corps' Project Managers for the Cost Shared Flood Control Projects in the Central Valley.