Agenda Item 5

REPORT OF ACTIVITIES OF THE DEPARTMENT OF WATER RESOURCES

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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 continues to conduct fall inspections of approximate 1600 miles of Project levee. Inspectors continue to inspect CVFPB Encroachment Permits and other authorized activity. An inventory and categorization of encroachments along Maintenance Area 9 has been completed and section staff is coordinating with the Flood Maintenance Office. New tools for completing Field Investigation Reports and for inspecting encroachment permits are being developed and organization and accessibility of data for use by stakeholders is advancing well. Coordinating with LMAs, CVFPB staff, and USACE staff on a variety of topics continues.

FLOOD PROJECT INTEGRITY/VULNERABILITY ASSESSMENT ACTIVITIES

Utility Crossing Inventory Program (UCIP) continued to make progress by expanding the UCIP database with additional desk studies. Program has completed desk studies documenting location of levee penetrations for about 700 miles of the Project Levees. Field verification of levee penetrations was also completed for ST 8 (Sacramento Maintenance Yard, Sacramento Bypass), ST 12 (Sacramento Maintenance Yard, Willow Slough), ST 2 (Sutter Yard, East Levee Sutter Bypass) and ST 10 (Sutter Yard, Wadsworth Canal).

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

The Department finalized two High Water Staking Program documents, a Field Guidebook and a High Water Event Documentation Program Report, in September 2012. These two documents will be instrumental in guiding LMAs, the public, and consultants who will be taking active roles in staking during high water events. Limited numbers of hard copies are available for distribution; however, the Section will be posting the documents online.

On September 30, LMAs reached the deadline for submitting their levee maintenance reports to DWR. DWR is working to summarize the submitted information.

On October 9, 2012, the Turlock Irrigation District (TID) LMA let the Department know informally about the change of maintenance responsibilities for Gomes Lake Spur Levee, which was historically maintained by RD2091. As per the JPA agreement, TID will be administering Gomes Lake Spur Levee maintenance and the Gomes Lake JPA will share the cost of maintenance of the levee. They also wanted to know how to formally reflect the JPA as a maintainer (on paper). DWR advised TID to contact the Board for the appropriate process.

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 September 30 (the end of Water Year 2012), statewide hydrologic conditions were as follows: precipitation; 75 percent of average to date, runoff; 60 percent of average to date, and reservoir storage; 95 percent of average for the date. Sacramento River Region unimpaired runoff observed through September 30 was about 11.8 million acre-feet (MAF), which is about 65 percent of average. For comparison, on September 30, 2011, the observed Sacramento River Region unimpaired runoff through that date was about 25.2 MAF, or about 138 percent of average.

On September 30, the Northern Sierra 8-Station Precipitation Index Water Year total was 41.6 inches, which is about 83 percent of an average water year (50.0 inches). During September, the total precipitation for the 8-Stations was 0.0 inches. Last year on September 30, the seasonal total for the 8-Stations was 72.7 inches, or about 145 percent of an average water year.

On September 30, the San Joaquin 5-Station Precipitation Index Water Year total was 25.0 inches, which is about 61 percent of an average water year (40.8 inches). During September, the total precipitation for the 5-Stations was 0.1 inches, which is about 13 percent of the monthly average. Last year on September 30, the seasonal total for the 5-Stations to date was 65.3 inches, or about 160 percent of an average water year.

Selected Cities Precipitation Accumulation as of 09/30/2012 (National Weather Service Water Year. July through June					
City	July 1 to Date 2012 – 2012 (in inches)	% Average	July 1 to Date 2011 – 2011 (in inches)	% Average	% Avg "Water Year" July 1 to June 30 2012 - 2013
Eureka	0.78	72	0.58	54	2
Redding	0.00	0	0.28	31	0
Sacramento	0.03	9	0.01	3	0
San Francisco	0.02	7	0.11	41	0
Fresno	0.00	0	0.00	0	0
Bakersfield	0.02	17	0.00	0	0

Los Angeles	0.00	0	0.01	3	0
San Diego	0.00	0	0.13	65	0

Key Reservoir Storage (1,000) AF) as of 09/30/2012								
Reservoir	River	Storage	Average Storage	% Storage	% Average	Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,800	1,700	106	2,448	74	---	648
Shasta Lake	Sacramento	2,592	2,810	92	4,552	57	-1,961	1,960
Lake Oroville	Feather	1,977	2,252	88	3,538	56	-1,373	1,561
New Bullards Bar Res	Yuba	628	590	106	966	65	-283	338
Folsom Lake	American	452	558	81	977	46	-525	525
New Melones Res	Stanislaus	1,511	1,331	113	2,420	62	-763	909
Don Pedro Res	Tuolumne	1,235	1,363	91	2,030	61	-538	795
Lake McClure	Merced	440	509	87	1,025	43	-412	585
Millerton Lake	San Joaquin	318	203	157	520	61	-202	202
Pine Flat Res	Kings	193	348	56	1,000	19	-807	807
Isabella	Kern	88	184	48	568	16	-216	480
San Luis Res	(Offstream)	640	993	64	2,039	31	---	1,399

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for October 2012, issued September 30, 2012, suggests below average rainfall for all of California. The driest conditions are expected in the central and southern portions of the State.

HYDRO-CLIMATE ANALYSES

Work continues on the University of California Task Orders for studies supporting the climate change hydrology effort. In the past month, the State Climatologist has been in contact with UC Davis 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 with the Scripps team were had on coordinating atmospheric river information into the 200-year Hydrology Framework and CVFPP work.

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.

The climate variability sensitivity study (CVSS) pilot of the 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 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.

REAL-TIME DATA COLLECTION NETWORK

Coordination between NOAA, DWR and Scripps continues as the 21st Century Extreme Precipitation Monitoring project moves forward. A quarterly meeting was held on September 18th to review progress to date and to discuss efforts needed to finish installation of project elements. Discussion also was had on articles on the project along with other outreach activities to bring attention to the new monitoring capability provided by the network. Discussions also started for a second memorandum of understanding to further implement and refine efforts for this new network.

HYDRO-CLIMATE ANALYSES

Hydrologic Modeling

The PRMS team is planning an operational exercise for December using the soon-to-be completed Merced model. This exercise will include several of our San Joaquin valley reservoir operator partners and will allow end-users to get familiar with the new model and its features.

A new contract has been agreed upon with the USGS to start work this upcoming year on a PRMS model for the Kings River watershed. We will conduct some watershed tours in the next month or so as a kick off to this effort. The Feather, Yuba, Merced, and Kings models will all be featured for the expanding F-CO programs.

REAL-TIME DATA COLLECTION NETWORK

Snow Surveys and Snow Course Maintenance

The Snow Surveys section continues in summer snow course maintenance mode. We are working closely with the US Forest Service on the renewal of permits for several snow courses in the Sierra Nevada. Much effort is being made to update permits for the snow courses and sensors, especially those located in defined wilderness areas. Work is still in progress to obtain permission to fix Foster's Cabin in the Trinity Alps Wilderness area. The snow survey cabins in the Southern Sierra Nevada have been repaired and stocked for the upcoming winter.

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. Other calls were handled by other Hydrology Branch staff.

The Snow Surveys section has been analyzing historic precipitation averages used in the Bulletin 120 water supply forecast calculations. The evaluations will provide useful information to determine if the mix of precipitation stations currently used in the forecast procedures is the best mix of stations available. It has been over 30 years since the station mix has been evaluated and

it is possible that new stations have been established during this time that correlate better to the April-July runoff in each watershed.

BULLETIN 120 AND WATER SUPPLY INDEX FORECASTS
The last Bulletin 120 update was issued on June 7th and another forecast will not be issued 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 December 2012.

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

No new information this month

FLOOD 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.

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)

- Continued work 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.
- Continued internal coordination with USACE and DWR Central Valley Floodplain Evaluation and Delineation Program (CVFED).
- Continued resolving technical issues between CVHS and CVFED products.
- Initiated coordination with the Central Valley Flood Planning Office for product integration and flood planning activities.

DELTA FLOOD PREPAREDNESS

The Regional Flood Preparedness Section (RFPS) continues to work with our emergency response partners and our contractors on the Delta Flood Emergency Preparedness, Response, and Recovery Program. The program will improve DWR's capabilities to prepare, respond, and recover from levee failure and flooding in the Delta. A Delta Emergency Channel Closure Locations Study was completed under this program and is available to the Department for guidance.

A Draft Project Facility Feasibility Study Report is now available and presents alternatives for further development of flood emergency response facilities in the Delta. DOE real estate and DGS are currently appraising 5 delta properties for 3 potential acquisitions. The program is working with Executive and SWP to develop the Delta Flood Emergency Preparedness, Response, and Recovery Plan which will detail roles and responsibilities throughout the Department and develop preparedness activities, response actions, and potential recovery strategies. An internal review Draft of this plan will be available in the first quarter of 2013. As part of external agency coordination, the Flood Operations Branch currently has facilitated meetings with DWR's key emergency response partners in the Delta region to discuss these elements and other planning efforts. Additionally, modeling tools to forecast water quality impacts resulting from levee failure and subsequent repair and recovery strategies are being refined with a workshop being scheduled with developers and department staff to transfer modeling knowledge and capability to the department.

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.

- Debris removal is ongoing in seepage ditches in Sutter area (50 miles).
- Beaver dam removal is ongoing in seepage ditches in Sutter area (50 miles) and is ongoing in Cherokee Canal.
- NEMDC Channel Evaluation (Hydraulic Model) is 50 percent complete.
- Butte Creek Channel Evaluation (Hydraulic Model) is 85 percent complete and is undergoing QA/QC.
- Cherokee Canal Channel Evaluation (Hydraulic Model Highway 162 to Butte Sink) is 60 percent complete.
- Mowing is 100 percent complete at Shreiners (35 acres), MA5 (339 acres), Ridgecut (35 acres), Cache Creek Settling Basin (15 acres), Cherokee (400 acres), and Tisdale Bypass (400 acres).
- Discing/Vegetation removal in the refuge near the East Levee of the Sutter Bypass is 100 percent complete (200 acres)
- Vegetation spraying is 100 percent complete in the Tisdale Bypass (20 acres).
- Channel leveling is 100 percent complete in Butte Creek (40 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 and is 95 percent complete at Knights Landing Outfall Gates.
- Construction is ongoing at Knights Landing Outfall Gates, Sutter Pumping Plants, Weir 2, and Willow Slough.
- On the Willow Slough Fish Ladder, divers have made retrofit repairs to the stoplog structure. The stoplogs now provide a watertight seal.
- At Weir 2, the contractor is finishing up construction for the year and will resume work next year. Phase I construction will be complete and Phase II will be about 25 percent complete with the concrete slurry sub-base complete.
- Bridge repairs in Sutter County for two of the DWR maintained bridges over the state drainage collection ditches are 100 percent complete.

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 100 percent complete at the East Levee of the Sutter Bypass (21 miles) and at Unit 4 (2.5 miles), 80 percent complete at Cache Creek (23 miles), 45 percent complete at MA13 (18 miles), and 75 percent complete at Units 2,3 (2.5 miles)
- Spraying levee slopes is 85 percent complete at Cache Creek (15 miles)
- Rodent Program (poison, trapping) for all areas in Sacramento and Sutter are ongoing
- Grouting rodent holes is 100 percent complete at Moulton Weir (2 miles), Colusa Weir (3 miles) and MA1 (3 miles), and 85 percent complete on Cache Creek (20 miles)
- Levee crown road dragging is 100 percent complete at Tisdale Bypass (12 miles), and Willow Slough (6.5 miles), 80 percent complete at MA5 (30 miles), 50 percent complete at Tisdale Bypass (4 miles), and 98 percent complete at MA1 (10 miles)
- Grading/Graveling crown roads on the East Levee of the Sutter Bypass is 20 percent complete (5 miles)
- Re-sloping the levee at Sacramento Bypass is 50 percent complete (0.5 miles)
- Tree trimming is ongoing in Sacramento area (2 acres this month)
- Spraying levee slopes is 85 percent complete at Cache Creek (15 miles) and 100 percent complete at Putah Creek (16 miles), Willow Slough (9 miles), and MA3 (4 miles).
- Erosion repairs at the East Levee of the Sutter Bypass are 100 percent complete with 550 yards of rock placed.
- A 425 ft repair at Tisdale Bypass is 100 percent complete.

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.

Knights Landing Outfall Gates Rehabilitation Project
FMO Maintenance Environmental Support Branch staff conducted a fish rescue Wednesday, September 19, for the Knights Landing Outfall Gates Rehabilitation Project during the de-watering of the cofferdam on the Sacramento River side of the gates. Six non-native fish were relocated during the effort.

Maintenance Area 9 (MA9) Erosion Repairs
Erosion repair construction at three sites in MA9 was completed in September. Remaining work includes implementing erosion control measures and mitigation plantings of willow and other riparian species at all three sites. The sites will be hydroseeded with native grass seed and flexible growth medium, and one site will have coir netting installed to prevent erosion. This work should be completed by the end of October.

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.
- Draft Guidelines for development of work and cost-sharing agreements with DWR will be available for public comment and review in October 2012. Public outreach meetings will be held during the 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 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).

FUNCTIONAL AREA 3 FLOODPLAIN RISK MANAGEMENT

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

FLOODPLAIN MANAGEMENT ASSISTANCE

Floodplain Management assistance provides statewide technical support to federal, state and local agencies, and the public for flood hazard maps, levee data, and the National Flood Insurance Program activities including the Community Rating System (CRS). As part of the NFIP Community Assistance Program (CAP) grant-partnership with the Federal Emergency Management Agency (FEMA), DWR conducts audits with communities participating in the NFIP, provides technical assistance to the public, and trains community officials.

- Provided approximately 15 hours of technical assistance to local communities and the public who had questions regarding the NFIP, Certified Floodplain Manager certification, and Federal grants.
- Conducted community assistance visits (CAVs) for the City of Fairfax, City of Soledad, City of Hollister and the City of Paso Robles.
- Conducted 4 CAV inspections for participating NFIP communities.
- Conducted two FPM workshops covering the “FEMA Elevation Certificate” and the “Floodplain Management & Duties of the Local Administrator.”
- Section and Regional office staff performed several functions at the FMA conference in Sacramento, including presentation of papers, moderating sessions, serving on panels, leading a field trip, conducting a workshop, and proctoring a certified floodplain manager’s examination.
- Staff made a presentation on the NFIP-Community Rating System at the FEMA sponsored Watershed University in Redding.

STATEWIDE FLOODPLAIN EVALUATION AND DELINEATION

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

Alluvial Fan Evaluation and Delineation (AFFED) Program staff met Ventura County Watershed Protection District officials on September 26 to discuss preliminary FLO-2D model results and Flood Hazard delineation maps developed for the alluvial fan areas in Ventura County. The overall status of the AFFED program including model development and flood hazard delineation are as follows:

- FLO-2D models and Flood Hazard delineation maps for “High Priority” alluvial fan areas in Ventura County are completed and have been provided to Ventura County Watershed Protection District officials for review.

- FLO-2D models and Flood Hazard delineation maps for “High Priority” alluvial fan areas in Riverside County are 100% complete. The completed models and delineated maps are under review by Riverside County Flood Control District officials.
- FLO-2D models and Flood Hazard delineation maps for “Remaining” alluvial fan areas in the Riverside County are about 85% complete.

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 (CVFED) has finalized secondary post-processed LiDAR topography covering the Upper San Joaquin Basin (2,150 sq miles), which completes the final post-processing of LiDAR topography for the entire CVFED study area (5,800 sq miles). These datasets are now available for use by public agencies. CVFED previously had released secondary post-processed LiDAR topography for the Sacramento Basin (3,000 sq miles) and Lower San Joaquin Basin (650 sq miles).

Status of CVFED Hydraulic Model Development

Riverine Hydraulic Model Development (HEC-RAS)

- Upper Sacramento basin: 90 % completion
- Lower Sacramento basin: 88 % completion
- Lower San Joaquin basin: 96 % completion
- Upper San Joaquin basin: 80 % completion

Overland Hydraulic Model Development (FLO-2D)

- Upper Sacramento basin: 90 % completion
- Lower Sacramento basin: 85 % completion
- Lower San Joaquin basin: 96 % completion
- Upper San Joaquin basin: 88 % completion

In the month of September, staff processed four requests for data and transferred a total of 520 LiDAR tiles and 1,807 Aerial Imagery tiles. Two of these requests were from outside public agencies and the other two from within DWR. The total amount of data transferred in August adds up to about 395 GBs covering a land area of about 470 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.

By end of September, over 235,600 2012 Flood Risk Notifications had been mailed to single-parcel property owners whose property receives protection from the facilities of the State Plan of

Flood Control. Approximately 28,800 additional flyers will be mailed to multi-parcel property owners in mid-October. Flood Risk Notifications to public agencies will be mailed by mid-October.

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.

Work on the Urban Level of Protection Criteria (200-year flood protection) document will resume this month with passage of SB 1278 and AB 1965. The DWR Design Team will meet later this month to review comments on the public draft, assess the requirements of the new legislation on the ULOP criteria, and determine next steps for finalizing the document.

FUNCTIONAL AREA4 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.

- USACE has a draft schedule for the GRR with completion set for December 2013. This revised schedule is due to USACE's new Planning Modernization also known as the 3x3x3 directive. The schedule was not released to the Non-federal Sponsors and needs District and Head Quarters' approval. USACE anticipates a final approved schedule for the GRR by December 2012.

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.

- Due to USACE suggesting that the scope of the feasibility study be reduced to meet their mandated reduction in budget, from $2.4 M to $1.4 M, the Non-federal Sponsors (San Joaquin Area Flood Control Agency and the Board) met on
  October 2, 2012, and agreed that the scope should not be reduced. It was also agreed, the Non-federal Sponsors would support the $2.4 M budget, as long as the schedule would not slip. Even at the $2.4 M budget, it would still be less than the budget set forth in the Feasibility Cost Sharing Agreement.

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.
- USACE proposed the SRFCSE be rolled into the CVIFMS study. DWR has concerns with this proposal and is preparing a letter on behalf of CVFPB to express these concerns.

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 September 18, 2012, USACE, SBFCA, and DWR attended a meeting to discuss the effect a revised economic analysis will have on the Study. As a result of this revised economic analysis, Decision Point #2, which is the selection of the USACE Tentatively Selected Plan, was delayed to allow additional Study alternatives to be examined.

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.
- Nothing new to report this month.

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

- Nothing new to report this month.

Woodland/Lower Cache Creek Feasibility Study
USACE will develop alternatives for a new feasibility study to determine if there is a 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.

- USACE is currently revising the Project Management Plan for this Study to take into account the new 3x3x3 guidance.

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 communities.

- 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 two 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.

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.

- TRLIA completed the surfacing of segment 1 and the rest of uncompleted minor work on the other segments, which is now 100% complete.
- A final walkthrough for segments 1, 2, 3, and 4 was completed on September 19, 2012. Minor outstanding issues were identified and corrected.
- Final construction element of the Upper Yuba Project (Shad Pad, Yuba Levee from station 5+80 to 9+00) has begun and is scheduled to be completed by the end of October 2012.

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 in order to release additional funds to 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 $30.5 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.

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 and erosion, and scouring. All three projects are designed to provide a 200-year level of protection for about 47,000 residents. The Southport area is currently under design and may include a large setback levee.

- WSAFCA is scheduled to complete the 65% plans and specifications in February 2013.
- The river mitigation planting began on September 4, 2012, and is scheduled to end on October 31, 2012.
- The Southport EIS/EIR final draft is out for review. WSAFCA will be seeking comments from all interested agencies, including DWR.

Sutter Butte Flood Control Agency, Feather River West Levee Design Project (SBFCA)
The Feather River West Levee Project is planned to repair 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 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.

- USACE has awarded construction contracts for Sites L5A, L9/L9A, R10, NEMDC South, and Jacob Lane C totaling approximately $16M.
- Howe Avenue and R6 are currently being constructed. Dust problems for Howe Avenue were resolved through the use of water trucks. The R6 cut-off wall installation is complete and the levee is being restored to USACE specifications.
- 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.
- 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 existing projects to help the Sacramento region achieve a 200-year level of flood protection. The estimated completion for the JFP is October 2017.

- Construction – Phase III control structure construction is 32% complete.
- Design – Phase IV chute, stilling basin, and approach channel design is 95% complete. The design team is working toward the 100% design. The Phase IV contract is expected to be awarded in May 2013.
- LERRDs –USACE has requested a land lease for 9.6 acres on Folsom Prison property, directly across the road from the JFP construction site. The Department of General Services

(DGS) and DWR approved the lease on September 17, 2012. DWR provides USACE certification for right of entry on October 5, 2012. USACE will award a site preparation contract on
    - November 5, 2012.
- Water Control Manual Update – The water control manual update project team met with the in-basin purveyors, electric power utilities and agencies, flood management organizations, emergency service groups, and environmental groups in five separate workshops in September. Future outreach workshops will be scheduled for 2013.

Lake Kaweah Enlargement Project (Terminus Dam, Kaweah River Project)
The Lake Kaweah Enlargement Project was completed in 2006, and 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 2012. Initial estimates are approximately $1.5 million in creditable costs. DWR would expect to receive credit or cash reimbursement from USACE after approval of the crediting package.
- DWR has considered quitclaiming its interest in the excess Davis Ranch mitigation site land (506 acres) to the Kaweah Delta Water Conservation District. A presentation will be made at the November CVFPB meeting. This item is continued from the discussion at the September 28, 2012, Board meeting, pending resolution of Board members' concerns regarding the value of the quitclaim.

Marysville Ring Levee Improvement Project
The Marysville Ring Levee Project will provide a 200-year or greater 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 construction and wall testing are approximately 80% complete and should be completed by November 2012.
- Phases 2A and 4A design will continue in October, with construction beginning in the spring of 2013.
- Phase 2B design will begin the summer of 2013.
- Phases 2C and 3 designs will begin 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 completed a draft Integral Determination Report (IDR) as the first step of amending the PCA to include credit under Section 221 for construction In-Kind Contribution. The IDR will require approval by USACE Headquarters and the Assistant Secretary of the Army.
- The review period for the public draft of the Environmental Assessment/Initial Study closed September 14, 2012. Five comments were received and USACE is reviewing them.

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 65% complete. USACE, DWR, and SAFCA were regularly involved with on-site activities. Work was delayed, but should be finished by November 30, 2012.
- SAFCA began construction improvements on Unionhouse Creek, upstream of Franklin Boulevard as an independent project with the City of Sacramento and DWR's Integrated Regional Water Management, as funding partners. Work was stopped on the Unionhouse Creek portion of the South Sacramento Streams project until further notice from USACE.
- The Moulton soil stockpile was removed in June. The final environmental confirmation sampling task order was completed the last week of September; preliminary results are due the second week in October.

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.

- Two piezometers were removed for construction at the north slip repair site, and still need to be replaced. The contract to complete this work will be awarded by USACE within the next few weeks.

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.

- FCP has been working with the new grant recipients in order to hold public hearings in the vicinity of the new projects prior to release of over $58 million in grants to 13 localities statewide to reduce flood risk in their communities while protecting wildlife habitat and agriculture. The flood risk reduction projects will be funded by Propositions 84 and 1E and will benefit communities and resources from Siskiyou Country in the North to San Bernardino County in the South. FCP anticipates that there will be $28.3 million in remaining funds available for future grant awards.
- A public hearing on the Kings River McMullin On-Farm Flood Capture and Recharge Flood Corridor Project was conducted at Terranova Ranch, Helm, California, on September 25, 2012, at 10:00 am. The comment period ends on October 9, 2012. The project has been conditionally awarded a $5M grant by FCP.

- Funding partners, including staff from FPO's Flood Corridor Program, for the Carmel River Floodplain & Environmental Enhancement Flood Corridor Project attended a meeting with Resources Agency staff member, Bryan Cash, to discuss scheduling delays for the project. The meeting focused on keeping funding alive despite an anticipated project schedule delay while the primary land owner seeks transfer of water rights approval from the State Water Resources Control Board. Some funding sources have deadlines for committing the funds that fall in advance of the time the project can move forward.
- The City of Vacaville (City) notified Flood Corridor Program Branch staff on September 12, 2012, of a discovery of cultural resources in the inlet channel of the basin for the Alamo Creek Flood Corridor Grant Project. The City is working with the various stakeholders for the project to come to an acceptable resolution. At this time, the earliest the City would move forward with the project is next year. Kimberly Johnston-Dodds, DWR Tribal Liaison and Policy Advisor, has been notified. The City has hired Far Western, an Anthropological consultant firm, for additional cultural identification, which is to be done in three phases. All work is expectedto be completed prior to October 15, 2012.

FLOOD CONTROL SUBVENTIONS PROGRAM (FCSP)

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

- FCSP is reviewing three funding reimbursement requests in the total amount of $2.4 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.
- Two new reimbursement requests for a total of $11 million were received.
- 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.

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.

- All 38 new projects were added to the master project list and received Project Identification Numbers.
- Internal Order Number and Service Requisitions were created for the 38 new projects. Program staff is awaiting management approval of the Requisitions.
- Project Manager (PM) assignments were updated to better meet grantee needs. PMs have begun review and approval of contract work plans for many of the new projects.
- Staff will contact the remaining grantees over the next several weeks and begin 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.

- TRLIA Goldfields Feasibility Study – Four copies of the funding agreement for the TRLIA Goldfields Feasibility Study have been signed by the Locals and DWR Legal, and are now with the DFM Chief for final approval and execution.

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 Director's Decision Memo (DDM) for the approval of the Final List of LLAP Grantees is currently in draft form. It was signed by DWR Legal and is being reviewed by Division management. The DDM will be put into a final version and sent to the Director for approval within the next week.
- Non-Urban Flood Risk Management (NFRM) Program – FPO staff has prepared a two-page summary of NFRM program purpose, scope and funding constraints.
- Non-Urban Flood Risk Management (NFRM) Program – FPO staff completed the three-part accountability for DWR's Strategic Growth Plan bond funding requirements and entered data into the FloodSAFE Database for the new program.

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. DWR's internal management team is engaged in a series of meetings with the contractor preparing the plan, AECOM, to resolve issues related to Plan implementation, future updates, and policy consistency with the Central Valley Flood Protection Plan. Also, the low-flow modeling contractor has begun data collection toward analyzing the stage effects due to changed conditions in the channel resulting from the breach at Shanghai Rapids.

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.

- Minimum Width of Levee Easements – Staff is drafting a Director's Decision Memo (DDM) proposing minimum easement widths for flood protection levees. The draft DDM will be ready for circulation on the third week of October for FloodSAFE management to review and comment.
- 2012 Floodplain Management Association (FMA) Conference – FPO staff participated in the FMA Conference, September 5 thru 7, 2012, as technical panel session chair, panel note-taker and program poster representative.

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 the 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 has mailed work agreements to 68 reclamation districts and has received signed work agreements from 65 reclamation districts.
- Final Claims have been received from 61 reclamation districts totaling $17.9 million.
- DWR staff has 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 has mailed work agreements to 66 reclamation districts and has received signed work agreements from 64 reclamation districts.
- Final Claims have been received from 8 reclamation districts totaling $1.3 million.
- The deadline to submit final claims is November 1, 2012.

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.
- Staff are working to prepare work agreements to mail to participating districts for signature.

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 slope stability, under- and through-seepage, erosion, 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 as in process or pending will be used to support the 2017 updates to these documents.

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

The overall status of the ULE program intermediate and final deliverables for the 25 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	In Progress	Pending
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	American River	Done	Done	Done	Done	In Progress
6	Sacramento River	Done	Done	Done	Done	In Progress
7	Davis	Done	Done	Done	In Progress	In Progress
8	Woodland	Done	Done	Done	Done	In Progress

No.	Urban Study Area	Historic Data Collection (TRM)	Initial Field Investigations (P1GDR)	Preliminary Analyses	Supplemental Field Investigations (SGDR)	Final Analyses & Report (GER)
9	NEMDC 10East	Done	Done	Done	Done	In Progress
10	NEMDC West	Done	Done	Done	Done	In Progress
11	Natomas North	Done	Done	Done	Done	In Progress
12	Natomas South	Done	Done	Done	Done	In Progress
13	West Sacramento	Done	Done	Done	Done	Done
14	DWSC	Done	N/A	N/A	In Progress	Pending
15	South Sac Streams	Done	N/A	Done	In Progress	Pending
16	RD 404	Done	Done	Done	Done	In Progress
17	RD 17	Done	Done	Done	In Progress	In Progress
18	Bear Creek	Done	Done	Done	Done	Pending
19	Calaveras River	Done	Done	Done	Done	Pending
20	Lincoln Village	Done	N/A	N/A	Done	In Progress
21	Brookside	Done	N/A	N/A	Done	In Progress
22	Rough and Ready	Done	N/A	N/A	In Progress	Pending
23	Shima Tract	Done	N/A	N/A	In Progress	Pending
24	SJAFCA upland levees	Done	N/A	N/A	In Progress	Pending
25	Smith Canal	Done	N/A	N/A	In Progress	Pending

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 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 78% complete.
- Over 2000 interview records and historic reports have been obtained and reviewed. These records/reports are not currently data based but will be after completion of the ULE program.
- 400 miles of the urban levees were surveyed using a low altitude high accuracy (+/- 6 cm) LiDAR survey 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, a detailed geomorphic study and associated mapping effort were conducted to support the field explorations and subsequent analyses.
- Over 5,300 explorations along with 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 Chico and RD17 study areas.
- Additional drilling is planned along the Sacramento River study area.
- The current delivery date for completion of all GERs is the middle of 2013.
- Laboratory testing is continuing for some of the urban areas including Stockton and DWSC.

- 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 1,490 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	Draft complete	In Progress
2	Clarksburg	Done	Done	Done	In Progress
3	Colusa Drain	Done	Done	Draft complete	In Progress
4	Colusa North	Done	Done	Done	In Progress
5	Colusa South	Done	Done	Draft complete	In Progress
6	Gerber	Done	Done	Done	In Progress
7	Knights Landing	Done	Done	Done	In Progress
8	Sutter Bypass	Done	Done	Done	In Progress
9	Wheatland	Done	Done	Done	In Progress
10	Woodland South	Done	Done	Done	In Progress
11	Ash Slough	Done	Done	In Progress	In Progress
12	Berenda Slough	Done	Done	In Progress	In Progress
13	Black Rascal/Fairfield	Done	Done	In Progress	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	Done	In Progress
18	RD 2064	Done	Done	In Progress	In Progress
19	RD 2075	Done	Done	In Progress	In Progress
20	RD 2095	Done	Done	Done	In Progress
21	SJRRP/CCID	Done	Done	In Progress	In Progress

NULE Summary

- Overall, Non-Urban Levee Evaluations are 64% 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, a surficial geomorphic study and associated mapping effort 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 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.
- Most of the laboratory testing is complete.
- Preparation of GDRs for NULE study areas is ongoing and nearing completion. Final GDRs for Sacramento River basin expected by end of calendar year; final GDRs for San Joaquin River basin expected shortly thereafter.
- Preparation of GORs is continuing, with the current delivery dates scheduled for the middle of 2013.
- Pilot GORs in the Woodland South and Gravelly Ford study areas are nearly complete. The purpose of the pilot GORs was to develop the GOR process and obtain independent consulting board approval of such process.
- Preparation of GORs continued in August-September 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 comprised of a combination of DWR and contractor staff. Field Reconnaissance Summary Reports are being prepared and planning for preliminary cost estimate development is underway.

- San Joaquin River Restoration Program
  Task Order SJ105 is being implemented during the reporting period and geomorphology mapping is in progress. Three levee segments were identified for subsurface work plans for field investigations (left and right banks of Eastside Bypass between Sand Slough and Mariposa Bypass and the left bank of San Joaquin River from Chowchilla Bypass bifurcation structure upstream for about 5 miles).

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 provided additional supporting data, including a technical memo on fragility curve development, to USACE for the LSJFS.
- ULE and USACE are in the process of providing data to SAFCA for their assessment of the American Rivers Common Features Project (without Natomas) study area.
- ULE continues to review the USACE Marysville design and construction 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 support for Version 5 of the Urban Levee Design Criteria was provided.
- 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)

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 Atlas, Regional Flood Management Priorities and a Regional Financial Plan. The regional plans will be integrated with the two Basin-wide Feasibility Studies (BWFS).

- DWR continues to meet with the regional partners to develop teaming strategies and to provide guidance regarding the RFMP process. Some Regions have discussed combining resources and a Lead Local Agency has been identified for each region.
- Final Guidelines to provide directed funding for RFMP have been revised and a Director's Decision Memo was prepared. The Director approved the final Guidelines on October 3, 2012.
- A draft Directed Funding Agreement has been completed and sent to the Office of Chief Council for review.
- DWR continues to provide technical assistance to RFMP local agencies in response to requests for information and geospatial data.

- The RFMP Flood Atlases were posted online and the links were sent to the Lead Local Agencies. The Atlases are continuously being revised as comments are received.

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 (1) develop a Locally Preferred Plan for use by the USACE in further efforts leading to federal authorizations of system-wide improvements, (2) assist in the preparation of environmental compliance evaluations, and (3) establish the State's role in project implementation.

- The Central Valley Flood Planning Office (CVFPO) continues to develop several Task Orders aimed at refining system-wide elements of the SSIA in both major watersheds in the Central Valley. These include bypass improvements in both, the Sacramento and San Joaquin River basins as well as initiation of overall efforts on each of the State-led feasibility studies.
- The CVFPP was presented in Panel and Poster sessions at the FEMA Watershed University in Redding and the Water Plan Plenary Meeting in Sacramento on September 12.
- The first monthly CVFPP Implementation Coordinating Committee Meeting was held September 26 with the Central Valley Flood Protection Board (Board), representatives from the Division of Flood Management, and various local stakeholders to discuss integration of locally prepared Regional Plans and the State-led Basin-wide Feasibility Studies.
- The Central Valley Flood Planning Office (CVFPO) and FloodSAFE Environmental Stewardship and Statewide Resources Office (FESSRO) met with Non-Governmental Organization (NGO) representatives on October 5 to discuss coordination of the Basin-wide Feasibility Studies, Regional Flood Management Planning, Conservation Strategy, and future engagement opportunities.

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.

No new information this month

CONSERVATION STRATEGIES

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

CONSERVATION STRATEGY

Conservation Strategy development

- FES staff participated in a series of coordination meetings with CVFPO to align development of the Conservation Strategy with the Basin-Wide Feasibility Studies and Regional Flood Management Planning.
- The CVFPO/FESSRO team is on track to develop an integrated schedule and a communication and engagement plan. FES staff is developing conservation plans for selected species, ecological indicators, and an approach to measurable objectives.

CONSERVATION STRATEGY FUNDING GUIDELINES

Proposal Solicitation Package

The Proposal Solicitation Package (PSP) issued under the Central Valley Flood System Conservation Framework and Strategy Guidelines opened on September 12. Up to $25 million in Proposition 1E funding will be allocated to integrated environmental stewardship projects that support the Central Valley Flood Protection Plan (CVFPP). The solicitation period for concept proposals closed Oct 2, 2012.

Conservation Strategy Outreach

- Staff developed and provided presentations and posters describing Conservation Strategy programs for the national Flood Management Association (FMA) conference, and the California Water Plan Plenary. At the FMA conference, staff coordinated or gave presentations on the Conservation Strategy, floodplain restoration opportunity analysis, fish passage challenges, and the Dos Rios restoration project. Staff also participated in two regulatory scoping sessions at the FMA Conference and the Water Plan Plenary Session.
- Staff gave a presentation outlining the Conservation Strategy and the Proposal Solicitation Package (PSP) at the Floodplain Management Association's monthly luncheon. Similar presentations will be scheduled per the request of DWR Division of Flood Management and the Central Valley Flood Protection Board.
- CVFPB Goldfield / Yuba River Field Tour: Staff attended a field tour with CVFPB and staff. The purpose of the trip was to address opportunities for increased flood protection for the local area, the potential for restoration/ meander potential of the Yuba River, and fish passage issues at the Daguerre Point Dam.

REGIONAL CONSERVATION PLANNING

Regional Advanced Mitigation Planning (RAMP)

At the September 5 Strategic Growth Council (SGC) meeting, SGC staff recommended that RAMP could be an effective tool for infrastructure projects, including High Speed Rail (HSR). The SGC found that assisting RAMP to overcome challenges, in the context of HSR, is a high priority. SGC staff recommended, in particular, that SGC assist the RAMP Work Group with sorting out financial and policy hurdles. SGC requested a list of barriers and SGC staff stated that would be made available prior to the November meeting.

CVFPB Permit Compatibility

The overall ramifications of how a CVFPB Permit impacts the usefulness of a parcel as mitigation was discussed at the September 24th Pilot Subcommittee meeting. The group requested review by another multi-agency group, the Conservation Strategy's IAC Permitting Subcommittee, for

possible resolution. This IAC Subcommittee includes a CVFPB staff person and is tasked with developing a regional permitting strategy for implementation of the CVFPP.

Statewide Framework
The April 2012 draft Statewide Framework was reviewed by Director Cowin and he signed a letter of support for the concepts presented. Additional signatures will be sought from the other RAMP Work Group members in October. Copies were handed out at the RAMP Bi-Monthly meeting on September 20th for uses internal to each agency.

Regional Planning and Corridor Management Strategies
Staff attended a Lower Feather River Corridor Management Plan Policy Discussion meeting on September 21. Issues for discussed included: maintenance information; site specific guidance to support management decisions; policies, recommendations, and guidance; and the upcoming October Workgroup meetings.

INVENTORY, ANALYSIS, AND MODELING
Sensitive Species Inventory
DFG (California Natural Diversity Database) staff continues to update the database of sensitive species in the CVFPP study area. Since January 2011, 1980 new wildlife records and 460 plant records have been updated.

Fine-scale vegetation mapping
Contractors delivered test modules for internal use and comparison with medium-scale map data. Staff continues work on refining habitat indicators, and developing test models for sensitive species and habitat relationships.

Conceptual Models
DFG evaluated existing Delta Regional Ecosystem Restoration Implementation Program (DRERIP) Conceptual Models for their usefulness and applicability to the CVFPP. DFG provided a preliminary draft of this assessment.

Feather River Migration Meander Modeling
In collaboration with UCD, staff has conducted meander modeling of the Lower Feather River Corridor Management planning area. A technical report is being developed describing the findings, and will be provided to the Lower Feather River Corridor Management Planning workgroup.

CVFPO Basin-wide 2D Flood Modeling Discussion
FESSRO staff is a technical participant in meetings convened by CVFPO to discuss options for Basin-wide flood modeling. Only three models have the functionality and capability to provide the analyses DWR needs to evaluate the flood/stage benefits of Bypass widening scenarios and provide parameters and output for lower flow environmental analyses.

Targeted Conservation Planning
Staff worked with consultants to develop a draft outline for Species-specific Conservation Plans. Development of draft conservation plans for Bank Swallow, Swainson's hawk, Spring-run Chinook salmon, and Giant Garter Snake are currently under way.

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

FIRST CALIFORNIA FLOOD PREPAREDNESS WEEK, OCTOBER 15-20, 2012

The California Flood Preparedness Week (CFPW) is a joint effort by USACE, FEMA, NOAA, DWR, CalEMA, and Sacramento County to promote flood awareness and flood disaster preparedness activities. Various agencies are promoting CFPW at emergency preparedness events in Sacramento, Humboldt, Sutter and Orange Counties. Partner agencies will be posting daily specific Facebook or Twitter messages corresponding to different types of flooding.

Key messages being conveyed include:

- California is Unusual
  Not only is California subject to riverine and coastal flooding, but the State also is subject to alluvial fan, tsunami, deep floodplain, and debris flow flooding.
- Public Awareness
  Californians need to be aware of flooding where they live, where they work, and where they visit.
- Public Preparedness
  To be prepared, Californians are encouraged to assemble a family emergency kit and have a family evaluation plan.

The CFPW website at: http://www.water.ca.gov/ca-flood-preparedness/ can be accessed for information about flood risks in California and ways to become better prepared for flood emergencies.

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.

DWR staff was in Washington, DC during the week of October 8th and met with the Office of Management and Budget, USACE Headquarter and Staff from the ASA office, members and staff from various congressional Offices and staff from Senate and House sub-committees on Authorization and Appropriations. The team discussed the funding needs for Fiscal Year 2014 cost-shared flood control projects, DWR's proposed legislation for crediting and reimbursement, and policy changes concerning Section 104 credit and Section 408 approvals.