Agenda Item 5

REPORT OF ACTIVITIES OF THE DEPARTMENT OF WATER RESOURCES

By

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FUNCTIONAL AREA 1 FLOOD EMERGENCY RESPONSE

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

REAL-TIME FLOOD CONDITIONS, STATUS, & WARNING

The purpose of the Real Time Flood Conditions, Status, and Warning element is to provide information needed to manage floods as they are occurring. This element supports flood operations by 1) inspecting, documenting, and assessing the integrity of the Sacramento and San Joaquin Flood Control Project levees, 2) storing and managing information so that it is accessible to flood managers and the general public, 3) providing emergency flood information and warnings based upon existing and forecasted conditions and field reports, and 4) developing information management tools to support emergency operations.

Inspections

Summer Channel and Structure Inspections are being finalized and reports will be sent out to the Local Maintaining Agencies soon. Results from inspections of all structures and channels will be available this year. Fall Levee Inspections are being started and are expected to be completed on time with all project levees inspected. Inspectors continue to inspect construction activities related to Central Valley Flood Protection Board Encroachment Permits and other authorized activities. Inspectors also continue to coordinate with other employees and agencies for access to project levees and facilities and conduct investigations as needed. Enhancements to inspection policies and procedures continue to be pursued through Functional Areas Cross Coordination Team (FAXCT) efforts.

Flood Project Integrity/Vulnerability Assessment Activities

The Levee Instrumentation Pilot Study project is in Phase II (installation) status with a valid Central Valley Flood Protection Board (CVFPB) encroachment permit. Drilling and installation of piezometers is scheduled to begin on September 14, 2011. A new contract, California Certified Small Business option, is being initiated to perform some of the construction and electrical work.

Recent activities in DWRs Utility Crossing Inventory Program (UCIP) in this reporting period include participating in roundtable meetings held by the United States Corps of Engineers (USACE) in an effort to establish utility related oversight inspection criteria. Desk Study and Field Survey of the utility crossings in RD17 has been completed. We are in the process of coordinating with the Local Maintaining Agency (LMA) regarding initial reporting and assessment of the crossings. USACE and the UCIP team are engaged in work sessions to address record keeping and utility

location issues. Key areas remain data management, data exchange protocols, and overall coordination for essential record keeping procedures.

Local Maintaining Agency Annual Reporting Program (CWC 9140-9141)
LMAs have started submitting reports on the maintenance activities and costs of maintenance of their levees to meet the DWR report submission deadline of September 30, 2011. Staff is planning for the road show in September to meet and assist LMAs with reporting requirements – particularly those who never reported to the program. Staff also assisted Central Valley Flood Management Program in evaluating cost/benefit ratio of LMAs in maintaining USACE PL 84-99 eligibility.

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 1, 2011, statewide hydrologic conditions were as follows: precipitation, 140 percent of average to date; runoff, 145 percent of average to date; and reservoir storage, 130 percent of average for the date. Sacramento River Region unimpaired runoff observed through August 31, 2011 was about 24.8 million acre-feet (MAF), which is about 139 percent of average. For comparison, on August 31, 2010, the observed Sacramento River Region unimpaired runoff through that date was about 15.6 MAF, or about 86 percent of average.

August was generally dry and cool. On September 1, the Northern Sierra 8-Station Precipitation Index Water Year total was 72.2 inches, which is about 147 percent of the seasonal average to date and 144 percent of an average water year (50.0 inches). During August, the total precipitation for the 8-Stations was 0.0 inches, compared to 0.3 of an inch for the monthly average. Last year on September 1, the seasonal total for the 8-Stations was 53.3 inches, or about 109 percent of average for the date.

On September 1, the San Joaquin 5-Station Precipitation Index Water Year total was 64.1 inches, which is about 160 percent of the seasonal average to date and 157 percent of an average water year (40.8 inches). During August, the total precipitation for the 5-Stations was 0.0 inches, compared to 0.2 of an inch for the monthly average. Last year on September 1, the seasonal total for the 5-Stations to date was 44.7 inches, or about 112 percent of average for the date.

Selected Cities Precipitation Accumulation as of 08/31/2011 (National Weather Service Water Year: July through June)					
City	Jul 1 to Date 2011 - 2011 (in inches)	% Avg	Jul 1 to Date 2010 - 2010 (in inches)	% Avg	% Avg "Water Year" Jul 1 to Jun 30 2011- 2012
Eureka	0.21	43	0.19	39	1
Redding	0.15	56	0.13	48	0
Sacramento	0.00	0	0.00	0	0
San Francisco	0.11	85	0.01	8	0
Fresno	0.00	0	0.00	0	0
Bakersfield	0.00	0	0.00	0	0
Los Angeles	0.00	0	0.00	0	0
San Diego	0.00	0	0.02	40	0

Key Reservoir Storage (1,000 AF) as of 08/31/2011								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	2,280	1,839	124	2,448	93	---	168
Shasta Lake	Sacramento	3,619	2,966	122	4,552	80	-933	933
Lake Oroville	Feather	3,309	2,377	139	3,538	94	-229	229
New Bullards Bar Res	Yuba	731	653	112	966	76	-235	235
Folsom Lake	American	839	621	135	977	86	-138	138
New Melones Res	Stanislaus	2,142	1,374	156	2,420	89	-278	278
Don Pedro Res	Tuolumne	1,781	1,427	125	2,030	88	-249	249
Lake McClure	Merced	854	584	146	1,025	83	-170	171
Millerton Lake	San Joaquin	423	230	184	520	81	-97	97
Pine Flat Res	Kings	714	387	184	1,000	71	-286	286
Isabella	Kern	282	212	133	568	50	-80	286
San Luis Res	(Offstream)	1,493	890	168	2,039	73	---	546

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for September 2011, issued August 31, 2011, suggest below average rainfall for the eastern half of California. The outlook suggests no tendency for above or below average rainfall for the western half of the State.

Snowmelt & Seasonal Volume Runoff Forecasting

Precipitation Runoff Modeling System (PRMS) development:

Feather Model update

All full natural flow (FNF) and climate data is being inventoried and will need updating for the past ten years to fully recalibrate the Feather model.

Yuba Model update

Staff training on the new version of PRMS and an introduction to the new Yuba model will occur on September 22 with an all day workshop by the USGS special to Hydrology Branch staff members.

PRMS Training

Training for the PRMS users group has continued and has been very successful so far with staff completing two assignments and gaining confidence in running model scenarios. Training will continue this month and will coincide with the next Feather-Yuba FCO Workshop in October.

Snow Surveys and Snow Course Maintenance
Snow course maintenance and gage maintenance is in full swing. Thanks to an on time state budget this year, repairs, installations, and course maintenance are occurring at a more normal rate and time. Snow sensor repair and install has mostly occurred in the upper Kern, Kings, and San Joaquin as well as a in the Feather and Yuba. The Hull Mountain installation is complete.

Course maintenance, cabin stocking, and cabin maintenance have all continued. Coordination with the USFS and Cooperating agencies has been necessary to enlarge helicopter landing zones, make repairs to historic snow survey cabins. The food purchase to stock the snow survey cabins is in the ordering process.

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 handled a hand full of media requests at the interest in high water waned. Snow Surveys staff also responded to about a dozen requests for historical data. The usual number of public requests filtered in asking about trail access, skiing and rafting conditions, albeit at a slower pace than last year.

Bulletin 120 and Water Supply Index Forecasts
Finally, the forecasting season has concluded for this water year. Here is a comparison of our May 1 and July 7 B120 forecasts to preliminary observed April-July runoff data.

Runoff
Regional Sierra flows for July in the Sacramento, San Joaquin and Tulare Lake regions were roughly around 225, 315 and 263 percent of average, respectively. Flows for individual rivers in these regions ranged between 135 and 494 percent of average.

Hydro-Climate Analyses
Work continues on the University of California Task Orders for studies supporting climate change hydrology effort. A face-to-face meeting was held with UC Davis and Scripps personnel to discuss progress and next steps. UC Davis provided a series of PowerPoint presentations as documentation of project progress. For the Scripps effort, discussions focused on information that will be available in the fifth project IPCC assessment climate change simulations that can better inform projected changes to atmospheric river events. Success has been achieved in coordinating the needed parties to conduct the US Forest Service mandated archeological study in the American River watershed before augmenting observing sites with new snow monitoring equipment. It is hoped that equipment installation can still be accomplished this year.

The Central Valley Flood Protection Plan (CVFPP) Climate Change Technical Work Group is completing the draft of the technical appendix for the CVFPP. The Work Group committee involved with the development of the method is currently reviewing the document that will accompany the CVFPP.

Efforts continue to coordinate the hydraulics and hydrology efforts of the Department with the USACE. USACE reviews of interim products and processes have completed or are near completion. Other model development and data analysis continues as well. Initial product delivery is expected by the end of November.

The second set of Bulletin 195 files for the Oracle database was delivered from the consultant to the Department. These files will have the annual extremes data and the information to develop the depth-duration frequency tables and curves. Work is in progress to develop a desktop analysis tool to generate new curves and tables when new data is appended to the database. Further meetings have been held with the regional office staff and climate change program staff to develop the appropriate data collection and processing protocols for extremes. Efforts to coordinate with the Western Region Climate Center (WRCC) continue via email discussions.

Real-Time Data Collection Network

Coordination between NOAA, DWR and Scripps continues as the 21st Century Extreme Precipitation Monitoring project moves forward. Progress is being made on the data transfer protocol to take the observed data products from NOAA's Earth Systems Research Lab (ESRL) and distribute them to the National Weather Service and the Department of Water Resources' California Data Exchange Center. ESRL can now distribute data from its lab to NWS field offices via MADIS (Meteorological Assimilation Data Ingest System). DWR will work with the California Nevada River Forecast Center to coordinate moving data from MADIS to the California Data Exchange Center. Full implementation of the data transfer plan should be executed by the end of summer. Soil moisture sensor installation has begun as have site visits for the snow level radar installations. Scripps and DWR met via teleconference and developed an installation plan for this year's installations. Data logging and communications work with Scripps Institute of Oceanography has achieved products for testing phase. Testing has begun and will continue. Staff conducted routine maintenance and repair work on more than 20 remote sensor stations in the Sacramento, McCloud, Trinity, American, Stanislaus, and upper San Joaquin basins in August. Maintenance will continue until the end of October to ensure data readiness for the upcoming flood season.

System Re-Operation

The consultant hired to assist in the System Re-Operation study produced a draft study plan in April. The product was reviewed and found to be deficient. The revised plan was delivered at the end of June. The revised study plan was accepted and the next phase of the project has begun. A meeting to discuss timelines and budget for the remaining project was held as well. Coordination continues via email discussions.

Library of Models

The LOM navigation and workflow management modules were updated in August. The general web site navigation for the LOM administration and general content access, web page initiation and maintenance and model version control system were implemented. The database structure update to support web development, documentation of databases, web navigation and design components were accomplished. Currently the "model information" and version control system maintenance and model data definition and upload processes are being developed.

RESERVOIR OPERATIONS & RIVER FORECASTING

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

Reservoir Coordinated Operations

On October 6, 2011, the Yuba Feather Forecast-Coordinated Operations (F-CO) will conduct their fourth annual functional exercise. This will be a one-day exercise that applies the F-CO Decision Support System to simulate operations during a high water event. The participants will be geographically dispersed, as they would be during a flood and will be presented forecasts, messages, and problems related to a simulated flood situation.

FLOOD OPERATIONS EMERGENCY RESPONSE

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

Flood Operations, Training, and Exercises

Recent staff vacancies have been filled to help facilitate the documentation of our emergency standard operating procedures. We are actively working on making improvements to the flood materials management plan. In the past month we have relocated some of the Department's flood emergency materials from Southern California to the Eureka Flood Center and the San Luis Field Division to provide additional supplies to the delta region and northern California.

Monthly meetings are held with our Incident Command Teams (ICTs) to discuss and prepare readiness for a rapid response to any flood emergency in the upcoming months. Topics include team meeting preparations for internal team coordination, acquisition of emergency supplies, training for ICTs and preparation of field activation exercises. We are currently developing the fall field exercise for ICT 3 and additional communication training utilizing multi-frequency radios and satellite communications for all six ICTs. Alternatives are being explored on ways to enhance field communications due to the reduction of available cellular phones.

We have scheduled DFM's flood fight methods training classes as a part of our flood preparedness. The first class was in late August. Participants learn techniques for flood proofing structures, applying plastic for levee erosion protection, and construction of sandbag structures for temporary diversion of flood waters. Classes are taught over the next three to four months to better prepare DWR staff and to assist local agencies in preventing the spread of flood-waters.

The DWR Flood Operations Center, along with our local, state, and federal partners will provide their annual overview of current and future weather and water conditions, DWR flood preparedness and emergency response activities, flood fighting methods, and other related topics. This year's preseason flood preparedness meetings will begin in early September in Fresno, Hayward, Stockton, Sacramento, Yuba City, Eureka, and Southern California in Ventura, and Fontana.

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)

Significant accomplishments over last month include:

- Independent technical review of the Reservoir/Hydrologic (HEC-ResSim) models is in final review.
- Augmentation of gage data and local flow records is underway.
- Rainfall-runoff model analysis plans are complete and model development is underway.
- Temporal distribution analysis for ungaged watersheds is underway.
- Continuing internal coordination with USACE and hydraulic and hydrologic workgroups.
- Development of design storm methodology for ungaged watersheds is underway.

FUNCTIONAL AREA 2 OPERATIONS AND MAINTENANCE

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

CHANNEL MAINTENANCE

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

- Mowing is 50% complete at Tisdale Bypass and complete at Cherokee Canal and Knights Landing Ridge Cut.
- Disking is complete at Tisdale Bypass.
- Debris removal is ongoing in seepage ditches.
- Tree maintenance and vegetation spot-spraying in all areas is continuing as needed.
- The environmental restoration contract work continues for the Sycamore Creek Habitat Restoration Project.

FLOOD FACILITIES OPERATION AND MAINTENANCE

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

- Debris removal activities are continuing at the Knights Landing Outfall Gates
- Sutter Yard facility concrete repair is 50% complete.
- Other ongoing activities include grading crown roadways at Putah Creek (3 miles) and Unit 4 (4 Miles), and grading toe roads at Cache Creek (30 miles) and MA-5 (20 miles).

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.

- Levee slopes were mowed in MA-9, Cache Creek, Tisdale Bypass, and MA-16 (39 miles total).
- Vegetation hand cleared along 6 miles of Sutter Bypass.
- Rodent control program work (grouting rodent holes) is ongoing in all areas.
- Weed control by spraying is occurring in MA-3, MA-7, MA-1, MA-4, MA-9, and east levee of Sacramento River.
- Levee slopes were burned along Tisdale Bypass (3 miles) and MA-1 (16 miles).
- Levee slopes were dragged along east levee of the Sacramento River (20 miles), MA-1 (10.5 miles), Sutter Bypass (17 miles), and Putah Creek (15 miles).
- Cache Creek Settling Basin levee erosion repair (3000 sq ft) was completed.

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.

- DWR began construction to replace Weir No.2 located within the East Borrow Canal of the Sutter Bypass in May, 2011. Due to necessary design changes, material supply problems, and dewatering difficulties, the project is now approximately one month behind schedule. DWR submitted a request to the regulatory and resources agencies requesting an extension of the work season from October 1, 2011 to December 1, 2011. DWR has not yet received a response regarding its work extension request.
- Construction to repair a small erosion site on Wadsworth Canal in Sutter County was to occur in the fall of 2010. However, due to state budget constraints, construction did not occur. Repair of the erosion site was initiated September 12, 2011.

- The mitigation/restoration portion of the Sycamore Creek Channel Rehabilitation Project has been rescheduled to begin on September 6, 2011 as the contractor wanted to install plants later in the season to avoid heat damage. Channel rehabilitation is still expected to be complete in six to eight weeks.

LEVEE REPAIRS

The Levee Repairs Program repairs critically damaged levees and proactively repairs other damaged levees that cannot wait for system improvement projects and require rapid repair before the next flood season. Levee repair projects are implemented through collaboration with federal and state resource agencies, USACE, and local agencies. Levee repairs are done under three federal authorized programs; Sacramento River Bank Protection Project (SRBPP), Levee Stability Program (LSP), and PL84-99 Rehabilitation Assistance Program (PL84-99). In addition, the State repairs flood project levees under the Sacramento-San Joaquin Erosion Repairs Project (SSJERP).

- **Reclamation District 1001, LM 1.5R – Slope Stability**
  All the agreements and permits are in place. The repair construction work is in progress and is scheduled for completion prior to coming flood season.

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FUNCTIONAL AREA 3 FLOODPLAIN RISK MANAGEMENT

The primary purpose of Floodplain Risk Management is to reduce loss of life and property caused by floods and to restore the natural resources and beneficial functions of floodplains by providing comprehensive guidance and technical support and assessing the floodplain management needs and issues of California communities in order to promote a comprehensive and system-wide flood management strategy.

FLOODPLAIN MANAGEMENT TECHNICAL SUPPORT

Floodplain Management Technical Support provides statewide technical support to federal, state and local agencies, and the public for flood hazard maps, levee data and National Flood Insurance Program (NFIP) activities, including the Community Rating System (CRS).

Staff members conducted five Community Assistance Visits with the Cities of St. Helena, Loomis, San Pablo and Pleasant Hill, and County of Calaveras, a "Floodplain Management & Duties of the Local Administrator" workshop in the City of Ventura, and a "FEMA Elevation Certificate" workshop in City of Sacramento.

Staff provided 50 hours of technical assistance to community officials, engineers and surveyors, and homeowners and participated in and provided assistance to two Tehama County Public Meetings on flood insurance requirement.

CRS staff continues to implement Phase 2 of the Community Rating System Program, and is waiting to hear back from FEMA in response to an earlier request for additional Uniform Minimum Credit points for State storm water quality regulations. Staff initiated work to identify the communities in California that would benefit the most by joining the CRS. Staff is continuing to work with community representatives in other parts of the state interested in starting regional CRS users groups.

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.

Mapping staff received 4 new data requests, and processed and delivered 3 requests that account for 147 LiDAR tiles and 524 Aerial Imagery tiles. Staff also developed two Mapping Activity Statement documents for applying FEMA grants of $940,000.

FLOOD RISK NOTIFICATION

The Flood Risk Notification Element focuses on communicating flood risk to the public, and local, state and federal agencies to increase flood hazard awareness for areas protected by the State Plan of Flood Control.

The Flood Risk Notification Program received the California-Nevada-Hawaii Floodplain Management Association Media Award.

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 creating planning approaches and data sets that help agencies, communities, and individuals make better informed decisions.

Two meetings were held last month with the Work Group via webinar to continue discussions on remaining key Urban Level of Flood Protection Criteria (ULOP) issues and significant comments. Based on the Work Group comments and internal DWR discussions the design team has decided to develop a set of recommendations to inform potential revision of the current law to help make the ULOP requirements more feasible to implement. Work on the criteria will not move forward at this time, and instead the design team will work on recommendations on how to best refine and clarify the intent of the legislation. The design team plans to present these recommendations to DWR Executives in the next few weeks, who will then recommend to the team how to proceed with the ULOP project. DWR's Building Standards Code Update team will be meeting with the new Executive Director of the California Building Standards Commission and is assisting Association of State Floodplain Managers (ASFPM) in the locally hosted National Flood Proofing Conference (NFPC), which expects over 400 participants. FPM staff will be making presentations at this conference. In August, staff initiated a pilot activity, *DWR Hazard Mitigation Grant Planning and Technical Assistance*, and submitted three Notice of Interest (NOI) forms for elevation projects through FEMA's FY 2012 Pre-Disaster Mitigation Grants Program. Those projects are focused on elevating high flood risk structures recommended by local floodplain managers, and all of the three NOIs were approved by CalEMA. Staff members also attended the Benefit-Cost Analysis training to prepare the application packet, and CalEMA's application deadline is October 17, 2011. In order to meet the non-federal matching funding limits and restraints, FPM Branch is initiating relevant guidelines for project screening and prioritization. Simultaneously, those communities whom have obtained the approved NOI and plan on submitting the application, FPM Branch provides technical assistance and networking to connect applicants to the CalEMA Hazard Mitigation Grants Branch for further assistance. FPM staff also assisted the California-Nevada-Hawaii Floodplain Management Association in planning and carrying out their 2011 conference, where DFM staff made technical presentations and chaired multiple technical and policy sessions. Gary Bardini was a keynote speaker.

FUNCTIONAL AREA 4 FLOOD PROJECTS & GRANTS

Flood Protection Projects and Grants are responsible for the State's input to project selection and funding. The program is responsible for the majority of physical improvements to the flood management system and provides grant money in the Delta and Statewide. Flood Protection Projects and Projects Grants has been a long-standing 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 participates and provides cost-share for feasibility studies with USACE and local partners. Several studies are underway and new ones are expected in the near future.

American River Common Features GRR

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

- Draft F3 (scoping) document is complete and has been distributed for internal DWR review. It is also under review by the Corps Agency Technical Review (ATR).
- Levee vegetation and land side access issues require additional analysis. The additional analysis is anticipated to cause schedule slips. USACE is developing a revised General Revaluation Report (GRR) schedule which is anticipated to be released to the project sponsors by the end of September.

Frazier 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 Frazier Creek/Strathmore Creek in Tulare County.

- The Study did not receive Congressional funding for the upcoming fiscal year. The County of Tulare has shown interest in submitting an application to DWR's Local Levee Assistance Program (LLAP) to secure funding to perform a feasibility study to identify projects to reduce flood risk.

Lower San Joaquin River Feasibility Study
This study is a coordinated effort by the State, USACE and San Joaquin Area Flood Control Agency (SJAFCA) to investigate feasible 200-year level flood protection alternatives and opportunities for floodplain restoration and recovery, recreational enhancements, and ecosystem restoration for the city of Stockton and surrounding areas. The cost estimate for the study is $10.6 million with a projected 2016 completion date.

- The non-federal sponsors are working with USACE to amend the Feasibility Cost Share Agreement (FCSA) to allow In Kind Contributions (IKC) and cash payments to be accelerated to USACE. Once the amendment language is agreed upon by all sponsors, the amendment will be presented to the Board.
- Efforts are being made by the non-federal sponsors to use the Pilot Program as a model to complete the study in an acceptable timeframe.

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.

- USACE is continuing efforts to secure funding for the remainder of FY11 in order to complete the Project Management Plan and execute the FCSA.

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 White River and Deer Creek in Butte County.

- Efforts to close out the Rock Creek CAP study by processing the final accounting payment of $69,000 through the State contracting office to USACE continue. Board staff and the contracts office are determining if an amendment is in order to process the payment.

Sacramento River Flood Control System Evaluation
The Sacramento River Flood Control System Evaluation (SRFCSE) 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 and Board staff are coordinating to schedule a "project scoping definition meeting" to discuss Board staff comments provided for the USACE White Paper on June 9, 2011.

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.

- As part of the National Pilot Program, USACE held the Decision Point No. 1 (DP#1) meeting on August 23, 2011. The purpose of DP#1 was to determine if there was federal interest in the study and for the Vertical Team to decide if the study should continue toward Decision Point No. 2 (DP#2). The Vertical Team

agreed that there was continued federal interest and that the study should continue toward DP#2, Alternative Array and Plan Selection.

West Sacramento GRR
The General Reevaluation Report (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.

- The draft FCSA Amendment No. 2 language discussing accelerating funds and In Kind Contributions to USACE is still being reviewed by DWR. Once the language is agreed upon by DWR, West Sacramento and USACE Amendment No. 2 will be presented to the Board. This amendment will allow the non-federal sponsor to accelerate funds and In Kind Contributions in advance of USACE and increase the study cost to $10M.
- Project Development Team (PDT) continues Plan Formulation work leading up to the Alternative Formulation Briefing. The PDT met on August 4 and August 11, 2011, to continue the discussion of measures and preliminary alternatives.

West Stanislaus County - Orestimba Creek Feasibility Study
This study will evaluate feasible flood protection alternatives for the City of Newman and the surrounding agricultural areas to achieve a 200-year level of flood protection.

- USACE is developing the National Economic Development plan by refining the technical analysis.

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.

- The Study did not receive Congressional funding for the upcoming fiscal year. The County of Tulare has shown interest in submitting an application to DWR's Local Levee Assistance Program (LLAP) to secure funding to perform a feasibility study to identify projects to reduce flood risk.

Woodland/Lower Cache Creek Feasibility Study
USACE will develop alternatives for a new feasibility study to determine if there is a National Economic Development (NED) plan that is federally justified. The study will continue efforts suspended in 2004 after local resistance to USACE-selected Flood Barrier Option alternative. USACE estimates that the new feasibility study will be complete in 2017 with design of a selected alternative to commence in 2017.

- The Study did not receive Congressional funding for the upcoming fiscal year. The City of Woodland met with DWR and USACE to discuss a strategy to advance the study by accelerating City and State funds. The City of Woodland was tasked with revisiting the study's scope, schedule, and budget that identified a study that includes the Cache Creek settling basin. Once the Board receives the City's submittal it will be analyzed. If the submittal is valid, it is likely that the Board will consider partnering with the City and advance the study.

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

- The federal and Board sponsors are expecting a decision from Assistant Secretary of the Army (ASA) on the early advancement of credit towards the Marysville Ring Levee Project and Policy Guidance Memorandum (PGM) in September 2011. A meeting is scheduled for September 7, 2011 with the federal and non-federal sponsors to discuss early advancement of credit.
- ASA has yet to forward the results of their review of the PGM. The purpose of the PGM is to provide guidance to the sponsors for either preparation of a modified GRR or a Post Authorization Report/Limited Reevaluation Report (LRR) as the preferred decision document.

- **EARLY IMPLEMENTATION PROGRAM (EIP) PROJECTS**

EIP includes projects that are ready to proceed in advance of the CVFPP. An element of approval for these projects ensures that 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.

- No change since last month.

Reclamation District 17 - 100-Year Seepage Area Project (RD-17)
The RD-17 levees have unacceptably low factors of safety for under- and through-seepage. These issues are being addressed by constructing seepage berms, slurry walls, and setback levees.

- DWR is currently analyzing the results from the piezometer data and working with RD-17 to ensure the levee is performing as designed.

Three Rivers Levee Improvement Authority – Feather River (TRLIA-FR)
The Feather River Levee Improvement Project (FRLIP) will offer 200-year flood event protection for both Highways 65 and 70. FRLIP will lower water surface elevations by 1.5 feet along the Feather River and the lower Yuba River benefiting the communities 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.

- Construction of the Vegetated Wave Buffer, Segment 2, is now complete and a post construction job-walk will be scheduled for September 2011.
- CVFPB has required TRLIA to remove all existing asbestos concrete piping left in the floodway within the setback area and all PVC irrigation lines within 100 feet from the water side toe of the setback levee as well as removing visible PVC risers. TRLIA has provided a work plan and is planning to proceed with removal in the first week of August 2011.

Three Rivers Levee Improvement Authority - Upper Yuba River (TRLIA-YR)
The Upper Yuba River Levee Improvement Project will complete a levee system designed to provide 200-year level of protection for 40,000 residents in South Yuba County.

- TRLIA awarded the construction contract to the lowest bidder Magnus Pacific, notice to proceed was granted, construction began in June 2011.
- During the week of June 20, 2011, the grading contractor discovered buried debris on the landside of the levee at the eastern-most limits of Segment 4 that appears to be old farm trash. HDR and Kleinfelder have had environmental and archeological staff onsite to assess the debris and obtain material samples for environmental testing. It is our understanding that the archeological representative has determined that the rubbish has no historic value and that initial environmental tests results were inconclusive. Kleinfelder received soils results on the debris pile from Segment 4. Elevated levels of copper were detected, which is not hazardous but above the Environmental Screening Levels. Also, low levels of insecticides were detected. DWR's environment staff will be reviewing Kleinfelder's results and recommendations.

Sacramento Area Flood Control Agency - Natomas Cross Canal (SAFCA-NCC)
This project, part of the Natomas Levee Improvement Program, would improve the level of flood control protection to the Natomas Basin by providing at least 200-year level of flood protection. This is accomplished by installing cutoff walls to prevent seepage, underseepage, and raise the levee.

- SAFCA has submitted the NCC Project Completion Report, dated May 9, 2011, which was received on June 24, 2011. Comments from reviewers have been received with the exception of those from the Board, which are expected in mid-September.

Sacramento Area Flood Control Agency - Capital Outlay (SAFCA-CO)
This project, a part of the Natomas Levee Improvement Program, would improve the level of flood control protection to the Natomas Basin by providing at least 200-year level of flood protection. This is accomplished by installing cutoff walls to prevent through seepage, underseepage, and raise the levee. SAFCA plans to complete components to Element 12A (approximately RM 67) along the Sacramento River in 2011 and have USACE complete the remainder. This is estimated to occur in 2014.

- Construction is currently underway on Elements 10 to 12A (I5 to Powerline Rd). Sukut Construction has begun cutoff wall construction (total contract amount - $19.2M). Construction is approximately 12 percent completed.
- Construction is continuing by Nordic Construction on Elements 6B to 9A (Teal Bend to I5) and is approximately 75 percent complete.

West Sacramento Area Flood Control Agency, Capital Outlay (WSAFCA-CO)
The CHP Academy, the Rivers and the I-Street Bridge projects are part of the North Area Plan and were selected to be completed under EIP. All three projects are designed to provide 200-year level of protection for about 47,000 residents.
The I-Street Bridge project was completed in November 2008. Plans and specifications are currently nearing completion for the CHP Academy and The

Rivers projects. The two projects are scheduled for construction in June 2011 and are expected to be completed in December 2011.

- Preconstruction meeting took place on July 13, 2011
- Ground breaking ceremony was held on July 22, 2011.
- The contractors have started project boundary staking and SWPPP/BMP installations.

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.

- Construction at Site R5 has begun and is scheduled for completion in October 2011.
- Howe Ave and Site R6 designs are complete. DWR real estate staff is currently conducting certification processes for both sites.
- Negotiations to obtain temporary easements for construction at Howe Ave and Site R6 are currently underway with Sacramento County.
- Remedial monitoring reports (RMR) for remaining Phase 2 and Phase 3 sites have been released and are undergoing stakeholder review.
- Construction for remaining Phase 2 and Phase 3 sites scheduled for FY13 and FY14.

Folsom Dam Raise and Bridge Element

The Folsom Dam Raise and Bridge Element Project provide Flood Damage Reduction and Dam Safety benefits to Sacramento.

- Off-site environmental mitigation is underway.
- A Project Partnership Agreement (PPA) is scheduled for discussion and execution in 2012 for the dam raise portion of the project.

Folsom Dam Modifications (Joint Federal Project)

The Folsom Dam Modifications Project (Folsom Dam Joint Federal Project) provides Flood Damage Reduction and Dam Safety benefits to Sacramento.

- A new construction program schedule is complete. The current estimated completion for the JFP is October 2017.
- The contractor continues production blasting, excavation, and rock anchor installations in the Control Structure area. Conduit installations started at the Generator building and the concrete batch plant is being mobilized.
- Joint Agency Schedule Implementation Team (SIT) meets once a week to evaluate the schedule enhancing actions in order to optimize the construction schedule. The efforts are ongoing and the SIT will continue to seek out opportunities to advance the schedule throughout the contract.
- A stakeholder workshop for the Flood Management Operations Study for Folsom Dam was held on August 18, 2011.

- Engineering designs for the chute, stilling basin and approach channel are underway and are currently about 65 percent complete.

Marysville Ring Levee Improvement Project
The Marysville Ring Levee Project provides 200-year or greater flood protection to the City of Marysville by constructing cut-off walls and levee strengthening and reshaping features to the existing levee system surrounding the Marysville urban area.

- Construction for Phase 1 is currently underway with scheduled completion in late November 2011.
- The USACE has issued a stop work and cure notice on August 18, 2011 to the Phase 1 contractor, Raito Inc. The cure notice requires a remedial report to be submitted describing ways to demonstrate slurry wall continuity, verticality and homogenous in-situ mixing of the soil, cement and bentonite.
- Local Partners and Board staff are currently in negotiation with USACE to resolve the denial of Section 103 Deferral extension and Section 104 credit denial.

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

- The geotechnical report for 30 percent design of sites 9, 10, and 11, which are on the right bank of the Sacramento River in Yolo County, is due from the USACE consultant by mid-September.

South Sacramento Streams Project
The South Sacramento County Streams Project will increase the level of flood protection from 1-in-50-years to 1-in-200-years for the urbanized area of South Sacramento County and an area to the south and east of the City of Sacramento.

- The State is in the process of acquiring real estate from Union Pacific Rail Road (UPRR) with the intent to allow USACE to award a contract by September 30, 2011, to construct 2,850 feet of floodwall along Morrison Creek and UPRR tracks. Environmental documents were completed and approved by the SAFCA Board and the Board in August 2011. The project is advertised and construction is scheduled to begin in May 2012.
- Complications with right of way limitations on the Unionhouse Creek design along 4,500 feet of the creek have led the local sponsor to investigate alternatives for flood control along Unionhouse Creek. Therefore, SAFCA may pursue flood control improvements apart from USACE, and request that this portion of the project be removed from the USACE scope of authorization. Details on SAFCA's plan will be released later.
- USACE, the State and SAFCA intend to proceed with the design of flood control improvements along approximately two miles of Florin Creek as the next step in this project.

West Sacramento Area Project, Slip Repair

- Construction began July 28, 2011 and is progressing as scheduled.
- Completion is still expected in October 2011.

STATEWIDE FLOOD PROGRAMS

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

FLOOD CORRIDOR PROGRAM (FCP)

The Flood Corridor Program 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.

- The FY 10-11 Funding Cycle request for grant-funded project proposals closed in March. A total of 36 proposals were submitted. FCP staff members completed site visits and evaluations for all 36 proposals, with staff from other DWR regional offices and from CA Department of Fish and Game, Cal Emergency Management Agency, and CA Department of Conservation assisting. Four consensus meetings were held in May and June.
- Five Management Team meetings, including FloodSAFE and DFM managers, were held in June, July and August to discuss funding recommendations. The final meeting will be held in early September.

FLOOD CONTROL SUBVENTIONS PROGRAM (FCSP)

The Flood Control Subventions Program 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.

- Twelve claims for $8.27M were approved for payment.
- Thirteen claims for $23.8M are currently under review.
- No audit payments were processed.
- Five new claims for $1.95M were received.
- 34 claims for $123.24M are pending review.
- Work on revising Program Guidelines has commenced.

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.

- Contra Costa County's Amendment No. 1 to the Wildcat and San Pablo Creek Levee Geotechnical Evaluation Project was approved and received signature from the Director's for final execution. The amendment increased the agreement term, increased the overall grant amount, and updated the project work plan, schedule, and budget.
- Contra Costa County's Amendment No. 1 requires the Project Manager to encumber additional funds into the project account. The Project Manager has

worked closely with the AGPA to develop the necessary documents to encumber the funds. The documents are now being processed by the budget office.
- City of Oroville grant agreement for the Evaluation of the City of Oroville Levee received DWR approval signatures and has been fully executed. Work on the project has begun.
- Humboldt County submitted a Final Geotechnical Report, Project Completion Report and Invoice #2. The Project Manager requested additional information. The information was received, reviewed, and approved. A request for payment is being sent to the Budget office. DWR Project Manager is in the process of closing out the project and releasing retention funding.

YUBA-FEATHER FLOOD PROTECTION PROGRAM (YFFPP)

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.

- Files for the YCWA Supplemental Flood Control Feasibility Study are being archived. Staff are currently determining retention amount left over from the completed project.
- A revised summary funding overview was created detailing program budget status and identifying needed changes. Legacy and closed-out projects were added to the summary. Staff are currently determining amount available in the program to solicit new projects.

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

LLAP and FCSP are all in process of finalizing their program guidelines.

- The LLAP Guidelines have been amended based on addressing (as warranted) of public comments received. The Project Solicitation Package (PSP) has been updated to reflect the next solicitation plans and amendments to the Guidelines. These documents have undergone management review and have received final approval. DWR Project Manager has developed the PSP interface in the Bond Management System (BMS). A release date for the PSP is scheduled for September 7, 2011. Public workshops have been scheduled during the solicitation period.

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.
- USACE has increased the cost estimate for completion of the Planning, Engineering, and Design (PED) phase of the Hamilton City Flood Risk Reduction

and Ecosystem Restoration Project, raising the State match request by approximately $59,000 for this phase.

TECHNICAL ASSISTANCE

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

- The final AB 1788 regulations package has been approved by DFM chain of command and has been sent downtown for executive approval before submittal to the Office of Administrative Law.
- Staff has updated the deliverables package for the FAXCT 9 Feasibility Studies Sub-Team.
- Staff updated the Draft California Delta Area Flood Emergency Evacuation Plan as an action item of Golden Guardian flood fight exercise. The document was presented at this month's ICT 4 meeting. Review and comments were requested.

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 Central Valley Flood Protection Board, 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 2009-2010

- DWR staff has completed 62 joint levee inspections and received DFG approval for 61 claims. Payments will be processed by staff as DFG approves the claims.
- Staff has received 62 final claims for the maintenance work totaling $13M and, to date, 61 reimbursements have been paid totaling $9.2M.

Work Agreements for FY 2010-2011

- DWR staff has mailed work agreements to 68 reclamation district and has received signed work agreements from 65 reclamation districts.

- To date staff has received final claims from five reclamation districts totaling $650,335.

Work Agreements for FY 2011-2012

- The allocated fund for FY11-12 is $12M.
- Staff has received 66 applications totaling $72.5M and has audited the applications for preparation of the Board staff report.
- Staff will be presenting the Board staff report at the September 23, 2011 CVFPB meeting for adoption of the Guidelines: Procedures and Criteria and the 2011-2012 funding allocation.

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 is executing agreements authorizing the work proposed under Project Solicitation Packages.

- No new information.

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 for hidden defects. The 470 miles include State-Federal project levees as well as associated 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 and, where needed, identify remedial measures, including cost estimates, to meet the defined geotechnical criteria. The information being developed will be used in support of the Central Valley Flood Management Planning Program to inform development of two required documents: the Flood Control System Status Report and the Central Valley Flood Protection Plan.

Geotechnical Evaluation Reports			
Study Area	**% Complete**	**Study Area**	**% Complete**
Chico	31	NEMDC East	40
Marysville	**43**	Natomas	15
Sutter	35	Bear Creek	25
RD 784	**41**	Calaveras River	25
Davis	10	**RD 404**	**38**
Woodland	10	RD 17	50
American River	40	**Stockton Non-Project**	**32**
West Sacramento	**97**	**W. Sac. Non-Project**	**13**
Sacramento River	**47**	**South Sac. Streams**	**12**

Changes shown in bold.

- Overall, ULE is 67% complete. The lowering of this number is due to additional project costs for the program delays.
- The West Sacramento GER (Volumes 1 and 2), the template for all GERs has received comments from USACE and is being finalized.
- Drilling occurred in Natomas and Stockton during this reporting period. More drilling is planned for the next reporting period in Stockton, Davis, Woodland, and West Sacramento (non-project levees).
- Schedules for completion of the Geotechnical Evaluation Reports (GERs) Program are continuing to be modified with the current delivery date of the GERs scheduled for the middle of 2013.
- Marysville and Sacramento River GERs continue to be active. RD 784 and RD 404 were initiated.
- Most ULE efforts for the reporting period have been for planning the GERs noted above, drilling preparations and execution, and support of the CVFPP.
- Final Remedial Alternative and Cost Estimating spreadsheets for ULE levees were completed and delivered to DWR in August.

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 less than 10,000 people. The evaluation of current system 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.

NULE is evaluating 1,620 miles of non-urban levees for hidden defects. The non-urban levees being evaluated include State-Federal project levees and associated 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 criteria and, where needed, identify remedial measures, including cost estimates, to achieve the defined geotechnical criteria.

The information being developed will be used in support of the Central Valley Flood Management Planning Program to inform development of two required documents: 1) the Flood Control System Status Report and 2) the Central Valley Flood Protection Plan.

- Overall, Non-Urban Levee Evaluations are 48% complete.
- Final Remedial Alternative and Cost Estimating Reports (RACER) for NULE levees were completed and delivered to DWR in August.

- Drilling activities occurred during this reporting period in Yolo, Colusa, Sutter, Butte, San Joaquin, and Fresno Counties and are anticipated to continue in September.
- Schedules for completion of the GORs are continuing to be prepared with the current delivery date of the GORs scheduled for the end of 2012.

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 SAFCA (AR Common Features), the Sutter Butte Area Flood Control Agency, and the Lower San Joaquin Feasibility Study, RD 784, and RD 17.

TECHNICAL POLICY

A statewide seismic policy is being developed for levee performance, emergency levee remediation, and long-term levee remediation. Interim Levee Design Criteria (ILDC) 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 provide technical support for the development of vegetation management policies as part of the CVFPP.

- Vegetation management policies and research continues.
- With the completion of the draft West Sacramento GER, seismic studies are continuing in the study area for an overall general cost estimate for seismic deficiencies and cost benefit analysis of these fixes.
- Provided support for development of policy papers and technical data for the CVFPP and participated in various FloodSAFE FAXCTs (Functional Area Cross Coordination Teams).

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 includes two major upcoming deliverables: 1) Flood Control Systems Status Report (FCSSR) and 2) Living with Risk: California and Flood Protection in the Central Valley, 1848-2007 Report (History Report).

- FCSSR – The release of the Public Draft of the FCSSR will coincide with the release of the Public Draft 2012 CVFPP in January 2012.
- History Report - An administrative draft of the history document for DWR and Board review was released for internal review on August 31, 2011 with a release of a public review draft scheduled for early 2012.
- CVFMP Public Outreach - A public education video produced in collaboration with DWR by the Water Education Foundation highlighting Central Valley flood management issues and planning efforts will be aired in October by Sacramento Public Broadcasting Service station KVIE.

CENTRAL VALLEY FLOOD PROTECTION PLAN (CVFPP)

The CVFPP reflects a system-wide approach to protecting lands currently protected from flooding by the SPFC. The initial plan is to be completed by January 1, 2012, and updated every five years thereafter.

- An Administrative Working Draft of the CVFPP will be released for review by CVFMP Regional Partners on September 30, 2011. The Public Draft 2012 CVFPP will be released in early January 2012.
- The Administrative Working Draft of the CVFPP will be the subject of a Webinar scheduled for the end of September and followed by a series of regional workshops in early October. Both efforts are to provide regional and agency partners the opportunity to provide input prior to public release.
- Work continues on the draft Program Environmental Impact Report (PEIR) which is being reviewed for consistency and close integration of updates made to the CVFPP in response to comments received during internal reviews. Impact analyses are being drafted as the CVFPP State Systemwide Investment Approach is being refined.

- Coordination continues between the CVFPP and Corps Product Delivery Teams on the Project Management Plan (PMP) for the Central Valley Integrated Flood Management Study (CVIFMS). The Corps conveyed the draft final CVIFMS PMP to DWR for review in mid-August. The Corps also conveyed an amendment to the existing CVIFMS Feasibility Cost Share Agreement (FCSA) between the Corps and the CVFPP for review at that time. The FCSA is scheduled to be heard before the Central Valley Flood Protection Board in October 2011 where approval of the FCSA will be sought.

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 and 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 major work product is a report titled "Recommendations for Improving and Sustaining Integrated Flood Management in California" (Recommendations Report). In addition, SFMP includes integration of flood-related information into the California Water Plan.

- No new information.

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.

CENTRAL VALLEY FLOOD MANAGEMENT CONSERVATION PLANNING

Conservation Framework

The 90% draft Conservation Framework and seven supporting Technical Memoranda were submitted. The next versions of these documents are currently in process.

Conservation Strategy Outreach

Staff is reviewing early work of the Agricultural Stewardship Scope Definition Joint Subcommittee (meetings held in 2009 and 2010), including the “Important Considerations” paper and its incorporation into the Regional Conditions Report. Staff met with the CA Central Valley Flood Control Association and CVFPO, including several representatives of the agricultural community to discuss the Conservation Framework and Conservation Strategy. Staff anticipates additional outreach and engagement with local land use and agricultural interests as the Conservation Strategy is developed.

Vegetation Management
The CVFPP Approach to Levee Vegetation Management text was submitted for inclusion into the CVFPP 90% draft, Conservation Framework, and PEIR. This revised text incorporates comments from NMFS, FWS, DFG, and COE. Staff is working collaboratively to review the levee vegetation text for the latest version of the ULDC.

Interagency Advisory Committee
The IAC met for the second time on Aug 17th and staff provided a comprehensive overview of the Conservation Framework. Participants felt that it met or exceeded their expectations. Discussion at the September meeting will focus on the technical support documents.

REGIONAL CONSERVATION PLANNING
Regional Advanced Mitigation Planning (RAMP)

- The RAMP lead is working to define mitigation opportunities within the pilot area and assist UC Davis with their mitigation demand analysis.
- RAMP staff made presentations to Butte County planning staff about progress in the Butte County HCP/NCCP. Meetings were held with USFWS's region office staff to discuss issues relating to the impact analysis being prepared for Regional Assessment. Staff also made a presentation on RAMP to the Sacramento River Conservation Area Forum TAC. RAMP was asked to bring a presentation to the counties that lie within the pilot area, specifically to Sutter County. Presentations are planned for the USACE's Annual California Regulatory Coordination Meeting in September.
- Edits have been completed for the Draft Statewide Framework and released for legal office review at DWR, Caltrans and DFG. Next week, Deputy Directors will be given a copy of the Statewide Framework and soon after be briefed about the process for signing the proposed cover letter

SCIENTIFIC AND PLANNING INFORMATION
Medium-scale vegetation mapping
FES has received a draft version of the map data. The RHJV lead is coordinating meetings with agency staff who will review and provide the draft map product. Based on comments received, a final map product will be provided before publication of the CVFPP. Once the map is made final, the map will be available to outside parties through DFG BIOS. Field mapping teams have been working in both the Sacramento and San Joaquin study areas in preparation for the fine-scale map, to be completed in 2013.

Vegetation analysis
Staff is working on a connectivity analysis of shaded riverine habitat (SRA) to be included with the Conservation Framework attachments.

Lower Feather River Corridor Management Plan (in coordination with DFM)
The permitting subcommittee met to discuss the potential for programmatic permits for the project corridor. The workgroup continues to meet on a monthly basis to

develop the CMP revised outline; project description, and draft CMP. Public outreach meetings were held with the Sutter Butte Flood Control Agency (SBFCA) to discuss the purpose and scope of the CMP. A separate meeting was held with the levee maintaining agencies to better understand existing and future maintenance activities.

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

While each functional area will conduct some of its own coordination and outreach on individual programs, the Communication element of area 7 provides assistance and support to ensure consistency. Communications and coordination take place internally, as well as externally with partner agencies on various aspects of the FloodSAFE program; including status updates, achievements and accomplishments, and upcoming milestones, with frequency ranging from weeks to years.

- No new information.

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.

Current Status

The efforts of the Non-Federal Coalition to address Corps policy issues have begun to bear fruit:

- On September 2, 2011, a letter signed by 13 Members of the California Congressional Delegation was sent to the Assistant Secretary of the Army (ASA) expressing general concern regarding her decision to discontinue 104 crediting and urging the USACE to work with Non-Federal stakeholders to address their concerns.
- The Senate Energy and Water Development Appropriations Bill has been marked up at the subcommittee and committee level. It includes report language "… urging the Secretary to consider requests for flood control credits on a case-by-case basis to ensure that legitimate credits that could be afforded under section 104 would still be eligible for inclusion in an eventual Federal project."

Next Steps of the Non-Federal Coalition

- Sending a letter from coalition members before October 1 regarding specific changes needed to USACE guidance for 408 approvals and crediting under section 104 and 221.

Other DWR Actions

In October, DWR staff plan to travel to Washington, DC to meet with the Office of Management and Budget, the ASA, USACE, and staff from various Congressional offices, regarding:

- Fiscal Year 2012 and 2013 federal funding needs for critical flood control projects/studies that are cost shared between the USACE and the State of California;
- DWR's proposed legislation for crediting and reimbursement; and
- USACE policy changes concerning section 104 credit, section 408 approvals and levee vegetation.

LEGISLATION LIAISON & LEGAL

The Legislature is a key player in the implementation of the FloodSAFE initiative. Effective communication and reporting of plans and progress will aid the Legislature in funding flood management activities and with direction for future implementation. This element will also address legal issues that need to be resolved for progression of the FloodSAFE initiative.

- No new information.

PROGRAM MANAGEMENT, BUDGET, & FISCAL SERVICES

DWR is accountable for efficient management and expenditure of State funds. Preparing bond budgets and tracking of bond expenditures is essential to document investments of taxpayer dollars. This element provides overall management support to the other functional areas, including program management activities, strategic and implementation plans, detailed budget preparation, and contracts, funds and invoice tracking.

- No new information.

FLOODSAFE PROGRAM ADMINISTRATION & COORDINATION SERVICES

This element includes all administrative and coordination work required for FloodSAFE implementation, including human resources activities, policy document review, and FloodSAFE governance activities, including managing working groups and coordination teams within DFM and DWR.

- No new information.