

**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 continue and are expected to be completed by the end of August. Fall inspections will start in September. Inspectors continue to inspect CVFPB encroachment permits and other authorized activities. Inspectors also continue to facilitate coordination and access to flood protection facilities by DWR and other interested parties. The Framework Progress Report was sent to the CVFPB on August 4, 2011 for their submittal to the USACE.

Flood Project Integrity/Vulnerability Assessment Activities

The Flood System Analysis Section continues to develop a systematic levee vulnerability assessment tool that will utilize levee-related data being collected by DWR to annually assess relative vulnerability of the project levees within the Central Valley flood-control system. This assessment will integrate information related to system performance, engineering evaluations, and operation and maintenance practices. Engineering staff have researched and identified potential data sources. This tool will support the objectives of FA01 by informing emergency response and resource planning decisions. The tool will be used for the State-federal flood control system with the flexibility to expand valley and state wide.

Local Maintaining Agency Reporting Program (CWC 9140-9141)

Annual workshop for the Local Maintaining Agency was held on July 21, 2011. This was the fourth annual workshop since the water code addition in 2008 which requires Local Agencies to report to DWR on the maintenance activities of their levees annually. The morning and afternoon workshop was participated by twelve agencies, consultants and their representatives. The workshop provided information

about the annual reporting program, deadlines and web application review to stress the importance of reporting and to encourage timely reporting.

Library of Models

The original LOM web application framework is adapted to a common framework used for other Flood ER decision support systems. During the month of July the development efforts focused on upgrading the common navigation, user access validation and control features, and the workflow management module to accommodate the new navigation and access control features. The migration of the Admin module to the new framework was used to test and debug these new features. This process is near completion and the development focus will be shifted to LOM-specific development including functionality for the model check-in and check-out processes.

High Water Staking

July snowmelt caused another peak runoff event to occur in the San Joaquin River Flood Control System (SJRFCs), bringing the upper portions of the bypass to the same levels observed in April. FPIIB had an opportunity to send engineers out to mark these water levels as the peak flow was occurring. FPIIB is conducting its own leveling survey, using the existing May water staking hubs as benchmarks. Division of Engineering conducted the May high water staking surveys.

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 August 1, 2011, statewide hydrologic conditions were as follows: precipitation, 140 percent of average to date; runoff, 140 percent of average to date; and reservoir storage, 120 percent of average for the date. Sacramento River Region unimpaired runoff observed through July 31, 2011 was about 24.1 million acre-feet (MAF), which is about 136 percent of average. For comparison, on July 31, 2010, the observed Sacramento River Region unimpaired runoff through that date was about 15.2 MAF, or about 85 percent of average.

July was generally dry, up and down the State. On August 1, the Northern Sierra 8-Station Precipitation Index Water Year total was 72.2 inches, which is about 148 percent of the seasonal average to date and 144 percent of an average water year (50.0 inches). During July, the total precipitation for the 8-Stations was 0.0 inches,

compared to 0.2 of an inch for the monthly average. Last year on August 1, the seasonal total for the 8-Stations was 53.0 inches, or about 109 percent of average for the date.

On August 1, the San Joaquin 5-Station Precipitation Index Water Year total was 64.1 inches, which is about 161 percent of the seasonal average to date and 157 percent of an average water year (40.8 inches). During July, the total precipitation for the 5-Stations was 0.0 inches, compared to 0.3 of an inch for the monthly average. Last year on August 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 07/31/2011 (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	0.17	106	0.04	25	0
Redding	0.15	300	0.00	0	0
Sacramento	0.00	0	0.00	0	0
San Francisco	0.08	200	0.00	0	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	67	0

Key Reservoir Storage (1,000 AF) as of 07/31/2011								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	2,377	1,992	119	2,448	97	---	71
Shasta Lake	Sacramento	4,035	3,322	121	4,552	89	-517	517
Lake Oroville	Feather	3,499	2,638	133	3,538	99	-39	39
New Bullards Bar Res	Yuba	866	752	115	966	90	-100	100
Folsom Lake	American	932	709	131	977	95	-45	45
New Melones Res	Stanislaus	2,276	1,454	157	2,420	94	-144	144
Don Pedro Res	Tuolumne	2,016	1,537	131	2,030	99	-14	14
Lake McClure	Merced	981	681	144	1,025	96	-44	44
Millerton Lake	San Joaquin	492	326	151	520	95	-28	28
Pine Flat Res	Kings	910	519	175	1,000	91	-90	90
Isabella	Kern	337	269	125	568	59	-24	231
San Luis Res	(Offstream)	1,686	1,037	163	2,039	83	---	353

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for August 2011, issued July 31, 2011, suggests no tendency for above or below average rainfall for all of California.

Information on current conditions can be accessed through the California Data Exchange Center (CDEC) at the following locations:

Reservoirs: <http://cdec.water.ca.gov/reservoir.html>

Current Conditions for Major Reservoirs:

http://cdec.water.ca.gov/reservoir_map.html

Precipitation: http://cdec.water.ca.gov/snow_rain.html

Snow: <http://cdec.water.ca.gov/snow/current/snow/>

Water Conditions as of August 1, 2011

- Precipitation, 140% of average
- Runoff, 140% of average
- Reservoir Storage, 120% of average
- Sacramento River Unimpaired Runoff, 136% of average
- Northern Sierra 8-Station Index, 148% of average
- San Joaquin 5-Station Index, 161% of average

Hydro-Climate Analyses

Work continues on the University of California Task Orders for studies supporting climate change hydrology effort. The next set of face-to face or teleconference meetings have been scheduled for August. Efforts continue to coordinate and conduct the US Forest Service mandated archeological study in the American River watershed before augmenting observing sites with new snow monitoring equipment. The future atmospheric river project team provided information to the Central Valley Flood Protection Plan Climate Change Technical Work Group which was used for the pilot study component of the CVFPP technical appendix.

The Central Valley Flood Protection Plan (CVFPP) Climate Change Technical Work Group is completing the draft of the technical appendix for the Central Valley Flood Protection Plan. The Work Group committee involved with the development of the method will have the opportunity to review the information that is presented in the CVFPP.

Efforts continue to coordinate the hydraulics and hydrology efforts of the Department with the United States Army Corps of Engineers (USACE). For the hydrology products, the Central Valley Hydrology Study (CVHS), the reservoir simulation models have undergone review and comment. A methodology to fill in missing data for some locations is being reviewed by the USACE for appropriateness and applicability to the CVHS study. Other model development and data analysis continues as well.

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. 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. An opportunity exists to leverage this work on a larger scale with the

Western Region Climate Center (WRCC). A meeting was held with WRCC staff to determine ways to accomplish data archiving for the Bulletin 195 stations in the California Climate Data Archive at WRCC. Further discussions and explorations will continue.

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 and distribute them to the National Weather Service and the Department of Water Resources' 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. Data logging and communications work with Scripps Institute of Oceanography has achieved products for testing phase. Testing has begun and will continue.

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.

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 10 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

A 2-day training session was held in July and a PRMS User's Group was created from this training, which features eight Hydrology Branch employees across three sections. A Kings River Water Association employee was also invited to join the users group as a means of sharing knowledge and building runoff models together to help improve flood coordination in the future as part of the San Joaquin Reservoir Forecast-Coordinated Operations (SJ F-CO) program.

Snow Surveys & 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 in the Feather and Yuba. A new installation of a snow pillow is currently going in at Hull Mountain in the

Eel River drainage. Hull Mountain is the first install of a snow pillow along the North Coast in an effort to improve the timing of runoff forecasts in that area. Course maintenance has slowly started for courses not co-located with snow pillows. A team of Snow Surveys employees tackled the troublesome invasion of lodge pole pine at the Lyon's Creek snow course in the American River watershed. Lyon's is one of the courses used in the media survey and a robust invasion of lodge pole pine saplings was compromising the accuracy of the measurements. A team of snow survey employees armed with pruners has resolved that issue for now. The situation at Lyon's, while extreme, is indicative of some of the common issues at snow courses.

Hydrologic Data Management

The Snow Surveys section continues to collect, review, Quality Control, and enter 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 & Water Supply Index Forecasts

Finally, the forecasting season has concluded for this water year.

Runoff

Regional Sierra flows for July in the Sacramento, San Joaquin and Tulare Lake regions were roughly around 315, 300 and 250 percent of average, respectively. Flows for individual rivers in these regions ranged between 131 and 465 percent of average.

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

A heat wave settled over California in mid- to late June and accelerated the snowmelt at the same time when San Joaquin River system reservoirs had nearly filled to capacity. Conference calls and coordination efforts through mid-July helped San Joaquin Valley reservoirs avoid exceeding downstream target flows. Operators

of Friant and Pine Flat had to make major increases to flood releases to avoid spilling. Thunderstorms in the first week of July made matters worse and resulted in a small amount of uncontrolled spill out of Friant.

As for the Yuba-Feather F-CO, staff began to plan and design the annual functional exercise to be held the first week of October 2011.

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.

Delta Flood Preparedness, Response, and Recovery

The regional flood preparedness section of the DWR flood operations branch continues to prepare the DWR delta flood preparedness, response, and recovery plan. The plan is scheduled for internal review in December 2011, followed by a year-long process of partner review before the plan is finalized in December 2012. Elements of the plan are currently being vetted with DWR's response partners and briefings as to the state of the plan and the elements included in the plan are scheduled for the fall.

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

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.
- Reservoir inflow hydrograph daily-to-hourly estimation and smoothing, and record augmentation is complete.
- Continuing internal coordination with USACE and hydraulic and hydrologic workgroups.
- Development of design storm methodology for unengaged 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.

- Debris removal and hand brush clearing within Cache Creek settling basin near the low flow structure is completed.
- Grading toe roads at Cache Creek, Willow Slough, and Sacramento Bypass has been initiated and is 35% complete.
- Tree maintenance completed in MA9 and Putah Creek.
- Vegetation spot spraying in all areas is continuing as needed.
- High water debris removal is complete at Tisdale Bypass and East Levee Sutter Bypass.
- The environmental restoration contract work is in progress 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.

- Maintenance and debris removal activities are continuing at the Knights Landing Outfall Gates.
- Minor levee gate repairs are continuing in all Sacramento yard areas.
- Ongoing activities at the Sutter Yard facility include asphalt repair and old administration building remodeling.

- The Sutter Bypass East Borrow Canal projects (Weir 2 and Willow Slough) and the Sutter Bypass Pumping Plant Rehabilitation project are currently in construction.

LEEVE 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 slope mowing and tree maintenance at MA9 is near completion.
- Mowing was completed for Sacramento Bypass, Putah Creek, Cache Creek, Tisdale Bypass, and the east levee of the Sacramento River.
- Burning was completed at Willow Slough Bypass and is ongoing at Cache Creek, MA1, MA3, MA5, Wadsworth Canal, and the east levees of Sutter Bypass and the Sacramento River.
- Rodent control program work (baiting and grouting rodent holes) is ongoing where needed.
- Levee dragging is ongoing in MA3 and MA12.
- Two small erosion repairs were initiated in MA13.
- In MA 16 and 7, vegetation is being cleared from pipe outlets with CDF crews.
- Ongoing activities include debris removal and vegetation management.

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.

- Nothing new to report

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 2064, SJRM 71.5R - Rock Slope Protection

The project is on schedule for 2011 construction; all permits and agreements are in place.

Reclamation District 1001, LM 1.5R – Slope Stability

A draft LPCA/Work Agreement is with legal for review. The repair is dependent upon DWR and RD 1001 agreement regarding cost share and scope of work. If an agreement is not reached in time for 2011 construction, the site will be winterized.

Reclamation District 900, SAC RM 57.2R - Set Back Levee with Slurry Wall

Construction work resumed after being halted due to prolonged high water levels. Construction completion date could be delayed to as late as fall 2012 depending on the extent of this year's construction season.

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).

DWR staff conducted five Community Assistance Visits with the Cities of San Jose, Dana Point, San Clemente, Chino, and Portola and conducted a “Floodplain Management & Duties of the Local Administrator” workshop in the City of San Diego. Staff also provided 45 hours of technical assistance to community officials, engineers and surveyors, and homeowners, and participated in and provided assistance to the CRS Users Group Southern California kickoff Meeting in Riverside. The update and expansion of DWR’s CRS website has been completed. The newly formed Southern California CRS Users Group successfully launched its kickoff meeting, in which staff gave a presentation on DWR’s CRS website. Staff continues to work with community representatives in other parts of the state interested in starting regional CRS users groups. The Statewide Best Available Mapping (BAM) Project, which covers all 58 counties in the State and includes 100-, 200-, and 500-year floodplain information, is complete. The Statewide BAM Project’s GIS based “web viewer” displays the 100-, 200-, and 500-year floodplains was completed and shared with statewide floodplain management officials for their review and comments. The web viewer can be accessed by public at: <http://gis.bam.water.ca.gov> and allows users to view a particular area and identify their potential flood hazards.

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.

There is nothing new to report for this program.

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 has been awarded a \$200,000 grant from FEMA to enhance the FRN Program for the time period October 1, 2011 through September 20, 2012. Staff is developing a detailed proposal for approval by FEMA, which would include translating the flood risk notice into various languages, enhancing the FRN Website, and hosting a Flood Risk Preparedness and information booth at county fairs and home shows.

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.

DWR's *Implementing California Flood Legislation into Local Land-Use Planning: A Handbook for Local Communities* (Handbook) received the Focused Issue Planning Award from the California Chapter of the American Planning Association (CCAPA). The Handbook was prepared to assist local communities with responding to the flood legislation (Assembly Bills 162, 70, 5, and 156 and Senate Bills 5 and 17) passed in 2007 that strengthens the link between flood management and local land use planning by describing how the 2007 legislation affects city and county responsibilities related to local planning tools and documents, including: general plans, development agreements, zoning ordinances, and tentative maps. The statewide CCAPA jury noted that the Handbook is "widely implementable, very well organized, and user friendly." To access this award-winning document, please visit our website at www.water.ca.gov/localfloodriskplanning. The Urban Level of Flood Protection Criteria (ULOP) work group met on June 21st to continue discussions on updating the draft Urban Level of Flood Protection Criteria document and to review comments received from the work group. The DWR design team is currently addressing comments and refining the ULOP document. Two work group sessions will be held in mid-August via Webinar to respond to the remaining ULOP issues and significant comments. DWR co-hosted a Hazard Mitigation Grants workshop with the California Emergency Management Agency last month. Recently, the Floodplain Risk Management Branch (FPM Branch) initiated a pilot *DWR Hazard Mitigation Grant Planning and Technical Assistance Activity* and submitted three Notice of Interest (NOI) forms for elevation projects through FEMA's FY 2012 Pre-Disaster Mitigation Grants Program. The pilot projects are focused on elevating high flood risk structures that were recommended by local floodplain managers. If the NOIs are approved, the applications for the elevation projects will be due to CalEMA on October 17, 2011. At the same time, FPM Branch also provided technical assistance to communities regarding their NOIs for their Local Hazard Mitigation Plan and/or Community Rating System Plan.

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.

- USACE is continuing to develop draft alternatives by refining Real Estate acquisition costs. The draft F3 document, which will have USACE's draft alternatives for State and local agency review, is anticipated to be completed September 2011.
- USACE and Board Staff determined that the drilling contractor will process the geological permit for the NEPA and CEQA categorical exemption with the State Lands Commission (SLC). The application was submitted by the drilling contractor on July 15, 2011.

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 Frazier/Strathmore Creek Feasibility Study did not receive Congressional funding for the upcoming USACE fiscal year, but USACE has secured funding to complete Project Management Plan (PMP) and Feasibility Cost Sharing Agreement (FCSA).

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 FCSA; this amendment will allow the non-federal sponsors to provide additional resources (cash and work-in-kind) up to the non-federal cost share of 50 percent, to accelerate completion of the Chief's Report. This amendment is needed due to Congress's reduction of federal funds for studies and the non-federal partners' desire to complete the study in a timely fashion.
- The local sponsors attempted to have this study on the USACE National Pilot Program (Expedited Study). The study was not chosen as a USACE Expedited Study and USACE has stated that no more studies will be placed in the Expedited Study Process.
- SJAFCA is working with DWR and USACE to form a strategy to continue the study without Congressional Funding for the upcoming USACE fiscal year.

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 to bring the project to an acceptable stopping point due to lack of federal appropriations for FY 11-12. The local partner will allocate the non-federal funds for continuation of the project once future federal appropriations are made.

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.

- Board staff and USACE are continuing efforts to close out the Continuing Authorities Program (CAP) Project by securing State funding for FY 11-12 and developing USACE's final accounting invoice.

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.

- Board staff provided comments on June 9, 2011 on the April 2011 USACE white paper. USACE has not responded to the June 9, 2011 comments. No timeline has been given for a USACE response.
- The previous USACE Project Manager, Laura Whitney, handed the study off to USACE Project Manager, Tom Karvonon, as of July 22, 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.

- USACE held a two-day Plan Formulation session on July 18 and 19, 2011 with non-federal sponsor participation. Possible measures were screened and preliminary alternatives were created. USACE will develop screening criteria to reduce the number of alternatives that will be moved forward.

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 Feasibility Cost Sharing Agreement (FCSA) Amendment No. 2 will be presented to the Board once it is finalized by USACE. This amendment will allow the non-federal sponsor to accelerate funds 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 July 29, 2011, to discuss measures and form 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.

- Schedule changes were made along with a final estimate for costs to complete the study. The final estimate has determined that a schedule and cost change request (SACCR) will not be needed. Additional savings accrued from a work-in-kind crediting package that was submitted and accepted, which is keeping the project within budget.

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.

- This study did not receive Congressional funding for the upcoming USACE fiscal year, but USACE has secured funding to complete Project Management Plan and FCSA.

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 USACE fiscal year. The City of Woodland is working with DWR and USACE to develop a strategy that will allow the study to continue without Congressional Funding.

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 State sponsors are pursuing a Post Authorization Report/Limited Reevaluation Report (LRR) (decision document) for the original 1999 authorized features of the Yuba River Basin Project and concurrently advancing GRR (phased implementation). When the documents are completed, approval of LRR will expedite the use of credit for the Marysville Ring Levee (MRL) project following Congressional Authorization of the work presented in the LRR.
- The Policy Guidance Memorandum (PGM) is a requirement of USACE's Plan Formulation milestone for the General Reevaluation Report (GRR); it will provide guidance from the Assistant Secretary of the Army for continuance of the draft GRR and update GRR schedule. USACE's headquarters is requiring an update to the original PGM due to the federal and non-federal sponsors moving forward with the LRR. The PGM is estimated for approval on August 19, 2011 from ASA.

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.

- RD-17 installed piezometers this month to more closely monitor through-seepage and underseepage on segment IV-b.

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 August 2011.
- CVFPPB 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 June 24, 2011. Comments are due back from DWR staff reviewers in August 2011.

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 9A to 12B (I5 to Powerline Rd). Sukut Construction has started clearing and grubbing in anticipation of cutoff wall construction (total contract amount - \$19.2M).
- Construction is continuing by Nordic Construction on Elements 6B to 9A (Teal Bend to I5) and is approximately 65 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.

- The Mayhew Project site staging area and erosion site repair design is complete.
- Construction at Site R5 will begin August 22, 2011.
- Howe Ave and Site R6 designs are complete. USACE hopes to award construction contracts for both sites by September 2012.
- Negotiations to obtain temporary easements for construction at Howe Ave and Site R6 are currently underway with Sacramento County.

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.
- USACE is currently working on preliminary design and a Project Management Plan (PMP) for the project.
- USACE has assigned a new project manager to the Folsom Dam Raise.
- A Project Partnership Agreement (PPA) is scheduled for execution in 2012.
- Design of temperature control shutter is scheduled for completion in 2013.
- USACE requested the Board's involvement in the cost sharing of the ecosystem restoration and tainter gate automation portion of the Folsom Dam Raise. The Board is not the non-federal sponsor for this 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.

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.
- Construction for Phase 1 is experiencing issues with core sample quality. Further negotiations with Raito, Inc. will be needed to resolve issues with their unconventional Deep Soil Mixing (DSM) method.
- The Phase 4 design remains at 60 percent.
- Local and State Partners 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.

- USACE continues work on the design of sites 9, 10, and 11, which are on the right bank of the Sacramento River in Yolo County.

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. 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

- The start of construction has been pushed back and is scheduled to begin in August 2011. Completion is scheduled for 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.
- The first Management Team meeting, including FloodSAFE and DFM managers, was held to discuss funding recommendations. The second and third Management Team meetings were held in July. One additional meeting is scheduled for August 11, and additional meetings will be scheduled if needed.

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.

- One claim for \$77.6M was completed.
- Seven claims for \$24M are under review.
- No audit payments were processed.
- Four new claims for \$6.9M were received.
- 43 claims for \$130.7M are pending review.
- A meeting was held with the Real Estate Branch (REB) to discuss ways to effectively incorporate REB services as part of the FCSP claim review and approval process.
- A meeting with Legal is being planned to confirm if/when DGS involvement may be needed regarding RE appraisal and new FCSP contract agreements.
- Program Delivery improvement process review and implementation continues.

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 signatures by the County and Legal Counsel. The amendment is now awaiting the Director's signature for final execution. The amendment increased the agreement term,

increased the overall grant amount, and updated the project work plan, schedule, and budget.

- City of Oroville received City signatures for execution of a grant agreement for the Evaluation of the City of Oroville Levee. The Agreement is now in process of receiving DWR legal counsel signatures.
- San Bernardino County Levee Certification and Modernization Project were formally closed out and retention has been released.
- Humboldt County submitted a Final Geotechnical Report and Project Completion Report. The final documents have been reviewed by DWR PM and have been approved. DWR PM 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.

- Responded to public information request (FOIA) for TRLIA Phase 2 Design/Implementation. Invoices packaged and sent to Public Records Coordinator. Staff attended a site visit to verify claims made against projects in question.
- YWCA Feasibility Contract expired on June 30, 2011. Project close out is underway; a letter will be sent when financial data is verified.

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 approval and the DFM Chief is in the process of providing final approval.
- The final AB 1788 regulations package has been approved by DFM management and has been sent downtown for executive approval before submittal to the Office of Administrative Law.

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.

- Staff joined study group activities for development of Urban Levee Design Criteria (ULDC).
- Staff has updated the deliverables package for the FAXCT 9 Feasibility Studies Sub-Team and the coordination between groups working on problem identification and managing the feasibility study.
- Staff updated the Draft California Delta Area Flood Emergency Evacuation Plan as an action item of Golden Guardian flood fight exercise.
- Officers and leaders who belong to Incident Command Team 4 met to discuss team needs and future training.
- Staff performed a public outreach on DWR's water conservation initiative at the California State Fair.
- Staff has begun research on assisting the division with Financial Area Planning work.
- Flood Corridor Programs and Environmental Support Branch staff continued to coordinate preparation of the Lower Feather River Corridor Management Plan. For public outreach, staff met with the Yuba County Board of Supervisors, the Sutter County Board of Supervisors, and held two public meetings in Yuba City to brief the public and local officials about the planning effort and how local stakeholders can participate.

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 59 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 64 reclamation districts.

Work Agreements for FY 2011-2012

- The allocated fund for FY11-12 is \$12M.
- Staff has received 66 applications totaling \$72.5M and has started to audit the applications for preparation of the CVFPB report.
- Staff is finalizing the updates for the “Guidelines: Procedures and Criteria” for the Delta Levee Maintenance Subventions Program. Copies of the new draft have been mailed to all Districts for review and comments. Comments are due back on August 12 and a briefing to the Central Valley Flood Protection Board is scheduled for August 26. A copy can be found at:

http://www.water.ca.gov/floodmgmt/dsmo/docs/DraftSubventionsGuidelines_Aug-5-2011.pdf

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 LEEVE EVALUATION (ULE)

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

ULE is evaluating 470 miles of urban levees 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	42	Natomas	15
Sutter	35	Bear Creek	25
RD 784	40	Calaveras River	25
Davis	10	RD 404	37
Woodland	10	RD 17	50
American River	40	Stockton Non-Project	31
West Sacramento	96	W. Sac. Non-Project	12
Sacramento River	46	South Sac. Streams	11

Changes shown in bold.

- Overall, ULE is 69% complete.
- The West Sacramento GER (Volumes 1 and 2), the template for all GERs is still awaiting comments from USACE before being finalized.
- No drilling activities occurred during this reporting period. Drilling is planned for Natomas, Stockton, Davis, and Woodland for the next reporting period.
- Schedules for completion of the Geotechnical Evaluation Reports (GERs) Program are continuing to be prepared with the current delivery date of the GERs scheduled for the end of 2012.
- Marysville and Sacramento River GERs were initiated.
- Most ULE efforts for the reporting period have been for planning the GERs noted above and in support of the CVFPP.

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 45% complete.
- Drilling activities occurred during this reporting period in Yolo and San Joaquin Counties and are anticipated to continue in August. Drilling is also planned for Colusa and Sutter Counties during the next reporting period.
- 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.

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 is scheduled for this fall with a public review draft to be release in 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 KVIE, the Sacramento Public Broadcasting Service station.

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 in mid-September. The Public Draft 2012 CVFPP will be released in early January 2012.
- 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 between the Corps and the CVFPP for review at that time.

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.

CONSERVATION ACTIVITIES

Conservation Framework

Staff have incorporated comments on the draft Conservation Framework and identified other needed improvements. A (90%) DWR Management Review Draft of the Conservation Framework and attachments has been submitted. Parts of the document have been expanded to provide consistency with the draft CVFPP's State's System-wide Investment Approach.

Conservation technical documents

Staff are currently reviewing the CVFPP Management Review Draft and supporting documents. Technical reports include: Biological Status and Trends Report, Restoration Opportunities Analysis, Regional Permitting Options, Regional Advance Mitigation Planning, Habitat Conservation Objectives from Overlapping Plans, Vegetation Mapping, and Fish Passage Barriers Assessment.

Vegetation Management

Staff is continuing to develop specific content for the conservation strategy to support vegetation management approach of the CVFPP and ULDC. This includes mitigation for Life Cycle Management and elderberry issues.

Interagency Advisory Committee

This group was chartered and a kick-off meeting was held in July. The agenda included an overview presentation on the Conservation Strategy and Conservation Framework, discussion of the group's charter and meeting schedule for upcoming monthly meetings.

REGIONAL CONSERVATION PLANNING

Regional Advanced Mitigation Planning (RAMP)

- The RAMP Work Group was given an update on work products in production, and reviewed the RAMP-related presentations that are being given at the International Conference on Ecology & Transportation meeting August 21-25.
- The DWR RAMP lead met with DFG headquarters staff on RAMP's draft Statewide Framework. The discussion centered on DFG's current efforts to create collaborative statewide conservation solutions.
- The DWR RAMP lead is working with FloodSAFE communication's office for assistance with RAMP outreach. A meeting was held with DWR legal staff to brief them on updates to the draft Statewide Framework and completion schedule.
- RAMP Work Group members are completing internal reviews of the Statewide Framework.

Corridor Management Strategies

Staff continues to work with DFM on planning activities for the Lower Feather River Corridor Management Plan (CMP). The Lower Feather River CMP Work Group held their July monthly meeting. The main topics were the Plan format and outline, hydraulic modeling and geomorphic analysis, and proposed scenarios of future actions and conditions of the river corridor. Planning meetings were initiated for future public outreach coordination. A project description is being formulated which will outline activities to occur within the Feather River Project corridor. The team will seek programmatic permits and agreements for these activities. Two public outreach meetings were held in Yuba City in July.

SCIENTIFIC AND PLANNING INFORMATION

Vegetation mapping

A draft version of the map data was provided to FES. Accuracy assessments, which are required to be consistent with statewide standards, were delayed partially due to flooding in the San Joaquin. The Riparian Habitat Joint Venture coordinator is currently conducting meetings with agency staff to review the draft map product. After comments on the draft map are received, a final map product will be provided in fall 2011. 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 to collect data for the fine-scale map to be completed in 2013.

Vegetation analysis

Staff provided an initial analysis of remaining shaded riverine aquatic vegetation (SRA) on the Sacramento River and is continuing to refine the information. This information will be integrated into the Conservation Framework.

Fish Passage

The 90% Fish and Flood Management Report is undergoing internal review. The latest draft has been released to a small group of agency reviewers, most of who participated in developing the document.

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.

The Department of Water Resources (DWR) has been working with other non-federal partners including the Central Valley Flood Protection Board (“CVFPB”) to develop a national coalition to address several USACE policy changes including:

- Assistant Secretary of the Army (Civil Works) (“ASA”) Jo-Ellen Darcy’s decision to discontinue crediting under Section 104 of WRDA 1986 and instead rely upon crediting under Section 221 of the Flood Control Act of 1970 as amended by section 2003 of WRDA 2007.
- Increasingly restrictive procedures imposed by the USACE under 33 U.S.C. Section 408 for Non-Federal partners to obtain approval for modifications to Federal flood control projects.

The Non-Federal Coalition, which includes representatives of flood control agencies in California, Louisiana, Texas, Illinois, Iowa, and Missouri, has developed White Papers on these issues. Because of the severity of the impact of these policy changes, members of the Non-Federal Coalition (including DWR) travelled to Washington, DC to meet with the ASA, USACE, as well as Members of Congress and staff. The results of these meetings are summarized below:

Section 104 crediting

Members of Congress and staff indicated a willingness to sign a Delegation letter expressing concern that the ASA's decision to discontinue Section 104 crediting will delay or even halt non-federal investment in flood control projects. The ASA and the USACE acknowledged that the decision to discontinue Section 104 credit has had unintended consequences of discouraging non-federal investment in flood control projects and that they would consider concerns raised by non-federal stakeholders in revising the Section 221 guidance.

Section 408 approvals

USACE headquarters is developing new guidance on Section 408 and has requested non-federal input through its new Levee Safety Program. The Non-Federal Coalition has proposed establishing a working group with USACE to develop the new guidance.

The Non-Federal Coalition has proposed that USACE technical decisions should be made at the District level (where the technical expertise resides) and Headquarters review should be required only where policy decisions are involved. The Non-Federal Coalition is also evaluating several other 408 guidance issues so that they may be addressed in the new guidance.

Next Steps of the Non-Federal Coalition

The Non-Federal Coalition is working on:

- A draft letter to be signed by Members of Congress expressing general concern regarding the ASA's decision to discontinue 104 crediting and urging the USACE to work with the non-federal stakeholders to address their concerns.
- A letter from coalition members regarding specific changes needed to USACE guidance for 408 approvals and crediting under section 104 and 221.

Other Actions

In July, letters of concern were sent by:

- Ben Carter, CVFPB President, to Steve Stockton, USACE Director of Civil Works, regarding Section 408 approvals and crediting under Sections 104 and 221.
- John Laird, CA Natural Resources Secretary, to ASA Darcy regarding crediting under Sections 104 and 221.

On August 8, 2011, DWR staff briefed the California Water Commission Appropriations Committee on these issues.

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.