**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.*

**Library of Models**: The fifth in a series of five Library of Models (LOM) Pilot Study project scoping workshops was held on January 21, 2011. The objectives of Workshop 5 were to review and summarize findings and decisions from the previous workshops, and revisit several of the key content management principles outlined below:

- LOM is a Model Repository Only
- Organized by Model Type
- Capture Project, Model, & Dataset Information
- Quality Control on Completeness of Model Information
- Preserve Land Mark Models

Proposed model check-in and check-out protocols were reviewed as well as the LOM management team structure. The next steps include implementing the LOM application design specifications and deploying the Pilot Study in Fall 2011.

### 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 January 31, 2011, statewide hydrologic conditions were as follows: precipitation, 130 percent of average to date; runoff, 115 percent of average to date; snow water equivalent, 135 percent of average for the date (85 percent of the April 1 average); and reservoir storage, 110 percent of average for the date. Sacramento River Region unimpaired runoff observed through January 31, 2011 was about 6.0 million acre-feet (MAF), which is about 104 percent of average. For comparison, on January 31, 2010, the observed Sacramento River Region unimpaired runoff through that date was about 3.7 MAF, or about 63 percent of average.

In contrast to a very wet December, January was unusually dry. On January 31, the Northern Sierra 8-Station Precipitation Index Water Year total was 34.0 inches, which is about 127 percent of the seasonal average to date and 68 percent of an average water year (50.0 inches). During January, the total precipitation for the 8-Stations was only 2.1 inches, about 23 percent of the monthly average and the ninth driest January on record. Last year on January 31, the seasonal total for the 8-Stations was 27.2 inches, or about 102 percent of average for the date.

On January 31, the San Joaquin 5-Station Precipitation Index Water Year total was 35.0 inches, which is about 172 percent of the seasonal average to date and 86 percent of an average water year (40.8 inches). During January, the total precipitation for the 5-Stations was 3.3 inches, about 43 percent of the monthly average. Last year on January 31, the seasonal total for the 5-Stations to date was 22.1 inches, or about 108 percent of average for the date.

| Selected Cities Precipitation Accumulation as of 01/31/2011 (National Weather Service Water Year: July through June) | | | | | |
|---|---|---|---|---|---|
| City | Jul 1 to Date 2010 - 2011 (in inches) | % Avg | Jul 1 to Date 2009 - 2010 (in inches) | % Avg | % Avg "Water Year" Jul 1 to Jun 30 2010 - 2011 |
| Eureka | 22.84 | 104 | 20.67 | 95 | 60 |
| Redding | 17.51 | 97 | 16.11 | 89 | 52 |
| Sacramento | 11.06 | 112 | 12.07 | 123 | 62 |
| San Francisco | 10.20 | 91 | 12.47 | 112 | 51 |
| Fresno | 9.88 | 179 | 6.06 | 110 | 88 |
| Bakersfield | 7.65 | 250 | 3.67 | 120 | 118 |
| Los Angeles | 11.79 | 176 | 7.66 | 114 | 90 |
| San Diego | 8.41 | 155 | 5.78 | 106 | 78 |

| Key Reservoir Storage (1,000 AF) as of 01/31/2011 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Reservoir | River | Storage | Avg Storage | % Average | Capacity | % Capacity | Flood Control Encroachment | Total Space Available |
| Trinity Lake | Trinity | 1,821 | 1,763 | 103 | 2,448 | 74 | --- | 627 |
| Shasta Lake | Sacramento | 3,490 | 3,133 | 111 | 4,552 | 77 | -262 | 1,062 |
| Lake Oroville | Feather | 2,439 | 2,384 | 102 | 3,538 | 69 | -620 | 1,099 |
| New Bullards Bar Res | Yuba | 698 | 581 | 120 | 966 | 72 | -98 | 268 |
| Folsom Lake | American | 479 | 516 | 93 | 977 | 49 | -98 | 498 |
| New Melones Res | Stanislaus | 1,601 | 1,392 | 115 | 2,420 | 66 | -369 | 819 |
| Don Pedro Res | Tuolumne | 1,625 | 1,385 | 117 | 2,030 | 80 | -65 | 405 |
| Lake McClure | Merced | 792 | 500 | 158 | 1,025 | 77 | 118 | 233 |
| Millerton Lake | San Joaquin | 397 | 340 | 117 | 520 | 76 | 6 | 123 |
| Pine Flat Res | Kings | 646 | 478 | 135 | 1,000 | 65 | -14 | 354 |
| Isabella | Kern | 220 | 169 | 130 | 568 | 39 | 50 | 348 |
| San Luis Res | (Offstream) | 1,905 | 1,626 | 117 | 2,039 | 93 | --- | 134 |

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for February 2011, issued January 31, 2010, suggests above average rainfall for extreme Northern California. No tendency for above or below average rainfall is suggested for Northern and Central California. Below average rainfall is indicated for the southern portion of the State.

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/

**Snowmelt & Seasonal Volume Runoff Forecasting:** Significant progress was made on all three Precipitation Runoff Modeling System (PRMS) models current in development for forecasting use. The upgrade of the Feather PRMS model reached a critical juncture as the Lake Davis sub-shed model was completed allowing for the Frenchman Lake module to be upgraded. The Yuba River model is in its final stages of development and will be beta tested later this spring. The Merced River model is in its infancy stage but great progress was made in getting all the elementary data collection over to our partners at USGS.

Progress continued on developing a forecasting equation for use on the Scott River in the Klamath watershed. Staff has moved forward on a somewhat promising multi-variable linear regression equation and has also started to compile a report recommending gage augmentation in the watershed.

Discussions are underway to hold another Water Supply Modeling Forum this summer with the cooperating agencies of the Cooperative Snow Surveys program. The focus on this forum would be creating tools and products on CDEC and the still-in-development FERIS websites to improve forecasting accuracy.

**Snow Surveys and Snow Course Maintenance**: As of February 7, 2011, the regional snow pack conditions as reported by the remote snow sensors are as follows:

- **Northern Sierra:** 19" SWC for 68% of April 1 Avg. and 97% to date
- **Central Sierra:** 24" SWC for 77% of April 1 Avg. and 112% to date
- **Southern Sierra:** 25" SWC for 96% of April 1 Avg. and 147% to date
- **Statewide:** 23" SWC for 79% of April 1 Avg. and 116% to date

It is interesting to compare these values to what the snow sensors were indicating back on January 1, 2011. At the beginning of the calendar year, snow sensors recorded a much heavier snowpack in all regions with 179 percent of average to date in the Northern Sierra, 198 percent of average to date in the Central Sierra, and a remarkable 271 percent of average to date in the Southern Sierra. The Statewide snow pack registered at 209 percent on January 1. The abnormally dry January conditions are evident in the snow sensor data where only 1 inch of snow water content was gained in the Northern Sierra, and just 2 inches of snow water content was gained in both the Central and Southern Sierra.

The second round of snow surveys for this season was conducted on or around February 1, 2011. For the stations along Highway 50 near Echo Summit the manual readings were as follows:

| Location | Elevation | Snow Depth | Water Content | % of Average |
|---|---|---|---|---|
| Alpha | 7600' | 60.6" | 28.0" | 133 |
| Phillips Station | 6800' | 56.0" | 24" | 125 |
| Lyons Creek | 6700' | 63.8" | 28.4" | 145 |
| Tamarack Flat | 6500' | 60.0" | 24.4" | 126 |

The results of the February snow surveys shows similar results to those recorded in the remote snow sensors. In most cases, courses showed little or no gain in snow depth during January, and in fact some courses actually lost depth. Water content did increase as the density of the snow pack reached near spring like conditions. Overall, however, the snowpack remains above average in nearly all major watersheds with notable exceptions being the Trinity, Scott, and Pit River basins. The next snow course measurements will occur during a 10-day window surrounding March 1, 2011.

**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. The drastic change in weather from very wet to very dry has received plenty of attention from media interests. During the month Snow Surveys staff alone responded to over one dozen media requests. Other calls were handled by other HAFOO staff.

**Bulletin 120 and Water Supply Index Forecasts**: From the February 1, 2011 Bulletin 120: the projected median April-July runoff in the major Sierra river basins ranges from 83 percent on the Pit River to 147 percent on the Kern River.

Forecasted median Water Year runoff ranges from 83 percent for the Total Inflow to Lake Shasta to 162 percent on the Tule River.

This Water Supply Index forecast can be summarized as follows:

- **Sacramento River Unimpaired Runoff Water Year Forecast 17.9 MAF**
  (50 percent exceedance = 96% of normal)
- **Sacramento Valley Index (SVI) 7.8**
  (50 percent exceedance = Below Normal)
- **San Joaquin Valley Index (SJI) 3.8**
  (75 percent exceedance = (Wet)

The Sacramento Valley Index decreased to 7.8 from 9.2 while the San Joaquin Index decreased to 3.8 from 3.9 from the January 1, 2011 Water Supply Index. If the dry trend continues through February, both forecasts are expected to continue to drop.

Following a very wet fall including well above normal precipitation statewide in the month of December, the New Year has started out fairly dry and even given way to unseasonably warm temperatures which has brought statewide precipitation and snowpack back down from their high point around January 1. The fall months and early winter season were indeed wet with the southern half of the state, and particularly the Central and Southern Sierra Nevada, receiving the bulk of the moisture bucking the expected La Nina trend. However, a strong high pressure ridge has since dominated the weather outlook in California resulting in one of the driest Januarys on record in the Northern Sierra Nevada. Runoff has been curtailed from the well above normal levels seen in the last two months of 2010. While runoff in the Central and Southern Sierra has remained above normal, runoff has fallen below normal in the Northern Sierra and Trinity/Siskiyou mountains. Statewide, reservoir storage levels as of February 1 are, for the most part, above average.

A Bulletin 120 Update for conditions on February 8, 2011 will be available Thursday, February 10. Weekly updates will continue into June or as conditions warrant and are posted most Thursdays. The March 1, 2011 Bulletin 120 and Water Supply Index forecasts will be available on March 8, 2011.

## 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.*

**Forecast-Coordinated Operations (F-CO)**: In 2005, DWR provided a grant to the Yuba County Water Agency to develop a multi-agency Forecast-Coordinated Operation (F-CO) program for the Yuba and Feather rivers. The pilot program was successfully implemented and DWR has now drafted guidelines for public comment for a grant program to extend the F-CO program to other watersheds in the Central Valley. This grant program is to provide similar direct grant funding for coordinated operations of other reservoirs. DWR's goal is to encourage all reservoirs with flood control pools in the Central Valley to participate in the program. The comment period will last for 60 days, closing April 13, 2011. Two workshops have been scheduled, one in Fresno on February 23 and a second in Sacramento on March 4. DWR will incorporate appropriate comments received during the public comment period into a final Guideline Packet that should be available May 1, 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.*

**Flood Operations Center Training and Exercises:** The Flood Operations Center has created two new active FOC staffing rosters, due to the recent significant turnover of emergency response staff and added two new incident command teams, in addition to 3 existing teams maintained mostly out of our regional offices. A training and exercise program has been established to bring new staff up to the same level of knowledge as existing emergency response staff. Position specific training is being conducted in preparation for a real time event and in preparation of the Golden Guardian 2011 three-day Full Scale Exercise in May. This year's theme is a catastrophic flood in the Central Valley that will allow the division to prepare for, respond to, and recover from an emergency of a large scale flood event. Golden Guardian involves DWR's coordination with federal, state and local agencies and non-governmental organizations utilizing the California Emergency Plan and the Delta region emergency response and preparedness strategy. The training and response will also involve the Department's incident command teams (ICTs), the Flood Operations Center (FOC), and the Delta task force implemented by SB 27.

**Flood Fight Materials Readiness:** The Flood Operations Branch has inventoried its pre-deployed field storage of Flood Fight Materials. Pre-deployment containers are stocked and ready for deployment. Stored materials include: rock, sandbags, plastic

sheeting, wooden stakes, twine and buttons. The November/December storms utilized 50,000 of our pre-deployed sandbags in Merced County area to fight localized flooding. The materials were available and on the scene within hours of the local request; a timely response to their request to save property and lives.

The Flood Fight Methods Training classes have been well attended the last few months in preparing emergency response staffs from around the state to responds to a flood emergency. On-going training continues with the next three classes this week in Tulare County.

**Flood Operations Center Weather Briefings:** The Flood Operations Center along with the National Weather Service and California Nevada River Forecast Center continues to present Weather/Hydrology briefings twice weekly, usually Monday and Thursday. During times of increased threat and actual events the Flood Operations Center will host the briefings daily and sometimes twice a day as necessary. These briefings are run like a network news weather report with focus on the system and the current event and are available to view via the internet.

**Flood System Analysis Section (FSAS):** Significant activities of the FSAS include the development of a Levee Emergency Action Plan (LEAP) template to support the State-Federal FOC response to flood incidents. In assessing the coordinated response to the incident at RD 2064, a need was revealed for the preparation of action plans for levee distress sites already identified through levee evaluation or inspection. A plan to assemble situational assessment information, critical contacts and design, permitting and contract information is being developed to expedite repairs should they become a part of the emergency response. In addition to the template, LEAPs are being prepared for 3 seepage sites identified by the Urban Levee Evaluations Branch.

Additionally, FSAS is recommitted to the development of a pre-season flood system vulnerability assessment tool. This tool will integrate information related to engineering evaluations, system performance and operation and maintenance practices. The objective of the vulnerability assessment is to identify weak, deficient or vulnerable reaches of the flood control system. This tool will support the objectives of informing emergency response and resource planning decisions. The tool will be used for the State-federal flood control system with the flexibility to expand Central Valley and state wide.

## 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):** The CVHS has developed a series of technical memos to provide additional detail to the analyses being conducted in the process of developing the CVHS datasets for use with FloodSAFE activities including floodplain delineation modeling. These Technical Memos have been posted to the Study information sharing forum (cvhydrology.org).

Significant accomplishments over last month include:

- Received comments on draft technical memos from Hydrologic Advisory Committee. Responses are being prepared to resubmit to the HAC.
- USGS/Cornell/Corps have completed regional duration skew study. Review of manuscript by Corps is complete. Report should be available in February.
- Review of reservoir/hydrologic (HEC-ResSim) models by HEC for application of best modeling practice is complete. Implementation of HEC suggestions for improvement of models is underway. The design quality control and agency technical review documentation is being prepared.
- Estimation of local flows is underway. Ungaged watershed and analysis point selection process is complete. An initial workshop for development of rainfall-runoff models has been held. Watershed delineation for these models is currently underway.
- Reservoir inflow hydrograph daily-to-hourly estimation and smoothing, and record augmentation is underway.
- Continuing USACE internal coordination with hydraulic and hydrologic workgroups.

## 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.*

- Channel clearing and vegetation control is continuing using hand crews. Significant clearing effort is underway at Nelson Bend.
- Clean-up of debris, beaver dams and rodent damage, and downed vegetation is on-going.
- The environmental restoration contractor for the Sycamore Creek Sediment Removal project is scheduled to begin work by June 2011 or earlier, depending upon high water, channel access, and permit conditions.

### 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.*

- Staff has finalized instructions to the contractor to correct minor construction defects, make minor adjustments to the structures appurtenances for maintenance, and to address safety concerns at Willow Slough Weir. The contractor is schedule to begin work in May 2011.
- The construction to modernize the Sutter Bypass Pumping Plant is on schedule to commence in May 2011.

- Bid opening for the construction contract to replace Weir No. 2 is scheduled for February 16, 2011. Construction is expected to commence in May 2011.

## 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.*

- Ongoing activities include tree maintenance (trimming in MA 1, 5, and 9), spot spraying for weed control, replacing/repairing gates, and rodent control (MA 1, 5, 7, and 16).
- The levee slope repair was completed where a tree root was excavated for vegetation research.

## 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.*

- The Flood Maintenance Office is obtaining 3.68 acres of Giant Garter Snake (GGS) mitigation credits to address impacts from the Sutter Bypass East Borrow Canal Water Control Structures Project, Weir No. 2 and Willow Slough Weir replacement. The weirs and associated fish ladders are being replaced to improve weir operational safety and efficiency, and improve anadromous fish passage.

## 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).*

- Sacramento River at West Sacramento (RM 57.2R), a new setback levee construction project, is on hold until mid-march due to wet season. Construction began on December 14th; the Corps construction project manager reported status as 2% complete.
- RD 404 Slurry Wall construction work and assurance agreement for construction in 2011 is in process. Project is on schedule for 2011 construction.
- All permits for RD 2064 San Joaquin Critical Erosion Site (SJ RM 71.5) for 2,200 lineal feet rock repair have been obtained and the Division of Engineering is moving forward with preparation of final design, specifications, and contract documents for anticipated repair 2011. An emergency repair contract placing rock slope protection for approximately 550 feet of levee is complete. SJ RM71.5 project construction schedule remains in 2011.
- Supporting documents for USACE Section 408 application was approved by the CVFPB for the setback levees at four sites on Cache Creek (LM2.8, LM 3.4, LM 3.9 and LM 4.2) and submitted to the USACE.

## 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).*

In January 2011, DWR National Flood Insurance Program (NFIP) Community Assistance Program staff members formally signed an annual grant agreement with FEMA which will result in a $438,000 grant being awarded to DWR for California NFIP support. Staff also attended the Sacramento Valley Flood Control Action Work Group meeting in the Yuba County Government Center, Marysville; sent PowerPoint slides of the FEMA Elevation Certificate Workshop to the Reprographic Office for printing workbooks; and conducted a Community Assistance Visit with the City of Chula Vista in San Diego County. Phase 2 of the Community Rating System Program continues to be implemented. Staff completed the following California CRS templates to help participating communities increase their credit points: Activity 320 - Map Information Service, Activity 330 - Outreach Projects, Activity 340 - Hazard Disclosure, and Activity 503 - Repetitive Loss Outreach. Staff also prepared a general-training CRS PowerPoint for use in local workshops; sent proposed hazard mitigation plan review procedures to CalEMA to help facilitate community CRS credits; and met with Yuba County Department of Public Works representatives to help them develop a plan to obtain CRS levee safety credit points.

### 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.*

The Central Valley Floodplain Evaluation and Delineation Program updated its schedule to the CVFPB on 1/28/2010 as follows:

- Topography Acquisition — May 2011
- Riverine and Floodplain Hydraulic Model Development — March 2012
- Floodplain Delineation — December 2012

A draft factsheet for the Alluvial Fan Floodplain Evaluation and Delineation Program (AFFED) is being finalizing. The AFFED mapping work, focused on mapping site selection, is scheduled to begin in Spring 2011. Staff also met with federal and state agencies to integrate our topographic datasets for coastal and bay/estuary mapping.

## 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.*

Staffs of the Flood Risk Notification Program and USCAE are working to develop an outreach video that addresses the flooding history of California, flood risk in the Central Valley, the flood risk reduction system, and challenges of flood management.

## 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.*

No new information.

## FUNCTIONAL AREA 4 FLOOD PROJECTS & GRANTS

*Flood Protection Projects and Grants is 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.

- An updated schedule for the GRR is complete and has an April 2014 completion date.
- USACE is updating their hydraulic model with updated elevation datum. The model is scheduled to be completed in February 2011.
- USACE is finalizing their F3 document for existing conditions. The F3 document is scheduled to be complete in mid-February. The Project Development Team (PDT) is requesting additional technical review from USACE and sponsors to complete the F3 document.

#### 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.

- USACE is finalizing the Reconnaissance Report to be approved by March 15, 2011.

- Project Management Plan (PMP) is 40 percent complete with the scope developed. Further development of PMP is dependent upon USACE internal budget approval to expend additional reconnaissance funding.

**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 team is working toward the F3 milestone and hopes to have some preliminary benefit/cost ratio results for the most populated Stockton areas at about the same time to indicate the probability of federal interest in construction. Schedules for new NOAA Atlas-14 data as well as hydrology and hydraulic data from the State are the critical items for this goal.

**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 working on drafting a Project Participation Agreement to include the State and local sponsors in the reevaluation cost-share.
- USACE is also determining whether the project will need to be a new start or if the reevaluation can continue as an existing investigation under design and construction appropriation.

**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.

- USACE has scheduled a February 17, 2011 meeting with local sponsors to discuss the Reconnaissance Report, funding, PMP, and FCSA.

**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.

- DWR received an updated funds request dated December 23, 2010 and the funding process has been started. A memo to the Contracts Payable Office is being prepared to request funding. USACE has requested $86,000 now to balance federal and non federal funding, followed by $28,661 for FY11. The payment will be split between Proposition 1E and Proposition 13, each paying

$52,503.50 to balance the account and pay for the second and third quarters of the federal FY 11.
- The non-federal sponsors are generating Work-In-Kind packages for submittal to USACE.
- Because the budget and schedule have yet to be determined by USACE, a Schedule and Cost Change Request (SACCR) is still being discussed at the PDT meetings and has not been developed.

**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.

- No new information.

**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.

- Because the soil borings results revealed instability issues along the California Central Irrigation District channel, PDT is reevaluating the developed alternatives.

**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.

- USACE is finalizing the Reconnaissance Report to be approved by March 15, 2011.
- Project Management Plan (PMP) is 40 percent complete with the scope developed. Further development of PMP is dependent upon USACE internal budget approval to expend additional reconnaissance funding.

**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 the 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.

- FCSA and LFCSA scheduled to be presented to the Board in February 2011.

**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.

- USACE's capability for FY 2012 has changed from $25M to $5M. PDT is developing a strategy for adjustment of work to be completed based on available funds.
- Preparing for Alternative Formulation (AFB) Conference on March 8, 2011.

## 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)**
The Board conditionally approved the draft Long Term Vegetation Plan, part of the OMRR&R Agreement, on January 28, 2011. The OMRR&R has been submitted to USACE for approval.

**Reclamation District 17 - 100-Year Seepage Area Project (RD-17)**
No new information.

**Three Rivers Levee Improvement Authority – Feather River (TRLIA-FR)**
No new information.

**Three Rivers Levee Improvement Authority - Upper Yuba River (TRLIA-YR)**
The 104 credit approval is still pending. The Board has approved TRLIA's permit to use the Anderson site for Elderberry mitigation.

**Sacramento Area Flood Control Agency - Natomas Cross Canal (SAFCA-NCC)**
Construction has been completed. SAFCA is preparing project closeout documents.

**Sacramento Area Flood Control Agency - Capital Outlay (SAFCA-CO)**

- Citing a lack of available cash, SAFCA has requested DWR fund the remainder of the construction contracts through Section 12A. At a recent meeting with Sacramento County Treasury, it was discussed that SAFCA may have an alternative financing solution. SAFCA received bids on construction on remainder through Section 12A on February 3, 2011. The bid received was $18.8 million. The current bid is less than what they have available therefore the lack of available cash may be a mute point.
- Construction continues on Phases 1B, 2A and 2B. Demolition on Phase 3A is scheduled to start in early February.

**West Sacramento Area Flood Control Agency, Capital Outlay (WSAFCA-CO)**

- DWR is drafting a Decision Memo recommending funding of the CHP Academy and the Rivers Projects construction costs.
- On January 7, 2011 and January 20, 2011, DWR met with WSAFCA to discuss the various setback alternatives in the Southport area. On February 1, 2011, WSAFCA met with DWR executives, Deputy Director Stein Buer and Division Chief Gary Bardini). In this meeting, WSAFCA sought DWR's support in concurring with WSAFCA's selection of the setback preferred alternative and requested DWR's support and collaboration in maximizing the State's cost share. On February 7, 2011, DWR (EIP Section) met with WSAFCA and discussed various cost-share options.

**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.

- No new information.

**Folsom Dam Raise and Bridge Element**

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

- No new information.

**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.

- The 35 percent design review was completed and submitted for the geotechnical plans and specifications for the approach channel.
- The Bureau of Reclamation Phase II Auxiliary Spillway Excavation Project is substantially complete. The USACE contractor, Granite Construction, has begun constructing the Phase III control structure and installing the six giant Tainter floodgates. The Phase III construction will be complete in July 2014.

**Marysville Ring Levee Improvement Project**
The Phase 1 construction is on-hold until the start of the next construction season, about May 2011.

- The Phase 4 design is 60 percent complete and being reviewed for comments within USACE.
- The Phase 2 schedule is being revised to begin construction in FY 2012.
- The Phase 2 design will be partially contracted to HDR in order to meet a FY 2012 construction deadline.
- The Phase 3 design will be contracted to HDR to meet a FY 2013 construction deadline.
- An AFB Package was sent out for review on January 25, 2011.

**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.

- No change from last month.

**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.

- No new information.

**West Sacramento Area Project, Slip Repair**
Geotechnical analysis for the repair of two Yolo Bypass east bank levee slips is complete. The north slip repair site design is underway at USACE. The northern site repair construction is currently scheduled for the 2011 construction season.

- No change from last month.

## 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 2010-2011 Funding Cycle request for grant-funded project proposals is open and will close February 25, 2011. Applicants are submitting applications over the Internet using the new Bond Management System software. Five public workshops were held Statewide during the month of January.
- A PMP is being developed to describe future planned Program activities, funding needs, and staff resource allocations.

## 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.

- DWR is gathering information on all changes needed to update existing program guidelines.
- Fresno Metropolitan Flood Control District – The project has been completed and DWR is closing out this application. During this process, it has been identified that the applicant did not utilize all the land acquired for the project. They have since sold a portion of the land to the local school district, which resulted in proceeds of $6.3 million to the State. The remaining land is estimated to result in additional proceeds of $7.7 million to the State. The only remaining claims for the applicant total $1.2 million. DWR is issuing invoices for the balances due.
- Two claims for $350,000 were completed.
- No new claims were received this month.
- Eight claims for $33 million are under review.
- No completed audit payments were processed.
- Ten claims for $1.4 million are in process of payment.
- 50 claims for $140 million are pending processing.

## 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 request for agreement amendment was approved and the documents are currently receiving management approval. The amendment will increase the overall grant amount and update the project work plan, schedule, and budget. The agreement term is also amended.

- Marin County and Humboldt County both requested a one year extension on the contract term. Decision memos have received management approval. Amendment documents were drafted and reviewed by legal counsel. The documents have been sent to the local agencies for signature.
- Humboldt County requested a project scope change that does not affect the overall project cost. The change was deemed to be consistent with the intent of the program. The decision memo received management approval.
- The City of Bakersfield was asked to resubmit a final report and invoice for the Kern River Project, which is expected in February 2011.
- Retention funds were released to Orange County. The formal project close-out letter was sent and the internal orders for the project have been closed.
- All LLAP project information has uploaded to the FloodSAFE Bond Accountability website. There are issues with the website for Proposition 84 programs. The staff is monitoring the website progress to resolve these issues and assist when necessary.
- Alameda County submitted a final report and all necessary documents with a final invoice for the Alameda Creek LOLE project. The payment received management approval and is in process through the Budget Office.
- City of Oroville requested execution of a grant agreement and submitted an updated project work plan. The agreement was drafted and reviewed by DWR legal counsel. The City's attorney is now performing a completeness review.
- LLAP project charters were updated to track payments and amendments.
- The final draft of the LLAP FloodSAFE news article was approved and updated with a section advertizing the LLAP Draft Guidelines public comment period.

**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.

- DFM management approved an amendment of the YCWA feasibility study funding agreement (Contract No. 4600001434) to extend the contract expiration date to June 30, 2011. The amendment is currently pending signature by YCWA representatives.
- Staff followed up with the Accounts Payable Office to request review of outstanding unpaid invoices for the YCWA Feasibility Study Funding Agreement, which is estimated to be up to $12,000. Upon execution of the amendment to the agreement and SCO approval to release all remaining reimbursement, the agreement can be closed.
- Staff completed a FY 11/12 Re-appropriation Request for YFFPP to re-appropriate uncommitted funds for FY 10/11.
- Staff followed up on the status of the GO Bond funding for Sutter County Cost-Share (Contract No. 4600008888). This contract is now included in the GO Bond master list to allow release of payments.

- Staff met with SBFCA to discuss funding strategies between the YFFPP Studies, USACE Study, and the EIP Design and Construction.
- Staff completed preparation of Fund Center Assignment for $230,357 for the Real Estate Branch (to provide land acquisition services for Bear River Setback Levee) remains pending TRLIA confirmation of the required data to establish the scope of work for the assignment agreement with the Real Estate Branch.
- Staff continued with the review of YFFPP financial analysis to complete the five-year plan for the Program. All current grantees (YCWA, Sutter County and SBFCA) and their consultants were contacted to obtain input regarding their funding needs for the short term and long terms.

**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.*

No new information.

**GRANT GUIDELINES**

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

- EIP received director approval to release FY 10/11 EIP Guidelines to the public. Final Guidelines and a Project Solicitation Proposal were released on January 4, 2011. Applications for new projects are due February 15, 2011.
- On November 23, 2010, the FCP Guidelines were signed by the Director and are now final.
- The FCP draft funding Guidelines were released for public review. Three public workshops where held Statewide. Based on comments during the public review, changes may be incorporated into the final Guidelines.
- LLAP Draft Guidelines were finalized and advertized for public comments with three public workshops and one WebEx presentation. An advertisement was drafted and posted on the FloodSAFE website. A brochure was created and will be mailed to 600 recipients; counties, cities and flood control districts.
- A presentation on LLAP is planned for the next FMA luncheon.
- A short article was written to advertise the public comment period and workshops. This will be posted in the next issue of the FloodSAFE newsletter.
- YFFPP Guidelines for a new Project Solicitation Proposal is drafted, but will likely not be released until 2012 to not only verify available funds, but also be able to closeout existing projects with the remaining funds.

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

- No new information.

**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.

- A work group was formed to update the AB 1147 regulations based on changes in AB 1788 and is preparing a draft document based on the recent Cost Sharing Formulas. The Exhibit A of the regulations, which addresses State Water Project facilities, is under review by State Water Project engineers.
- A Project Managers Group was created to develop an office standard template for project charters, QAQC Manuals, and other project management aids.
- Staff extracted and summarized all the 6010 funds data from SAP and created a spreadsheet that allows a user to analyze the data more efficiently.
- Staff continues to aggregate program funding spatial information into GIS databases and initiated migration of data into new office documentation folders.
- FPO has started collaboration with DIRWM to assist in processing non-SPFC grant applications.

**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 54 joint levee inspections and received DFG approval for 35 claims. Payments will be processed by staff as DFG approves the claims.

Work Agreements for FY 2010-2011

- DWR staff has mailed work agreements to 68 reclamation district and has received signed work agreements from 33 reclamation districts. An additional 16 since the January CVFPB meeting.
- The agreements will be finalized once signed by the Board's Executive Officer.

**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.

- The Project Funding Agreements for the Aqueduct Protection Projects have been signed by the reclamation districts and are being routed for the remaining signatures. It is anticipated that the districts will present the scopes of work and CEQA documentation for these projects to the Delta Stewardship Council at their March meeting.
- DWR staff is currently updating the Bond Accountability Database (www.bondaccountability.com) to ensure that relevant projects are included.
- More and 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 [1] | 30 | NEMDC East | 40 |
| Marysville | 40 | Natomas | 15 |
| Sutter | 35 | Bear Creek | 25 |
| RD 784 | 40 | Calaveras River | 25 |
| Davis | 10 | RD 404 | 35 |
| Woodland | 10 | RD 17 | 50 |
| American River | 40 | Stockton Non-Project | 25 |
| West Sacramento | 85 | W. Sac. Non-Project | 10 |
| Sacramento River | 45 | South Sac. Streams | 9 |

[1] Chico PGDR has been completed.

- Overall, Urban Levee Evaluations are 66% complete.

## 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: the Flood Control System Status Report and the Central Valley Flood Protection Plan.

- Overall, Non-Urban Levee Evaluations are 39% complete.

## 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.*

No new information.

## TECHNICAL POLICY

*A statewide seismic policy is being developed for levee performance, emergency levee remediation, and long-term levee remediation. Interim Levee Design Criteria 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.*

No new information.

## 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 deliverables: (1) SPFC Descriptive Document and (2) Flood Control Systems Status Report (FCSSR).

No new information.

### 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.

#### Planning Activities

- A briefing on the CVFPP for legislative staff was held on February 11.
- The PEIR Public Scoping Report has been posted on the FloodSAFE website. The report documents scoping activities that occurred for the CVFPP PEIR. It describes the scoping process (release of the NOP, scoping meetings, etc.) and summarizes the comments received during this process.

### 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.*

### REGIONAL CONSERVATION PLANNING

#### Vegetation Obligations

- FESSRO coordinated with DFM inspection group, DFG, and USFWS to assist resolution of non-compliant levee districts with DFM inspection staff.
- Staff worked with DFM flood inspection group to clarify inspection standards, and determined management actions and mitigations for trees and elderberries which obstruct visibility and accessibility under current criteria.
- Staff have completed inspection work and produced an end-of-year report which is currently under FESSRO management review.

#### Regional Advanced Mitigation Planning (RAMP)

FESSRO completed first-draft edits of the Statewide Framework. The framework identifies and clarifies problems, illustrates the benefits of a regional advanced mitigation planning approach, and identifies key planning components, regulatory issues, funding, and future guidance. The framework has been shared with RAMP Work Group participants for their review and comment.

#### Corridor Management Planning

Staff continues to work collaboratively with DFM in developing the Lower Feather River Corridor Management Plan. Current activities include evaluating hydrologic modeling proposals and working with Regulatory agencies to identify the most efficient permitting approach for this project.

### SCIENTIFIC AND PLANNING INFORMATION

- Staff continues to work with contractors to develop baseline biological and ecological information for the Conservation Strategy and for CVFPP and CEQA document support. This includes developing several reports that will serve as environmental technical documentation for the 2012 CVFPP. These reports include a Biological Status and Trends Report, a Fish Passage Barriers Assessment, and a summary of habitat conservation objectives from other overlapping conservation plans.
- Work continues on the medium-scale vegetation map for the CVFP Planning area. The map will provide a medium-scale, system-wide assessment of the distribution and acreage of riparian and associated habitats.
- Staff collaborated with agency partners to develop a proposal for creating a fine-scale, high-resolution map, which will provide detail for project-level planning.

## 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 political situation In Washington, D.C. regarding FY2012 appropriations is extremely fluid. Most Democrats are accepting informal appropriations requests even though the path forward remains unclear. Accordingly, the Federal Advocacy Team is working on federal FY 2012 appropriations requests for critical flood control projects.

### 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.