

**REPORT OF ACTIVITIES  
OF THE  
DEPARTMENT OF WATER RESOURCES**

**By**

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## **FUNCTIONAL AREA 1 FLOOD EMERGENCY RESPONSE**

*The Flood Emergency Response 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.*

**Levee Inspections:** The Flood Project Integrity and Inspection Branch issued the 2010 Inspection Report. The results of the erosion surveys performed along the San Joaquin River and Tributaries Project have been incorporated into the 2010 Inspection Report. The Inspections Program suffered major resourcing challenges resulting from severe State budget restrictions including mandatory furloughs and elimination of overtime and flextime. As a result, 382 miles of levees in 31 LMAs, 6 channels, and one pumping plant were not inspected during the summer and fall of 2010. For comparative purposes, uninspected levees were assumed to be in the same condition in 2010 as inspected in the fall of 2009. The results of the 2010 levee inspections for the 106 LMAs show: "Unacceptable" ratings increased from 30 in 2009 to 38 in 2010; "Acceptable" ratings decreased from 51 in 2009 to 49 in 2010; and "Minimally Acceptable" ratings decreased from 25 in 2009 to 19 in 2010.

**Local Agency Reporting Program:** The Local Agency Annual Report 2010 draft report was delivered to the Board for their review on December 30, 2010.

**Library of Models:** The fourth in a series of five Library of Models (LOM) project scoping workshops took place on November 19<sup>th</sup>. The objective of Workshop 4 was to define the LOM's operation and maintenance needs to be used by the LOM Technical Team for developing specifications for the LOM web application design and for day-to-day operation of the LOM after deployment. The workshop was not intended to develop any high-level design details, but rather to focus on developing the conceptual design and operation requirements of the LOM web application, which will be used as the foundation for developing the detailed LOM design specifications and for developing the application.

**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 December 31, 2010, statewide hydrologic conditions were as follows: precipitation, 200 percent of average to date; runoff, 160 percent of average to date; snow water equivalent, 210 percent of average for the date (75 percent of the April 1 average); and reservoir storage, 115 percent of average for the date. Sacramento River Region unimpaired runoff observed through December 31, 2010 was about 4.7 million acre-feet (MAF), which is about 148 percent of average. For comparison, on December 31, 2009, the observed Sacramento River Region unimpaired runoff through that date was about 1.5 MAF, 47 percent of average.

December was an extremely wet and mild month up and down the State. On January 1, the Northern Sierra 8-Station Precipitation Index Water Year total was 31.9 inches, which is about 180 percent of the seasonal average to date and 64 percent of an average water year (50.0 inches). During December, the total precipitation for the 8-Stations was 16.4 inches, about 195 percent of the monthly average. Last year on January 1, the seasonal total for the 8-Stations was 13.6 inches, or about 76 percent of average for the date.

On January 1, the San Joaquin 5-Station Precipitation Index Water Year total was 31.7 inches, which is about 246 percent of the seasonal average to date and 78 percent of an average water year (40.8 inches). During December, the total precipitation for the 5-Stations was 17.3 inches, about 279 percent of the monthly average. Last year on January 1, the seasonal total for the 5-Stations to date was 13.7 inches, or about 106 percent of average for the date.

| Selected Cities Precipitation Accumulation as of 12/31/2010(National Weather Service Water Year: July through June) |   |          |   |          |  |
|---|---|----------|---|----------|--|
| City  | Jul 1 to Date<br>2010 - 2011<br>(in inches) | %<br>Avg | Jul 1 to Date<br>2009 - 2010<br>(in inches) | %<br>Avg | % Avg "Water Year"<br>Jul 1 to Jun 30<br>2010 - 2011 |
| Eureka  | 20.44                                       | 129      | 11.38                                       | 72       | 54   |
| Redding   | 16.02                                       | 138      | 6.81  | 59       | 48   |
| Sacramento  | 9.38  | 156      | 7.28  | 121      | 52   |
| San Francisco   | 9.26  | 138      | 6.50  | 97       | 46   |
| Fresno  | 8.16  | 242      | 4.01  | 119      | 73   |
| Bakersfield   | 7.25  | 386      | 1.85  | 98       | 112  |
| Los Angeles   | 10.98                                       | 296      | 3.36  | 91       | 83   |
| San Diego   | 8.11  | 257      | 2.40  | 76       | 75   |

| Key Reservoir Storage (1,000 AF) as of 12/31/2010 |             |         |             |           |          |            |                            |                       |
|---|-------------|---------|-------------|-----------|----------|------------|----------------------------|-----------------------|
| Reservoir   | River       | Storage | Avg Storage | % Average | Capacity | % Capacity | Flood Control Encroachment | Total Space Available |
| Trinity Lake                                      | Trinity     | 1,705   | 1,668       | 102       | 2,448    | 70         | ---                        | 743                   |
| Shasta Lake                                       | Sacramento  | 3,489   | 2,897       | 120       | 4,552    | 77         | 160                        | 1,063                 |
| Lake Oroville                                     | Feather     | 2,180   | 2,226       | 98        | 3,538    | 62         | -608                       | 1,358                 |
| New Bullards Bar Res                              | Yuba        | 737     | 537         | 137       | 966      | 76         | -59                        | 229                   |
| Folsom Lake                                       | American    | 442     | 479         | 92        | 977      | 45         | -135                       | 535                   |
| New Melones Res                                   | Stanislaus  | 1,480   | 1,344       | 110       | 2,420    | 61         | -490                       | 940                   |
| Don Pedro Res                                     | Tuolumne    | 1,716   | 1,329       | 129       | 2,030    | 85         | 26                         | 314                   |
| Lake McClure                                      | Merced      | 770     | 454         | 169       | 1,025    | 75         | 95                         | 255                   |
| Millerton Lake                                    | San Joaquin | 438     | 278         | 158       | 520      | 84         | 54                         | 82                    |
| Pine Flat Res                                     | Kings       | 634     | 418         | 152       | 1,000    | 63         | -1                         | 366                   |
| Isabella  | Kern        | 235     | 154         | 153       | 568      | 41         | 65                         | 333                   |
| San Luis Res                                      | (Offstream) | 1,533   | 1,401       | 109       | 2,039    | 75         | ---                        | 506                   |

The latest National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for January 2011, issued December 31, 2010, suggests above average rainfall for Southern and Central California. No tendency for above or below average rainfall is suggested for Northern 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>
- Individual Reservoirs: [http://cdec.water.ca.gov/reservoir\\_map.html](http://cdec.water.ca.gov/reservoir_map.html)
- Precipitation: [http://cdec.water.ca.gov/snow\\_rain.html](http://cdec.water.ca.gov/snow_rain.html)
- Snow: <http://cdec.water.ca.gov/snow/current/snow/>

**Snowmelt & Seasonal Volume Runoff Forecasting:** The January Water Supply Index was issued on January 7, 2011, reflecting conditions as of January 1, 2011. The forecast summary is as follows:

- Sacramento River Unimpaired Runoff – 21.9 MAF (118% of avg.)
- Sacramento Valley Index (SVI) – 9.2 (Above Normal)
- San Joaquin Valley Index (SJI) - 3.9 (Wet)

Conditions effecting these forecasts include unimpaired runoff rates of 118 percent and 126 percent of average to date (as of 12/31/2010) for the Sacramento River basin and San Joaquin River basin respectively. As of the same date, precipitation in the Sacramento River Region was at 174 percent of average while the San Joaquin River Region was at 220 percent of average. Snow pack is not a consideration of the Water Supply Index calculations, however by January 1 the snow water content maintained the good start with a statewide value of 209 percent of average. The next Water Supply Index forecast will be issued on Tuesday, February 8, 2011. Both forecasts are expected to be lower due to a slow January 2011 thus far.

**Snow Surveys and Snow Course Maintenance:** As of January 5, 2011, the regional snow pack conditions are as follows:

- **Northern Sierra** - 19" of SWC for 67% of April 1 Avg. and 167% to date
- **Central Sierra** - 23" of SWC for 76% of April 1 Avg. and 190% to date
- **Southern Sierra** - 26" of SWC for 95% of April 1 Avg. and 265% to date
- **Statewide** - 23" of SWC for 78% of April 1 Avg. and 201% to date

The first snow surveys of the season were conducted on Dec. 27 and 28, 2010 near Echo Summit along Highway 50 in the Central Sierra Nevada. The manual readings were as follows:

| Location         | Elevation | Snow Depth | Water Content | % of Average |
|------------------|-----------|------------|---------------|--------------|
| Alpha            | 7600'     | 62.4"      | 18.4"         | 140          |
| Phillips Station | 6800'     | 55.9"      | 19"           | 158          |
| Lyons Creek      | 6700'     | 61.2"      | 22.3"         | 189          |

The next snow course measurements will occur during a 10-day window surrounding February 1, 2011. This will be the first true statewide look at the manual snow course measurements.

**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 impressive snow and precipitation amounts during the fall and especially in December 2010 had received plenty of attention from media interests. During the month Snow Surveys staff alone responded to nearly 2 dozen media requests. Other calls were handled by other HAFOO staff.

**Bulletin 120 and Water Supply Index Forecasts:** the first Bulletin 120 will be issued on Tuesday, February 8, 2011.

**Hydro-Climate Analyses:** Work continues on the University of California Task Orders for studies supporting climate change hydrology effort. The Central Valley Flood Protection Plan Climate Change Technical Work Group is moving forward with coordinating next step efforts with the Central Valley Hydrology Study (CVHS) Phase II effort. Continued collaboration will work through the State Climatologist. Initial documents for the Phase II effort are now under review by the State Climatologist. A meeting discussing hydrologic models within the USACE that include snow modeling capabilities was held on December 16. Coordination efforts between the Central Valley Hydrology Study Phase I and the Central Valley Floodplain Evaluation and Delineation (CVFED) Program have been elevated to function through a cross coordination team.

**Real-Time Data Collection Network:** Snow level radar installations for the Kings River and Merced River watersheds are now online. The California Nevada River Forecast Center has created a web page to display a text product of data from the four snow level radar sites. Coordination between NOAA, DWR and Scripps continues as the 21<sup>st</sup> Century Extreme Precipitation Monitoring project moves forward. A quarterly progress meeting was held on December 14 with good progress shown. Newsletter articles on the project for the California Nevada River Forecast Center and FloodSAFE are in preparation.

### **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.*

### **Yuba-Feather Forecast Coordinated Operations (F-CO) Program**

On October 6, 2010 the F-CO agencies and the Flood Operations Center conducted a one-day exercise to apply the F-CO DSS/GUI during a high water event. Participants were geographically dispersed to where they would be during a flood. They were presented forecasts, messages, and problems related to a simulated flood situation affecting their particular area. The intent was to improve the coordination of actions at the two dams, the Flood Operations Center (FOC), and the U.S. Army Corps of Engineers (USACE). Synthetic hydrologic conditions were created and loaded into the F-CO DSS/GUI. The DSS/GUI was used to provide forecasted stream flows, make reservoir release decisions, and to distribute materials to internal and external entities. An After Action Report for the Functional Exercise was published on January 6, 2011 and distributed to the Yuba-Feather F-CO Management Team.

### **FLOOD OPERATIONS EMERGENCY RESPONSE**

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

No new information.

## **EMERGENCY RESPONSE - RELATED ELEMENTS**

*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](http://cvhydrology.org)).

Significant accomplishments over last month include:

- Received comments on draft technical memos from Hydrologic Advisory Committee. Comments were positive and a response to comments is being drafted.
- USGS/Cornell/Corps have completed regional duration skew study. Review of manuscript by Corps is complete. Report should be available end of January.
- 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.
- Estimation of local flows is underway. Ungaged watershed and analysis point selection process is complete. Workshop for development of rainfall-runoff models will be scheduled for later this month, or early February.
- 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 by Sacramento Maintenance Yard is continuing using hand crews.
- Burning debris piles in Putah/Sutter Bypass is 99% complete.
- Clean-up of debris, beaver dams and rodent damage, and downed vegetation is on-going.
- Channel maintenance by Sutter Maintenance Yard has been completed at Lake of the Woods and O'Conner Lakes.
- Final construction inspection for the Sycamore Creek Sediment Removal Project (approximately 50,000 cubic yards of sediment removed from 4,700 feet of channel length) was conducted on December 17, 2010.
- 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.*



- The Sutter Bypass East Borrow Canal – Willow Slough Weir Water Control Structure is fully operational. Finalizing the construction contract is not expected until next fiscal year to address minor construction defects of miscellaneous appurtenances. Staff is currently drafting the Operation and Maintenance Manual.
- The apparent low bidder for the Sutter Bypass Pumping Plant Control Systems Rehabilitation Project is Blocka Construction, Inc. Construction is expected to commence in May 2011.
- The construction contract to replace Weir No. 2 (Sutter Bypass East Borrow Canal Weir 2 Replacement Project) was advertised on December 30, 2010. Bids for the project are scheduled to be publicly opened on February 9, 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, spot spraying for weed control, dragging levee slopes, replacing/repairing gates, and rodent control.
- 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 Division of Flood Management and the California Department of Fish and Game (DFG) finalized a new streambed alteration agreement for routine maintenance on the Sacramento River Flood Control Project on January 6, 2011. This five year agreement provides a more efficient and cost effective process for obtaining DFG approval of routine maintenance, includes conservation measures, and provides for expanded work windows in appropriate circumstances identified through biological surveys and as approved by DFG.

### **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 14<sup>th</sup>; 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.
- 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. Currently an emergency repair contract, placing rock slope protection, is ongoing for approximately 550 feet of levee. 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).*

The California Levee Database Project (CDL) is currently collecting field data for Non-Project levees in the 36 counties outside the Central Valley. The collected field data (attribute tables and maps) for 12 counties are compiled for DWR internal review and submitted for processing in the CLD. Draft documentations for “CLD Data Sharing and Management Requirements with Public Agencies” and “CLD Factsheet” are being developed.

For the Best Available Mapping Project (BAM), 29 floodplain reports from the San Francisco USACE district and 20 floodplain reports and maps from the U.S. Geological Survey have been collected and scanned. The project also collected effective DFIRMs for 51 counties and preliminary DFIRMs for 18 counties from the Federal Emergency Management Agency (FEMA) Region IX Office. This is an ongoing task based on the development of DFIRMs by FEMA. Development of a GIS based “web viewer” to host statewide BAM products is being initiated.

Regarding NFIP Technical Support, in December, staff responded to 8 technical assistance calls related to the National Flood Insurance Program. The National Flood Insurance Program (NFIP) Community Assistance Program (CAP) received grants funds as part of an annual 75/25 cost-shared agreement with FEMA. The grant requires DWR to conduct audits with communities participating in the NFIP and provide training to community officials. In December 2010, DWR staff members attended the annual CAP meeting in the FEMA Region IX office in Oakland, updated the workbook materials and PowerPoint slides for the FEMA Basic Workshop and the FEMA Elevation Certificate Workshop, and contacted community officials for soliciting sponsorship to the FEMA workshops in 2011. Community Rating System Program (CRS) staff completed the first draft CRS Quick Check screening tool for communities interested in joining the program, completed DWR staff training on Quick Check and post-CAV procedures, and completed the first draft of a State CRS program brochure aimed at elected officials. Furthermore, CRS program staff completed a CRS “State Help” document that communities can use to increase their CRS credit points, submitted comments to an ISO/CRS specialist regarding the CA CRS Uniform Minimum Credits draft report, and received an updated version which increases UMC points by 58% over current levels (report to be finalized next month).

Staff also completed draft templates to help participating communities increase their public information credit points, developed a draft repetitive loss outreach template, and completed the first draft of a CRS PowerPoint for use in local workshops. In addition, DWR staff assisted FEMA during the successful L-278 CRS 4-day training class, which took place on October 24 – 28, 2010 in Stockton.

### **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.*

All Central Valley communities have been provided with written notification along with appropriate maps identifying where both aerial and base (initial) LiDAR have been completed and are available for their use. Final LiDAR, bathymetry, and surveys have been completed, with the exception of a few small areas, for the entire Central Valley Floodplain Evaluation and Delineation Program (CVFED) and will be available for all communities on or before July 2011. All riverine and overland hydraulic models are under construction for the four regional areas. Development of composite models (multiple riverine and overland applications) has been initiated. Assembly of the final floodplain models is on schedule for completion by July 2012. Pursuant to requirements in SB5, the current schedule and status of CVFED will be presented at the January 28<sup>th</sup> meeting for CVFP Board approval.

### **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.*

Questions from the property owners regarding the Flood Risk Notice 2010 continue to be received. During December of 2010 and early January 2011, we received another 65 call-in questions, bringing the total to just over 215. The Flood Risk Notification Program team has responded to these questions and is working on logging the questions and answers.

### **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.*

The final guidance document entitled “Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities” (Handbook) was released to the public in October 2010. Given that more than 100 requests for the report have come in, interest in the document by local governments and agencies has been high. DFM is currently developing plans to provide technical support to assist cities and counties in use of the Handbook to comply with new legislative requirements.

In December 2010, the Alluvial Fan Task Force submitted two reports (Alluvial Fan Task Force Findings and Recommendations Report and Integrated Approach for Sustainable Development on Alluvial Fans) to the State Legislature as directed by authorizing language in Assembly Bill 2141. These reports document the work of the Task Force including needs and recommendations for funding and technical assistance from State, Federal and local governments. One of the Task Force recommendations currently being pursued by DFM is to continue work on the Alluvial Fan Floodplain Evaluation and Delineation Program. DFM is also working on further development of a web-based portal that supports an integrated approach for alluvial fan land use planning.

## **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 FEASIBILITY STUDIES**

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.

- The Natomas Basin Post Authorization Change Report (PACR) was signed December 31, 2011, by Colonel Van and now awaits authorization from anticipated 2011 WRDA.
- Amendment 5 to the Common Features PCA is being drafted to include levee improvements from the Natomas PACR and an additional \$1.2 billion in costs for construction of these features upon authorization.
- Efforts for the American River Common Features GRR have begun and the GRR is anticipated to be completed in 2014.

### **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 Study and the Project Management Plan is 40 percent complete.

### **Lower San Joaquin River Feasibility Study**

- Representatives from San Joaquin County, San Joaquin Area Flood Control Agency (SJAFCA), the Board, USACE, and other local interests have worked together to prepare a Project Management Plan (PMP), a draft amendment to the Feasibility Cost-Sharing Agreement (FCSA), and a draft Local Feasibility Cost-Sharing Agreement (LFCSA). The cost estimate for the study is \$10.6 million with a project completion date of 2016.
- At the direction of the executive committee, additional management review will be required to complete schedule and budget revisions with a follow-up meeting (date to be determined) in January. Following executive committee approval, the revised schedule and budget will be base-lined for tracking. Current revised milestone dates are as follows:
  - October 2013 – F3 Conference / Feasibility Scoping Meeting
  - October 2015 – F4 Conference / Alternative Review Conference
  - March 2016 – F4a Conference / Alternative Formulation Briefing
  - August 2016 – F5 / Draft Feasibility Report
  - February 2017 – F8 / Submit Report to the South Pacific Division.

### **Merced County Steams 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.

- No new information.

### **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 January 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.

- Amendment No. 1 was approved by DGS/OLS on November 1, 2010. An updated funds request dated December 23, 2010 was received by DWR and the funding process was started. A memo to the Contracts Payable Office is being prepared to request funding. USACE has requested \$86,000 now, followed by \$30,000 for FY11.
- USACE estimates \$339,000 for FY10/11; Project Development Team (PDT) meetings will now consist of only essential members.
- A Schedule and Cost Change Request (SACCR) is being discussed at PDT meetings and will be drafted once budget and schedule are determined. The SACCR is necessary due to the expanded scope and delays in the schedule.
- EIP project kickoff meetings have begun for the Feather River West Levee.

### **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.

- All disciplines are on schedule for reaching the USACE F3 milestone in July 2011. Pre-meeting documentation will undergo Independent Technical Review (ITR).
- The project is on the USACE list for the 18-month feasibility study program that is being developed, but we don't have any final word yet.

### **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.

- In the wake of funding constraints for the study, USACE has received additional funds on December 25, 2010 from the State. Additional funds will provide for additional hydraulic and soils analysis needed to define the new levee alignment for each alternative solution.
- Due to funding constraints and scheduling delays the anticipated completion date of the study has been pushed back from September 2011 to mid-2012.

### **White River/Deer Creek Feasibility Study**

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

- USACE is finalizing the Reconnaissance Study and the PMP is 40 percent complete.

### **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 are on schedule to be presented to the Board in February 2011, provided that the updated FCSA does not contain major changes from the previous version. The updated FCSA was received by DWR on January 6, 2011. It is currently being reviewed.



### **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.

- Design Agreement Amendment 1 and 2 was approved by DGS on December 14, 2010.
- USACE received invoice payment of \$344,300 on December 15, 2010. The remaining \$37,000 payment is being processed.
- The Draft Alternative Formulation Briefing Report has been reviewed and comments were submitted to USACE on December 16, 2010.

### **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 systemwide benefits.

#### **Reclamation District 2103 - Bear River Levee Improvement (RD-2103)**

Project closeout is now complete. This is the first project closed following the EIP Program procedures.

#### **Levee District 1 - Setback Levee at Starbend Feather River (LD-1)**

The OMRR&R Agreement between the CVFPB and LD-1 has been executed. LD-1's proposed long term Vegetation Maintenance Plan (a supplement to the Project's Operation and Maintenance Manual) will be presented to the CVFPB during the January 2011 Board meeting.

#### **Reclamation District 17 - 100-Year Seepage Area Project (RD-17)**

Staff is currently in the process of reviewing and replying to materials recently received from RD-17.

#### **Three Rivers Levee Improvement Authority – Feather River (TRLIA-FR)**

- All major work on Segment 1, 2 and 3 have been completed; however, TRLIA is working on acquiring the necessary easement for Segments 1 and 3.
- A longitudinal crack was observed in the Western Pacific Intercept Canal Levee in early January. CVFPB staff and DWR staff met on-site to observe the site and discuss action plans.

#### **Three Rivers Levee Improvement Authority - Upper Yuba River (TRLIA-YR)**

On December 22, 2010, USACE has approved the Section 408 application for the TRLIA Upper Yuba Project. The 104 credit approval is still pending.

#### **Sacramento Area Flood Control Agency - Natomas Cross Canal (SAFCA-NCC)**

- No new information.

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

- No new information.

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

- WSAFCA has completed the following milestones:
  - December 14, 2010.
  - WSAFCA submitted to DWR the CHP Academy project setback alternatives. DWR has reviewed the document and provided comments.
  - WSAFCA has completed the Real Estate plan for the Rivers project.

### **USACE/CVFPB PROJECTS**

The CVFPB 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 design for Site R-5 is complete with construction planned for 2011. These repairs are commonly referred to as the WRDA 1996 Remaining Sites work.
- Design continues for the Five Remaining Sites Project.
- USACE is completing turnover of Site R4. The turnover will be presented to CVFPB for their approval at the January 2011 Board meeting.

#### **Folsom Dam Raise and Bridge Element**

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

- The FY 2012 Corps design estimate for the project is \$750,000. Based on a 65/35 percent cost-share, the non-federal cost-share is estimated at \$262,500.

#### **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 First Quarter Fiscal Year 2011 payment for the JFP in the amount of \$8,048,500 was processed and is expected to be paid in early January 2011.
- The 35 percent design review was completed and submitted for the geotechnical plans and specifications for the approach channel.

#### **Marysville Ring Levee Improvement Project**

- Phase 1 construction is paused until the start of the next construction season, most likely May 2011.
- Design of Phase 4 is 60 percent complete and is being reviewed for comments within USACE.
- The Phase 2 schedule is being revised to begin construction in FY 2012.
- The Phase 2 design is to be partially contracted to HDR in order to meet a FY 2012 construction deadline.

- The Phase 3 design is to be contracted to HDR to meet a FY 2013 construction deadline.

### **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.

After approximately ten years of intermittent activity and \$3,700,000 in associated sunk funds, recent discussions with USACE have indicated that they intend to adhere to their vegetation policy without variance and without applying the agreed-to provisions of the Framework Agreement. Enforcement of the policy will likely prevent the project from proceeding. Environmental mitigation alone would further delay the project for years and add millions of dollars in additional costs. The USACE Project Manager is reviewing options for pursuing a variance if concurrence can be obtained that a variance can be granted for this project.

- DWR has received the 60 percent complete design plans for sites along the Knights Landing Ridge Cut portion of the project and will review and comment on them.

### **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.

- DWR reviewed alternative designs for Morrison Creek where a Union Pacific Railroad (UPRR) encroachment permit will be required. SAFCA, USACE, and DWR are preparing design documents and materials to present at a public meeting where public input will be sought regarding the alternatives. Time and date of meeting have not been set at this point. USACE is also currently evaluating the potential need for a slurry cut-off wall in the levee.
- As part of the Limited Reevaluation Report, USACE has begun the Hydrology and Hydraulics study for the South Sacramento Streams Project area. It is anticipated that the study will be completed by August 2011. The Corps is also currently working on a schedule for completion of the LRR

### **West Sacramento Area Project, Slip Repair**

Geotechnical analysis for the repair of two Yolo Bypass east bank levee slips is complete. The design for the north slip repair site is under way at USACE. Construction of the northern site repair is currently scheduled for the 2011 construction season.

- The 35 percent design review was completed and submitted for the geotechnical evaluation and the civil plans and specifications.
- The Draft Environmental Assessment Report was reviewed and comments provided.

## **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 on the Bond Management System (BMS) was released on December 16<sup>th</sup>. Applications for grant funds are due February 25<sup>th</sup>. The Program has \$66.5 million available for disbursement.

### **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 Central Valley and 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 in process of 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 results 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 in the process of issuing invoices for the balances due.
- Six claims for \$2.17 million were completed.
- Eight new claims were received.
- Three claims for \$9.46 million are under review.
- No completed audit payments were processed.
- Eight claims for \$5.27 million are in process of payment.
- 52 claims for \$100 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 Central Valley and State Plan of Flood Control.

- Working closely with Contra Costa County to develop an appropriate quarterly report and invoice submittal. A draft copy was submitted to the project manager for review before the formal submittal. The draft copy was approved.
- San Bernardino and Alameda County LOLE Invoice No. 1 are being processed for payment.

- LLAP requested that the City of Bakersfield resubmit final report and invoice for the Kern River Project. Due to large rainfall events, City postponed work on this project for a few weeks.
- Retention funds were released to Orange County. The formal project closeout letter was sent and steps are being taken to closeout the necessary internal orders (IO) and purchase orders within the budget tracking system.
- The draft work plan was updated to outline the next public solicitation for the program. The solicitation is set to take place in April 2011. The Public comment period for the updated program guidelines will be posted in January. The web posting text has been written.
- The LLAP has uploaded all LLAP project information to the FloodSAFE Bond Accountability website. This work includes updating project descriptions and grantee contact information, listing expenses paid per project, and coordination with the web administrator.
- Del Norte County submitted a subsurface exploration plan which was reviewed by LLAP and filed in the project file.
- Alameda County submitted a final report and all necessary documents with a final invoice for the Alameda Creek LOLE project. This package was reviewed by LLAP and awarded the full contractual reimbursement amount. The payment is currently in process for management approval.
- Marin County and Humboldt County both requested a one year extension on the contract term. After review by LLAP, the request was approved and contract amendment decision memos are now in process for management approval.
- Humboldt County requested a project scope change that does not affect the overall project cost. After careful review by LLAP, the change was approved, as it is consistent with the intent of the program. A decision memo for the scope change is now in process for management approval.

### **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.

- Reviewed commitment and financial needs of current YFFPP (Prop 13) funding agreements.
- DWR agreement with Sutter County and SBFCA for reimbursement of local share agreement (committing up to \$650,000 for Sutter Basin Feasibility Study) was executed by DWR. An original of the agreement was sent to all parties, including DWR Accounting.
- Reviewed YFFPP's current contract agreements/funding commitment for preparing FY 2011-12 Re-appropriation and Extensions of Liquidation (EOL). LLAP completed Re-appropriation request for remaining balance of \$5.417 million (made available for FY 2010-11).

- LLAP performed YFFPP financial analysis by checking budget history of all fund centers and fund numbers, beginning FY 2000/01. Since June 2010, up to 14 old funding agreements have been reviewed and 11 closeout letters have been sent out to project grantees. Two additional closeout letters are pending. The remaining old funding agreement, for RD-1001, Mid- Valley Area Levee Reconstruction Cost Share Agreement, with just over \$127,000 remaining commitment, has not been completed; reimbursement of remaining commitment for this agreement depends on USACE future activities in the area.
- Work on YCWA feasibility study funding agreement was completed in 2007. Contract closure is pending payment of one final invoice (approximately \$11,000). To allow for payment of remaining invoice and close the project, an amendment to extend the contract expiration date has been prepared and which is currently pending review and approval by DFM management.
- Status of fund transfer for Forecast-Coordinated Operations Implementation Contract Agreement was investigated. Program staff coordinated with budget/accounting staff to ensure they have the required documents for issuance of contract funding strip. This is pending action by Maria Gomez, currently.
- Project Charters were prepared for current YFFPP contract agreements based on the template used by the Project Services Office.
- Preparation of a Fund Center Assignment for \$230,357 for the Real Estate Branch to provide land acquisition services for Bear River Setback Levee remains pending awaiting TRLIA confirmation of the required data to establish the scope of work for the assignment agreement with the Real Estate Branch. An IO has been created for Real Estate task.

### **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 were held Statewide. Based on comments during the public review, changes may be incorporated into the final Guidelines.

- The LLAP Guidelines Package is in the process of receiving formal management approval. Locations for public workshops are being identified. The workshops will solicit for public comment on proposed revisions to the LLAP Guidelines. The program has begun development of presentations for the public workshops.
- YFFPP Guidelines for a new Project Solicitation Proposal is drafted, but will likely not be released until later in 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.

## **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

- No new information.

#### Work Agreements for FY 2010-2011

- DWR staff has mailed work agreements to 68 reclamation district and has received signed work agreements from 17 reclamation districts.
- 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.

- Project Funding Agreements for Aqueduct Protection Projects were sent to the respective Reclamation Districts for their signatures.
- No agreements have yet been received back for final signature and execution.
- 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 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.

| <b>Geotechnical Evaluation Reports</b> |                   |                      |                   |
|--|-------------------|----------------------|-------------------|
| <b>Study Area</b>                      | <b>% Complete</b> | <b>Study Area</b>    | <b>% Complete</b> |
| Chico <sup>1</sup>                     | 30                | NEMDC East           | 40                |
| Marysville                             | 40                | Natomas              | 15                |
| Sutter                                 | 35                | Bear Creek           | 25                |
| RD 784                                 | 40                | Calaveras River      | 25                |
| Davis                                  | 10                | RD 404               | 30                |
| Woodland                               | 10                | RD 17                | 50                |
| American River                         | 40                | Stockton Non-Project | 20                |
| West Sacramento                        | 85                | W. Sac. Non-Project  | 10                |
| Sacramento River                       | 45                | South Sac. Streams   | 9                 |

<sup>1</sup> Chico PGDR has been completed.

- Overall, Urban Levee Evaluations are 65% complete.
- ULE team developed fragility curves for 470 miles of urban project and appurtenant non-project levees in the Central Valley to support development of the CVFPP. This has slowed normal ULE progress although the final deliverable is still on schedule.

### **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 38% complete.
- NULE developed fragility curves for 1620 miles of non-urban project levees in the Central Valley to support development of the CVFPP. This has slowed normal NULE progress although the final deliverable is still on schedule.
- NULE completed the draft Remedial Alternatives and Costs Estimate Report (RACER) based on the GAR

### **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).

#### **SPFC Descriptive Document (SPFC DD)**

The SPFC DD is an inventory and description of the State-federal flood protection system in the Central Valley.

- The 2010 SPFC Descriptive Document was released at the end of November 2010.

#### **Flood Control System Status Report (FCSSR)**

The FCSSR will describe a number of factors associated with current status of the SPFC and recommendations of future work activities.

- No update

#### **SPFC History Report**

The SPFC History Report is being prepared to inform a non-technical audience on the evolution of the SPFC.

- A public draft of the history report is expected to be released in early 2011.

### **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**

- The Central Valley Flood Protection Plan Progress Report (Progress Report) has been prepared in response to California Water Code §9610(c), which requires the California Department of Water Resources (DWR) to report on the progress and development of the Central Valley Flood Protection Plan (CVFPP or Plan).

- The Progress Report has been posted on the Central Valley Flood Protection Board Web site as legislatively required and is being further distributed through the following:
  - Posting on CVFMP website
  - Special mailing to relevant legislative staff
  - Email notification via FloodSAFE and CVFMP mailing lists
  - Notification on other e-news (e.g. Delta News)
  - Email to CVFPP Work Group members
  - California Native American Tribes will receive copies by email and U.S. mail

### **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.*

- A Framework and Storyboard depicting the approach to be taken to produce the Recommendations Report is being developed.
- The charter that identifies work to further integrate Flood Management into the California Water Plan was published.

### **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**

- Continued coordination with DFM inspection group, DFG, and USFWS to further resolve management of dense stands of trees on project levees. Continued coordination and inspection as well as mitigation requirements of non-compliant levee districts with DFM inspection staff.
- Continued work with DFM Flood Inspection Group, DFG, and Fish and Wildlife Service staff to clarify inspection standards, and determine management actions and mitigation for trees and elderberry plants that are obstructing visibility and accessibility criteria. Worked with the USACE on the federal nexus issue for levee vegetation work.

### **Regional Advanced Mitigation Planning (RAMP)**

- First-round edits of the Statewide Framework were completed and distributed internally and to partner agencies. This framework clarifies problems to be solved, benefits of a RAMP approach, key components of mitigation planning, options for addressing key regulatory issues, funding, and guidance for developing more specific regional plans. Once completed, a more specific regional pilot plan within the central Sacramento Valley will be developed.
- Met with State Water Resources Control Board and High Speed Rail Authority staff to discuss possible collaboration and sharing of RAMP conservation analysis approach and software, although those organizations may be subject to different planning time constraints.

### **Corridor Management Planning**

- Coordination is ongoing with DFM on promoting the Corridor Management System (CMS) approach to other parts of the Central Valley flood management system.
- Continued coordination on the Lower Feather River Corridor Management Plan to determine needs for future modeling.
- DFM requested continued funding from the Conservation Strategy to support Phase 2 of the project.

### **SCIENTIFIC AND PLANNING INFORMATION**

- Baseline biological and ecological information are being developed for the Conservation Strategy and to support the CVFPP and associated CEQA document. This includes a Biological Status and Trends Report and a Fish Passage Barriers Assessment Report to be incorporated as a technical memorandum in the 2012 CVFPP.
- Work continued on the medium-scale vegetation map. This map will provide an initial, system-wide assessment of the distribution of riparian and other habitats. In addition, a longer-term, higher-resolution map is being initiated that is more suitable for project-level planning. Staff met with agency partners to outline the preliminary scope.

## **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 Federal Advocacy Team conducted a comprehensive training program that included personnel from USACE and the Division of Flood Management of the Department of Water Resources. The group included all the Program Managers and their supervisors from USACE and DFM that are involved in the cost-shared flood control projects in the Central Valley. This training provided an overview of the Federal Advocacy Program to the individuals that provide the detailed information on each of the flood control projects and established a procedure that promotes closer coordination between the two agencies' Program Managers. They are jointly working on the draft documents that will be present to DWR and USACE Management on January 13, 2011. This will provide the coordinated information that will be filed with the House and Senate in February/March 2011. (Note: the issue of whether or not the House will accept requests for appropriations to the USACE is still undetermined.)

### **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.