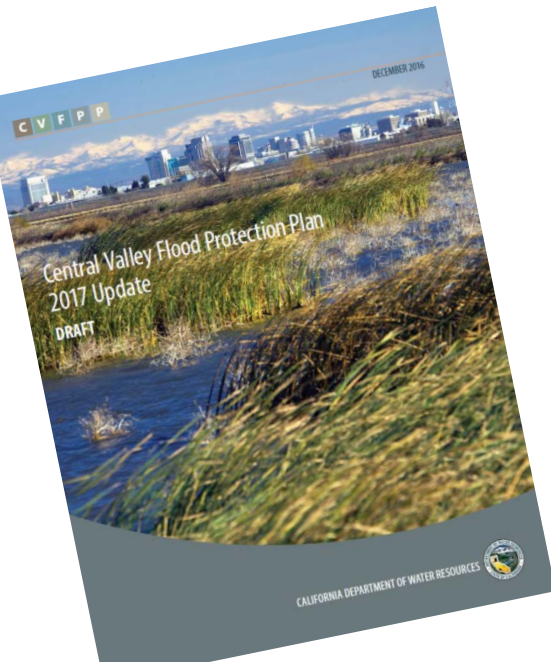




Draft CVFPP 2017: Mid SJR Region Highlights

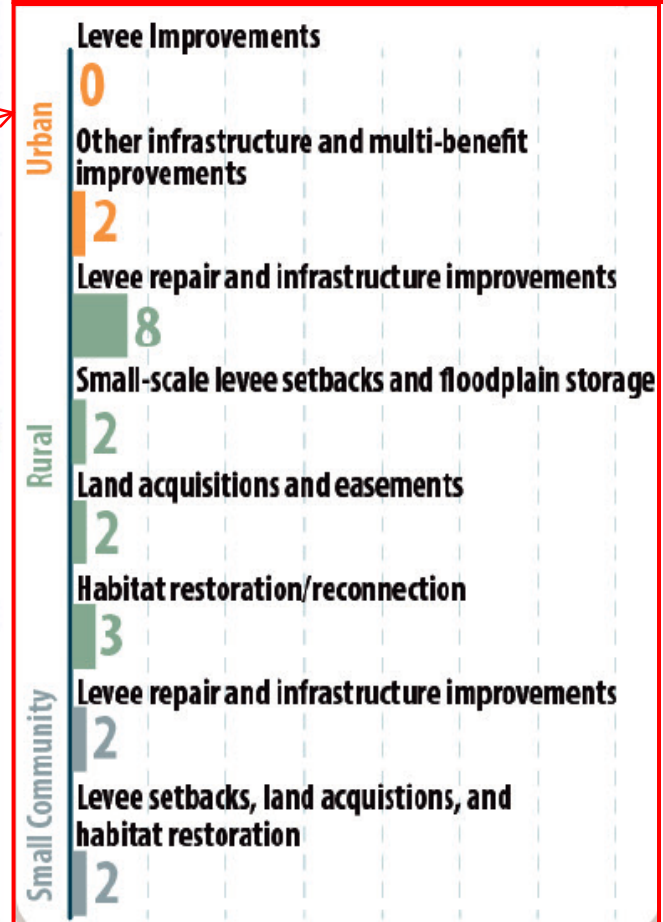
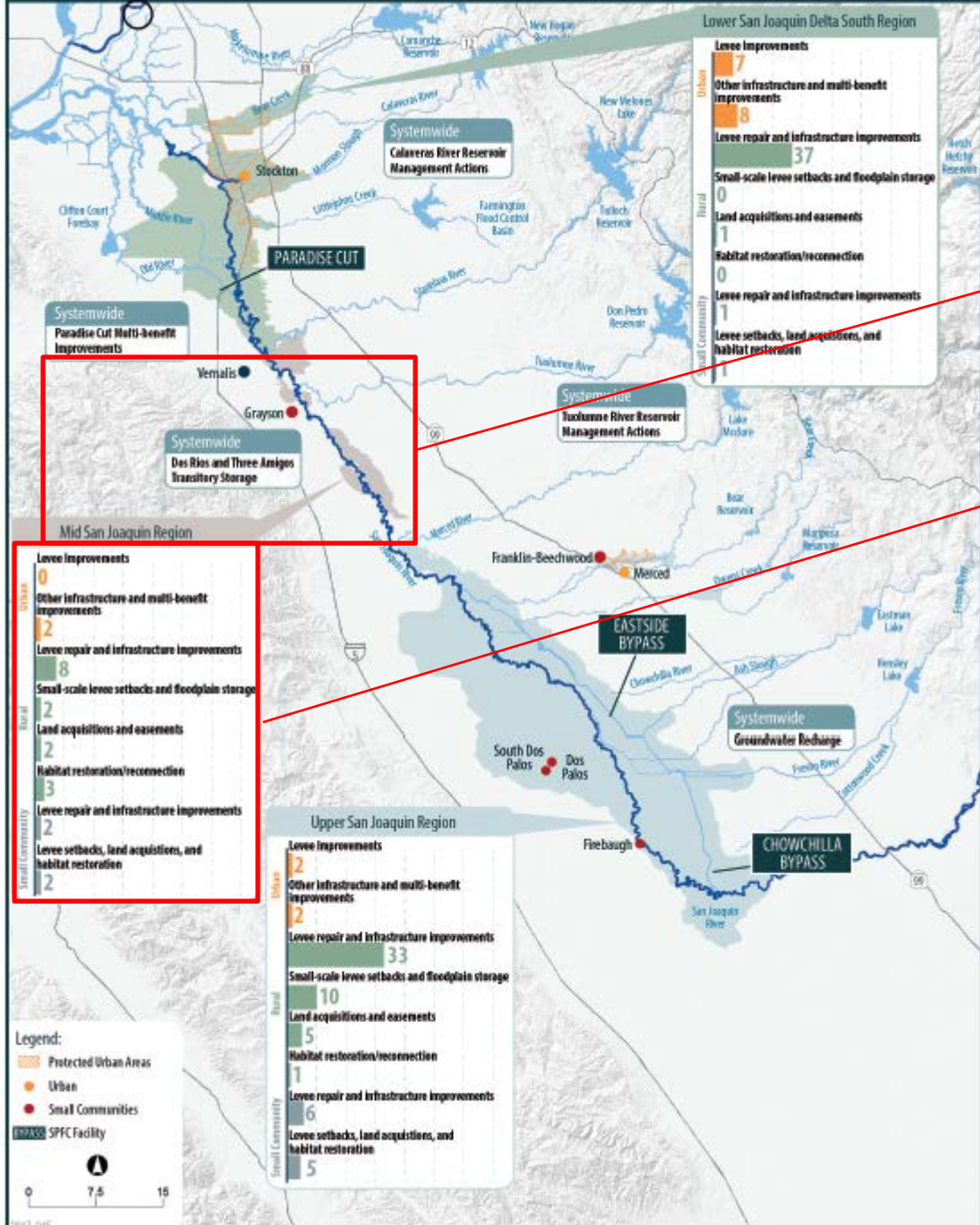


Betty Andrews, PE
Mid SJR RFMP Flood Work Group Meeting
January 26, 2017

Projects and the Plan

- “The CVFPP is descriptive, not decisional; it is not a funding or permitting decision for specific projects.”
- “The 2017 CVFPP Update includes recommendations on investments and policies to support comprehensive flood risk management actions locally, regionally, and systemwide, rather than promoting specific projects.”

Map 3-2. Number of Capital Investment Actions for the San Joaquin River Basin



Systemwide Actions

Reservoir Management Actions

The 2012 SSIA included support for the ongoing Folsom Dam Joint Federal Project and for pursuit of coordinated reservoir operations actions in Central Valley reservoirs.

In the San Joaquin River Basin, the San Joaquin River BWFS analyzed a range of reservoir flood storage and operations actions. The BWFS analysis found that additional flood storage in the Calaveras River system would significantly reduce stages and corresponding flood risk near downstream urban areas, in particular during large flood events with projected climate change (4-foot reduction in stage during the 200-year with climate change event). This could be achieved through two means: (1) proactively releasing water from existing reservoirs before flood events with enhanced long-term runoff forecasts under Forecast-Informed Operations, and/or (2) storing water from existing reservoirs in a groundwater bank through recharge and conjunctive use operations to increase reservoir flood storage while maintaining long-term water supply. In addition, increasing objective release capacity in the Tuolumne River system was found to provide substantial public safety benefits within the watershed and downstream (with reductions in peak flow of up to 35,000 cfs on the San Joaquin River at Vernalis). Therefore, the Refined 2017 SSIA Portfolio includes enhancements to flood storage on the Calaveras River and Tuolumne River watersheds to be further refined through future study with reservoir operators and other partners.

Key actions include the following:

- Coordinate and provide project cost-share for completion of Folsom Dam Raise project
- Complete design, environmental documentation and permitting for the project to construct a New Bullards Bar lower outlet
- Evaluate the feasibility of increasing upstream flood storage in New Hogan Lake or elsewhere in the Calaveras River Watershed
- Evaluate reservoir operation actions for New Don Pedro Reservoir in the Tuolumne River Watershed
- Develop a Decision Support System and other tools for reservoir operators to enhance both F-CO and F-IO and conduct operational exercises with reservoir operators that emphasize the coordinated operations of the reservoirs in the Central Valley

Floodplain Storage Actions

The 2012 SSIA did not identify any site-specific floodplain storage actions, but supported pursuit of such storage actions on a willing-seller basis where consistent with local land use plans, all affected landowners support such storage, and the new flood storage area can be safely isolated from adjacent areas. The 2017 refined SSIA portfolio continues to include pursuit of these projects on a willing-seller basis.

The Mid San Joaquin RFMP and San Joaquin River BWFS identified the Dos Rios and Three Amigos transitory storage projects, which are included because of their strong potential for flood and ecosystem benefits. The Dos Rios and Three Amigos projects would provide about 700 acres of new riparian and marsh habitat. An additional site was identified by the Feather River RFMP at the Oroville Wildlife Area. Transitory storage projects such as these can provide significant habitat improvements that contribute toward ecological goals, as well as reducing future risk exposure by protecting land in the floodplain from future development. Key actions include continuing restoration activities at Dos Rios Ranch and Three Amigos Transitory Storage project.

Emergency Management Actions

The 2012 SSIA includes several enhanced emergency flood response actions, including all-weather roads; flood information collection and sharing; local flood emergency response planning, forecasting and notification; and a rural post-flood recovery assistance program.

For the 2017 CVFPP Update, DWR estimated that most areas in the Central Valley could increase warning and mitigation times by 1 to 2 hours, with some areas improving by up to 7 hours. It is estimated that these improvements in emergency management would improve life safety by about 40% and reduce property damages by about 2% systemwide. Emergency management actions include updating emergency response plans for each local maintaining agency, designing and constructing all-weather access roads, enhancing flood forecasting and notification systems and adding new forecast points, maintaining flood fight supplies, and enhancing F-CO and F-IO for reservoirs in the Central Valley.

Routine Maintenance

The activities listed below will be carried out by the State on facilities for which it is responsible under CWC Sections 8361 and 12878. The State will also consider providing implementation grant funding to partner local agencies to ensure proper operation and maintenance of all SPFC facilities.

- Maintain all-weather levee crown roads for quick response to potential flood threats
- Assist LMAs with fixing sites requiring critical repairs in rural agricultural areas
- Enhance inspection and maintenance of the levees and channels of the SPFC under jurisdiction of the State
- Ensure that sites identified as requiring maintenance actions during spring inspections are properly maintained and repaired by fall, prior to flood season
- Coordinate inspection and timely maintenance of the levees under jurisdictions of the LMAs
- Repair facilities in a timely manner that are the responsibility of the State and that are identified during an inspection as having deficiencies
- Develop strategies for long-term system management and maintenance of the SPFC facilities, including strategies to address legacy system issues such as encroachment and pipe penetrations

Rural Portfolio




























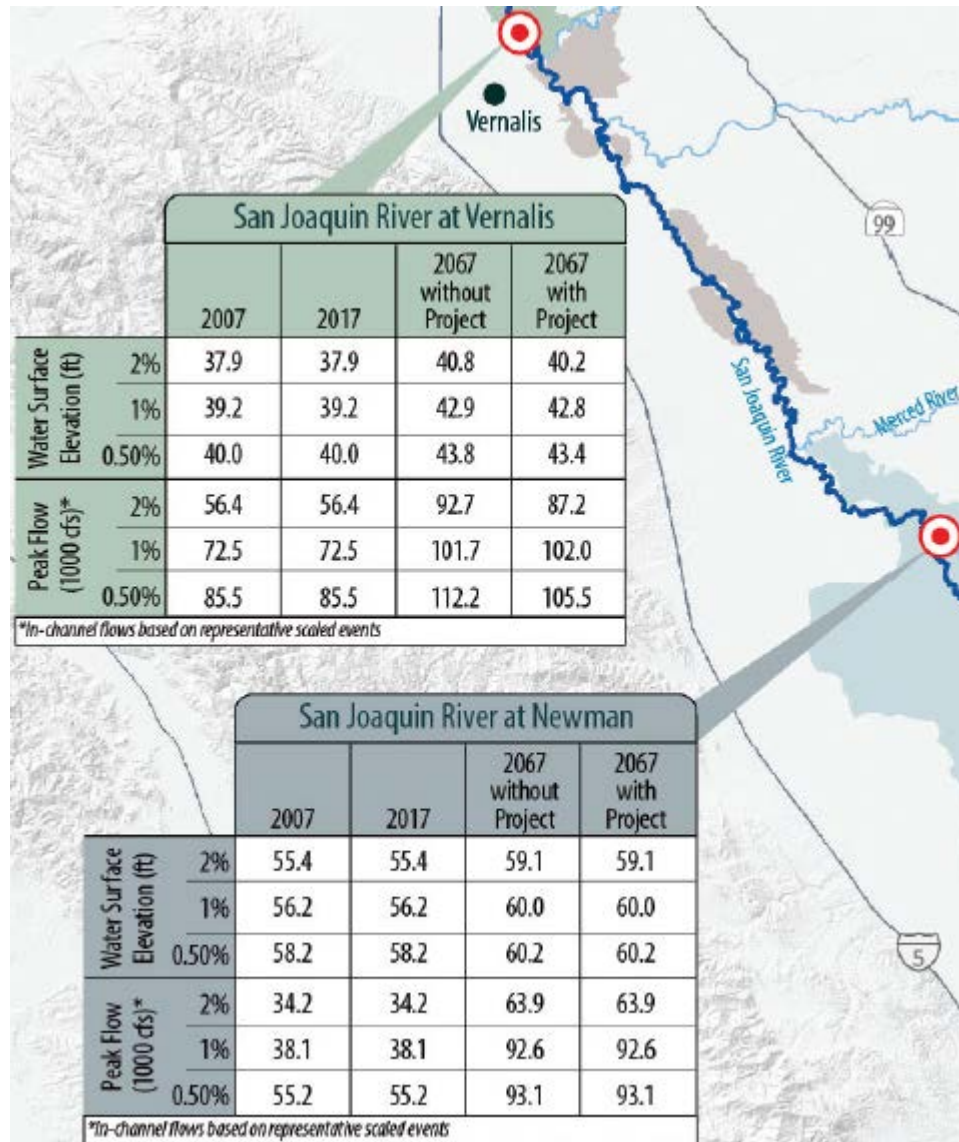
	SOCIETAL VALUES	Public Safety 	Ecosystem Vitality 	Economic Stability 	Enriching Experiences 
RURAL ACTIONS					
CAPITAL INVESTMENT ACTIONS					
Levee repair and infrastructure improvements					
Small-scale levee setbacks and floodplain storage					
Land acquisitions and easements					
Habitat restoration / reconnection					
ONGOING INVESTMENT ACTIONS					
Risk awareness, floodproofing, and land use planning					
Studies and analysis					

Figure 3-5. Expected Outcomes from Rural Actions

Compared to the urban and small community portfolios, the rural portfolio has the greatest potential to prevent future risk intensification by supporting and enhancing rural and agricultural economies and ecosystem functions in the floodplain. Figure 3-5 displays the expected outcomes expected from different types of management actions in rural areas.

Since new or improved levees in rural areas have potential to intensify risk in SPFC floodplains, the 2017 refined SSIA portfolio emphasizes actions to address deferred maintenance, critical repairs, and floodplain management in rural areas consistent with the CVFPP. Other priority actions with potential to benefit rural areas are included in the systemwide portfolio.

Peak Flows and Elevations



Policy Initiatives

Recommendations for Development of Multi-Benefit Projects

Issue Summary: Ineffective institutional frameworks have hindered implementation of multi-benefit actions.

Near-Term Milestone: Seek establishment of an implementable framework to facilitate design and construction of multi-benefit projects that addresses funding, interagency collaboration, regulatory mechanisms, long-term O&M, mitigation, and tools and methods for monitoring and tracking progress toward ecosystem vitality, economic stability, and other societal benefits.





Recommendations for Operations and Maintenance of the Flood System

Issue Summary: Underfunding and complex, time-consuming permits lead to a backlog of deferred maintenance and greater risk to life and property.

Near-Term Milestones: Utilize improved O&M cost and value tracking systems to inform administrative actions by regulatory agencies that improve the overall efficiency of existing O&M activities.

Recommended Actions:

- **Work toward securing sufficient and reliable annual funding for proper long-term operations and maintenance (S/L).** The State will continue to invest in existing programs that provide funding for O&M activities, such as the Deferred Maintenance Program, Flood System Repair Project, and Delta Subventions Programs. For example, in 2016, DWR allocated \$100 million for LMAs and DWR to address deferred maintenance, particularly pipe penetrations in the SPFC. Finally, the State will work to develop a sustainable program through State legislation to ensure adequate annual funding for operations, maintenance, and minor repair activities. It is important to note that routine operation and maintenance is considered a shared local responsibility of the State and
- **Develop an SPFC annual subventions program for LMAs not already covered by the existing Delta Levees Maintenance Subventions Program to proactively maintain the SPFC facilities to current State and federal standards, recognizing that all SPFC levees are a part of a broader system (S/F/L).** The State should evaluate, in coordination with the USACE and LMAs, how the State could provide levee maintenance subventions to LMAs outside of the Sacramento–San Joaquin Delta using the Delta Levees Maintenance Subventions Program as a model. This effort would include the identification of potential funding sources to sustainably support an SPFC subventions program.



Recommendations for Coordination with Federal Agencies

Issue Summary: Federal agencies share responsibility for flood management, but complicated coordination, policies, funding, and approvals slow progress.

Near-Term Milestone: In coordination with local entities, the State will engage federal agencies to implement projects and address policies affecting flood management in California, including clarifying requirements for obtaining Section 408 permits, vegetation management policy strategies, and establishing a FEMA flood zone for agricultural communities.

Recommended Actions:

- **Continue to work closely with USACE (S/F/L).** Key elements of the State’s strategy for coordinating with USACE include the following:
 - ▶ Continue to pursue compatibility between State and federal vegetation management policies, emphasizing risk prioritization and the imperative function of levee vegetation relative to the requirements of the Federal Endangered Species Act.
 - ▶ Work with USACE and LMAs to reevaluate project purposes for SPFC projects, consider deauthorization, modifications, or updates to O&M manuals and reservoir operations control manuals as needed.

Public Hearings

February 9, 2017, 6 to 8 p.m. – Marysville

Yuba County Government Center, BOS Chambers
915 8th Street, Marysville, CA 95901



February 16, 2017, 6 to 8 p.m. – Merced

Merced Civic Center (Sam Pipes Room)
678 W. 18th Street, Merced, CA 95340

February 24, 2017, 10 a.m. to Noon. – Sacramento

Sacramento City Hall, City Council Chambers
915 I Street, Sacramento, CA 95814

*Regular Business meeting begins at 9:00 a.m.

*Meeting to be webcast

March 9, 2017, 6 to 8 p.m. – Woodland

Woodland Community & Senior Center
2001 East Street, Woodland, CA 95776



March 17, 2017, 10 a.m. to Noon. – Stockton

Robert J. Cabral Agricultural Center
2101 E. Earhart Avenue, Suite 100, Stockton, CA 95206