

California Department of Water Resources San Joaquin River Basin-Wide Feasibility Study Public Workshop Summary

DATE: Friday, May 13, 2016

WORKSHOP: 10 a.m. to 1 p.m.

LOCATION: U.S. Fish & Wildlife Service San Luis National Wildlife Refuge Complex
7376 S. Wolfsen Road, Los Banos, CA 93635

I. Introduction – Workshop Overview and Participants

The Central Valley Flood Protection Board (CVFPB) held a public workshop on May 13, 2016 focused on the San Joaquin River Basin-Wide Feasibility Study (BWFS).

The stated objectives of the workshop were to:

1. Develop a shared understanding among San Joaquin Basin stakeholders about the San Joaquin River BWFS planning process, tentative recommended plan, and findings/recommendations.
2. Collect stakeholder input on the tentative recommended plan and findings/recommendations.

Approximately 35 participants attended the workshop, including members of the public, DWR staff and supporting consultants, and CVFPB representatives. A wide array of stakeholder interest areas were represented, including local flood agencies, environmental interests, participants in the RFMP processes and state and federal agencies. CVFPB members in attendance included Bill Edgar, Jane Dolan, Tim Ramirez, Clyde Macdonald, Mike Villines and Joe Countryman. A full list of participants is included in Appendix A.

This document summarizes the presentations made during the workshop, as well as questions and comments received and responses provided. It is not intended to serve as a detailed transcript of all comments made.

CVFPB President Bill Edgar welcomed attendees and commented on the hospitality and natural beauty of the San Luis Wildlife Refuge facility. He indicated the priorities for the workshop, as well as progress on the 2017 Central Valley Flood Protection Plan (CVFPP) Update.

As part of the public comment period on non-agendized items, one speaker indicated that her family ranch “Elbon” was sold to the U.S. Fish & Wildlife Service (FWS) to create the San Luis National Wildlife Refuge and thanked the CVFPB and the FWS for work done in the region.

II. 2017 Central Valley Flood Protection Plan Update Background – Mike Mierzwa, DWR

CVFPP Purpose and Objectives

Mike Mierzwa provided an overview of the 2017 CVFPP Update. The purpose of the plan is to refine the State Systemwide Investment Approach (SSIA) described in the 2012 CVFPP and provide additional specificity about recommended near- and longer-term investment approaches, including a mechanism for tracking flood risk reduction outcomes.

Mike described the proposed content of the 2017 CVFPP Update in detail, with a focus on the topics introduced in Chapter 5, which will discuss tracking the intended outcomes of flood management actions. He also described the concept of resiliency and explained that the San Joaquin River BWFS is one of many efforts underway to inform the 2017 CVFPP Update. The San Joaquin River BWFS investigates the potential for system-wide benefits in the San Joaquin River Basin. The BWFS is not a plan that requires approval, but instead a study to help the DWR identify larger system-scale actions throughout the San Joaquin River Basin and its tributaries included in the 2017 CVFPP Update.

In the 2017 CVFPP Update, planning forms the cornerstone of effective implementation of recommended management actions. The four steps to planning are:

- Provide Context and Set Objectives
- Describe Performance of Several Ideas
- Estimate Cost (in terms of staff/time resources and dollars) of Recommendations
- Show a Path to Implementation for Recommendation

Summary of Questions, Comments and DWR Responses

- Stakeholder Comment (C): Just a comment to offer praise for the outcome-based approach. Stakeholders are interested in seeing more of the criteria used for evaluating those outcomes.
 - DWR Response (R): Those metrics will be introduced in Chapter 3 of the 2017 CVFPP Update, and show up again in Chapter 5.

III. San Joaquin River Basin-wide Feasibility Study

Basin-wide Feasibility Study Overview

The primary focus of the workshop was a presentation on the San Joaquin River BWFS. Eric Tsai and Anna Fock provided an overview of the BWFS in three sections:

- A general overview of the BWFS including the study's purpose, scope, problems, and objectives, including the overall BWFS process.
- The elements studied in the BWFS, including conceptual system configurations and findings.
- Tentatively recommended plan in the San Joaquin Basin.

Anna began the presentation by providing the goals and objectives of the BWFS. As stated in the 2012 CVFPP, both site-specific and more general actions were identified in the SSIA. A wide variety of large-scale actions consistent with the SSIA were formulated and evaluated in the San Joaquin River Basin to achieve integrated system-scale benefits.

Eric explained that information from the three San Joaquin River Basin Regional Flood Management Plans (RFMPs) as well as the draft Conservation Strategy helped DWR formulate actions in the San Joaquin River BWFS and evaluate the potential for integrated achievement of flood management and ecosystem restoration goals. Some of the ecosystem features were developed in collaboration with the San Joaquin River Restoration Program and environmental non-governmental organizations (NGOs). All of these have been integrated into the final BWFS report.

Summary of Questions, Comments and DWR Responses

- CVFPB Member Question (Jane Dolan): Where is Los Banos (generally) and the San Luis National Wildlife Refuge (specifically) in relation to the planning area looked at as part of the San Joaquin River BWFS?
 - R: Los Banos is identified near Reach 4B2 of the San Joaquin River.
- CVFPB Member Question (President Bill Edgar): Balancing the competing interests among local stakeholders in the Central Valley can be challenging. Previous efforts have failed to progress without local buy-in, so the CVFPB asks for participation from local stakeholders to inform the State and Federal involvement.
- C: From SJAFCA's perspective, there is agreement on all the recommended elements in the study except in Reclamation District (RD) 17—RD 17 would prefer a 200-year level of protection fix-in-place option.
 - CVFPB Member Response (President Bill Edgar): There are options worth considering, which may be similar to flood risk reduction actions taken in the Natomas basin.

Elements Studied

Anna provided a few representative examples of actions studied within the BWFS study area, including:

- Paradise Cut Bypass Expansion
- Three Amigos and Dos Rios/Hidden Valley Transitory Storage
- Tuolumne River Reservoir Management
- Firebaugh Small Community Levee Improvement
- Subsidence Improvements

13 Paradise Cut Bypass expansion options were studied. Paradise Cut option with a new secondary upstream weir provided the most stage reduction benefits and largest habitat restoration opportunities, but also at the greatest cost. Planning was conducted in coordination with American Rivers and River Islands Development Company and discussed with the Lower San Joaquin RFMP.

The Three Amigos and Dos Rios/Hidden Valley Transitory Storages would involve controlled breaches in levees to provide increased floodplain inundation for potential flood risk reduction and habitat restoration benefits. Ecosystem features were formulated in coordination with River Partners and U.S. Fish and Wildlife Service and potential contributions to Conservation Strategy ecological objectives were quantified.

Tuolumne River Reservoir Management, which was studied as at a reconnaissance-level, evaluated the reoperation of upstream reservoirs in the Tuolumne River watershed using forecast *informed*, forecast *coordinated* operations, conjunctive use to increase dedicated flood storage, and/or increasing objective release. Reservoir management actions in this watershed could result in significant stage and flow reductions at Modesto and downstream on the San Joaquin River at Vernalis.

The BWFS studied three options (one single-purpose and two multi-purpose options) to provide 100-year level of protection for the City of Firebaugh. Firebaugh options included fix-in-place levee improvements, new setback levees or berms, and closure structures and were formulated in coordination with the City of Firebaugh and Lower San Joaquin Levee District. Multi-benefit options provided significant flood risk reduction and ecosystem restoration benefits.

Finally, subsidence improvements were also studied at a reconnaissance-level in the BWFS. Options included levee improvements, flowage easements, and sediment removal. Options were studied in an integrated manner with potential San Joaquin River Restoration Program Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural improvements.

Summary of Questions, Comments and DWR Responses

- Q: What is included in the economic stability portion of the Performance Summary?
 - R: That category includes a reduction in the projected flood damages and water supply benefits.
- Q: Is the State liable for the damage caused by subsidence?
 - R: This is a legal question outside the scope of this study or this workshop.
- CVFPB Member Question (President Bill Edgar): Has any work been done by DWR to determine the cause of subsidence?
 - R: The assumption is that subsidence is caused by groundwater overdraft. One effort to help address this groundwater overdraft in the upper San Joaquin Basin is the Sustainable Groundwater Management Act (SGMA). However, for the purpose of this BWFS and integrated flood management, a modest estimate for future subsidence has been included in our future baseline assumptions. The RFMP goes into detail on subsidence reduction actions as well.
- CVFPB Member Comment (Joe Countryman): Are there any recommended actions in the BWFS for the Stockton area?
 - R: Yes. To clarify, the projects previously discussed in the presentation were only representative examples of actions studied. A full suite of recommended actions will be presented later and is captured in the handouts we will discuss today.
- CVFPB Member Question (Jane Dolan): Were each of the elements evaluated in the same level of detail?
 - R: The level of detail varied with each element. Some were studied closer to a feasibility level, while others were studied at a reconnaissance-level.
- CVFPB Member Question (Jane Dolan): Will the recent change of staff for the City of Firebaugh affect that project? Is the next step in Firebaugh then a feasibility study from the U.S. Army Corps of Engineers (Army Corps)?
 - R: Yes, there will likely need to be additional follow-up with City of Firebaugh staff. Yes, a letter of intent has been sent to the U.S. Army Corps of Engineers for a multi-purpose feasibility study in Firebaugh.
- CVFPB Member Question (Tim Ramirez): Why was this letter not sent for the CVFPB's signature?
 - R: There was a very short response time to get the letter of intent back within the Army Corps' deadline.
- C: A similar letter of intent to the Army Corps from the State for Paradise Cut would be extremely useful.

Tentative Recommended Plan, Stakeholder Engagement and Key Findings

Anna presented four conceptual system configurations and then discussed the tentative recommended plan, which comprises the most efficient and effective actions studied and discussed to date.

Eric presented the outcomes of the Tentative Recommended Plan and described how this tentative recommended plan aligns with the large-scale priorities in each San Joaquin Basin RFMP. Key findings from the San Joaquin BWFS include:

- The San Joaquin River Basin resource problems are likely to get worse in the future with climate change, sea-level rise, and subsidence.
- A diverse portfolio of management actions is needed and potential synergies across actions require a systems approach.
- Paradise Cut bypass expansion can provide significant stage reduction and ecosystem restoration benefits.
- Stockton has largest flood risk in entire basin. Levee improvements, floodwalls, and closure structures are likely the most effective actions to address the highest risk areas in Stockton.
- Significant multi-benefit opportunities exist to restore floodplain and riparian habitats along the San Joaquin River corridor. These opportunities are tempered by hydrologic alterations and limitations that result in limited floodplain inundation.
- Floodplain transitory storage can provide wise use of the floodplain because of its ability to provide nonstructural risk reduction and important ecosystem restoration benefits.
- The Tuolumne River watershed is the most promising watershed for potential reservoir management actions.
- A small amount of additional flood storage could significantly reduce stages for large flood events along the Calaveras River.
- Groundwater recharge has limited potential to reduce flood stages, but can play a role in mitigating future subsidence.
- In Firebaugh, multi-benefit opportunities exist and are more likely to achieve potential State interest than single-purpose flood improvements.

Summary of Questions, Comments and DWR Responses

- Q: What is the storage identified on the map in configuration SJ-C?
 - R: The BWFS identifies a total volume of water from the various watersheds to be achieved through conjunctive use.
- Q: Does the cost of the tentative recommended plan match with the cost of the 2012 CVFPP SSIA in the San Joaquin Basin??
 - R: No, the estimated cost of the 2012 CVFPP SSIA also includes many other types of cost items not within the scope of the San Joaquin River BWFS.
- Q: Does the map in the handouts show a setback levee in the region of Stockton Reclamation District 17?
 - R: No. The existing levee would remain in place, and a new levee would be constructed to provide 200-year level of protection for existing populations.
- CVFPB Member Question (Joe Countryman): The bifurcation structure in the Upper San Joaquin region currently provides a very low level of flood protection; with climate change projections this could be further reduced. What is DWR doing to address this concern? When these levees

fail, will DWR intend to restore them to their current condition or improve them to withstand future events?

- R: It is hard to predict what would happen if levees fail in the future. DWR looked at transitory floodplain storage and the hydraulic results reflected potential levee breaches that would occur based on the most recent geotechnical data.
- C: The Upper San Joaquin region commends the DWR team for putting the pieces together in an outcome-based plan.
- CVFPB Member Comment (Tim Ramirez): The proposed plan in the BWFS does not provide specific solutions to the problems identified in the subsided area; there are combinations and options for addressing subsidence, but no specific detail.
 - R: Different elements were studied at different levels of detail. It is too premature to specify a specific solution to subsidence at this time because of large uncertainties about how much subsidence will occur over the long-term future and uncertainty with SJRRP Reach 4B project implementation. The San Joaquin BWFS studied a few different options to mitigate for subsidence at a reconnaissance level that can be studied further at a project-level of analysis.
- CVFPB Member Comment (Clyde Macdonald): There is still a lack of people coming together to talk about the problem honestly. It may take another flood event like 1997 to make people realize we haven't invested in flood risk reduction to the extent we should.
- C: We appreciate the transparency and willingness to receive feedback from local stakeholders. Everybody seems to make themselves available to try and work this out.
- CVFPB Member Comment (President Bill Edgar): The State and the CVFPB have a good idea of the problem and a good menu of options, but there isn't a plan yet. The State and federal agencies have to avoid that plan becoming a "top-down" plan; it has to be supported by the local folks.
 - R: As a reminder, the BWFS is not a *plan*; it is a study providing information that will be foundational to the 2017 CVFPP Update.
- C: There are long term goals, but there need to be some short-term investments to retain the current level of enthusiasm from stakeholders in the RFMP process.
- C: A policy issue to consider is the cost-sharing of upstream projects that provide downstream benefits.
- Q: What level of information is going to be made available related to the content of the 2017 CVFPP Update and each of the supporting elements/studies?
 - R: The final report for the San Joaquin BWFS will talk about all of the things covered in this presentation. This report is being developed, and will be provided for stakeholder review and comment.
- Q: Are there ways to roll out portions of the BWFS incrementally?
 - R: No, it would be too difficult to divide up release by chapters because all chapters of the report are being updated simultaneously.
- Q: Will anything else from this presentation be made public?
 - R: Yes, everything from today's meeting is public. However, stakeholders should keep in mind that modeling results are all preliminary and some will likely change after they are more thoroughly reviewed.
- C: The San Joaquin River Restoration Program would like to look at integrated opportunities between the Reach 4B project and CVFPP efforts, but is running on a very different timeline. We would like CVFPB input during the summer of 2016.
 - CVFPB Member Response (President Bill Edgar): The CVFPB and DWR would be happy to work with the San Joaquin River Restoration Program on this project.

IV. Adjournment

CVFPB President Edgar adjourned the meeting at 1:23 p.m.