Meeting Summary

Mendota Pool Bypass and Reach 2B Channel Improvements
Hydraulic and Sediment Transport Modeling Workshop
Thursday, February 12, 2015

San Joaquin River Exchange Contractors Water Authority, 541 H St., Los Banos, Calif. 93635
FINAL

Attendees:

Delyssa Bloxson, Reclamation
Roy Catania, Paramount Farming Company
Steve Chedester, San Joaquin River Exchange Contractors Water Authority
Blair Greimann, Reclamation
Katrina Harrison, Reclamation
Reggie Hill, Lower San Joaquin Levee District
Steve Haugen, Kings River Water Agency
Randy Houk, Columbia Canal Company
Tom Johnson, Restoration Administrator
Rebecca Kallio, Reclamation
Shannon Leonard, AECOM
Bill Luce, Friant Water Authority
Alexis Phillips-Dowell, California Department of Water Resources
Steve Stadler, James Irrigation District
Erin Strange, National Marine Fisheries Service
Emily Thomas, Reclamation
Rob Tull, CH2M Hill
Chris White, Central California Irrigation District
Lisa Zaffran, Reclamation
Craig Moyle, MWH Americas

On Phone:

Scott McBain, McBain and Trush
Mark Tompkins, Newfields Inc.
Jeremy Lorberau, Reclamation
Carl Mesick, U.S. Fish and Wildlife Service
Patricia S. Cronin, Reclamation
Andy Raabe, U.S. Fish and Wildlife Service

Overview

This meeting summary provides details of discussions and comments between participants and presenters during the meeting. It is intended to serve as a point of reference for the reader during review of the PowerPoint presentations provided during the workshop.

Welcome and introductions

Craig Moyle welcomed the meeting attendees and led introductions for attendees and presenters. A webinar was established for remote participants to view and follow along.

Mendota Pool Bypass and Reach 2B Project Overview

Reclamation Reach 2B Project Manager Katrina Harrison provided a status review of the Reach 2B EIS/R and reported that the public draft is anticipated for release in May 2015, with public hearings to be held in the summer. This document will contain a preferred alternative, which was developed through the consensus based alternative process with landowners and other stakeholders. To a question from an attendee regarding the length of the public comment period, Harrison said they are currently looking at a 60-day public comment period. She said the Program office has received requests for a longer review period and they will see what can be accommodated within the schedule.

During the review of the Reach 2B Project alternatives, an attendee asked if the compact bypass control structure will be designed to allow for passage of large trucks and cranes. Harrison said passage of such large equipment will be incorporated into the project design criteria. Structure design will begin in a month or two and will be the subject of a summer 2015 design workshop with project landowners and stakeholders. To an attendee question, Harrison said Reclamation intends to have all Project design work completed by the agency's Technical Services Center in Denver. To an attendee question related to whether the Project will be proposed for inclusion in

the State Plan of Flood Control, Harrison said the project is not proposed for such inclusion. Minor changes may be necessary to the San Joaquin River side of the Chowchilla Bifurcation Structure for fish passage, and this would be a change to a State Plan of Flood Control facility that would remain a State Plan of Flood Control facility.

Compact Bypass Grading Options Overview, Sediment Transport Modeling Results, and Floodplain Inundation Changes

Reclamation Hydraulic Engineer Blair Greimann led a discussion on the hydraulic design process and the initial results as they relate to two conceptual grade control designs for the compact bypass. Option 1 is a grade control profile that would include six one-foot grade control structures (rock ramps) and would include bank protection in the form of rock vanes. Option 2 is a natural stream profile that would consist of two one-foot channel stabilization features and various types of vegetation to control bank erosion. Such vegetation will have temporary irrigation demands until the roots reach the groundwater table. To an attendee question, Reclamation stated that Reclamation will determine if any of the vegetation proposed for Option 2 contributes to the floodplain habitat needs identified for the project. If it is not counted towards that need, and such vegetation would not provide a benefit to fish, Reclamation could use rip rap for bank stabilization.

Both designs would include a radial gate flow control structure at the upper end of the Compact Bypass to divert flows from the San Joaquin River into Mendota Pool, as well as a radial gate flow control structure on the existing San Joaquin River at the entrance to Mendota Pool. Design of the control structures and any necessary fish screens is not complete.

One element that continues to be assessed is a structure to guide migrating adult salmon up the compact bypass and not be drawn to the base of Mendota Dam. An attendee stated that the "picket fence" type of screen currently used at Hills Ferry Barrier presents maintenance issues due to debris accumulating on the screen during flood flows from the James Bypass.

The key difference between both options is that while Option 1 would prevent some sediment from Reach 2B moving into Reach 3, the design has a higher long-term operation and maintenance cost. By using the same slope as present in Reach 2A, the Option 2 design would allow for the channel to accomplish a natural stream profile, which would provide for a lower long-term operation and management costs. Based on one dimensional model runs over a 50 year simulation period, the Option 2 design would reach a sediment equilibrium at the natural stream profile after approximately 25 years, Greimann said.

Regarding sediment transport impacts to flood capacity, Greimann said current one dimensional models show that the sediment transport under Option 2 does not adversely affect channel capacity and conveyance in Reach 3. The sediment transport modeling showed several feet of sediment deposition in Reach 3, but there is an increase in water surface elevation of only three inches. These models showed continued availability of three feet of freeboard is maintained at all flow levels. Possible levee improvements to increase the height by half a foot will be included in the EIS/R. The California Department of Water Resources is evaluating this finding independently. The difference in the amount of sediment transport between Option 1 and Option 2 is about 10 percent, he said. He said the models currently show that conveyance capacity improves in Reach 3 as Reach 3 is a degrading reach - increased flows in the river will move Reach 3 sediment downstream to the Sand Slough area. Such potential accumulation of sediments in this area is common and Reclamation has been working with the landowner to

remove the materials, Harrison said. A representative of the Kings River Water Conservation District requested a copy of these initial 1D modeling runs. Greimann said he would relay a copy.

Greimann provided a comparison between Options 1 and 2. He said Option 1 provides more channel geometry certainty and less Reach 2B streambed erosion. However, grade control structures and bank protection structures will require additional maintenance. Option 1 is also more difficult for upstream fish passage. Option 2 reduces construction and maintenance costs of grade control structures, and because channel velocities are lower there is less bank erosion and improved fish passage. However, Option 2 reduces Reach 2B floodplain inundation. Reclamation will ensure the SJRRP can meet the minimum floodplain habitat requirements identified in a 2012 report and adjust designs as necessary. The compact bypass under Option 2 may still require one or two small grade control structures, as there is uncertainty in the channel transition period and the sediment transport modeling.

Attendees were asked to provide an opinion to the two presented options. Central California Irrigation District General Manager Chris White said that his initial thought is supportive of Option 2 due to the reduced channel velocities and reduced long-term operation costs. Steve Stadler, assistant general manager of James Irrigation District, said he has concern over sedimentation and flood effects on Reach 3 and the city of Firebaugh. Bill Luce, a representative of Friant Water Authority on the SJRRP Technical Advisory Committee (TAC), said the TAC and RA will evaluate the options and provide input at a later date. TAC member Mark Tompkins said Option 2 appeared to be an appropriate approach as long as upstream floodplain needs are met.

Meeting adjourned at 4:30 p.m.