Meeting Summary
Restoration Goal Technical Feedback Group Meeting
Thursday, September 20, 2012

Fresno Metropolitan Flood Control District, Conference Room D
5469 East Olive Avenue, Fresno, California
DRAFT: 2012.10.12

Attendees

Chris Acree, Revive the San Joaquin
Steve Blumenshine, CSU Fresno
John Bohrman, Reclamation
Steve Chedester, SJR Exchange Contractors
Steve Chainey, AECOM
Jason Faridi, Fish Bio
Sarge Green, California Water Institute
Kyle Griffiths, CSU Fresno
Chuck Hanson, SJRRP Technical Advisory Committee
Steve Haugen, Kings River Water Association
Katrina Harrison, Reclamation
Rene Henery, SJRRP Technical Advisory Committee
Clifton Lollar, Kings River Water Association
Bill Luce, Friant Water Authority
Mary McClanahan, URS Corp.
Palmer McCoy, Henry Miller Reclamation District
Rod Meade, SJRRP Restoration Administrator
Erica Meyers, Department of Fish and Game
Toby Minear, U.S. Geological Survey
David Mooney, Reclamation
Craig Moyle, MWH Americas Inc.
John Netto, U.S. Fish and Wildlife Service
Don Peracchi, Farmers Water District
Andrew Raabe, U.S. Fish and Wildlife Service
Erin Rice, Reclamation
Scott Rice, DWR Consultant
Paul Romero, Department of Water Resources
Monty Schmitt, Natural Resources Defense Council
Heather Shannon, MWH Americas Inc.
Peter Vorster, The Bay Institute

Next Meeting

November 13, 2012 – 1:30 p.m. to 4:30 p.m.: Location: CSU Stanislaus, Turlock, California

Welcome and introductions

Craig Moyle welcomed the meeting participants, and provided a brief agenda overview. Introductions were made around the room. Peter Vorster provided a brief update of the Oct. 3-5, 2012, San Joaquin River Conference, presented by the San Joaquin River Partnership.

Standing Items

Erin Rice (Reclamation) explained that today the group would be discussing elements of the 2013 San Joaquin River Restoration Program (SJRRP) Monitoring and Analysis Plan (MAP).

Restoration Goal Background:
Mr. Rice highlighted a timeline of the Restoration Program. He explained that the Settlement has two goals: the Restoration Goal and the Water Management Goal. The focus of today's meeting is the Restoration Goal. Restoration Goal Technical Feedback Group (TFG) Meetings are for exchange of technical information between SJRRP Implementing Agencies, Settling Parties, Third Parties, and other interested stakeholders.

SJRRP Documents: Upcoming documents include a planned September release of the Draft 2013 MAP for a 30-day review.

River Operations: Reclamation is currently releasing 350 cubic feet per second (cfs) at Friant Dam. A fall pulse flow of 700 cfs release from Friant Dam is planned for November 1-10, 2012.

2013 SJRRP Monitoring and Analysis Plan Overview and Introduction

David Mooney (Reclamation) introduced the meeting goal to present the Draft 2013 MAP, solicit participant feedback on 2013 activities, and discuss long-term objectives as they relate to major actions, timelines for major actions, areas of concern/uncertainty, and future challenges. A key element included discussion of the Framework for Implementation (Framework), a living document that is periodically updated as more information is gained and milestones are reached. The Framework describes how SJRRP will implement the Settlement and Settlement Act based on the current status of projects and information gained since the signing of the Settlement in 2006. SJRRP actions include: release and conveyance of Interim and Restoration flows; channel and facilities improvements; fish reintroduction; and protections for Third Parties. The Framework categorizes SJRRP actions into themes to describe a viable program. Each potential action is classified by one of three priority levels: Improvement, Secondary, and Core. Flow Management, Channel and Structural Improvements, Fish Reintroduction, and Water Management highlights preceded a review of the Restoration Goal timeline.

Mr. Mooney said the MAP is a mechanism to study, learn and adapt in order to accomplish the Settlement goals. The MAP, along with the Annual Technical Report (ATR), is used to organize and solicit feedback, and provide for Program coordination and transparency. Elements of the MAP, however, are constrained by the boundaries set by the Settlement, aggressive timelines for major construction, and by the need to provide data on timeframes that support timely decision making. The proposed approach in response to these is to define the conditions for success and progress, plan multi-year interdisciplinary studies, and update the MAP annually. In 2013, SJRRP plans to conduct a mid-year workshop following the spring pulse flow in lieu of attempting a formal technical report. The Program is targeting incremental improvement in the MAP through 2016:

- 2013 – Feedback on studies planned for the year and questions to address
- 2014 – Refine the small interdisciplinary groups and draft approaches
- 2015 – Implementation of the approaches and refinements
- 2016 – Continued updates and refinements to the MAP and ATR

Restoration Administrator Recommendations

Rod Meade provided an overview of the discussions with the SJRRP project team as it relates to the initial draft of the 2013 MAP. He reported that the Technical Advisory Committee (TAC) sees the MAP as a foundation for long-term adaptive management for the SJRRP. The group felt that the team is heading in the right direction and has been open to working with the TAC. The thematic approach to addressing challenges in river restoration is a good approach. He complimented the format of the MAP study budget that has made it easier to track study progress and costs. He said that some studies need a similar level of detail and focus as represented in other studies. He felt 2013 studies will need more rigor in study design. Interdisciplinary plans should continue to be pursued, he said.

Seepage Management and Monitoring

Katrina Harrison provided an update on seepage management activities to release Interim and Restoration Flows while avoiding seepage impacts to adjoining lands. She then reviewed the seven sections of the Seepage Management Plan. The locations of known seepage risks are primarily in Reaches 2A, 3, 4A, and the Eastside Bypass. These locations were identified through anecdotal information, observed surface

ponding, ground surface elevation, groundwater levels, surface water stage and analytical tools. Reclamation manages Interim Flows based on a one-to-one river stage/groundwater operations conceptual model, groundwater monitoring data, and thresholds defined by three methods: agricultural conditions, historical data, or drainage direction. The Program has initiated several seepage projects, with priority given to the "worst-case" parcel groups which present the most severe flow constraints. Projects are described in the Seepage Project Handbook. Ongoing activities include studies to determine the lateral gradient of the water table in association with the river. Reclamation and the U.S. Geological Survey are surveying paleochannels – sand stringers in fields that are former river channels.

The Seepage Management Plan is being updated with input from the Seepage and Conveyance Technical Feedback Group. Updates include locations of known risks, background data, and the Seepage Project Handbook. The document will be peer reviewed by October 31, 2012, and a revised version will be available December 2012 or January 2013. Ms. Harrison provided an overview of the seepage project process that will be applied for the 91 identified locations. She said the Program anticipates it will conclude site evaluations in October 2012 on three parcel groups that are currently affected when river flows reach 300 cfs. SJRRP has initiated project planning for 6 of the 11 locations where improvements are needed to convey 2,000 cfs.

Geotechnical Stability Studies

Scott Rice, a consultant to the Department of Water Resources (DWR), led a presentation on the Department's geotechnical stability studies. He said the studies look to assess how Restoration Flows and other SJRRP actions may impact flood system facilities, operations and maintenance. He said there is an insufficient understanding of levee conditions to assess flood risk impacts. Based on this, the Program has limited river flows to existing channel capacity. The existing channel capacity is viewed as a water level that matches the ground elevation of the land-side levee toe. To assess geotechnical integrity of area levees, DWR is utilizing resources of the Non-Urban Levee Evaluation (NULE) Program for Phase 1 data compilation/past performance/hazard rating (completed) and Phase 2 limited geotechnical drilling with detailed analyses (in progress, 2013 completion). Phase 1 findings resulted in development of maps that show hazard levels for various flood management facilities. Phase 2 will include limited exploration in Reaches 2A, 3 and 4A, the Chowchilla and Eastside Bypasses with cone penetration tests on 1,000 foot intervals (243 total) and standard penetration tests on 5,000 foot intervals (86 total).

Mr. Rice additionally provided an overview of DWR's Flood Risk Assessment Project (FRAP). The FRAP goal is to assist the SJRRP in assessing flood management system integrity associated with seepage stability with respect to U.S. Army Corps of Engineers levee criteria. The FRAP study area includes all river reaches, except 2B and 4B1, which will be addressed under other SJRRP programs. It has identified areas where water surface elevation exceeds the land-side toe of the levee at 2,000 and 4,500 cfs. DWR is utilizing this information to coordinate with Reclamation on prioritization of projects that would achieve 2,000 cfs.

Discussion and questions:

- Question: Does your data include the new subsidence data for the Eastside Bypass.
- Answer: Not yet. We're in the process of collecting that data.

2012 Fisheries Studies Highlights and Proposed 2013 Fishery Studies

John Netto, U.S. Fish and Wildlife Service, provide the presentation on behalf of Michelle Workman, USFWS. He provided a review of the themes and reviewed proposals for 2013 fishery studies. Priorities for 2013 will be studies that inform direct reintroduction methods and planning and inform large scale actions and future decisions. He reported on 2012 results and proposed 2013 approaches for Adult Transport Studies, Juvenile Salmonid Pen Holding, Captive Rearing studies, Surface Water Ambient Monitoring Program (SWAMP) – Benthic Macroinvertebrates (BMI) Bioassessment studies, juvenile Chinook salmon survival and migration studies, mine pit predation evaluation studies, minimum floodplain requirement studies, egg survival, fishery inventory and monitoring, and PIT tag monitoring.

Discussion and questions:

- Question: Why were fish not released into Reach 2?
- Answer: At the time, we did not know how much water would be there and how it would affect the fish.
- Question: When will the list of mines survey for predation be available and will they include the catch rate in each?
- Answer: It will be out in mid-year, but it won't have site specific catch rates.

U.S. Geological Survey Sediment Studies

Toby Minear, U.S. Geological Survey, presented on studies of Cottonwood and Little Dry Creeks, two San Joaquin River tributaries in Reach 1. The studies seek to determine the sediment load or composition from the creeks. Studies indicate the system can contribute a large amount of fine sediment and sand, and some amount of gravel. Methods reviewed include ground-based LiDAR, photo prints, Hobo pressure transducers, ISCO autosamplers and Bunte traps. Modeling was completed using USGS iRIC hydrodynamic model. Located directly downstream of Friant Dam, Cottonwood Creek is rainfall dependent and can range in flows from zero to 1,000 cfs. The creek is heavily vegetated, likely due to seepage from the Madera Canal. Discharges for Little Dry Creek can range from zero to 3,200 cfs. As it draws from a large area, it accumulates sand and other sediments. It is located upstream of the Cemex plant and can discharge into a low-flow channel that leads north to the river. A high-flow channel leads southwest and is obstructed by a road weir utilized by Cemex staff to operate a 3 cfs lift pump from the low-flow channel. Sediment movement is dynamic and has been observed flowing into a pond north of the channel.

Mr. Minear also presented a proposed surrogate bedload monitoring process using hydrophones. The proposal seeks to improve upon traditional bedload sampling which is limited by variability in discharge rating curves, relies on time-consuming and expensive physical sampling, and is difficult to determine start and stop of bed movement. The surrogate bedload monitoring would include placing multiple hydrophones on each river bank. The hydrophones can detect impacts to gravels and cobbles up to 20 meters away. Projects costs are lower, he said. The acoustic data can provide high resolution bedload data and can be correlated to bedload samples. Multiple hydrophones are proposed to address sampling challenges such as large particles far away sounding similar to nearby small particles, and the effects caused during high flows. The proposed monitoring includes three stations co-located with existing bedload monitoring sites and stations at two additional sites to estimate thresholds of movement.

Discussion and questions:

- Question: There seems to be a big issue with sedimentation based on how Cemex manages Little Dry Creek. Does it look like sediment is routing below the road weir?
- Answer: We don't know at this time. It is steep and very hard to access. It would need to be flown to accurately determine.

Information Sharing

Craig Moyle asked the group for future topic suggestions and informed the group that the next meeting will be held November 13, 2012, at CSU Stanislaus.

Meeting Adjourned