

Upper San Joaquin River Basin Storage Investigation

Workshop Summary - *DRAFT*

Workshop # 2, July 31, 2002

Introduction

A summary of Workshop # 2 for the Upper San Joaquin River Basin Storage Investigation (Investigation) is provided below. Charles Gardiner, the meeting facilitator, opened the meeting by discussing the agenda, objectives, and participation principles for the workshop. Agenda topics included:

- Phase I Study approach;
- Storage options; and
- Initial modeling assumptions and approach.

Participants expressed concerns that the workshop attendees may not be representative of all groups that are interested in the Investigation. Reclamation reiterated that this Investigation is determining if a feasibility study should be initiated, and that this group of participants is not intended to make decisions or reach consensus, but rather to provide input to Reclamation so that various points of view are heard and understood. Reclamation continues to expand the notification list for the workshops to broaden participation.

Phase I Study Approach

Jason Phillips, Reclamation's project manager, provided an overview of the study approach for the Investigation, including Phases I (Appraisal Study) and II (Feasibility Study and EIS/EIR). He reiterated the CALFED objectives for this study, and suggested a Phase I investigation purpose statement:

“Determine if CALFED agencies should pursue a water storage feasibility study that could meet the CALFED goals for Upper San Joaquin River Basin Storage and assist in solving other regional problems.”

Participants asked if “CALFED goals” refer to goals for the Upper San Joaquin basin or the San Joaquin River, and Jason clarified that the statement refers to the goals identified in the CALFED ROD under the description of Upper San Joaquin Storage.

Jason outlined the proposed study approach for Phase I, which includes the following steps:

- Define study purpose, goals, and objectives;
- Identify and characterize problems and opportunities;
- Develop initial analysis approach and assumptions; and
- Develop initial alternatives.

Bill Swanson explained the problems and opportunities categories used in this Investigation. “Problems” are regional issues to be addressed and are linked directly to the goals identified in the CALFED ROD. “Opportunities” are addressed in concert with the problems, but would not likely be pursued alone. The presentation was based on the draft *Water Resources Problems and Opportunities* Document (distributed both before and at the workshop), and covered San Joaquin River water quality, San Joaquin River ecosystem, and water supply reliability problems. Additional opportunities described in the document include hydropower, flood control, recreation, and Delta inflow.

Participants’ comments and questions (hereafter presented in italics) about the study approach included:

- *When will the Investigation examine constraints or fatal flaws? Rather than a fatal flaw analysis, this approach will start by analyzing how different operational scenarios with new storage could address problems. The constraints on the initial analysis will be discussed later under the initial modeling assumptions.*
- *Assumptions regarding operations are very important when defining the benefits of different alternatives. Increasing flows in the river below Friant could result in other benefits, including water supply.*
- *Creation of storage should not negatively affect those that already use the existing storage.*
- *The definition of problems should not be limited to CALFED-identified issues. For example, flood control should be characterized as a regional problem rather than an opportunity that could be addressed with additional storage.*
- *It will be difficult to determine if Reclamation should complete a feasibility study without developing some of the information that would be included in a feasibility study. In future meetings, Participants will help to define the criteria that will be used to determine if the Investigation should proceed to Phase II. These criteria will define some of the technical work that is needed in Phase I to help policy-makers make an educated decision about project continuance.*
- *The problem descriptions should include watershed protection issues and opportunities, and tie in to the CALFED Watershed Program.*
- *The public may identify other problems that have not yet been described. As appropriate, those problems should be incorporated so that the benefits of a project can be maximized. This approach may help obtain broader public interest and support for a potential project.*
- *The Investigation started with CALFED objectives, but is beginning to include others. There is concern that the addition of other objectives could shift the purpose of the investigation away from CALFED objectives. Mr. Phillips noted that the CALFED ROD specifically*

discusses partnering with local agencies to incorporate local objectives and address local problems.

- *Water supply reliability that results in increased supplies to Los Angeles may not be a local benefit.*

Problem Discussion: Water Quality

(See presentation and pages 4-6 of the Draft *Water Resources Problems and Opportunities Document*.)

The participants' discussion included the following points:

- *Increasing Vernalis water quality should not be a primary purpose of increasing storage at Friant. New Melones reservoir was constructed for that purpose. Releasing Friant water for water quality purposes would involve large releases for a smaller gain in quality due to losses encountered in the river. Some participants suggested this would not be an effective way to improve water quality at Vernalis.*
- *The CALFED ROD included "improve water quality for the San Joaquin River" as a specific goal of this investigation.*
- *Improving water quality on the upper river without connecting the upper and lower rivers may not benefit the Bay-Delta system, which was the focus of CALFED.*
- *If water quality flows were only released from Friant during wet years, when the river is already connected, these flows would not be subject to high losses.*
- *TMDLs for the San Joaquin River are coming out soon, and they may include an allocation of load and flow. If they include flows, it is possible that Friant would need to contribute.*
- *Under some circumstances, the current TMDL objective for discharge salinity is lower than the salinity in the DMC water received by the Exchange Contractors. If the DMC water remains above the salinity objective, the Exchange Contractors could decide to revert to San Joaquin River water.*

After the discussion, participants generally agreed that water quality was a problem that warranted further characterization.

Problem Discussion: Ecosystem

(See presentation and pages 2-3 of the Draft *Water Resources Problems and Opportunities Document*.)

Workshop participants' discussion included the following points:

- *There are no well-defined channels downstream of Sack Dam, so their potential use (for bypass conveyance, as suggested) might be limited.*

- *The wording of the statement, “Currently, there is not adequate water supply to support potential restoration goals,” is not accurate. Instead the statement could be reworded as: “As water is currently used, there is not an adequate water supply to support potential restoration goals unless it is re-allocated from existing users.”*
- *Elaborate on why you say that although there is currently not a universal defined restoration goal, there are a variety of potential restoration goals. Mr. Phillips responded that the intent of the statement was to indicate that there is not simply one goal agreed upon to restore the San Joaquin River. The opportunities for restoring the San Joaquin River vary, and therefore many restoration objectives should be developed.*
- *The action of providing additional surface storage provides the opportunity for watershed protection.*
- *Is anadromous fish restoration a necessity or an enhancement? Mr. Phillips explained that anadromous fish restoration in the Upper San Joaquin River was not specifically addressed as a goal in the CALFED ROD. Further discussion of the levels of restoration that could be supported with various water flow patterns in the river should be a topic for a further discussion in a subcommittee meeting.*
- *The without-project conditions assume that there is no additional demand on the reservoir for river restoration because it is uncertain which future actions may be taken. Some participants viewed this assumption as inaccurate, in that many consider it very likely that there will be river restoration demands placed on the reservoir. Participants offered several suggestions to address this challenge. One method would be to assume a range of potential restoration demands in the analysis. Another method would be to compare the alternatives to existing conditions instead of the future without-project, which would mean that no assumptions would need to be made about the future. The group agreed that a comparison to existing conditions was preferable at this time and that the investigation should not attempt to define future without project conditions for restoration until the need to describe a No-Action Alternative arises later in Phase I and in Phase II.*
- *The draft measurements of accomplishments could provide value to the public because there is a high degree of uncertainty regarding the objectivity of existing available data.*

Problem Discussion: Water Supply Reliability

(See presentation and pages 7-8 of the Draft *Water Resources Problems and Opportunities Document*.)

The participants’ discussion included the following points:

- *The 1 MAF overdraft referenced in the presentation is for the Eastern San Joaquin Basin, not the entire San Joaquin Valley. The updated draft of Bulletin 118 has newly determined groundwater overdraft figures.*

- *Overdraft indicates over-subscription of basin. There is a level of demand for which overdraft would not occur.*
- *If water developed from additional storage is released to the San Joaquin River and used by the Exchange Contractors, the water supply reliability to other south of Delta water users could increase. If more of the Exchange Contractor demands are met from San Joaquin River sources, then a like amount of Delta export water could be available to other water users*

Initial Analysis Approach

Mr. Phillips presented more detailed information about how initial analyses would focus on the problems and opportunities. The analyses will begin with a single purpose scenario for each problem, in which an enlarged Millerton Lake would be operated to address one problem, and the potential accomplishments associated with all of the problems and opportunities would be measured. The single purpose analyses will be performed for water quality, ecosystem restoration, and water supply reliability, to produce three sets of potential accomplishments for the problems and opportunities. These results will be reviewed to identify areas of common accomplishment and areas where trade-offs dominate. This review will help define objectives for preliminary alternative development and more detailed evaluation during the Phase 2 study.

The initial analysis must make several assumptions as it progresses. One such proposed assumption is that operations will honor current laws, rules and regulations, including San Joaquin River riparian rights, existing contract amounts, flood control rules, and classification of Section 215 water. Honoring the classification of Section 215 water means that the model will characterize water that is not storable as Section 215 water. The analysis does not include the assumption that the same amount of Section 215 water would be available. In the evaluations, however, an additional proposed constraint on the model will be to maintain long-term annual average deliveries of surface water as compared to the existing condition.

Stakeholder discussion included the following points:

- *Another constraint should be to “maintain water supply benefits to Mendota Pool.” After discussion, participants agreed that this should not be held as a constraint, but the modeling results should quantify impacts on supply benefits at Mendota Pool.*
- *Increasing storage may result in less Section 215 water, but more reliable Class II water. The current project operations provide benefits to Kern County and other water users, who occasionally receive inexpensive Section 215 water. The additional investment in new storage would result in more costly water.*
- *When floodwater reaches Mendota Pool, it is used to meet a portion of the Exchange Contractor demand. CVP water service contractors south of the Delta benefit from this situation by receiving additional supplies at CVP contract rates.*

- *To receive political and financial support, it is important that no class of water users or the environment receive fewer benefits with a project than they otherwise would without a project.*
- *The counties and Exchange Contractors have examined historical use of the flood control storage space at Friant, and are preparing a report that shows there have been encroachments. The report is expected out in 60-90 days.*
- *If the minimum pool changes, it could affect recreation. The current elevation is maintained for water deliveries, but there is no rule or regulation stating that it must stay at the existing elevation. Mr. Swanson stated that to start the analysis, the existing minimum pool elevation would be used.*
- *For the initial analysis, there are no assumptions regarding who would receive any additional water. The analysis will define the amount of additional water, within the selected constraints.*
- *Friant contractors currently receive an average of 1.4 MAF. A possible effect of adding both new storage and a river demand is that they would receive the same average amount, but it would fluctuate more from year to year. The team agreed that this was a possibility, and reiterated that these types of questions will be answered by the initial modeling efforts.*
- *In addition to meeting long-term average deliveries, the analysis should meet dry-year deliveries. The team responded by pointing out that all typical evaluations for water supply reliability, including performance during successive dry years, would be reported.*
- *When honoring laws, rules, and regulations, Section 5937 of the Fish and Game code should be included. The team responded that the application of that code to the San Joaquin River was currently in litigation, and it could not be included until the litigation is completed.*

Initial Storage Options

Dave Rogers presented a brief overview of the storage options under consideration, referring to the *Preliminary Description of Storage Options* Document that was distributed before and during the meeting. He also distributed a summary table showing the preliminary storage options.

Discussion focused on the interrelationship between additional surface storage and increased groundwater recharge and conjunctive use. The team is working with the Integrated Storage Investigation to clarify this interaction, and will have more information at the next workshop.

Modeling Assumptions and Approach

Yung-Hsin Sun, Claire Hsu, and Walter Bourez presented an overview of the CALSIM II model and how it will be incorporated in the Investigation. (See presentation) CALSIM II has been jointly developed by DWR and Reclamation to replace the former DWRSIM, PROSIM, and SANJASM models as the new standardized CVP-SWP planning tool. The two primary objectives of the CALSIM II model for the Investigation are to support a series of single purpose analyses that evaluate the outcome of enlarging Millerton Lake and to evaluate a set of preliminary alternatives that could be functionally equivalent. The model operates in a comparison mode, in which the model outcome for each scenario will be compared to a baseline condition, which for initial evaluations will be the existing condition.

The development of this model is a continuous process in which a series of studies are underway to improve performance. CALSIM II is designed in such a manner that changes can be integrated into the model as these studies progress. Technical sessions concerning CALSIM II development are held weekly and are open to public.

In addition to these on-going developments, a variety of other model modifications are anticipated for the USJRBSI, including:

- Extending the modeling boundary from Millerton Lake upstream to Kerckhoff Dam;
- Incorporating a real-time operational decision logic to the operation of Millerton Lake that includes the dynamic nature of modeling Class 1, 2, and 215 waters;
- Adding the Tulare Lake basin (to a sufficient level of detail to support analysis for this investigation), which includes potential surface storage options, operations, and other options such as groundwater conjunctive use; and
- Incorporating a water quality model to assess the water quality benefits at locations along the San Joaquin River.

The water quality model has not yet been selected, but the identification of accomplishment measurement parameters will help choose a model.

Participants had the following comments and questions:

- *When will the CALSIM II model be available to the public for technical review?* The model is available for review currently. Contact Lloyd Peterson at Reclamation (916-978-5075) or Sushil Arora at DWR (916-653-7921).
- *Is the New Melones Plan included in CALSIM? This plan is not sustainable.* The modeling team responded that the table listing assumptions in the CALSIM model was drawn from a working document that presents a CALFED baseline evaluation for use in all CALFED studies. Fish and Wildlife is currently revising the Stanislaus Agreement

for New Melones. Future revisions will be included in CALSIM as they are developed.

- *There may be a water quality time delay because the water quality benefits may not be observed in the same year the action is taken.*

Next Steps

The team asked the participants to consider all of the information that had been discussed during this meeting, and submit comments to Jason Phillips by August 16.

The group established an Ecosystem Restoration subgroup, and the first meeting of this subgroup was scheduled for September 4 at Madera Irrigation District.

The next workshop was scheduled for Friday, October 18 in the Los Banos area. This meeting will include preliminary analysis results for discussion, as well as a review of the planning process.

Workshop Organization Participant

Tom Boardman	San Luis and Delta Mendota Water Authority
John Brooks	U.S. Fish and Wildlife Service
Steve Burke	Protect our Water
Hal Candee	Natural Resources Defense Council
Jim Chandler	Orange Cove Irrigation District
Steve Chedester	San Joaquin River Exchange Contractors Water Authority
Jim Cobb	Resource Management Coalition
Jack Erickson	City of Mendota
Coke Hallowell	San Joaquin River Parkway and Conservation Trust
Steve Haze	Millerton Area Watershed Coalition
Alex Hildebrand	South Delta Water Agency
Randy Houk	Columbia Canal Company
Ron Jacobsma	Friant Water User Association
Dave Koehler	San Joaquin River Parkway and Conservation Trust
Paula Landis	Department of Water Resources
Bill Luce	Bureau of Reclamation
Dean Marston	California Department of Fish and Game
Dale Mitchell	California Department of Fish and Game
Tim O'Halloran	Kings River Water Association
Steve Ottemoeller	Madera Irrigation District
Ron Pistoresi	Madera Irrigation District
Lowell Ploss	San Joaquin River Group Authority
Kevin Richardson	Corps of Engineers
Stephen Roberts	Department of Water Resources