

Water Storage Investment Program Quarterly Report

The Quarterly Report is intended to document applicants' progress toward complying with regulation section 6013 and receiving final WSIP funding, including any changes in the magnitude of public benefits that could affect cost allocation. Applicants must provide a summary level update of the project status for the requirements and milestones listed below. The template may be modified as necessary to effectively communicate information. If minimal activities occurred during a reporting period, the report can be condensed.

- Note any issues or concerns that have, will, or could affect milestones or requirements.
- Identify key issues, including legal issues such as lawsuits or injunctions related to the project, that need to be resolved.
- Discuss how the actual schedule is progressing in comparison to the schedule provided in the Initial Report or the last reported schedule.
- Update the project schedule as needed.
- Note any milestones or accomplishments that occurred since submittal of the prior Quarterly Report.

Project Information

Project Name:

Willow Springs Water Bank Conjunctive Use Project

Applicant Name:

Southern California Water Bank Authority

Date:

4/30/2020

Reporting Period:

2020 Quarter 2

General Update and Key Issues

Please provide a general update and describe any key issues that occurred during this reporting period. You may attach additional documents or pages if more space is needed:

See attached

Items Required Prior to Scheduling a Final Award Hearing

The following items must be provided prior to scheduling a hearing. As applicable, please describe the status, estimated completion date, and percent complete of:

1. Contracts for non-public cost share:

Status: Complete

Estimated Completion Date: Complete

Percent Complete: 100%

2. Contracts for administration of public benefits:

Status: TBD

Estimated Completion Date: TBD

Percent Complete: 0%

3. Completed feasibility studies:

Status: In Progress

Estimated Completion Date: June 2020

Percent Complete: 70%

4. Final environmental documentation:

Status: Complete

Estimated Completion Date: Complete

Percent Complete: 100%

5. All required federal, state, and local approvals, certifications, and agreements:

Status: In Progress

Estimated Completion Date: 2020

Percent Complete: 50%

Items Required to Execute a Funding Agreement

Please provide an update, as applicable, on the following documents, which are needed to execute a funding agreement for the project:

- Applicant’s audited financial statements
- Final project costs, schedule, and scope of work
- Evidence of bilateral communications
- Limited waiver of sovereign immunity (see regulations section 6013(f)(8))

Updates to information provided in the Initial Report or prior Quarterly Reports are only needed when a significant change has occurred. The Commission may request submittal of updated information prior to executing a funding agreement.

No significant changes since last quarterly report. Cost, schedule and scope of work are still relevant from original submittal. See attached documentation for narrative update.

Status Update

Provide a status update for the following, as applicable:

- Labor Compliance
- Urban Water Management Plans
- Agricultural Water Management Plans
- Groundwater Management or Groundwater Sustainability Plans
- Potential effect of other conditionally eligible projects on the applicant’s public benefits

Updates to information provided in the Initial Report or prior Quarterly Reports are only needed when a significant change has occurred. The Commission may request submittal of updated information prior to executing a funding agreement.

See attached supporting documentation

2020

Progress Report: Willow Springs Water Bank Conjunctive Use Project



Mark Beuhler

WSWB General Manager

4/30/2020

General Update and Key Issues

This Narrative provides supplementary context to the quarterly report template provided by the California Water Commission (CWC) and staff for the 2020 Quarter 2 Progress Report. This Narrative is intended to update the CWC on new developments over the past few months that could impact Willow Springs Water Bank (WSWB) and its development. Primary developments to the project included continued discussions with WSWB partners and positive progress towards an agreement with a State Water Project Contractor.

Phase I Conjunctive Use Feasibility Study

Phase I of a Conjunctive Use Feasibility Study has been completed. More detailed analysis may be completed to further support findings and will be incorporated into a final study (June 2020). Provided below is an excerpt of the Phase I Study that summarizes preliminary findings:

The purpose of this study is to evaluate the impacts that various constraints, alternatives and future conditions have on yield from the WSWB Conjunctive Use Project. This study also aims to develop a preliminary operations plan and determine the agreements, permits and permissions necessary for the delivery of water and operations at WSWB to meet the requirements of the WSIP.

Groundwater quality sampling results in the Bank are summarized with sample size, range of parameters and median concentrations for total dissolved solids (TDS), conductivity, major minerals and nutrients, organic compounds, trace metals, radioactivity, physical properties and miscellaneous constituents. Most of the well samples and the median concentrations for all parameters monitored meet or surpass drinking water standards.

Under the no action alternative, Delta outflows from loss of snowpack in winter would increase by over 2 million AF between 2030 and 2070 while late spring and summer outflows would reduce by half a million acre-feet, particularly during wet years when reservoirs fill up in early spring. These results suggest that existing SWP operations will lead to future reductions in South of Delta SWP deliveries and increased Delta outflows in excess of regulatory requirements with increased early season snowmelt and loss of snowpack from climate change.

Full implementation of proposed infrastructure improvements would result in a recharge capacity of 386 cfs (or 23,300 AF/month) and an extraction capacity of 311 cfs (or 18,800 AF/month). In wet years, total inflow into the Bank would be 39,900 AF including 30,400 AF pre-released from San Luis Reservoir and 9,500 AF pre-evacuated from Oroville. Total outflow of 3,900 AF from the Bank would be required to ensure SWP Contractors receive their water allocation. During dry and critically dry years, total outflow from the Bank increases to 74,800 AF. A preliminary analysis of alternate operations for the Bank shows that using constant extraction rates of water supply could still meet backstopping and pulse flow obligations and will be verified through future analysis.

Recent changes in water agreements and operations from ongoing statewide water management planning efforts could have potential impacts on operations and yield for the Water Bank. These changes include the December 2018 Addendum to the Coordinated Operations Agreement (COA), the Voluntary Settlement Agreements (VSAs) of December 2018, reductions in Sacramento River Settlement Contractor demands to match historical data, and other refinements to SWP and Central Valley Project (CVP) operations. A qualitative assessment of the potential impact of these changes on Water Bank operations and yield is presented. Additional modeling with updated CalSim II models may be required to assess the full impact of these changes on the yield to the WSWB Conjunctive Use Project.

Full implementation of water operations as proposed in the Prop 1 application, which require DWR to initiate water operations independent of a SWP Contractor's supplies, could encounter institutional challenges due to the lack of precedent for such operations. This study has identified eight options for securing water for delivery to the Bank along with the key obstacles to be overcome for each option. The review of the relevant section of the AVEK-SWP Contract indicates that it is possible for an SWP Contractor to serve as a Participating Contractor on the WSWB Conjunctive Use Project and negotiate with the SWP on how yield from the Water Bank is counted during the SWP allocation process. However, participation of an SWP Contractor is required before detailed exploration of the water operations and institutional agreements with DWR, CDFW and other Sponsor contractors.

The steps and agreements necessary to meet the WSIP conditions in order to receive the conditional Prop 1 funding are outlined. A series of agreements among multiple parties, including the California Department of Fish and Wildlife, the California Department of Water Resources, WSWB, and one or more agencies that contract for SWP Water supplies, will be necessary to secure the ecosystem benefits of the WSWB proposal. Preliminary and final design phase permitting will be required for the utility investigation, potholing, well drilling and geotechnical investigations. Additionally, consultation with resource agencies, and operational agreements may be necessary for the delivery of pulse flows in the Feather River. Permits will be required from Los Angeles County and Kern County during the pre-design investigation, design phase and construction phases of the project. Additionally, permits will be required from two regional water quality control boards and two air boards. Construction encroachment permits for the project will be required from Los Angeles County, Kern County and Caltrans and must be obtained following the design phase.

FEMA Grants

On June 14 of 2018, WSWB successfully obtained a commitment of \$15 M in Federal Emergency Management Agency (FEMA) grant funds from the Hazard Mitigation Grant Program (FEMA-I). The basis of the grant application is WSWB's ability to respond to flood and drought emergencies. A letter was sent from the State Office of Emergency Services (OES) notifying WSWB that its application had been accepted and submitted to FEMA.

These OES/FEMA applications lead to a finance agreement with FEMA. Receipt is now dependent upon a signed finance agreement with FEMA. FEMA is now motivated to prepare an Environmental Assessment, in compliance with the National Environmental Policy Act (NEPA), for the grants. When NEPA is complete for FEMA I, a finance agreement with FEMA will be executed. WSWB will build a 48" diameter pipe connection to existing aqueduct systems and make 16 existing wells operational which enables additional recharge into WSWB. It is estimated that these facilities will be online by 2021.

Kern County has partnered with WSWB and is the sponsor for the FEMA-I grant. Kern County will also be the sponsor for the FEMA-II grant as well. This sponsorship with Kern County will streamline the many permits and approvals that WSWB will need from Kern County. WSWB is primarily located in eastern Kern County, so this partnership is important.

Priorities and Next Steps

Recharge capacity is the initial priority for facilities. The bank needs to catch the next wet cycle and put it into the ground.

Bringing well capacity online early is not as urgent as providing recharge capability because water cannot be extracted from the bank until it is recharged. Much like a surface reservoir, water cannot be

taken out of storage in WSWB until it is banked. The AV Watermaster enforces this requirement. Unless an agreement to borrow groundwater can be developed, water must be stored before it can be extracted.

Agreements are needed with DWR, USBR, and the SWP contractors to initiate pre-delivery of water from San Luis Reservoir into WSWB. The impacted parties must be convinced that there will be no negative impact on them due to the pre-delivery of water. An investigative study was recently completed that describes potential approaches, mechanisms and contracts needed to conduct this pre delivery and can be shared with CWC staff and agencies during future collaborations.

Items Required to Execute a Funding Agreement

The original EIR was prepared and filed with the state clearinghouse in 2006. It was implemented via a 2008 Memorandum of Understanding with Kern County.

An EIR Addendum was started in July of 2017. It was finalized in August 2018 and has been filed with the state clearinghouse. A copy of the Addendum and Appendices are available on request. The 2018 Addendum enhances the amount of storage that WSWB will add to California's storage portfolio by increasing volume from 0.50 to 1.00 MAF. The Addendum also reduces the impact of the project on the environment by altering the alignment of the recharge pipe slightly to avoid Sensitive Environmental Areas (SEAs) that contain Joshua Trees. Additionally, the Addendum enables the full put and take capacity planned for WSWB.

Additional CEQA and potentially NEPA work in conjunction with the Water Commission staff will be needed. Pulse flow operations and capturing unallocated surplus SWP water may need to be vetted under CEQA and other regulatory agencies. It is unclear at this point who will be the responsible party for development of these documents and look forward to coordinating these efforts with CWC and staff. The form and extent of required CEQA documentation has not been determined yet. It may also be coordinated with NEPA documents being prepared by FEMA. It is envisioned that these items will be collaboratively addressed during the development of adaptive management plans, agreements and eventually contracting. Process and progress on these documents will be described in future quarterly reports.

Status Update

Considerable feasibility planning for the new facilities has already been completed. Past studies include the following:

- 2005 initial feasibility study prepared for the 2006 EIR (by Western Development and Storage)
- 2011 master plan for site buildout (by GEI)
- 2014 groundwater model (by HDR)
- 2016 master plan update (by GEI)

Additional planning is needed to start design/build process. Design/build enables a rapid online date. It also controls the risk of cost overruns with the use of a Guaranteed Maximum Price type of contract. This will reduce project risk. It is assumed that 20% to 30% of design will need to be complete before the design/ build process can proceed.

Schedule Update

WSWB recharge capability is targeted to be online in 2020. The existing AVEK West Feeder already connects to the WSWB percolation ponds and can be used for recharge under a 2012 Agreement with AVEK and can occur immediately. Also, the pipe planned for construction using FEMA money enables additional recharge. Both pipes represent a backup plan to make sure recharge operations can begin in 2020.

Well drilling will be phased to optimize production and recognize local drilling limitations. Drilling too many wells too fast can result in poor per well production, poor water quality, or both. This will be detailed in a formal operations and startup plan, which is under development.

Early start storage can also be used to provide new carryover and emergency storage for the state. This will be part of ongoing discussions with various state agencies.

Figure 1. WSWB Potential Construction Schedule

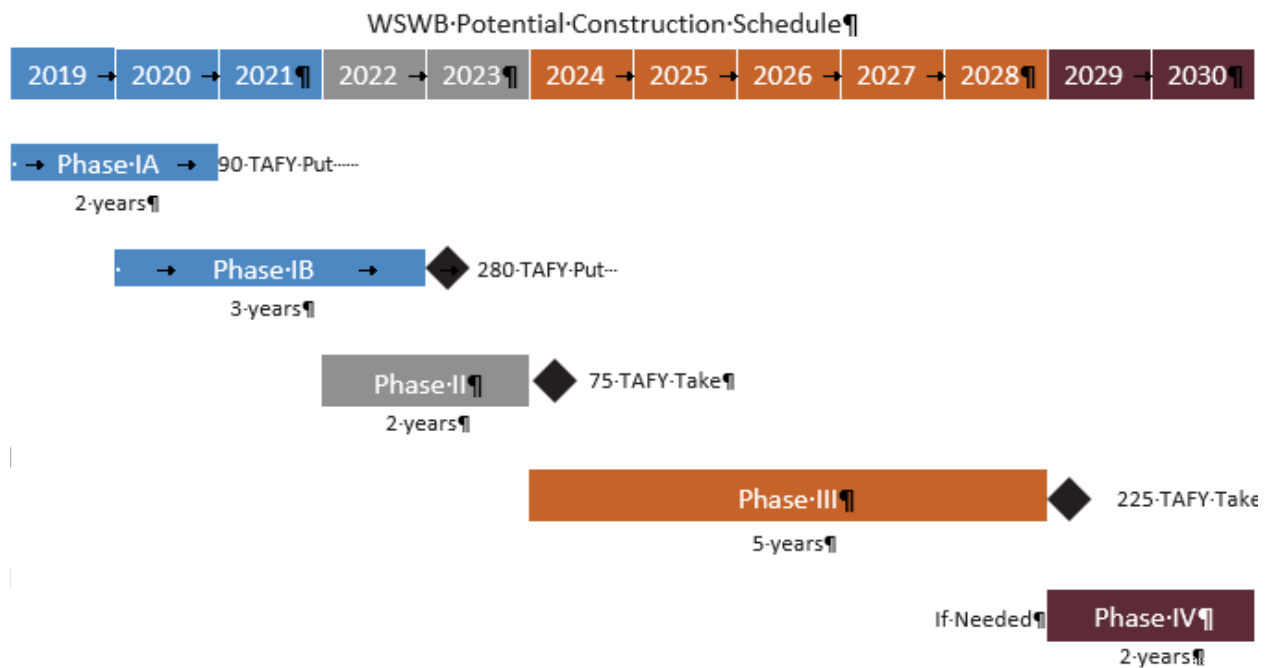


Table 1. WSWB Phasing and Capital Cost

WSWB Phasing and Capital Cost

Phase	Major Facilities	Year Online	Put (cfs)	Take (cfs)	\$M
Existing	AVEK West Feeder, 320 acres of ponds, 7 irrigation wells	Now	100	14	0
IA	FEMA-I: 48" pipe to LAA #2, 50cfs from well equipping	2020	225	50	16
IB	Recharge pipe, remainder of percolation ponds	2022	385	50	94
II	16 new wells, 150cfs lift station (60% of 250cfs)	2024	385	106	67
III	60 new wells, full lift station, substation, and pipes	2028	385	310	129
All					306