Willow Springs Water Bank Request for Early Funding

Prepared for:

California Water Commission and Staff

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Introduction and Background

Section 6010(c) of the California Proposition 1 (Prop 1) Water Storage Investment Program (WSIP) lists the items to be submitted for the early funding request and includes a scope of work, schedule, and budget. The request should include an introductory paragraph that describes the financial need for the funding including an explanation of why the funding is critical to the project; viability of the project in the absence of the funding; and how the project will proceed once early funding is expended. These materials are included in the following submittal and will be presented to the California Water Commission (CWC) during the October 2020 monthly meeting.

On August 31, 2020 the CWC and Office of Administrative Law (OAL) approved emergency regulations for the California Prop 1 WSIP. These emergency regulations were aimed at mitigating the impacts of the Covid-19 pandemic on projects that have successfully received a Maximum Conditional Eligibility Determination (MCED) from the CWC. The Willow Springs Water Bank (WSWB) received an MCED of $95,405,999. The emergency regulations allow for applicants that did not previously request early funding to request up to 5% of their MCED ($4,770,300) in early funding from the CWC to support tasks reasonably related to obtaining permits and environmental documentation by the statutory WSIP deadline of January 1, 2022. An implementation risk score of 7 or higher is mandated for eligibility. WSWB received an implementation risk of 10 and meets this requirement. This document will be coupled with a presentation to the CWC at the October 2020 meeting that represents WSWB formal request to the CWC for this 5% early funding.

Financial Need for Funding

The following text is summarized from Section 1 "Statement of Facts Constituting the Need for Emergency Regulatory Action" of the CWC Statement of Proposed Emergency Regulatory Action submitted to the OAL on August 20, 2020. This document was prepared to provide background information on the Covid-19 pandemic and justify the need for the emergency regulation.

> "On May 11, proponents of six of the eight WSIP-funded projects, including WSWB, sent a letter to the Water Commission chairman, asking that the Commission consider making emergency and temporary modifications on a project-by-project basis in implementation of the WSIP funding due to the COVID natural disaster. The proponents stated that "we are concerned that the uncertain financial times ahead could cause delays to these projects that you have previously determined create an important statewide benefit."
>
> Two of the potential beneficiaries of the emergency regulations confirmed to Commission staff that severe economic challenges threaten the viability of their projects. One of which, is the WSWB project that has an immediate cashflow need. The project proponent indicates its financing partner is reassessing all of its business models based on COVID-19 impacts. Early funding would keep the Willow Springs project moving forward with planning activities and needed feasibility study.

Approval of this early funding request is critical to the ability for WSWB to meet the deadlines of WSIP regulations and to remain an active participant in the coordination of public benefit contracts. Specifically, this early funding would be used over the course of the next 14 months to obtain permits, agreements and feasibility studies necessary to keep the project on schedule. Consistent with regulation a portion of this early funding would be used to reimburse sunk eligible costs that date back

to August 14, 2017. Additionally, WSWB has been awarded $2.0 M in California Energy Commission Grants to develop long duration energy storage (EPC 19-058) that requires match funding of $0.5 M. The overlap in energy benefits described in the WSIP application and CEC Grants allow for this early funding to be match funding. The energy benefits provided by WSWB are potentially substantial to the state of California and have become a primary component of the bank and supports its economic viability. These benefits were described in the original WSIP application.

Eligible Reimbursements for Sunk Cost

WSWB has made significant progress and completed various tasks since August 14, 2017 that are eligible for early funding reimbursement under California Prop 1 Regulations. These tasks include the completion of a California Environmental Quality Act (CEQA) Addendum to update CEQA to reflect current conditions. The Addendum expanded the banks approved capacity from 500 thousand acre feet (TAF) to 1,000 TAF. Additional completed tasks included a preliminary conjunctive use feasibility and operations plan, and continued groundwater quality monitoring and well field design to ensure continued compliance with state regulations. Provided below is a brief description of these tasks, when they were completed and a preliminary estimate of the associated reimbursable cost. WSWB will work with CWC staff to provide any necessary financial records to confirm and finalize these costs pending approval of this early funding request. Copies of all documents that have been produced as part of these tasks are available upon request or are already part of public record.

Completed Task 1: CEQA Addendum

A CEQA Environmental Impact Report (EIR) was completed prior to the early funding eligibility date. The original CEQA EIR was prepared and filed with the state clearinghouse in 2006. It was implemented via a 2008 Memorandum of Understanding with Kern County and is not being considered as an eligible reimbursement.

However, a subsequent EIR Addendum was started in 2017. It was filed and was approved by Rosemond Community Services District on August 21, 2018. The 2018 Addendum enhances the amount of storage that WSWB will add to California's storage portfolio by increasing volume from 500 TAF to 1,000 TAF. 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 and decreasing the area allocated for project wells. Additionally, the Addendum enables the full put and take capacity planned for WSWB.

Cost associated with preparation of the Addendum fall within the reimbursable timeframe. A copy of the original EIR, Addendum and Appendices are available on request.

Reimbursable Cost: $243,000

Completed Task 2: Preliminary Operations and Permitting Plan

Phase I of a Preliminary Operations and Permitting Plan was completed and submitted to the CWC along with the 2020 3rd quarter report. This report has identified many of the critical pathway items necessary to complete the project and serves as a roadmap for tasks that will be completed under an early funding agreement with the CWC. Eligible portions identified in this study include but are not limited to permits, agreements, feasibility, and supporting technical work. A general scope and budget for these items are discussed below under "Eligible Future Tasks".

An additional purpose of the Preliminary Operations and Permitting Plan was to evaluate the impacts that various constraints, alternatives and future conditions have on yield from the WSWB Conjunctive Use Project. This study aimed to take an initial step at identifying and analyzing various operational scenarios and benefits associated with conjunctively operating with San Luis Reservoir.

From this initial study it became clear that further analysis and operational alternatives would need to be evaluated to maximize the potential of WSWB. More detailed analysis is needed to support these initial findings and will be conducted as part of the "Feasibility and Technical Study" Task described below.

Reimbursable Cost: $368,000

Completed Task 3: Well Field Design and Groundwater Quality Monitoring

A technical memorandum was developed in November of 2017 that synthesized groundwater quality with an initial well field design. The memorandum summarized a concept-level design evaluation and preliminary cost estimate for a wellfield layout and pipeline collector system for the WSWB. The authorized western wellfield boundary is at 170th St W. This concept design moves part of the wellfield to the west of 170th St W. The reason for moving the wellfield to the west is that the well yields are higher, and this will provide greater groundwater pumping capacity from individual wells, thereby allowing fewer wells and shorter collector pipelines. Additionally, it was discovered that the area contained a small patch of chromium-6 that would be avoided, resulting in improved water quality. This will reduce project costs compared to building the wellfield within the currently authorized boundary.

This work will result in WSWB producing higher quality water and more productive wells. This will streamline the permitting process, increase project resilience and provide operational flexibility.

Reimbursable Cost: $102,000

Provided below in Table 1 is a summary of tasks, completion dates and total eligible reimbursable costs to date.

Table 1: Eligible cost for reimbursement since August 14, 2017

Task	Completion Date	Cost
CEQA Addendum	August 21, 2018	$243,000
Preliminary Operations and Permitting Plan	July 2020	$368,000
Groundwater Quality Monitoring and Well Field Design	November 2017	$102,000
Total Eligible Reimbursements	--	$713,000

Eligible Future Tasks

The following tasks represent those proposed to be eligible for early funding starting from the time a funding agreement is reached with the CWC. These tasks and associated costs will be further refined in

coordination with CWC staff to ensure actions meet the eligible criteria. All costs at this time are estimates based upon professional opinion and completion of similar activities. All tasks are proposed to be completed by the California Prop 1 WSIP regulatory deadline of January 1, 2022.

Task 1: Environmental Documentation for Delivery of Pulse Flows and Predelivery from San Luis Reservoir

Additional CEQA and potentially NEPA work in conjunction with CWC staff will be needed. Pulse flow operations and capturing unallocated surplus State Water Project (SWP) water may need to be vetted under CEQA.

WSWB is currently examining the need for CEQA, NEPA and/or water rights alterations for the predelivery of water from San Luis Reservoir. WSWB will need additional modeling done that incorporates the reoperation of San Luis Reservoir. A number of changes have been made to CalSim since the original WSIP application was developed that will require additional modeling and analysis. As part of this task WSWB will develop any necessary transfer and water right alterations necessary for the predelivery of water from San Luis Reservoir.

Based upon recent coordination meetings with the California Department of Water Resources (DWR), California Department of Fish and Wildlife (CDFW) and the two other WSIP projects proposing to provide pulse flows in the Feather River it has become apparent that CEQA coverage will be needed for this action. At this point it is unclear the level of coverage that will be needed but DWR is proposed and has preliminarily agreed, to act as the state's lead agency. WSWB has agreed to participate and fund a respective portion of this process. This process is likely to include updated modeling and additional technical studies along with coordination time and costs associated with supporting DWR staff.

Estimated Cost to Complete: $750,000

Task 2: Permits and Agreements

A comprehensive set of permits and agreements will be needed to have WSWB ready for construction and operation. These necessary items include coordination and approval from federal, state, and local entities. In addition to the standard project mandated approvals a specific set of agreements and contracts are needed as defined in the California Prop 1 Regulations for WSIP approved projects. The complex nature of a progressive conjunctive use project is that many of the project elements require unique and innovative solutions that also create unforeseen regulatory hurdles. The Preliminary Operations and Permitting Plan developed this year has identified many of these hurdles which are summarized as tasks below. These tasks are directly related to obtaining the necessary environmental coverage, permits, agreements and technical studies for project implementation.

Subtask 2.1: CWC Contracts for Public Benefits

Section 6014 of the WSIP Regulation states: "Pursuant to the requirements of Water Code section 79755, any project funded under the WSIP shall enter into a contract with each of the appropriate State (administering) agencies…to administer the public benefits…". WSWB proposed to make water supply available for environmental benefits north of the Delta (pulse flows) and for emergency response. As such, agreements and contracts will need to be developed with the administering agencies (CDFW and DWR) for the delivery of this benefit. The following process is envisioned to be carried out for agreements to be made with these agencies:

- Information sharing and discovery. All parties will engage in an initial phase of discussions and sharing of information to understand project constraints and flexibilities as they pertain to the delivery of the public benefit (in progress).
- Per Section 6014 of the CWC WSIP regulations, the following must be developed: Adaptive Management Plan; description of the benefits; reporting requirement between applicant and administering agency; assurances regarding how WSWB will be operated, maintained, repaired, replaced, and rehabilitated; inspection provisions for administering agencies; actions administering agencies may take if WSWB fails to comply with contractual responsibilities; and other provisions deemed necessary by administering agencies or the CWC.
- Preparation of a draft contract between WSWB and CDFW and a supplemental agreement with DWR operations, and consideration of review comments by CWC and other potential agencies, as appropriate.
- Submittal of an executed contract between WSWB and CDFW to the CWC according to Section 6013(c), which describes provisions that must be met for the CWC to encumber funds and make funds available to WSWB through a funding agreement.
- Other provisions deemed necessary by the administering agency, such as potential federal involvement as it pertains to the Endangered Species Act (ESA), National Marine Fisheries Service (NMFS) consultation, and Federal Energy and Resource Commission (FERC) coordination.
- Finalization and acceptance of all feasibility studies necessary for the project (described below).

To meet the requirements of the WSIP and to develop the necessary agreements has required and will continue to require a great deal of coordination and involvement. Recently, the three pulse flow projects have been meeting with DWR and CDFW to coordinate operations and set the stage for the development of public benefit contracts. It is anticipated that over the next year these efforts will be further amplified and WSWB will be asked to provide additional information and engagement in this process. These contracts will need to be substantively complete by the regulatory of January 1, 2022 and are needed to aid in the finalization of project permits.

Estimated Cost to Complete: $250,000

Subtask 2.2: Agreements for the Reoperation of San Luis and Oroville Reservoirs

A series of agreements among multiple parties, including the CDFW, DWR, WSWB, and one or more agencies that contract for SWP Water supplies, will be necessary to secure the ecosystem benefits of the WSWB proposal and the predelivery of water from San Luis Reservoir. These agreements could take a variety of forms and could include multiple party agreements or linked agreements among individual parties. It is envisioned that these agreements will take place concurrently with the processing of the joint environmental documentation described in Task 1. Terms of this agreement could be informed through the environmental documentation process. However, these agreements would likely need to be stand-alone legal documents. These agreements would need to be finalized prior to project operation and delivery of public benefits. Possible terms of these agreements could include the following:

- CDFW agrees to manage its participation in the Water Bank. CDFW agrees to make calls for water for instream flow purposes subject to terms of their participation in the Water Bank,

including availability of stored water or borrowing capacity, in quantities and on the schedule CDFW determines will provide optimum ecosystem benefit.

- WSWB agrees to operate the Water Bank and provide water to the SWP Contractor subject to availability when called by CDFW.
- SWP Contractor agrees to accept alternative supply from WSWB when called by CDFW and forebear delivery of SWP Table A water. SWP Contractor agrees to pay WSWB a to-be-determined contribution toward operating costs of the Water Bank, as informed by the cost savings realized by not paying transportation costs for delivery of SWP Water and any reduced treatment costs associated with the improved quality of Water Bank supplies compared to imported SWP Water. SWP Contractor agrees to negotiate and complete any needed amendments to the SWP Water supply contract with DWR.

Estimated Cost to Complete: $250,000

Subtask 2.3: Regulatory Permitting and Agreements

Permitting for the project will be processed in two phases: the design phase (which includes the preliminary design and final design phases) and the construction phase. The preliminary and final design phase permitting supports the utility investigation, potholing, well drilling and geotechnical investigations. Additionally, consultation with resource agencies and operational agreements may be necessary for the delivery of the environmental benefit in the Feather River as described above in Subtask 2.1. Presented below are the agencies and permits preliminarily deemed to be needed for construction. Final project design, partnerships and facilities may impact some or all of these. Additionally, WSWB is investigating the need for FERC approvals, Net Energy Metering, and Interconnection agreements necessary to implement the energy components of the project.

Table2: Permitting Agency Summary

Agency	Permit	Status
Department of Water Resources	Aqueduct Turnout	Initial design completed, Design/Build Contractor to initiate
Los Angeles County	Encroachment Permit Right-of-Way Construction Permit Traffic Control (Geotech / SUE)	Preliminary design completed, Design Engineer/Facility Owner to complete during Final Design
Kern County	Encroachment Permit Right-of-Way Construction Permit Traffic Control (Geotech / SUE)	Preliminary design completed, Design Engineer/Facility Owner to complete during Final Design
California Department of Transportation (Caltrans) District 6	Encroachment Permit Right-of-Way Construction Permit Traffic Control (Geotech / SUE)	Preliminary design completed, Design Engineer/Facility Owner to complete during Final Design
Private Property Owner(s) Easements	TBD – Property Owners have been identified by WSWB. Negotiations in progress.	Preliminary design completed, Negotiations in Progress
California Department of Health Services	Public Water System permit (may not be needed if no potable pipes are built)	Facility owner required to conduct water quality sampling to maintain permit

Agency	Permit	Status
AVEK	Approval for turnouts and connections to the Western Feeder	Joint Use Agreement states AVEK shall approve design and inspect construction
Kern County Environmental Health Services Department and LA County Environmental Health Services (EPA requirement)	Spill Prevention, Control, and Countermeasure Plan (SPCCP)	Required review of the SPCCP prior to construction.
Kern County Environmental Health Services Department	Agreement with a local Mosquito Abatement District	To be determined prior to construction.
Region 5 - Regional Water Quality Control Board: Lahontan Region (No. 6V)	Construction General Permits (NPDES / Waste Discharge Requirements under *General Permit for Storm Water Discharge Associated with Construction Activity*)	To be obtained by the construction contractor or agent thereof for each bid specification awarded.
Antelope Valley Air Quality Management District (AVAQMD)	Authority to Construct	Preliminary design completed, Design Engineer/Facility Owner to complete during construction
Eastern Kern Air Pollution Control District (APCD)	Permit for propane-powered water pumps	Preliminary design completed, Design Engineer/Facility Owner to complete during construction
California Department of Fish and Wildlife	Streambed Alteration Agreement	Not likely to be needed for the project construction site but dependent on final design
National Marine Fisheries Service, United States Fish and Wildlife Service	Endangered Species Act Section 7 Consultation	Not anticipated to be needed for this Project construction site but potentially for implementation of Feather River pulse flows
State Water Resources Control Board	Water Appropriation/Transfer	Change in Point of Use to be completed by WSWB owner
U.S. Fish and Wildlife Service	Request for Technical Assistance / Habitat Conservation Plan	Implementing EIR Requirements to be completed by WSWB owner

Estimated Cost to Complete: $900,000

Task 3: Feasibility and Technical Studies

Per the regulations all feasibility studies must be completed by January 1, 2022 to maintain eligibility and to conduct a final funding hearing. WSWB is proposing to complete a robust feasibility study that follows the guidance set forth by DWR in 2014 in their "Guidance for the Development of a State-Led Feasibility Study". In addition to the feasibility study a suite of technical analysis is proposed that will support the feasibility study and further integrate the project with SWP operations and future conditions. This feasibility study will focus on the development and refinement of operational and infrastructure alternatives. The ultimate objective is to select a preferred alternative to present to the CWC that is ready for construction bidding.

Subtask 3.1: WSIP Approved Feasibility Study

A feasibility study will be completed that is consistent with both state and federal guidelines to satisfy the conditions of WSIP regulations. Feasibility studies were completed as part of the preliminary design and CEQA process in 2005 that focused on the local infrastructure, water quality and the capacity of the groundwater basin. Based on the Preliminary Operations and Permitting Plan developed last year and the refinement of project details it has become apparent that an additional feasibility must be completed that incorporates and evaluates alternative scenarios of numerous project elements.

The feasibility study will focus on the technical and non-technical issues to substantiate the evaluation and the final recommendations leading to a selection of the most efficient and effective option to meet project goals and objectives. The feasibility study will also include a finalized financial plan to support implementing key components of potential actions.

A minimum of 5 alternatives will be developed that take into consideration contractual, operational, and regulatory constraints. Since many of these alternatives will be investigating operational and institutional flexibilities the feasibility study can move in tandem with the above defined permits for physical infrastructure and will likely aid in progressing knowledge to expedite that process.

A set of metrics will be developed to score and evaluate each alternative and measure it against each other and a no action alternative. Alternatives will be developed that reasonably meet the goals and objectives of the project but vary in in the mechanistic nature to achieve them. The selected and preferred alternative will be presented to the CWC prior to a final funding hearing. The selected alternative along with previously completed design work will constitute the groundwork for an Operations Manual and represent a project that is approaching a groundbreaking.

Estimated Cost to Complete: $1,000,000

Subtask 3.2: Project Synergies and Technical Studies

The WSIP Regulation calls out the need for synergies among WSIP projects and the Water Action Plan (Item #1). Section 6011 (h) (1) states that the Commission shall consider:

(B) The ability of the collective suite of projects to advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta

(C) Implementation of the California Water Action Plan 2016 Update (January 14, 2016).

It was not possible to consider WSIP project synergies during the application and MCED determination process. Projects were not well enough defined. Also, WSIP applicants were in competition for limited grant funds. Now that the MCEDs are established and CEC-funded energy studies are complete, synergies can be considered. One such synergy is already being investigated in the combination of WSIP pulse flow projects to enhance the public ecosystem benefits as discussed in Tasks 1 and 2.

Possible additional synergies identified for investigation include:

1. WSIP Projects: Elimination of the need for backstopping flows at San Luis Reservoir due to the USBR-proposed solutions to the low point problem increasing supply yield
2. Evaluation of reduced carriage loss across the Delta during years in which pulse flows are delivered

3. Energy: Utilization of Aquifer Pumped Hydro to reduce the energy cost to pump wells and lift water

These synergies will be an element strongly considered in the above feasibility study and represent a more reliable and resilient future condition for California water. A noted additional benefit is that these studies would be eligible for match funding under the guidelines of CEC grants that have been received by WSWB.

Estimated Cost to Complete: $400,000

Provided below in Table 3 is a summary of eligible tasks, completion dates and associated cost estimate.

Table 3: Eligible cost for reimbursement since August 14, 2017

Task	Completion Date	Cost
Environmental Documentation for the Delivery of Pulse Flows and Predelivery from San Luis Reservoir	January 1, 2022	$750,000
Permits and Agreements	January 1, 2022	$1,900,000
Feasibility and Technical Studies	January 1, 2022	$1,400,000
Total Future Eligible Costs	--	$4,050,000

Summary

WSWB is eligible for 5% early funding which equates to a total of $4,770,300. A combination of reimbursable costs to date ($713,000) and outlined tasks for future work ($4,050,000) WSWB has described a plan to utilize nearly all of the funding ($4,763,000) in a manner consistent with the letter and intent of the regulation. The work outlined above is necessary to meet the regulatory requirements of WSIP, finalize agreements, complete permits and environmental documentation. With the completion of items listed in this document it is the goal of WSWB to be prepared for a final funding hearing and begin the construction bid process.