



Water Storage Investment Program: Harvest Water Program Continuing Eligibility and Feasibility Determination (Action Item)

Introduction

The California Water Commission (Commission) is administering the Water Storage Investment Program (WSIP) to fund the public benefits associated with water storage projects using funds from the Proposition 1 Water Quality, Supply, and Infrastructure Improvement Act of 2014. Currently, seven projects have a WSIP maximum conditional eligibility determination (MCED), which is the amount of Proposition 1 funding available to a given project and are actively working to secure a formal WSIP award amount. The Harvest Water Program, promoted by its applicant, the Sacramento Regional County Sanitation District (Regional San), is one of those seven projects. For this project to remain in the WSIP, it must meet the continuing eligibility requirements described below.

Water Code section 79757 and California Code of Regulations, Title 23, Division 7, section 6013(f)(2) requires a WSIP applicant to complete the following before January 1, 2022 as a condition of continued WSIP eligibility:

- Draft environmental documentation is available for public review.
- The Director of the Department of Water Resources receives commitments for at least 75 percent of the non-public benefit cost shares of the project.
- All feasibility studies are complete.

Additionally, as a condition of continued eligibility, the Commission must, by January 1, 2022:

- Make a finding that the project is feasible and will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta.

The Commission determined final application scores and made nine determinations for each of the projects in the WSIP at its June 2018 meeting. One of the determinations made was that each project *appeared* feasible. This initial limited feasibility determination allowed the Commission to return to the full feasibility determination after each applicant completed its feasibility studies to meet the Water Code section 79757 requirements. Since the June 2018 Commission meeting, applicants continued to work toward completing the interim statutory requirements of Water Code section 79757. The Harvest Water Program has reached the stage where the Commission can deliberate on project feasibility.

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This staff report presents the status of the January 1, 2022 requirements and staff's review and recommendation about the feasibility documents for consideration in the Commission's feasibility deliberations.

Background

Through the WSIP, the Commission will invest nearly \$2.6 billion in the public benefits of water storage projects, consistent with the requirements of Proposition 1 (the Water Quality, Supply, and Infrastructure Improvement Act of 2014), Chapter 8. In July 2018, the Commission made MCEDs, decisions that set the amount of Proposition 1 funding available to a given project. Since then, one applicant has withdrawn from the program. In early 2021, the Commission decided to adjust two project MCEDs to their initially requested amounts. Additionally, the Commission made a 2.5 percent inflation adjustment to all seven project MCEDs. The seven remaining applicants are working to complete the Proposition 1 requirements, which include obtaining permits and final environmental documents, contracts for the administration of public benefits, and contracts for non-Proposition 1 funding before returning to the Commission for a final award hearing.

This agenda item implements Goal Four of the Commission's Strategic Plan, which calls on the Commission to carry out its statutory responsibilities for the Proposition 1 Water Storage Investment Program.

Meeting Overview

At the October meeting, Commission staff will present its recommendations regarding Harvest Water Program's feasibility documentation and a summary of documents received that are responsive to the January 1, 2022 statutory requirements. The Commission will then decide whether to make a feasibility determination. The Commission will have the opportunity to ask questions of applicants and hear public comment before deliberating on its feasibility determination.

This is an action item.

Summary of Issues

Status of January 1, 2022 Requirements. The documents that constitute compliance with Water Code section 79757 are listed below.

Requirement	Status
Draft environmental document available for public review.	Regional San, 2016. Draft Programmatic EIR Regional San, 2017. Final Programmatic EIR

Requirement	Status
	Regional San, 2020. Initial Study Checklist for the Lateral Pipelines and On-Farm Connections Project. Regional San, 2021. CEQA EIR Addendum for Harvest Water Program Groundwater Accounting Project. Regional San, 2021. CEQA EIR Addendum for the Ecological Plan and Wintertime Application Projects. Regional San, 2021. CEQA EIR Addendum for the On-Farm Connections Vehicle Turnouts Project.
75% of non-public benefit cost share submitted to the Director of DWR.	Regional San sent a letter of commitment from their District Engineer to the DWR Director stating the facility costs are part of their annual budget, capital finance plan and long-term financial plan. The letter was transmitted to the Director and the Commission on 9/28/2021.
Completed feasibility documents	2017 WSIP Application. South Sacramento County Agriculture & Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program (South County Ag Program) 2017-2018. WSIP staff technical review, PBR review, appeal, appeal response, and scoring recommendations Woodard & Curran, 2019. Technical Memorandum. Regional San South Sacramento County Agriculture & Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program. Subject: South County Recycled Water Feasibility Study WSIP Updates.

Feasibility Document Review. California Code of Regulations, Title 23, Division 7 incorporates by reference the Technical Reference for the WSIP. The Technical Reference specifies criteria to establish technical feasibility and constructability as well as environmental, economic, and financial feasibility as follows:

- Technical Feasibility – the applicant must demonstrate that the project is technically feasible consistent with the operations plan, including a description of data and analytical methods, the hydrologic period, development conditions, hydrologic time step, and water balance analysis showing, for the with- and without-project condition, all flows and water supplies relevant to the benefits analysis.

- Constructability – the applicant must demonstrate that the project can be constructed with existing technology and availability of construction materials, work force, and equipment.
- Environmental feasibility – the applicant must demonstrate the project is environmentally feasible. The applicant must describe how significant environmental issues will be mitigated or indicate if the California Environmental Quality Act (CEQA) lead agency has or will file a Statement of Overriding Considerations (SOOC).
- Economic feasibility – the applicant must demonstrate the expected benefits of the project equal or exceed the expected costs, considering all benefits and costs related to or caused by the project.
- Financial feasibility – the applicant must demonstrate sufficient funds will be available from public (including the funds requested in the application) and nonpublic sources to cover the construction and operation and maintenance of the project over the planning horizon. It must also show that beneficiaries of non-public benefits are allocated costs that are consistent with and do not exceed the benefits they receive.

Technical Feasibility and Constructability Review. Commission staff reviewed the project operations, engineering designs and costs, and construction methods for the Harvest Water Program. The project operations, engineering designs and costs, and construction methods demonstrate that the Harvest Water Program can be technically and physically constructed and operated.

The Harvest Water Program has the potential to provide up to 50,000 acre-feet per year (AFY) of recycled water year-round to irrigate agriculture and habitat lands in southern Sacramento County for in-lieu use during the irrigation season and wintertime recharge during the non-irrigation season. The Harvest Water Program would provide an average of 32,500 AFY of recycled water year-round to approximately 16,000 acres of irrigated farmlands for in-lieu use during the irrigation season. In wintertime months, additional recycled water would be delivered to irrigation areas and wildlife-friendly recharge areas for recharge. Wintertime recharge deliveries would bring the total annual recycled water deliveries up to 49,500 acre-feet (AF). The remaining 500 AF would be delivered, as needed, during the spring and fall to Stone Lakes National Wildlife Refuge. Through conjunctive use, a portion of stored groundwater could be withdrawn in dry years to meet a wide range of needs for a variety of regional water supply and reliability needs, including instream flow needs for fish, ecosystem viability, agricultural irrigation, municipal and industrial uses, and other regional and Delta needs.

Preliminary engineering design analyses and costs estimates for the Harvest Water Program's facilities including a pump station, pipelines and distribution mains, service connection laterals, and appurtenant facilities are developed at a feasibility-level. The treatment and distribution

system proposed for the Harvest Water Program can be constructed with conventional system components and proven technologies, and the groundwater extraction component would utilize existing infrastructure and is not anticipated to require additional construction.

Environmental Feasibility Review. Commission staff reviewed the 2015 Feasibility Study and the 2019 update, the Draft (2016) and Final PEIR (2017) and CEQA addendums (2021) to the PEIR to determine whether the applicant demonstrated environmental feasibility and described how significant impacts would be mitigated or whether the CEQA lead indicated they would file a SOOC. These documents demonstrate the project is environmentally feasible.

The Draft and Final PEIR evaluated the Harvest Water Program at both the project- and program-level of detail. The Draft and Final EIR indicated that there would not be significant environmental impacts due to the project. Potentially significant but mitigable impacts include adverse impacts to aesthetics, land use and agriculture, recreation, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and traffic and transportation. Project-level CEQA documentation prepared since the certification of the PEIR indicate that the program elements would not result in any significant new or substantially more severe environmental impacts and would not change any of the mitigation measures identified within the PEIR's Mitigation Monitoring and Reporting Plan.

Economic Feasibility Review. Economic feasibility is concerned with the economic benefits associated with project physical benefits in comparison to project costs. Economic benefits should equal or exceed project costs. Staff reviewed the economic benefits analysis including any changes since the Maximum Conditional Eligibility Determination (MCED). Unquantified, qualitative benefits and costs are also considered. Although Commission staff's non-public benefit cost calculation differed from the applicant's 2019 Feasibility Study update (Woodard and Curran, 2019), the calculated present value benefit costs still exceed project costs. This calculation demonstrates the project is economically feasible.

Staff considered how the project may have changed from the 2017 application. The Technical Reference states: An applicant must identify and explain differences in assumptions, procedures, and results between its feasibility study and its application, and how those differences could affect project feasibility. Project features (facilities or operations) and benefits have not changed significantly since the application and 2018 MCED. Therefore, staff has drawn substantially from its 2018 economic and financial feasibility reviews and conclusions.

In Woodard and Curran, 2019, the applicant used WSIP north of Delta (NOD) unit values and applied them to agricultural and municipal water supply to calculate the non-public benefit cost

resulting in a non-public benefit of water supply reliability value of \$145.89 million. Staff calculates a revised non-public water supply benefit of \$164.22 million.

CalSim modeling results contained in the 2017 application show that the Harvest Water Program would decrease water supplies available for other uses because less wastewater is discharged into the Delta. Staff finds that the present value of this benefit loss is \$75.05 million.¹ Therefore, net water supply reliability benefits are about \$89.17 (164.22-75.05) million. The non-public benefits of fertilizer value of recycled water (\$0.90 million) and reduced discharge cost (\$2.33 million) are accounted for separately.

The applicant's update (Woodard and Curran, 2019) does not change any other benefits as adjusted by staff for the 2018 MCED determination. However, staff has made the following adjustment to the water quality benefits for this feasibility consideration relative to the 2018 staff review. In its application, the applicant quantified water quality benefits for reduction of salinity in the Delta. The applicant originally estimated the present value of this benefit at \$569.4 million based on the cost of reverse osmosis to reduce the mass loading of salinity by the same amount as the project.

In its 2018 review, staff limited this benefit because the high cost of reverse osmosis is not justified by salinity reduction alone - avoided damages caused by salinity were estimated to be much less than this cost. Reverse osmosis is justified if damages caused by a range of constituents (including nitrogen compounds and salinity) exceed the cost of reverse osmosis as the least-cost alternative. Although reliable studies and information are not currently available to estimate all of those damages, staff believes it is reasonable to use the cost of reverse osmosis, \$569.4 million in present value, as an alternative cost.

During the MCED determination, staff determined that the applicant was obligated to remove a variety of problem constituents from its wastewater discharge in order to comply with discharge standards. WSIP funds cannot fund water quality improvements that are also a compliance obligation². However, for purposes of estimating statewide benefits in a feasibility determination, staff believes that the full cost of reverse osmosis can be used as an estimate of water quality benefit realized for treated wastewater delivered for agricultural and municipal use as proposed. Therefore, staff allows the alternative cost of reverse osmosis, \$569.4 million, as one of the benefits of the project for purposes of economic feasibility.

¹Staff estimate of this opportunity cost was \$112 million in 2018. This estimate applied WSIP SOD unit values to the CalSim NOD quantities.

² Water Code Section 79753(b) requires that WSIP funds shall not be expended "for the costs of environmental mitigation measures or compliance obligations except for those associated with providing the public benefits."

The present value of project costs is approximately \$425 million. Present value of benefits calculated by staff are approximately \$908 million.

The applicant identified the following non-quantified benefits for this project:

- Ecosystem resiliency
- Habitat connectivity
- Preserving working farmlands
- Improving groundwater dependent ecosystem science
- Sustainable Groundwater Management Act (SGMA) compliance
- Increasing regional and state water supply reliability
- Emergency response

These benefits could provide an incremental improvement to the economic feasibility of the project.

Financial Feasibility Review

Financial feasibility means that financial resources will be available to construct and operate the project as planned. Staff have reviewed all planned cost contributions from all sources to determine if financing appears adequate to build and operate the project over its planning horizon. Staff's review indicates:

- Funds from all sources are sufficient to cover all costs.
- Costs allocated to the non-public beneficiaries (Sacramento County Regional Sanitation District, or Regional San) do not exceed the benefits that Regional San receives.
- Regional San is the primary beneficiary of non-public benefits, and the only beneficiary expected to provide a financial commitment for the project. It is a public agency with legal authority to charge rates and assessments to its customers as necessary to cover the costs allocated to it for the proposed project which supports financial feasibility.

The applicant's commitment to pay its cost share is evidence of financial feasibility for related non-public benefits.

Section 4.3 of the applicant's update (Woodard & Curran, 2019) summarized and reiterated that analysis.

Regional San would cover any portion of project construction, operations, maintenance, and replacement costs not covered by Federal or State funding, including funding for operations

and maintenance costs required to deliver the recycled water supply and ecosystem benefits. The source of funds for planning, design and construction will be the Sacramento Regional County Sanitation District Capital Budget Fund #262A. Regional San will use the revenues from the sale of recycled water to help fund some of the operational and maintenance costs of the Harvest Water Program. Regional San's wastewater treatment rate revenues will also be used to fund the remaining capital costs and future operational and maintenance costs of the Harvest Water Program. These funds are in Regional San's Operating Fund #261A.

The regulations require that beneficiaries of non-public benefits are allocated costs that do not exceed the benefits they receive. Staff has reviewed costs allocated to beneficiaries and compared them to their benefits. Costs allocated to and borne by Regional San include the non-capital costs and any capital costs that exceed the MCED provided from WSIP.³ Non-capital costs borne by the applicant are \$144 million. It is possible that capital costs not funded by the MCED, for example capital cost increases due to inflation, may also need to be borne by Regional San, but these are currently unknown. However, the excess of benefits (\$330 million) to allocated costs (\$144 million) supports a recommendation of financial feasibility for the non-public benefits.

Commission Decision

The Commission can decide to make a determination that the Harvest Water Program is feasible. If the Commission determines that the Harvest Water Program is feasible, the project will continue to be eligible for WSIP funds and work toward completing the statutory requirements that could lead to a final award hearing.

Alternatively, the Commission may opt to not make a determination. If the Commission decides not to make a determination by December 31, 2021, the project would no longer be eligible for funding through the WSIP. For projects where no determination is made and the project has an early funding agreement, staff will close the agreement.

Projects must still complete all environmental documentation, have contracts for 100% of the non-public benefit cost share, have obtained all required permits, and contracts for administration of public benefits (Water Code section 79755(a)) before the Commission can conduct a final funding hearing.

Staff Recommendation

Based on information received from Regional San which includes supplemental feasibility documentation, a letter of commitment from Regional San to fund the project, and final environmental documentation, staff finds that the Sacramento Regional County Sanitation District has provided documents that meet the requirements of Water Code section 79757

³ The applicant may pursue and receive other funding sources, but staff is not currently aware of any such sources.

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including completed feasibility documents; the Harvest Water Program meets conditions for technical, environmental, economic and financial feasibility and constructability defined in the Technical Reference. Staff recommends that the Commission make a determination that the project is feasible.

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