

Water Storage Investment Program Commission Determinations and Additional Eligibility Requirement

Kern Fan Groundwater Storage Project

Irvine Ranch Water District and Rosedale-Rio Bravo Water Storage District

The Kern Fan Groundwater Storage Project (Kern Fan Project) would develop a regional water bank in the Kern Fan area to recharge and store in the Kern County Groundwater Sub-basin of the San Joaquin Valley Groundwater Basin up to 100 thousand acre-feet (TAF) of unallocated Article 21 water available from the State Water Project (SWP) operation. Recovery and use of the stored water would provide public and non-public benefits.

The Kern Fan Project provides groundwater storage and would be operated so that in wet years, the project partners, Irvine Ranch Water District (IRWD) and Rosedale-Rio Bravo Water Storage District (Rosedale), would divert unallocated SWP Article 21 supplies for storage in the Kern Fan Project. IRWD and Rosedale would share first priority rights to 75 percent of the stored water for water supply purposes. The remaining 25 percent of the stored water would be available to support ecosystem benefits. This 25 percent of the water would be used to provide short-term ecosystem pulse flows from Lake Oroville in exchange of the same amount of water extracted from the groundwater storage that would be used as Table A water.

The California Water Commission (Commission) accepted the following monetized public benefits for this project:

- Ecosystem improvement—Spring-run and winter-run Chinook salmon survival
- Ecosystem improvement—Incidental wetland habitat
- Emergency response—Drought water supply
- Emergency response—Delta failure

The applicant did not include non-monetized benefits in its application.

Introduction

This document addresses the following components of the Commission's Water Storage Investment Program (WSIP) project evaluation process:

- **Determinations:** The Commission must make nine (9) determinations by before assigning a maximum conditional eligibility amount.
- **Additional Eligibility Requirement:** The Commission must consider the eligibility requirement related to wild and scenic rivers.

Part 1: Discussion of Commission Determinations

Regulation section 6011(c) states that before the Commission assigns a maximum conditional eligibility amount to a project, the Commission shall make all nine determinations based on the technical review and appeal information. The determinations are the following items:

- The proposed project is cost effective;

- The proposed project improves the operations of the State water system;
- The proposed project provides a net improvement in ecosystem and water quality conditions;
- The proposed project provides measurable improvements to the Delta ecosystem or to the tributaries to the Delta;
- The Program cost share is less than or equal to 50 percent of the proposed project’s total capital costs, with the exception of conjunctive use projects and reservoir reoperation projects;
- The Program funded ecosystem improvement benefits make up at least 50 percent of the total public benefits funded by the Program;
- The proposed project appears to be feasible;
- The proposed project will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta; and
- The proposed project is consistent with all applicable laws and regulations.

If, for a project, the Commission cannot make any single determination then a maximum conditional eligibility determination (MCED) cannot be made for that project.

[Relationship Between Determinations and Eligibility](#)

These determinations are made before projects have completed all project formulation efforts. Regulations section 6013(c) states that additional requirements (such as completed feasibility studies, final environmental documents, contracts for the non-WSIP cost share, contracts for administration of public benefits, and permits) must be obtained by applicants after the MCEDs are made, but before the Commission makes a final award to the project. Those additional requirements may result in changes to the project that was proposed to the Commission in the August 2017 Application. Such changes may positively or negatively affect project eligibility and in turn one or more of the Commission’s determinations. The Commission will consider such changes in determining a project’s final award (section 6013(f)(3-5)). Additionally, regulations section 6013(f)(2) sets January 1, 2022, as the deadline for completing feasibility documents.

Table 1 presents Staff’s assessment of whether each of the nine determinations conditions has been met. This assessment is based on the technical review and the appeal.

Table 1 - Staff Recommendations – Commission Determinations	
1. The proposed project is cost effective.	--
<p>The quantified costs and benefits may have changed since the submission of the application in August 2017 and the February 2018 appeal. Staff recommends the Commission discuss with the applicant, consistent with the requirements of the Bagley-Keene Act, any changes that relate to cost effectiveness. The Commission may determine the project to be cost-effective based on the following factors:</p> <ul style="list-style-type: none"> • Monetized and non-monetized benefits and costs as described in the application • A discussion with the applicant, consistent with the requirements of the Bagley-Keene Act, about any changes in benefits and costs related to cost effectiveness (Regulations section 6004(a)(4)(E)) that may have arisen since the submission of the application <p>Any changes that arise from such a discussion would need to be documented and supported as part of the ongoing WSIP regulatory process.</p>	

Table 1 - Staff Recommendations – Commission Determinations	
2. The proposed project improves the operations of the state water system.	YES
<p>The applicant described how the project would be integrated into the local, regional, state, or federal systems that provide water resources benefits within California. Such integration would improve the operations of the state water system. The proposed project would provide operational flexibility by augmenting water supplies, during periods when other water sources may be limited, with groundwater storage, as well as operational flexibility to existing and future programs. The proposed project would also be a critical element of the IRWD’s water supply reliability portfolio that supports groundwater recharge and recovery for regional partnerships involving conjunctive use and groundwater banking.</p>	
3. The proposed project provides a net improvement in ecosystem and water quality conditions	YES
<p>The ecosystem public benefits accepted by the Commission for this project are:</p> <ul style="list-style-type: none"> • Ecosystem improvement—Spring-run and winter-run Chinook salmon survival • Ecosystem improvement—Incidental wetland habitat <p>The California Department of Fish and Wildlife (CDFW) found that the monetized ecosystem benefits, as described in the application, meet the requirements of Chapter 8, as related to matters within its purview. During dry and critically dry years, the Kern Fan project proposes to provide seven pulse flows over the life of the project from Oroville Reservoir during the month of April to benefit Chinook salmon and green sturgeon. The Kern Fan project also proposes to provide 1,280 acres of temporary shallow open-water habitat for migratory birds during years in which recharge activity occurs.</p> <p>Staff concludes that the proposed project appears to contribute to the restoration of aquatic ecosystems and native fish and wildlife, including those ecosystems and fish and wildlife in the Delta (Water Code section 79753(a)(1)). This project also appears to contribute to ecosystem-related water quality improvements by providing pulse flows.</p>	
4. The proposed project provides measurable improvement to the Delta ecosystem or to the tributaries to the Delta.	YES
<p>The ecosystem public benefits accepted by the Commission for this project are:</p> <ul style="list-style-type: none"> • Ecosystem improvement—Spring-run and winter-run Chinook salmon survival • Ecosystem improvement—Incidental wetland habitat <p>Based on CDFW’s finding that the ecosystem public benefits resulting from pulse flows on the Feather River meet the requirements of Chapter 8, Staff conclude that the project will provide measurable improvements to the Delta ecosystem or to the tributaries to the Delta.</p> <p>These ecosystem public benefits will likely provide changes in the physical, chemical, or biological conditions that provide public benefits which can be quantified at a specific location and time (Water Code section 79752; Regulations section 6001(a)(48)).</p>	

Table 1 - Staff Recommendations – Commission Determinations	
5. The proposed project’s program cost share is less than or equal to 50 percent of the proposed project’s total capital costs, with the exception of conjunctive use projects and reservoir reoperation projects.	YES
The project is a conjunctive use project and is eligible for more than 50 percent of the project’s total capital cost. The maximum eligibility amount for this project is \$85.66 million and the project’s total capital cost is \$171.32 million.	
6. The proposed project’s program-funded ecosystem improvement benefits make up at least 50 percent of the total public benefits funded by WSIP.	YES
The Commission’s decision on May 3, 2018 determined the public benefit amount for each project, which necessarily included consideration and determination of the project’s ecosystem benefits. Based on that decision, the project’s public benefits consist of at least 50 percent ecosystem improvements, as required by Water Code section 79756(b).	
7. The proposed project appears to be feasible.	YES
Notwithstanding the implementation risks documented in the Technical Review, on whole the project appears to be feasible. The applicant demonstrated that the project can be constructed with existing technology and available construction materials, work force, and equipment. The applicant also demonstrated that the project is technically feasible consistent with the preliminary operations plan.	
8. The proposed project will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta.	YES
<p>Section 6001(a)(7) of the Regulations defines “beneficial uses of the Delta” as those:</p> <p><i>“identified in the State Water Board’s ‘Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary’ (December 2006).”</i></p> <p>CDFW found that providing seven pulse flows from Oroville Reservoir in dry and critically dry years and temporary wetland habitat during the winter of wet, above normal, and below normal water years when groundwater recharge activity occurs are substantiated ecosystem benefits that constitute an ecosystem improvement.</p> <p>These identified public benefits appear to advance ecological beneficial uses of the Delta, including: Cold Freshwater Habitat; Migration of Aquatic Organisms; Spawning, Reproduction, and/or Early Development; and, Rare, Threatened, or Endangered Species. The advancement of beneficial uses resulting from the project would aid in restoring healthy wildlife corridors, and migratory species habitats that support the Delta ecosystem complex.</p>	
9. The proposed project is consistent with all applicable laws and regulations	YES
The applicant stated in the application that the project will comply with all applicable laws and regulations. Such compliance is a requirement for WSIP funding.	

Part 2: Additional Eligibility Requirement

Wild and Scenic Rivers

Regulations section 6006(c)(2) identifies six additional eligibility items that require the Commission's consideration as part of the technical review. Five of the additional eligibility items are included in the determinations discussed above. One additional eligibility item (Wild and Scenic Rivers) is not included in the determinations. Water Code sections 79711(e) and 79751(a) prohibit the use of WSIP funds by any project that could have an adverse effect on the values upon which a Wild and Scenic River or any other river is afforded protections pursuant to the California Wild and Scenic Rivers Act or the federal Wild and Scenic Rivers Act.

The Kern Fan Project is unlikely to adversely affect a Wild and Scenic River, including its free-flowing character. The Kern River, which is located approximately 55 miles northeast of the proposed project area, is the nearest designated Wild and Scenic River. While the proposed project includes activities in the Kern River watershed, it is a groundwater storage project, which would not modify flows in the river system, and is located downstream of the designated Wild and Scenic Rivers in this watershed. The 42.6 mile stretch of the Feather River that is designated as Wild and Scenic is located upstream of the pulse flows proposed for ecosystem benefits.