GBJPA

Groundwater Banking
Joint Powers Authority

Kern Fan Groundwater Storage Project

Request for Early Funding

Submitted to California Water Commission, January 2026

Table of Contents

Background

The Kern Fan Groundwater Storage Project (Kern Fan Project, Project) is being developed as a regional water bank in the Kern County Sub-basin of the San Joaquin Valley Groundwater Basin in Kern County, California. Kern County is strategically located in central California near state, federal and local water supply conveyance facilities. The Project is designed to capture, recharge and store wet-year surface water that would otherwise be lost to the ocean for later use. Project facilities include recharge basins, recovery wells and associated pipelines. Water will be conveyed from the California Aqueduct to and from the Project sites via a newly proposed turnout at the California Aqueduct and a new conveyance canal.

Project storage capacity will be split into three storage accounts. 25,000 AF will be allocated to an Ecosystem account, 37,500 AF to an IRWD account and the remaining 37,500 AF to a Rosedale account. The Project would be operated to store Article 21 water during wet years to provide Public and Non-Public Benefits. When Article 21 is not available, Project facilities would be used to recharge other sources of water such as State Water Project Table A water and federal Section 215 water. During dry years, the stored water would be recovered for use.

Water Storage Investment Program Funding

In August 2017, Irvine Ranch Water District (IRWD) and Rosedale-Rio Bravo Water Storage District (Rosedale) jointly applied for Water Storage Improvement Program (WSIP) funding for the Kern Fan Project to the California Water Commission (CWC). Following application review, in July 2018, the CWC awarded conditional funding in the amount of $67.5 million to the Kern Fan Project.

The Groundwater Banking Joint Powers Authority (GBJPA) was formed by IRWD and Rosedale on April 8, 2020, for the purpose of developing and administering the Kern Fan Project. In 2020, the CWC approved a request to formally transfer the application to the GBJPA. Development and implementation of the Kern Fan Project is administered by the GBJPA.

In 2021, a Project Feasibility Study was prepared and submitted to document the technical, environmental, economic, and financial feasibility of the proposed Kern Fan Groundwater Storage Project, pursuant to California Water Code Section 79755. The CWC made a determination that the Project was feasible on December 15, 2021.

In August 2025, the CWC adjusted the Maximum Conditional Eligibility Determination amount for the Kern Fan Project to $111.4 million.

Project Status

The GBJPA has made significant progress on the development and construction of the Kern Fan Project. In 2021 and 2022, the GBJPA acquired 350 acres of land, referred to as the West Enos and North Stockdale properties, for the Phase 1 recharge and recovery facilities. Construction of the Phase 1 recharge basins has been completed and construction of Phase 1 well recovery facilities will be completed in 2026.

While construction of Phase 1 is being completed, the GBJPA is concurrently working on the design of Phase 2 recharge, recovery, and conveyance facilities. The GBJPA has established a working group with the Kern County Water Agency and the Cross Valley Canal Advisory

Committee to initiate preliminary design work on the proposed conveyance facilities from the California Aqueduct. The Project concept and two proposed turnout locations were reviewed by the working group in December 2025. Hydraulic analyses and computational fluid dynamics modeling for the concepts are underway with initial simulations anticipated in January 2026. A feasibility level design report is expected to be finalized in summer 2026.

The GBJPA is also working with State agencies to secure the necessary approvals and agreements for the construction and operation of the Kern Fan Project.

Financial Need for Early Funding

Ongoing Kern Fan Project efforts for project management, environmental documentation, as well as technical studies, design, and permitting (among others) come at great expense. In addition, the rate of inflation for construction activities and Project implementation continues to escalate, contributing to an increased financial burden for local agencies and rate payers associated with the Project.

The GBJPA is committed to implementing cost-effective, mutually beneficial, and fiscally responsible projects on behalf of its members and their rate payers. The following request for early funding, 5% of the Maximum Conditional Eligibility Determinations (MCED), is made to relieve some of the burden from existing and pending expenditures of the Project, as well as to continue implementation of the Kern Fan Project.

Scope of Work Overview

The following section describes the Scope of Work for Kern Fan Project Tasks, and the eligible costs requested for early funding. Water Code section 79755 (c) allows for early funding of projects to assist with work related to completion of environmental documents and permits.

A. Preliminary Design Report

An engineering Preliminary Design Report (PDR) with Class 3 costs estimates was prepared by consultant Dee Jaspar & Associates Inc. in 2021. Dee Jaspar & Associates has provided updates to the PDR as refinements to the Project have been made. The Kern Fan Project PDR provides a detailed description of the proposed facilities, an analysis of project alignment alternatives, planned integration with existing water banking facilities, construction methods, refined capital and operations cost estimates, as well as replacement cost estimates. Development of the PDR is a reimbursable cost that supported the planning, design, and continued progress of the Kern Fan Project.

Reimbursable Cost: $417,100

B. Feasibility Study

In compliance with Water Code 79755 and 79757, a feasibility study was prepared, completed, and submitted to the CWC in 2021. The feasibility study was prepared to document the technical, environmental, economic, and financial feasibility of the proposed Kern Fan Groundwater Storage Project. The study also serves as the primary source of information for the detailed project description, related analyses used to develop the Project, and updates to the Project since the initial Water Storage

Investment Program (WSIP) Application was submitted in 2017. CWC reviewed the submitted Feasibility Study and issued a feasibility determination in December 2021.

Reimbursable Cost: $261,000

C. Environmental Documentation

The Kern Fan Groundwater Storage Project Final Environmental Impact Report (FEIR) was completed and certified in December 2020. The FEIR was made available to agencies for comments at least 10 days prior, with a review period from October 16, 2020, to November 30, 2020. The GBJPA, as the Lead Agency, prepared the EIR in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines codified at Title 14, Division 6, Chapter 3 of the California Code of Regulations. In addition, the EIR was prepared in accordance with CEQA-Plus requirements of the United States Environmental Protection Agency (EPA) to fulfill the requirement of potential federal funding partners to comply with the National Environmental Policy Act (NEPA). The purpose of the EIR is to provide the public with information about the potential local and regional impacts associated with construction and operation of the Kern Fan Project.

The EIR describes the environmental impacts of the proposed project and suggests mitigation measures, where necessary, to avoid or reduce any significant impacts. The impact analyses are based on a variety of sources, including publicly available documents, agency consultation, technical studies and field surveys. The EIR also evaluates the potential impacts of the Kern Fan Project for identified significant impacts to aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, geologic and paleontological resources, hazards and hazardous materials, hydrology, water quality, land use planning, mineral resources, noise, transportation, and wildfire.

Reimbursable Cost: $532,600

Supplemental EIR for Turnout and Conveyance Canal

A Supplemental EIR will be prepared to evaluate the selected alternative for a new turnout off the California Aqueduct and the associated conveyance canal, to deliver water to the Kern Fan Project. Preparation of the Supplemental EIR is expected to be completed by 2027. Cost estimates for the Turnout and Conveyance Canal Supplemental EIR were prepared by consultant Dee Jaspar in the latest Class 3 budget evaluation. Rincon Consultants are in the process of preparing a detailed project description that will support the determination of the appropriate CEQA pathway.

Estimated Future Eligible Cost: $540,000

Supplemental EIR for Pulse Flows

While not included in the cost estimates for this early funding request, a Supplemental EIR was prepared by the Department of Water Resources (DWR) for the Pulse Flow exchanges. DWR filed a Notice of Certification for the Final Supplemental EIR for the Pulse Flows Component of the Water Storage Investment Program Groundwater Projects in July 2024. When DWR participates in one or more of the projects with a

pulse flow component and pursuant to an agreement, DWR will file a Notice of Determination (NOD) at the State Clearinghouse. The GBJPA expects to adopt the Pulse Flow Supplemental EIR for the Kern Fan Project, as part of Phase 2 implementation, pending DWR's NOD.

D. Permitting and Agreements

Two Caltrans Permits for the 1) Enos Lane Crossing and 2) Stockdale Highway Crossing were obtained for Phase 1 work. Additional agreements, permits and easements will be required for Phase 2 of the Kern Fan Project. Permits include the Outlet Canal Crossing (e.g. 404, 401, and Streambed Alteration Agreements), Incidental Take Permit, Encroachment Permits, Well Drilling Permits, Right of Way and Easement permits. Agreements will address the turnout and conveyance, ecosystem exchange and public benefits. Easements will be required pending the final footprint of the new conveyance. All permits, agreements and easements are expected to be completed by January 2028 (Table 1).

Reimbursable Cost: $244,500

Estimated Future Eligible Cost: $289,800

Table 1. Kern Fan Groundwater Storage Project Permits and Agreements

Kern Fan Project Permits and Agreements	Expected Completion
Permits	
Caltrans Permit - Enos Lane Crossing Phase 1	Completed
Caltrans Permit - Stockdale Hwy Crossing Phase 1	Completed
Caltrans Permit I-5 Crossing	2028
Caltrans Permit - Stockdale Hwy Crossing	2028
Incidental Take Permit - CDFW	2027
County of Kern - Encroachment Permit	2028
Kern County Environmental Health Dept - Well Drilling Permits	2027
Outlet Canal Crossing - Permits and Approvals	2027
Army Corps of Engineers	
Regional Water Quality Control Board	
California Dept of Fish and Wildlife	
DWR Turnout	
State Parks - Tule Elk Preserve	
Central Valley Flood Protection Board	
Agreements	2026/27
Article 21 Agreement between KCWA and Rosedale	
Article 21 Agreement between DRWD/ IRWD/ KCWA /DWR	
Pulse Flow Exchange Agreement between DWR/ KCWA/ DRWD/ GBJPA	
DWR/ KCWA Turnout Agreement	

California Dept of Fish and Wildlife - Public Benefits Agreement	
DWR – Public Benefits Agreement	
Right of Way and Easements	2027
Executed Right of Way and Easements for Conveyance	
California Dept of Fish and Wildlife	
Kern Water Bank Authority	
Kern County Water Agency	

Coordination for Agreement(s)

Coordination for the Pulse Flow and Public Benefit Agreements is ongoing with DWR, California Department of Fish and Wildlife (CDFW), and State Water Project (SWP) Contractors. Updated CalSim 3 modeling of the revised project and proposed exchange was completed in December 2025 and will be used to support those discussions in early 2026. Meetings with SWP Contractor partners, Kern County Water Agency (KCWA) and Dudley Ridge Water District (DRWD), continue to develop and refine how the pulse flow exchanges for environmental benefits will be structured. Coordination with the Kern County Water Agency and DWR for the necessary approvals and agreements to construct and operate the proposed turnout and conveyance canal are also ongoing. The GBJPA expects to secure all approvals and agreements by early 2028.

E. Technical Studies

The GBJPA has conducted a series of technical studies to support implementation of the Kern Fan Project. Specifically, a series of 11 technical memoranda (TM) were prepared during the development of the PDR. These TM include detailed information on the Project's phased development, project alternatives, and preferred alignments. These technical memoranda and studies provide documentation of the project location, hydraulic modeling, capital cost estimates, and the most current expected project schedule. MBK Engineers also performed technical studies to estimate the Project performance using the CalSim II model and have recently updated the Project model to CalSim 3. MBK Engineers continue to work on refinements of the model and are coordinating with CDFW on the expected Project performance which will be used to support the public benefit agreements.

Reimbursable Cost: $105,300

Estimated Future Eligible Cost: $22,400

F. Project Management

Phase 1 Project Management activities include environmental documentation, permitting, agreement coordination, as well as other Project support tasks. Reimbursable costs to date include administration of the GBJPA and associated support tasks. Estimated future eligible costs include development and submittal of quarterly reports, invoicing, coordination with federal and state agencies, coordination with Project partners, future development of project completion reports, as well as ongoing project

management for Phase 1 and Phase 2 activities of the Kern Fan Groundwater Storage Project.

Reimbursable Cost: $315,400

Estimated Future Eligible Cost: $152,500

G. Engineering Design

The Project will be used to store surplus State Water Project (SWP) and federal Central Valley Project (CVP) water and other supplies as available in wet years for later use during dry years. Engineering design for the multiple Project phases is expected to continue through 2027. In support of environmental documentation and Project permitting goals, Phase 1 work included recharge ponds, earthwork, materials testing, and conveyance infrastructure. Construction of Phase 1 demonstrates the success of the overall Kern Fan Project and serves as a key example of progress made to reach the Project goals.

Phase 1 of the Kern Fan Project included the acquisition of approximately 350 acres of land in Kern County for the construction and operation of recharge basins, recovery wells, well conveyance pipelines, and interconnections to existing conveyance facilities. To date approximately $877,800 has been spent on eligible reimbursable design work.

Design work for Phase 2 is currently underway and includes design of the proposed turnout, conveyance canal, recharge and recovery facilities. Future eligible costs for Phase 2 design work, based on estimates provided by Dee Jaspar and Associates, up to the maximum allowable amount are $1,567,365.

Reimbursable Cost: $1,122,900

Estimated Future Eligible Cost: $1,567,365

Early Funding Budget and Schedule

The following tables (Table 2, Table 3, and Table 4) present a summary of Kern Fan Project reimbursable costs for technical studies, environmental documentation, design, and permitting as well as expected future eligible costs. The GBJPA respectfully requests early funding in the amount of $5,571,000 to support continued progress in the implementation of the Kern Fan Project. The GBJPA's early funding request is 5% of the MCED that was updated on August 2025, in accordance with the WSIP regulations.

This funding, if awarded, will be used to complete environmental documentation, remaining technical studies, as well as facilitate coordination to obtain the required permits and execute the necessary agreements for the Kern Fan Project. The GBJPA has spent approximately $3 million (Table 2) on these tasks in reimbursable costs and expects to incur approximately $2.6 million (Table 3) on these tasks in the future. A schedule of expected completion dates is provided in Table 4 below.

Table 2. Reimbursable Costs

Kern Fan Project Reimbursable Costs	
Kern Fan Project Task Description	Reimbursable Cost (USD)
Preliminary Design Report	$417,100
Feasibility Study	$261,000
Environmental Documentation	$532,600
Permitting and Agreements	$244,500
Technical Studies	$105,300
Phase 1 Project Management	$315,400
Phase 1 Engineering Design	$1,122,900
Total Eligible Costs	**$2,998,800**

Table 3. Expected Eligible Future Costs

Kern Fan Project Eligible Future Costs	
Kern Fan Project Task Description	Future Eligible Cost (USD)
Preliminary Design Report	$-
Feasibility Study	$-
Environmental Documentation	$540,000
Permitting and Agreements	$289,800
Technical Studies	$22,400
Project Management	$152,500
Engineering Design	$1,567,365
Total Eligible Costs	**$2,572,065**

Table 4. Kern Fan Groundwater Storage Project Early Funding Request and Schedule

Total Kern Fan Project Early Funding Request		
Kern Fan Project Task Description	Total Early Funding Request (USD)	Completion Date
Preliminary Design Report – Phase 1	$417,100	2019
Feasibility Study	$261,000	2023
Environmental Documentation	$1,072,600	2027
Permitting and Agreements	$534,300	2028
Technical Studies	$127,700	2025
Project Management	$467,900	2027
Engineering Design	$2,690,265	2027
Total Eligible Costs	**$5,570,865**	**2027**

Next Steps

Construction of the recovery facilities on Phase 1 is currently underway and is expected to be completed in 2026. Key next steps for the Kern Fan Groundwater Storage Project include:

- Development of the draft public benefits agreements with CDFW and DWR;
- Continued coordination with DWR and KCWA for agreement on a selected turnout;
- Completion of additional environmental documentation for the proposed turnout and conveyance canal from the California Aqueduct; and
- Obtain the necessary permits, approvals and easements.

While design continues for recharge and recovery facilities on Phase 2, the GBJPA expects to acquire the land for Phase 2 by 2027. The GBJPA expects to complete the necessary Kern Fan Project environmental documentation by 2027 and obtain the necessary permits, agreements, approvals, and easements for the project by early 2028. Early funding will help alleviate the financial burdens associated with increasing costs and ensure continued progress in implementing the Kern Fan Project.