

# Kern Fan Groundwater Storage Project Update

April 17, 2024



# Presentation Overview



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# Introduction



Established in 1959

Provides water replenishment to over 27,500 acres of irrigated agricultural lands in Kern County



**Irvine Ranch  
Water District**

Established in 1961

Provides retail water, sewage and recycled water service to over 181 square miles in Orange County



Rosedale and IRWD have a long, successful history of jointly developing groundwater storage projects.

Rosedale and IRWD formed the Groundwater Banking JPA to develop and implement the Kern Fan Groundwater Storage Project

# Kern Fan Groundwater Storage Project Overview

- Implemented by the Groundwater Banking Joint Powers Authority
- A new groundwater storage facility with 100,000 AF of storage
- Stores Article 21 water otherwise lost to ocean
- Provides water supply, ecosystem and emergency benefits
- Operations coordinated through:
  - State Water Contractors
    - Kern County Water Agency
    - Dudley Ridge Water District
  - Department of Water Resources

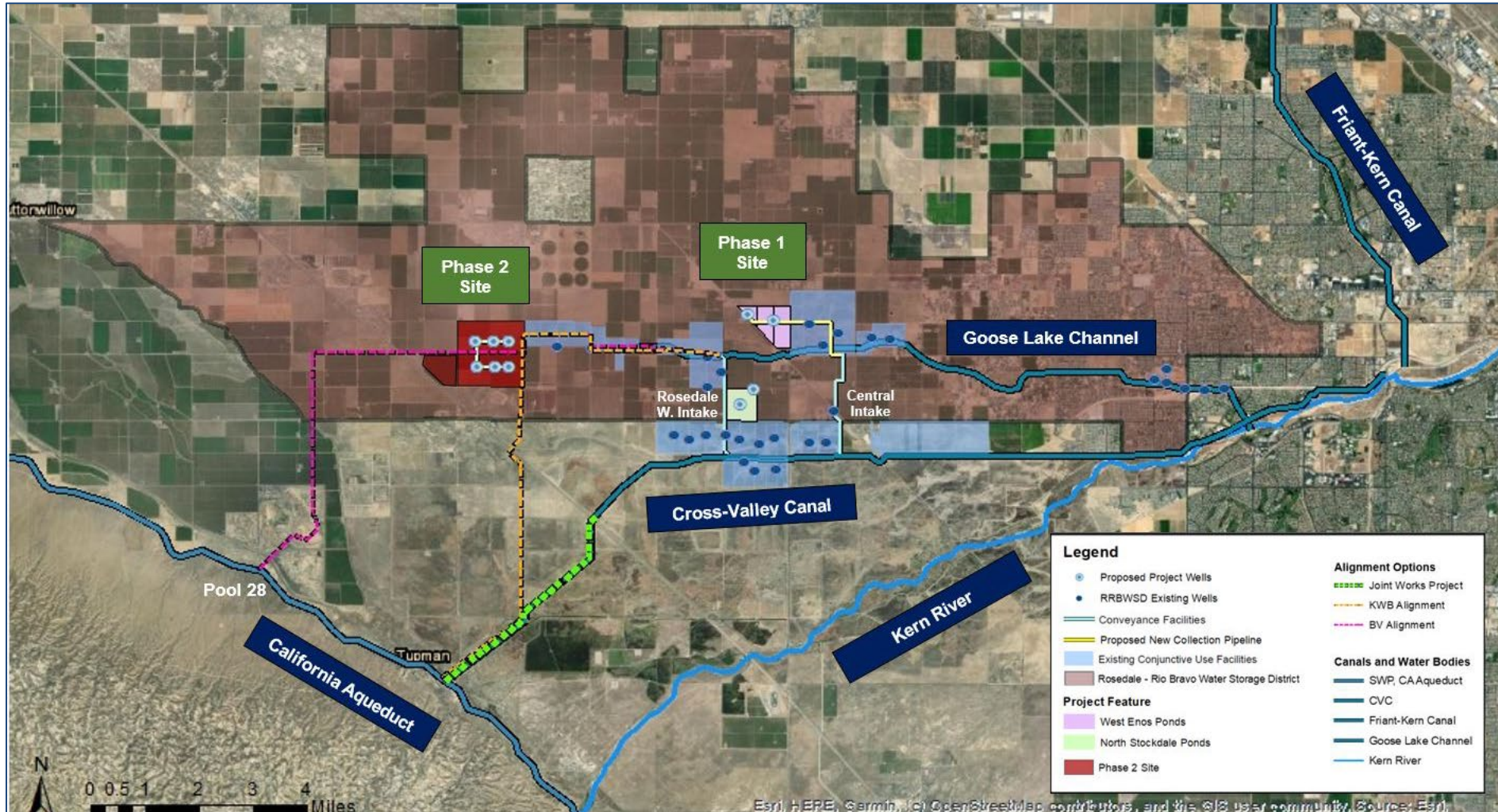


# Kern Fan Groundwater Storage Project Facilities

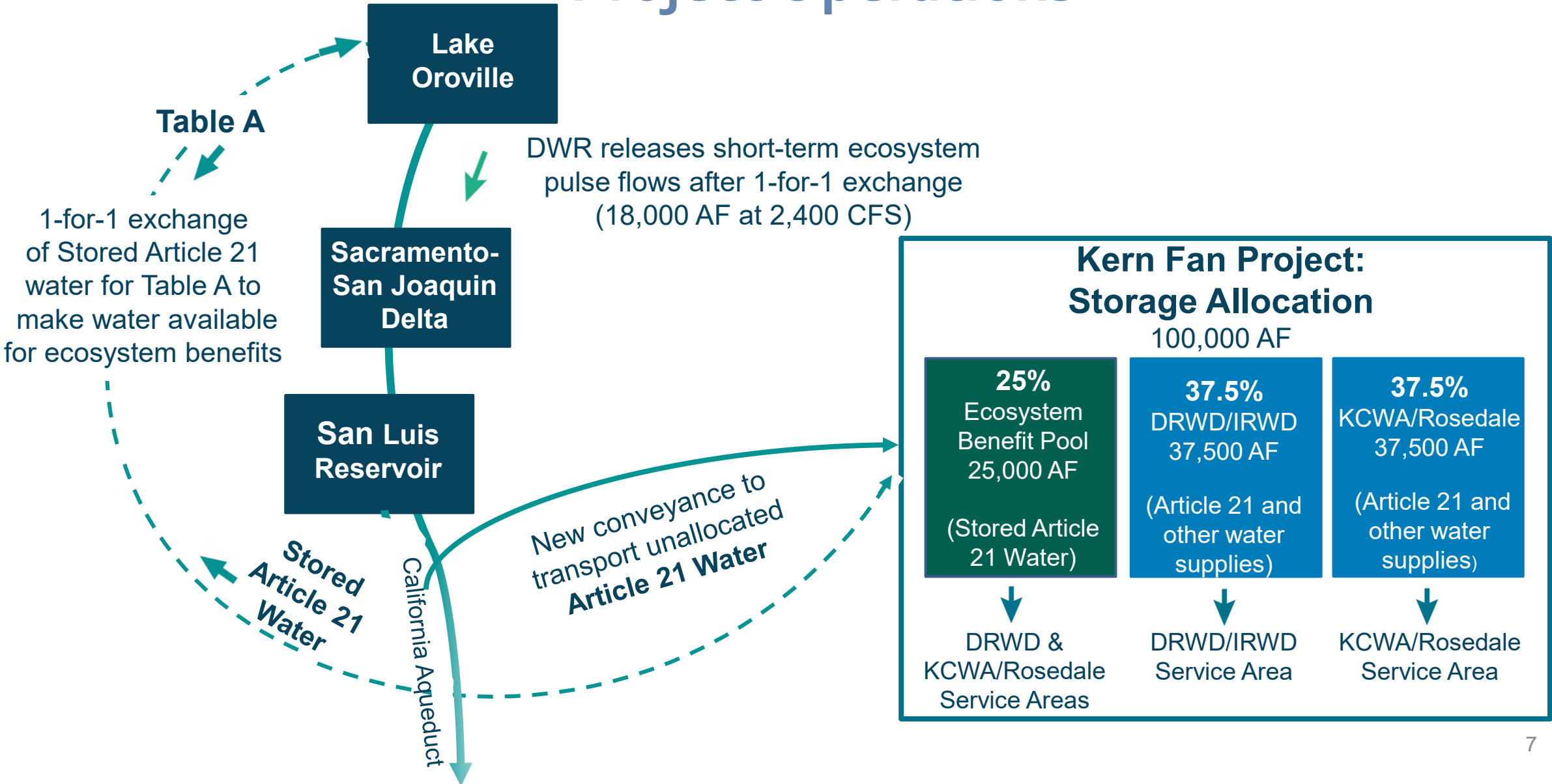
- New Conveyance from California Aqueduct
  - New turnout
  - Up to 500 cfs capacity
- 1,050 Acres of Recharge Basins
  - Annual recharge capacity of 100,000 AF
  - 100,000 AF storage capacity
- 12 Recovery Wells
  - Combined capacity up to 70 cfs



# Proposed Project Facility Location Map



# Project Operations



# Project Benefits



## **(Public) Fish Species Recovery**

Pulse flows for  
Winter and  
Spring-Run  
Chinook, Green  
Sturgeon,  
Steelhead Trout



## **(Public) Incidental Wetlands**

Habitat along  
Pacific Flyway  
for waterfowl,  
shorebirds, and  
raptors



## **(Public) Emergency Response**

Dedicated water  
supply for  
extended  
drought and/or  
Delta levee  
failure event



## **(Non-Public) Water Supply**

For M&I use  
and Agricultural  
use



## **(Non-Public) Groundwater Level Increase**

Improves  
groundwater  
levels in Kern  
Sub-Basin



## **(Non-Public) Agricultural Impact**

Preservation of  
permanent  
agricultural  
crops



# Project Funding

- Under the GBJPA, both IRWD and Rosedale have established funding plans to cover project costs
- IRWD will fund its share of the Project with connection fees, GO bond related property taxes, and one percent property taxes
- Rosedale will fund its share of the Project through revenue bonds

<b>Funding Source</b>	<b>Amount (\$ million)</b>
Groundwater Banking JPA	\$ 273.8
State of California	\$ 89.1
Bureau of Reclamation	\$ 4.7
<b>Total:</b>	<b>\$ 367.6</b>

# Phase 1 West Enos Recharge Facilities

## Phase 1 Pilot

- Pilot recharge basins constructed on West Enos in Spring 2023
  - Took advantage of hydrologic conditions
  - Informed design of permanent facilities

## Permanent Phase 1 Facilities

- Construction of permanent West Enos recharge facilities began February 2024



# Permits Required to Initiate Phase 2 and Deliver Public Benefits to the Delta

Permits	Start	Complete
Petition for Instream Flow Dedication (1707)	Oct-25	Oct-25
Outlet Canal Crossing - Permits and Approvals:	Nov-24	Feb-26
<i>Army Corps of Engineers</i>		
<i>Regional Water Quality Control Board</i>		
<i>California Dept of Fish and Wildlife</i>		
<i>DWR Turnout</i>		
<i>State Parks Tule Elk Preserve (depends on alignment)</i>		
<i>Central Valley Flood Protection Board</i>		
Caltrans Permit I-5 and Stockdale Hwy Crossings	Nov-25	Jul-26
Incidental Take Permit - CDFW	Nov-25	Jul-26
County of Kern - Encroachment Permit	Jul-26	Sep-26

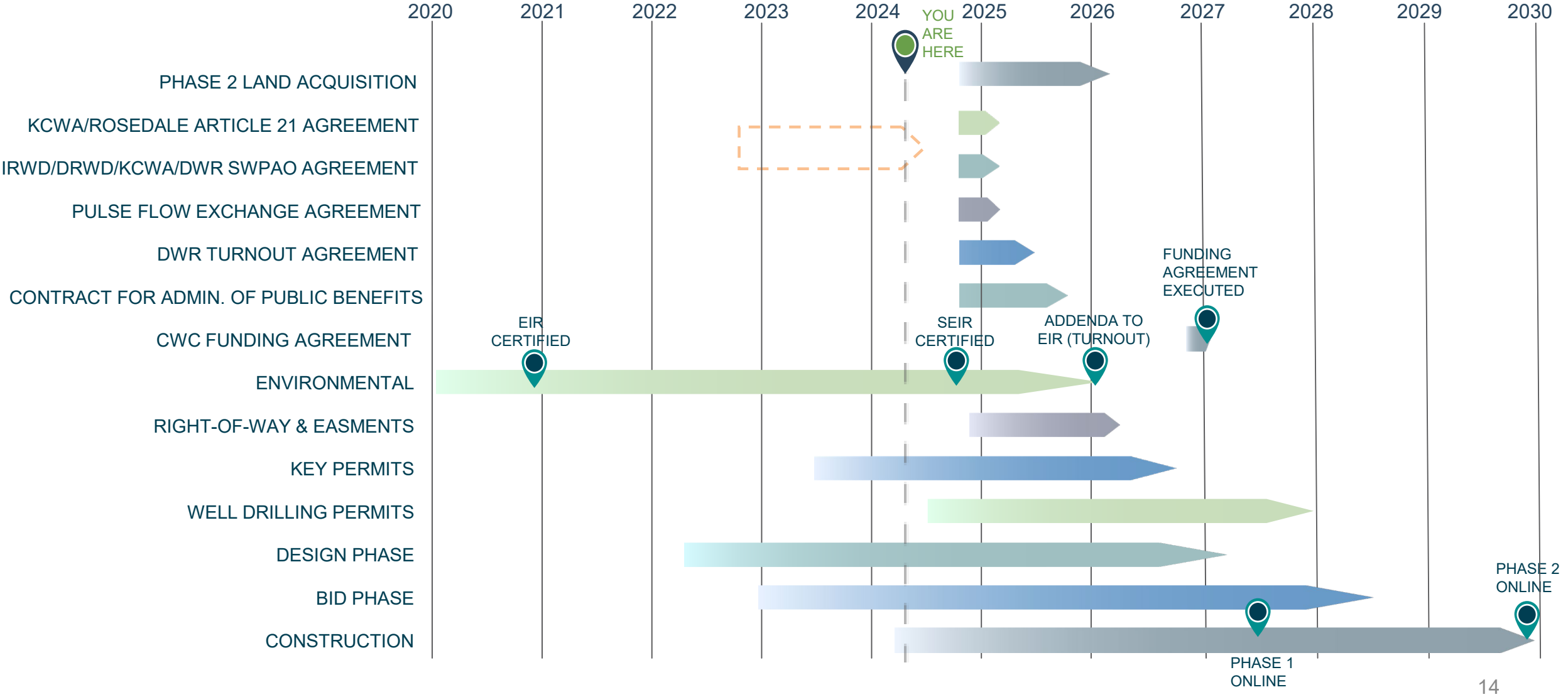
# Right of Way and Easements Required to Initiate Phase 2 and Deliver Public Benefits to the Delta

Right of Way and Easements	Start	Complete
Executed Right of Way and Easements for Conveyance	Dec-24	Mar-26
<i>California Dept of Fish and Wildlife</i>		
<i>Kern Water Bank Authority (depends on alignment)</i>		
<i>U.S. Fish and Wildlife</i>		
<i>Kern County Water Agency</i>		
<i>Buena Vista Water Storage District (depends on align)</i>		

# Agreements Required to Initiate Phase 2 and Deliver Public Benefits to the Delta

Agreements	Start	Complete
Article 21 Agreement between KCWA and Rosedale	Oct-24	Jan-25
Article 21 Agreement between DRWD, IRWD, KCWA, DWR	Oct-24	Jan-25
Pulse Flow Exchange Agreement between DWR, KCWA, DRWD, GBJPA	Oct-24	Jan-25
DWR/KCWA Turnout Agreement	Oct-24	May-25
CDFW - Public Benefits Agreement	Oct-24	Aug-25

# Project Schedule Updates



# Contact Information

Fiona Sanchez

Groundwater Banking JPA

Project Manager

Office (949) 453-5325

[sanchezf@irwd.com](mailto:sanchezf@irwd.com)

Dan Bartel

Groundwater Banking JPA

General Manager

Office (661) 589-6045

[dbartel@rrbwsd.com](mailto:dbartel@rrbwsd.com)