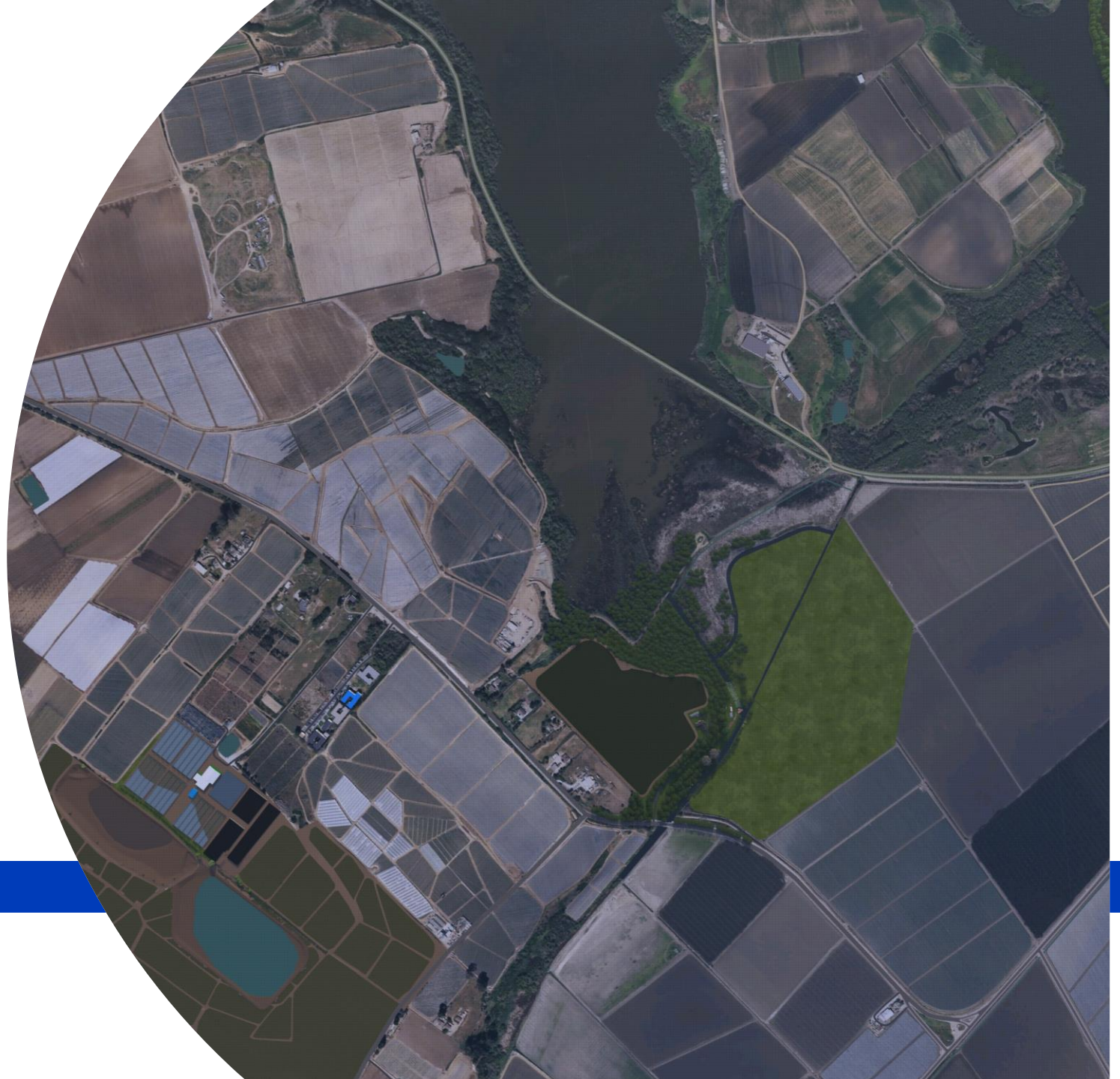
Pajaro Valley Water
Management Agency

Watsonville Slough System Managed Aquifer Recharge and Recovery Project

Board Update

March 19, 2025

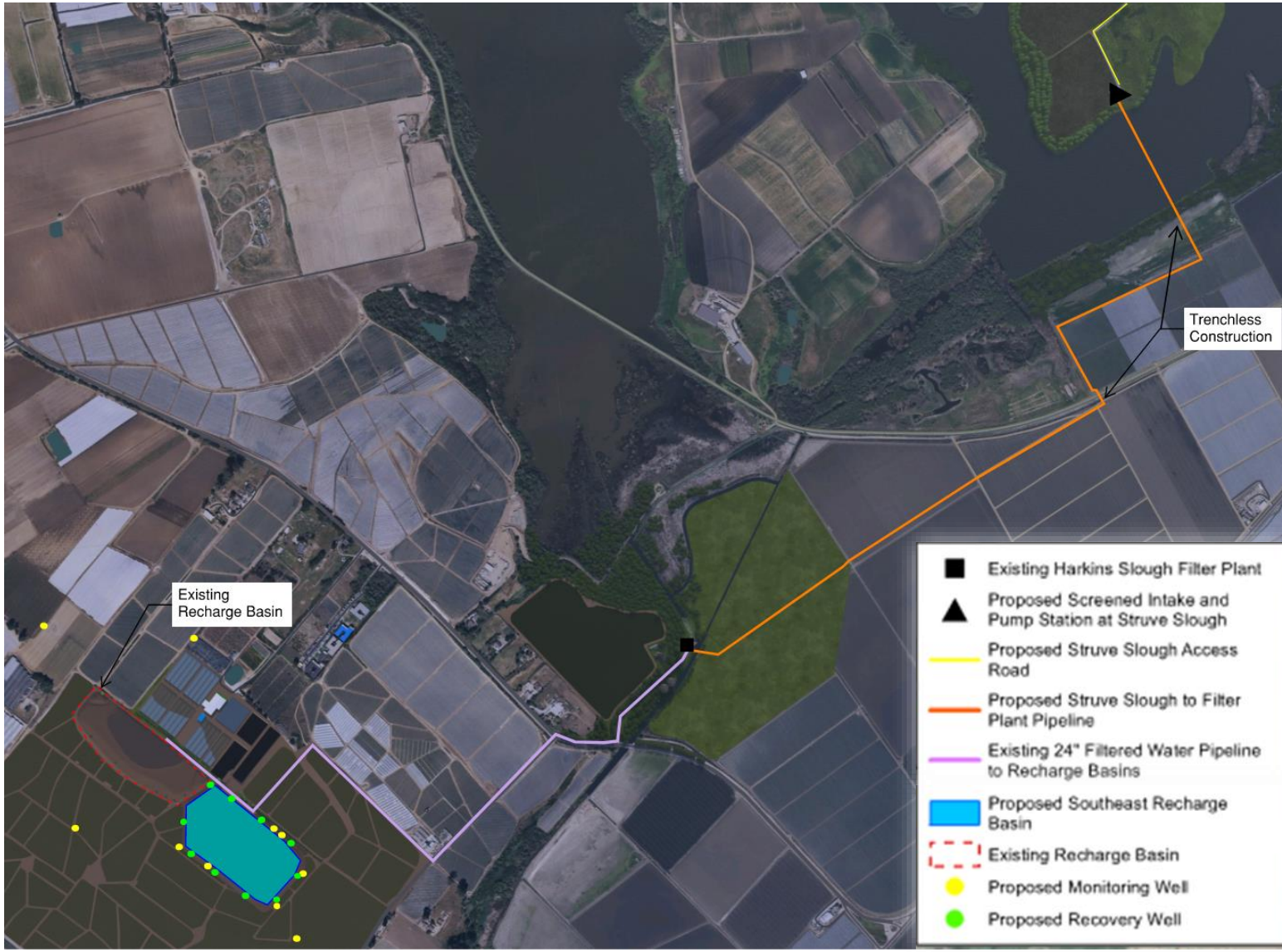


Watsonville Slough System Managed Aquifer Recharge and Recovery Project Update

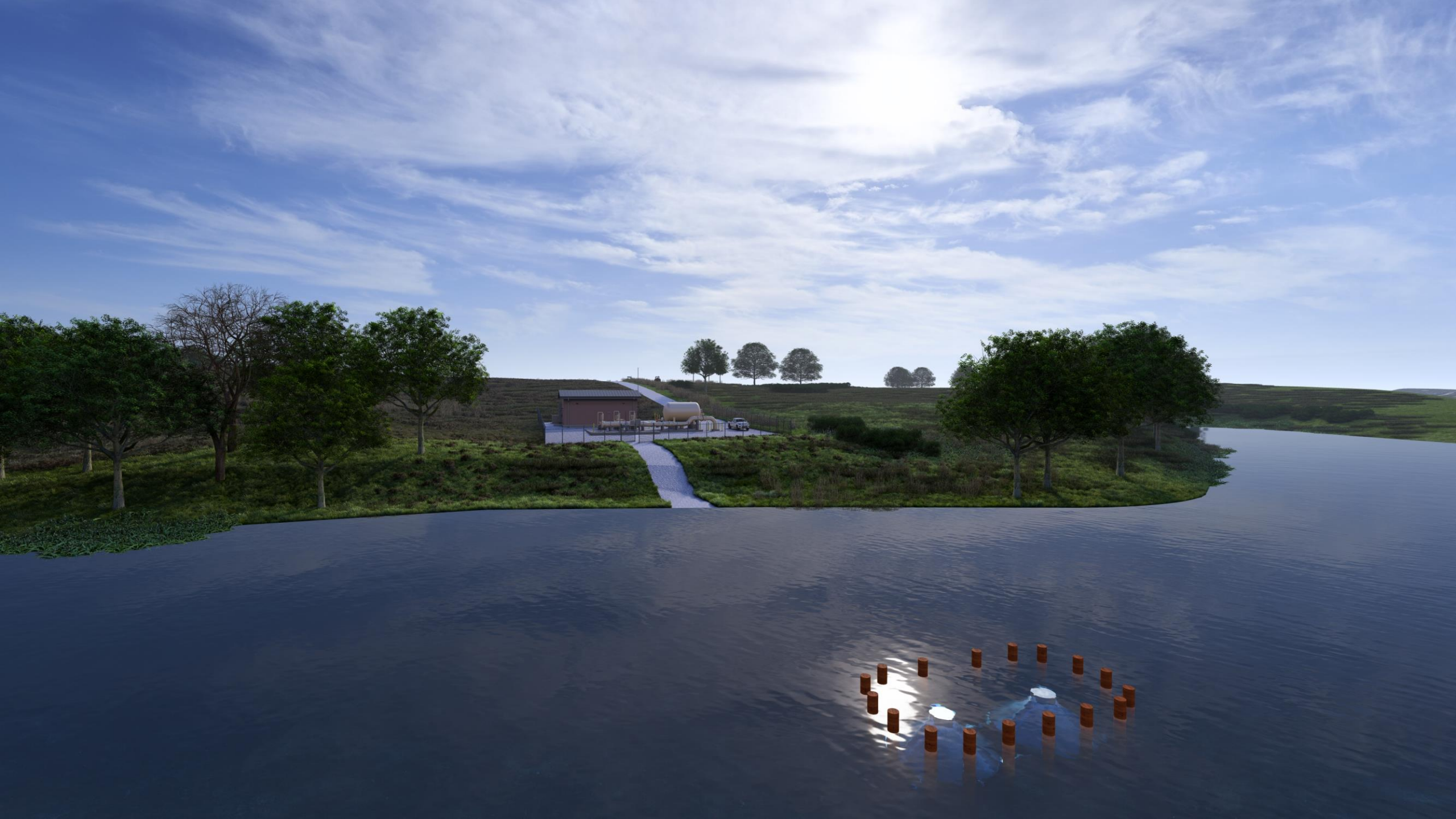
- Project Overview
- Highlights of proposed facilities
- Project cost, schedule, and risk
- Environmental Overview
  - Consider adoption of Resolution to Approve EIR Addendum

Project Overview

- Struve Slough Intake
- Struve Slough to Harkins Pipeline
- Harkins Intake Improvements
- Existing Recharge Basin Electrical and Controls Improvements
- SE Recharge Basin and Recovery Wells



Struve Slough Intake Facilities



Intake Screens – Two 10’ diameter Cone Screens

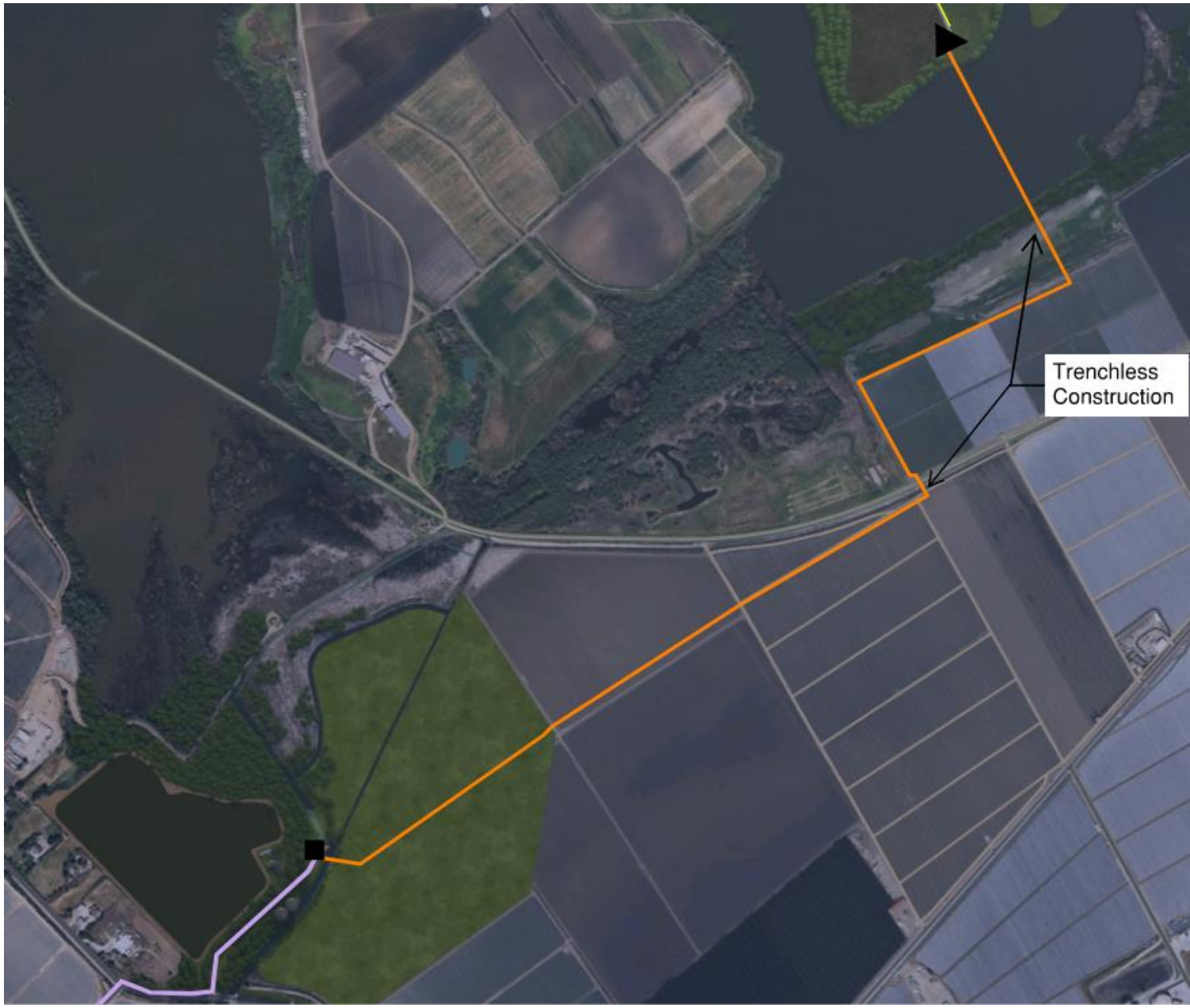
Struve Slough Intake Pump Station

- Design Capacity = 25 cfs (11,000 gpm)
  - Two large pumps
  - One small pump
- Small pump allows for operation during times when water rights permit limits intake to 3 cfs

Struve Slough to Harkins Pipeline

Pipeline Elements

- 8,062 LF of 30-inch diameter HDPE pipe
- Easement negotiations in progress
  - » Permanent
  - » Temporary Access
- Two trenchless crossings
  - » Struve Slough (Horizontal Directional Drilling)
  - » Railroad tracks (Bore and Jack)



Harkins Intake Improvements

Harkins Intake Improvements

- One 8-foot diameter screen
- Intermediate pump station mechanical upgrades
- Filter plant demolition

Existing Recharge Basin Electrical and Controls Upgrades

Existing Equipment

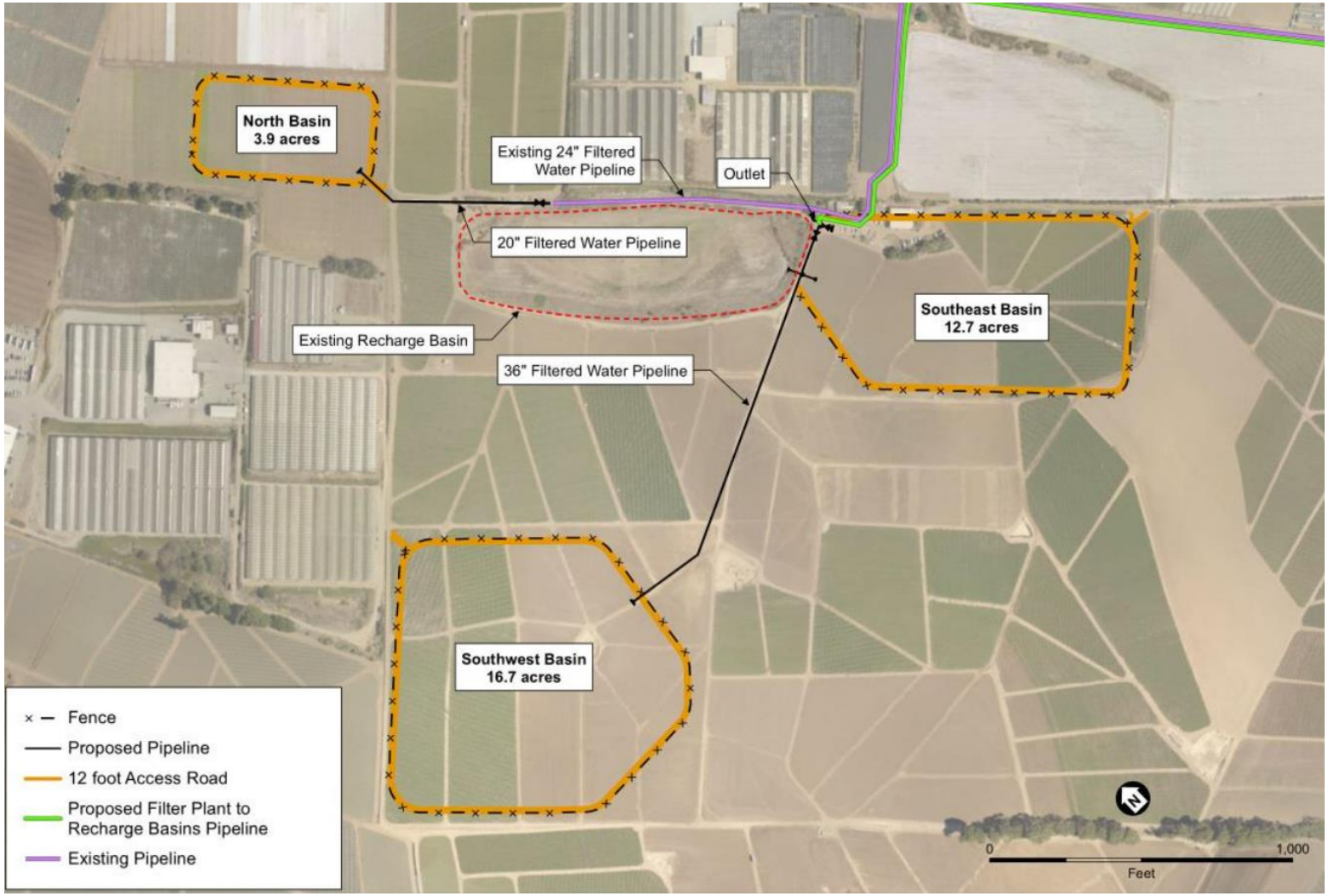
- Replacing all electrical and controls equipment
- Installed in 2002.
- Exterior and interior of equipment is severely corroded.

New Southeast Recharge Basin and Recovery Wells

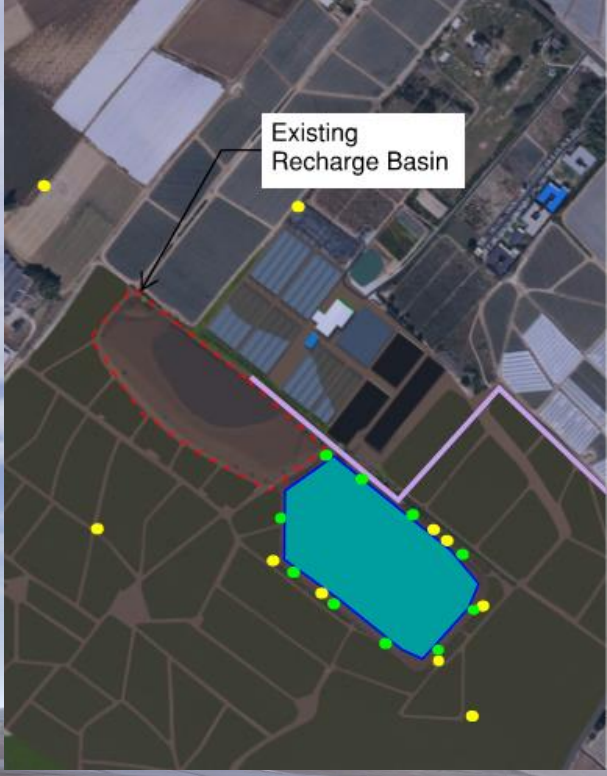
Recharge Basin Siting Locations

Basin	Wetted Acres	Storage (AF)
North	3.9	20
Southwest	16.7	77
Southeast	12.7	128

- Southeast basin selected based on:
  - » Site has bowl-like topography
  - » Better soil conditions
  - » Least earthwork per storage volume



Recovery and Monitoring Wells



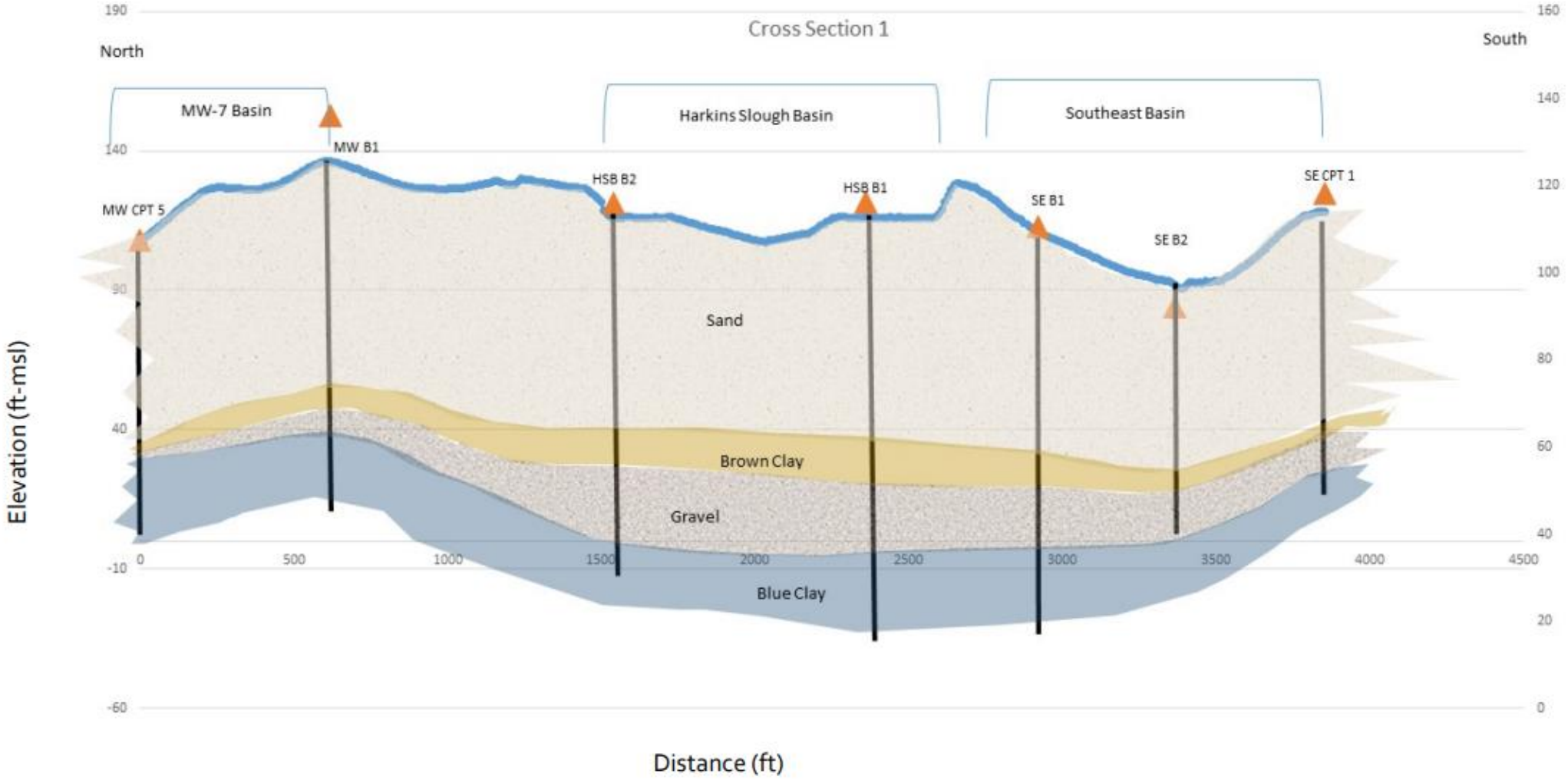


Figure 12 Cross Section 1 North to South

Project Cost, Schedule & Risk

Project Construction Cost Estimate

General Conditions	$	3.6 Million
Harkins Slough Intake and Pump Station	$	1.6 Million
Monitoring & Recovery Wells and Existing Basin EI&C Upgrades	$	4.7 Million
Struve Slough Intake Structure	$	6.3 Million
Struve Slough Pipeline	$	6.7 Million
Struve Slough Electrical Building	$	1.7 Million
Southeast Recharge Basin including Piping and EI&C	$	6.8 Million
Sub-total Direct Cost	**$**	**31.3 Million**
Insurance (2.9%)	$	0.9 Million
General Contractor Overhead & Profit (18%)	$	5.8 Million
Performance & Payment Bond (1.25%)	$	0.5 Million
Design/Bid Risk Contingency (10%)	$	3.9 Million
Total Estimated Construction Cost	**$**	**42.3 Million**

Notes: Construction Midpoint of January 2027

Anticipated Cost Range: $36M to $51M

Proposed Project Schedule

- 100% design submittal completed September 2024
- Bid Set to be completed when permit conditions are finalized
- Bidding – anticipated in Fall 2025
- Anticipated Construction Phase – January 2026 thru February 2028
- Other project requirements in progress:
  - Property right acquisitions
  - Water rights
  - Environmental permitting

Project Risks

- Procurement of property rights – potential for schedule delay
- Permits – potential for schedule delay
- Cost uncertainty – potential for cost increase
- Water recovery efficiency from recharge basins

Environmental Overview

Environmental Overview

March 19, 2025

Project Background

- Draft EIR published September 2020
- Final EIR certified January 2021
- Design changed/progressed since certification of EIR

Recently Completed and Ongoing Work

- ESA conducted the following updated surveys:
  - Updated wetland delineation (November 2023)
  - Updated cultural resources surveys (October and November 2023)

- ESA prepared updated versions of the following reports:
  - Aquatic Resources Delineation Report (November 2024)
  - Cultural Resources Survey Report (January 2024)
  - CEQA Addendum (March 2025)

- Supported EPA's completion of NEPA for WIFIA funding

- Commenced design of CA red-legged frog mitigation pond

Reminder of Environmental Impacts Evaluated in EIR

Less than Significant	Less than Significant with Mitigation	Significant and Unavoidable
• Air Quality and Greenhouse Gas Emissions • Energy, Utilities, Public Services, and Recreation	• Surface Water, Groundwater, and Water Quality • Biological Resources • Geology and Soils • Hazards and Hazardous Materials • Noise and Vibration • Transportation and Traffic • Cultural Resources • Tribal Cultural Resources • Aesthetic Resources	• Land Use and Agricultural Resources (Conversion of Important Farmland)

Permitting Status

Agency	Permit/Approval	Status
US Army Corps of Engineers	CWA Section 404 Nationwide Permit	Submitted January 2025
US Fish and Wildlife Service	Biological Opinion	Revised Biological Assessment submitted to USFWS in December 2024
California Office of Historic Preservation	National Historic Preservation Act Section 106 Consultation	Concurrence received February 2024
California Department of Fish and Wildlife	FGC Section 1602 LSAA	Application to be submitted spring 2025
Regional Water Quality Control Board	CWA Section 401 Water Quality Certification	Application to be submitted spring 2025
Santa Cruz County	Coastal Development Permit	Application to be submitted spring 2025

Recommended Board Action

- Staff recommends that the Board take the following actions:
  - Adopt Resolution 2025-03 Approving the Addendum to the Watsonville Slough System Managed Aquifer Recharge and Recovery Project Environmental Impact Report (SCH No. 2019059130).
  - Adopt Resolution 2025-04 Selecting, Approving, and Adopting Modifications to the Watsonville Slough System Managed Aquifer Recharge and Recovery Project.

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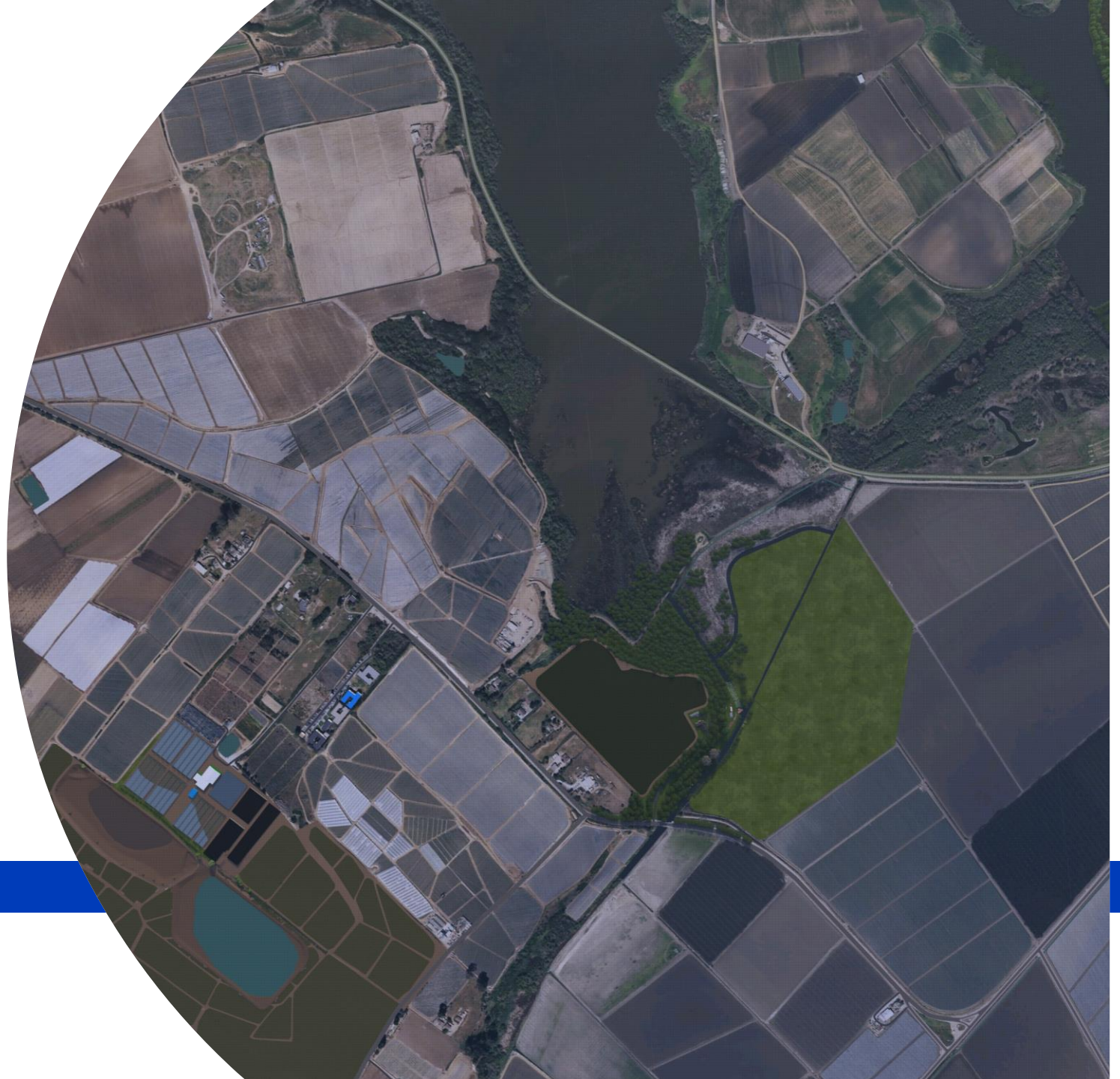
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