



Harvest Water

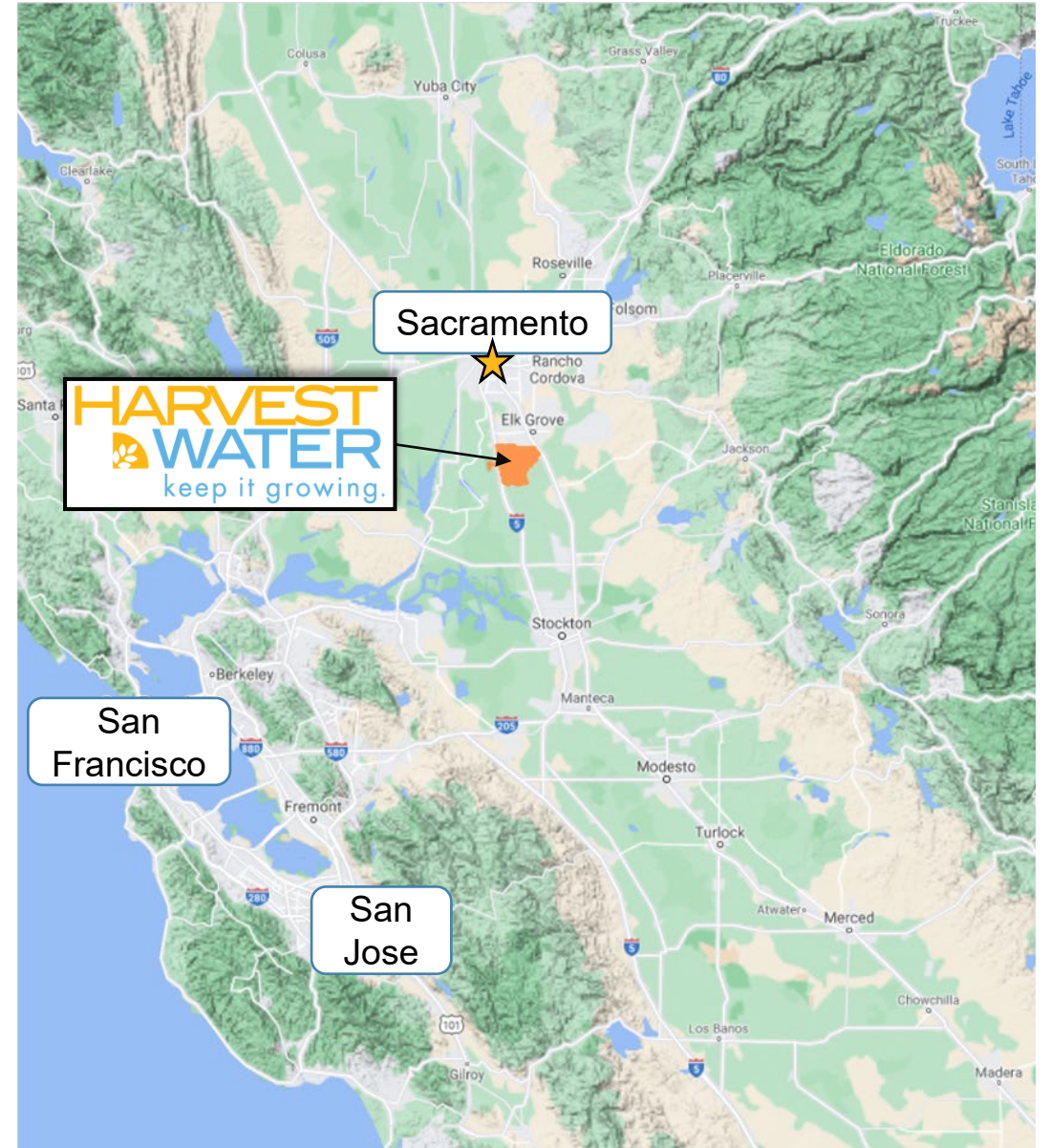
Conjunctive Use and Ecological Resilience Work Together

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District

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Topics Covered Today

- Program Overview
- WSIP-funded benefits
- Additional Benefits
- Program Outreach and Support
- Program Updates



Program Overview





Protecting the Sacramento River Watershed

Our Mission: *Regional San protects public health and the environment by conveying, treating, and recovering resources from wastewater responsibly and cost-effectively.*

Our Vision: *Regional San is a leader in environmental stewardship and a trusted partner in regional sustainability.*

Regional San Operations

- ◆ Provides wastewater conveyance and treatment for 1.6 million people in the Sacramento Region
- ◆ Treats 130 million gallons of wastewater per day, protecting human health and the environment
- ◆ Implementing \$1.7B EchoWater treatment plant upgrade on schedule and on budget (to be complete 2023)



Regional San & Stewardship



- Manages 2,150 acres of open space and wildlife habitat, known as the Bufferlands
 - Enhanced seasonal and permanent wetlands
 - Doubled size of riparian forest
- Manages Nicolaus Dairy interpretive center
 - Community partnerships to restore and protect historic dairy farm
 - Elementary school education program and field trips

Harvest Water –

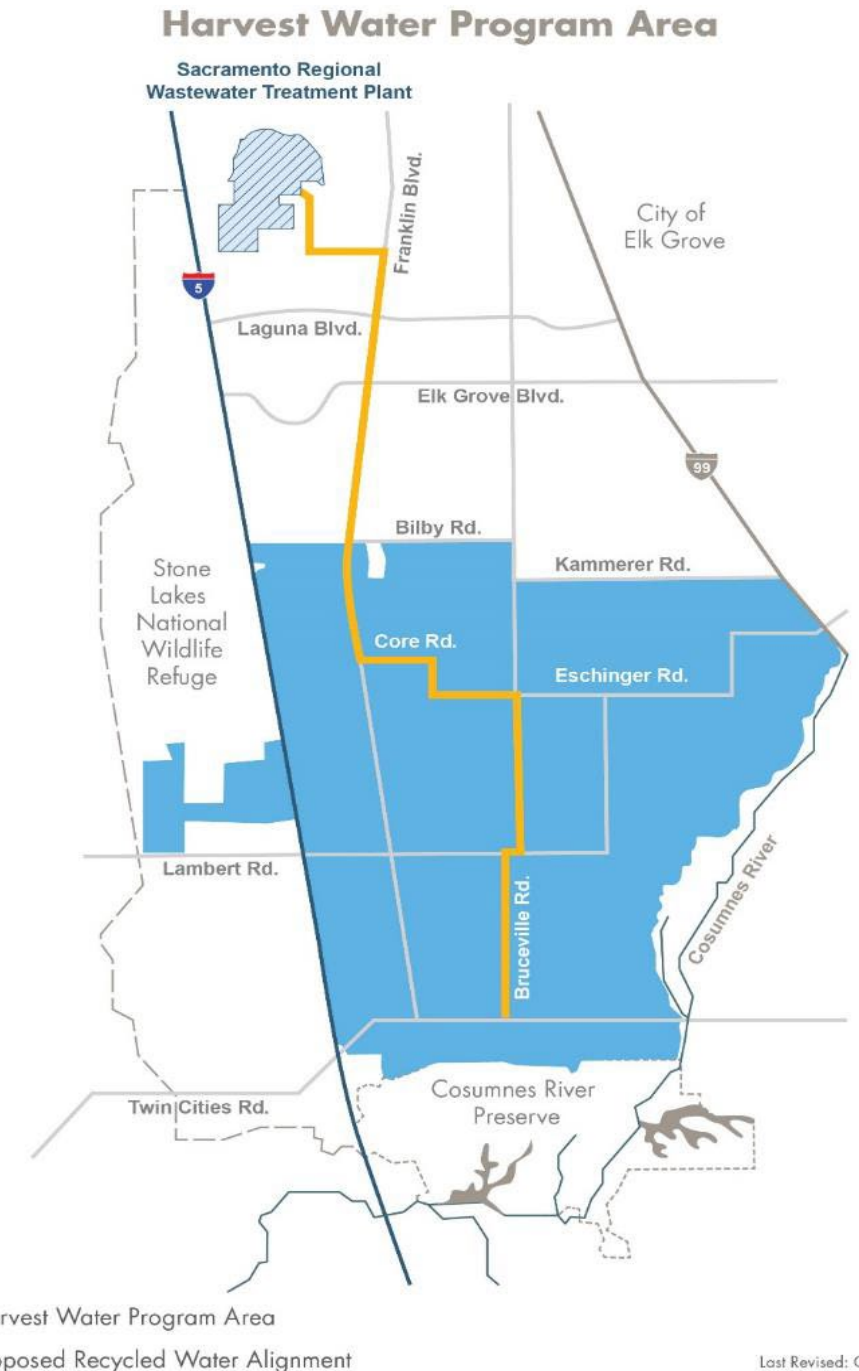
An opportunity for California to invest in a water storage project that is:

- Drought resistant and not rain-dependent
- Resilient to the impacts of climate change
- Designed to optimize substantial public and ecosystem benefits
- Consistent with the objectives and intent of Proposition 1



Harvest Water Overview

- Delivers up to 50,000 AFY of recycled water to over 16,000 acres
- Produces multiple public benefits
 - Groundwater restoration
 - Ecosystem improvements
 - Water quality improvements
 - Conjunctive use
 - Climate Resiliency
- Current MCED set at \$291.8 Million
- Qualified for full WSIP funding as a Conjunctive Use project
- Received the highest Relative Environmental Score and had lowest Implementation Risk in the WSIP Application Process

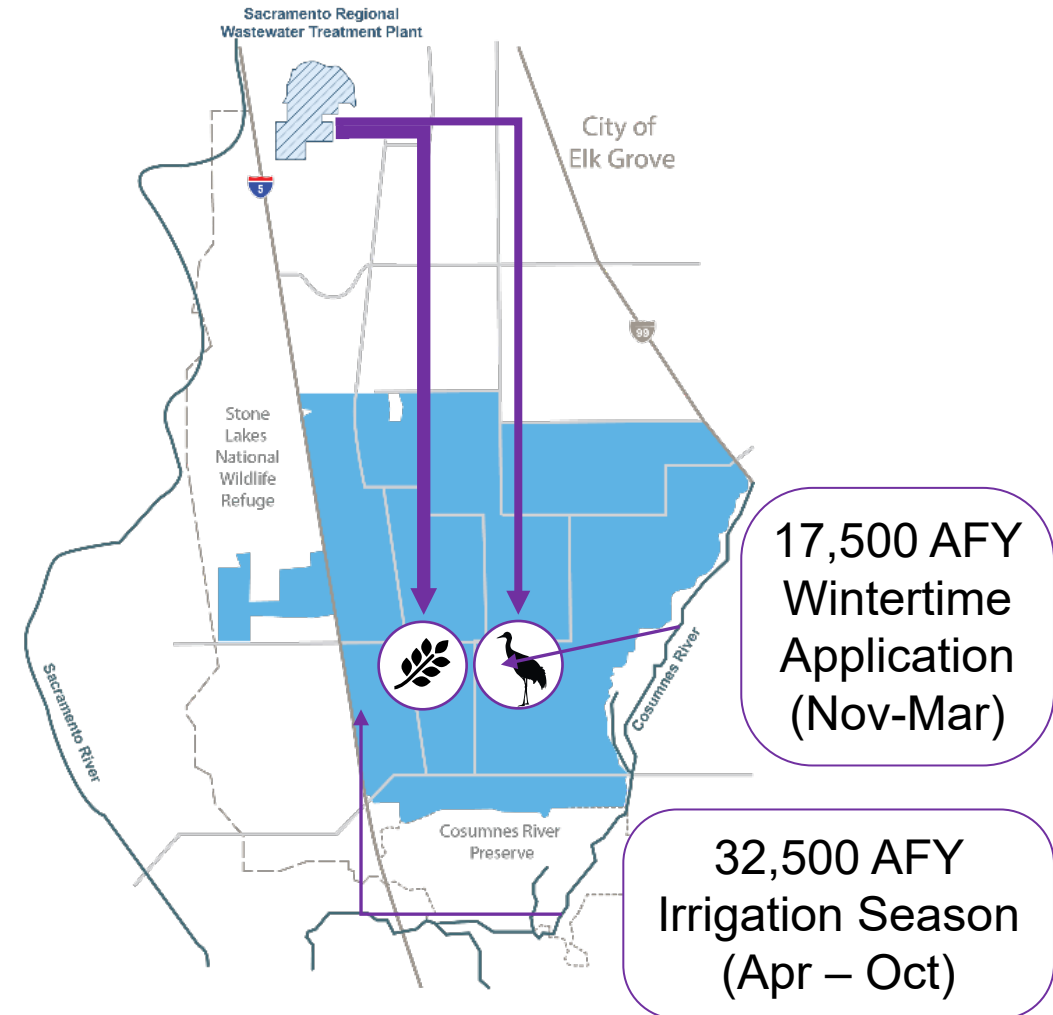


Facilitating Collaboration & Building Partnerships



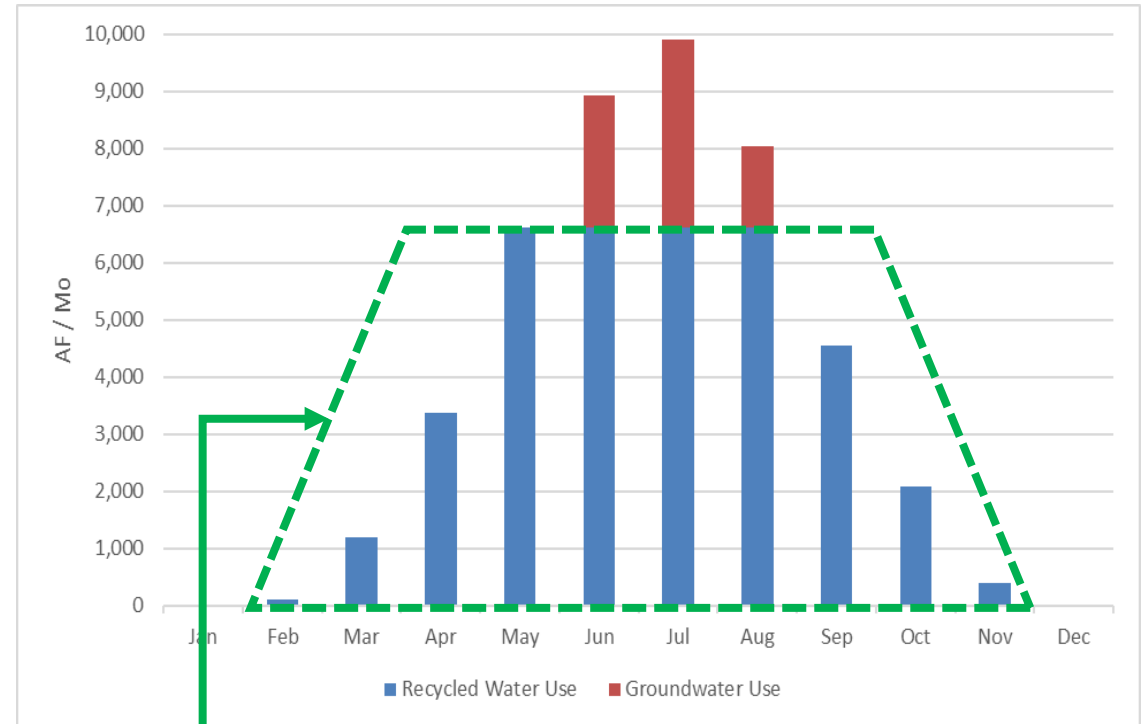
Harvest Water will Deliver up to 50,000 AF/Y

- 💧 32,500 AFY during traditional growing season (April to October)
 - 📦 Agronomic irrigation
 - Agricultural
 - Riparian habitat plant establishment
- 💧 Up to 17,500 AFY during wintertime application (November to March)
 - 📦 Agronomic irrigation
 - Cover and forage crops
 - Riparian habitat plant establishment
 - 📦 Sandhill crane habitat



Program Requires Conjunctive Use of Recycled Water and Groundwater

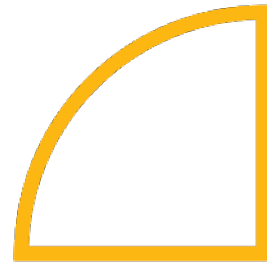
- ♣ Recycled water will offset a significant portion of local groundwater use, allowing groundwater storage to increase overtime
- ♣ Growers will need to use groundwater to meet peak summer demands
- ♣ This is known as *in-lieu recharge*



Groundwater not pumped =
in-lieu recharge =
32,500 AFY

Water Storage Investment Program

Harvest Water's
Public Benefits



Ecosystem and Water Quality Improvements



Additional 3,500 acres of Sandhill crane habitat, which could support up to 700 additional individuals



Additional 353 acres of vernal complex habitat, which supports many listed species



Longer migration window for Fall-run Chinook salmon due to increased streamflow volume in the Cosumnes River

Improved groundwater conditions and water delivery improves 5,000 acres of wetlands & riparian forests, including BLM/FWS lands



Reduced salinity load to Sacramento & Delta waterways

Virtual Tour

- Regional San virtual tour video of Harvest Water



Ecosystem and Water Quality Improvements

Recap



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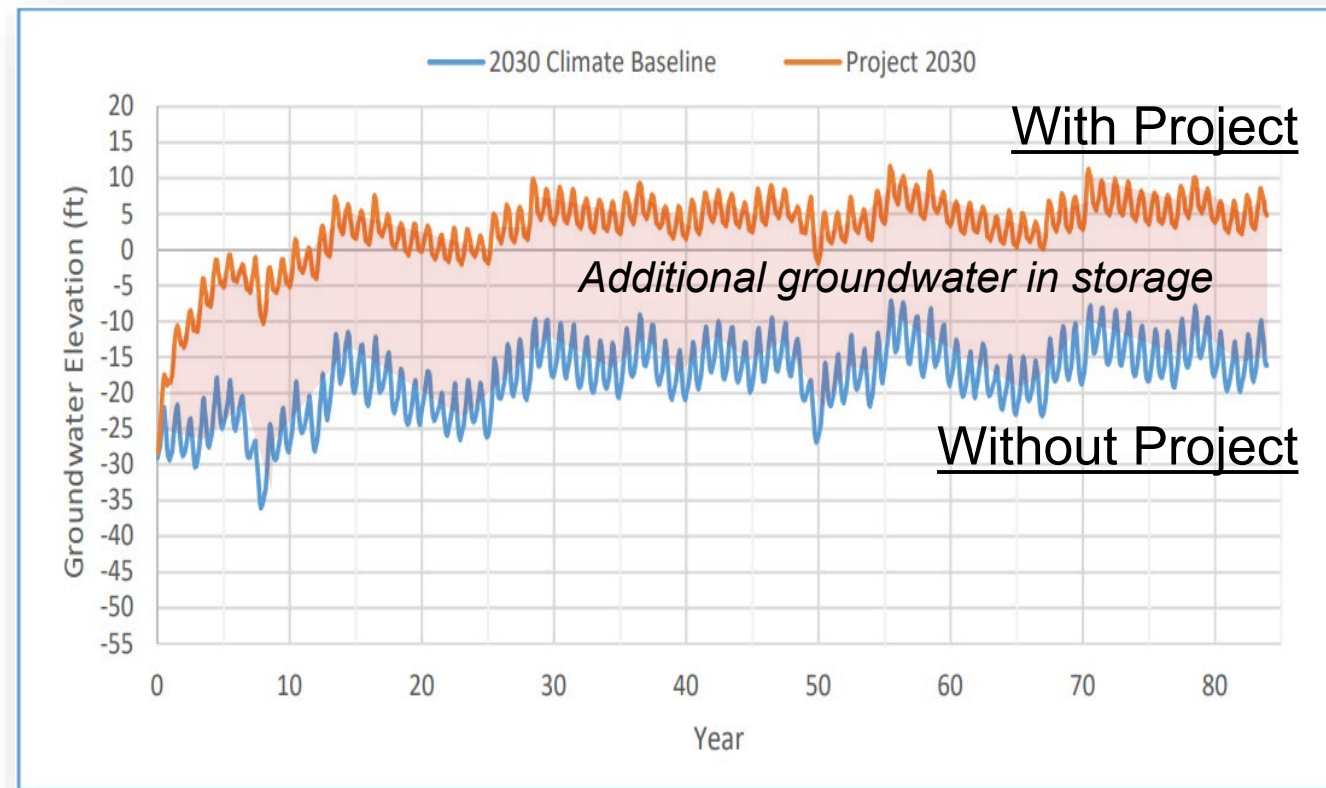
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Reduced salinity load to Sacramento & Delta waterways

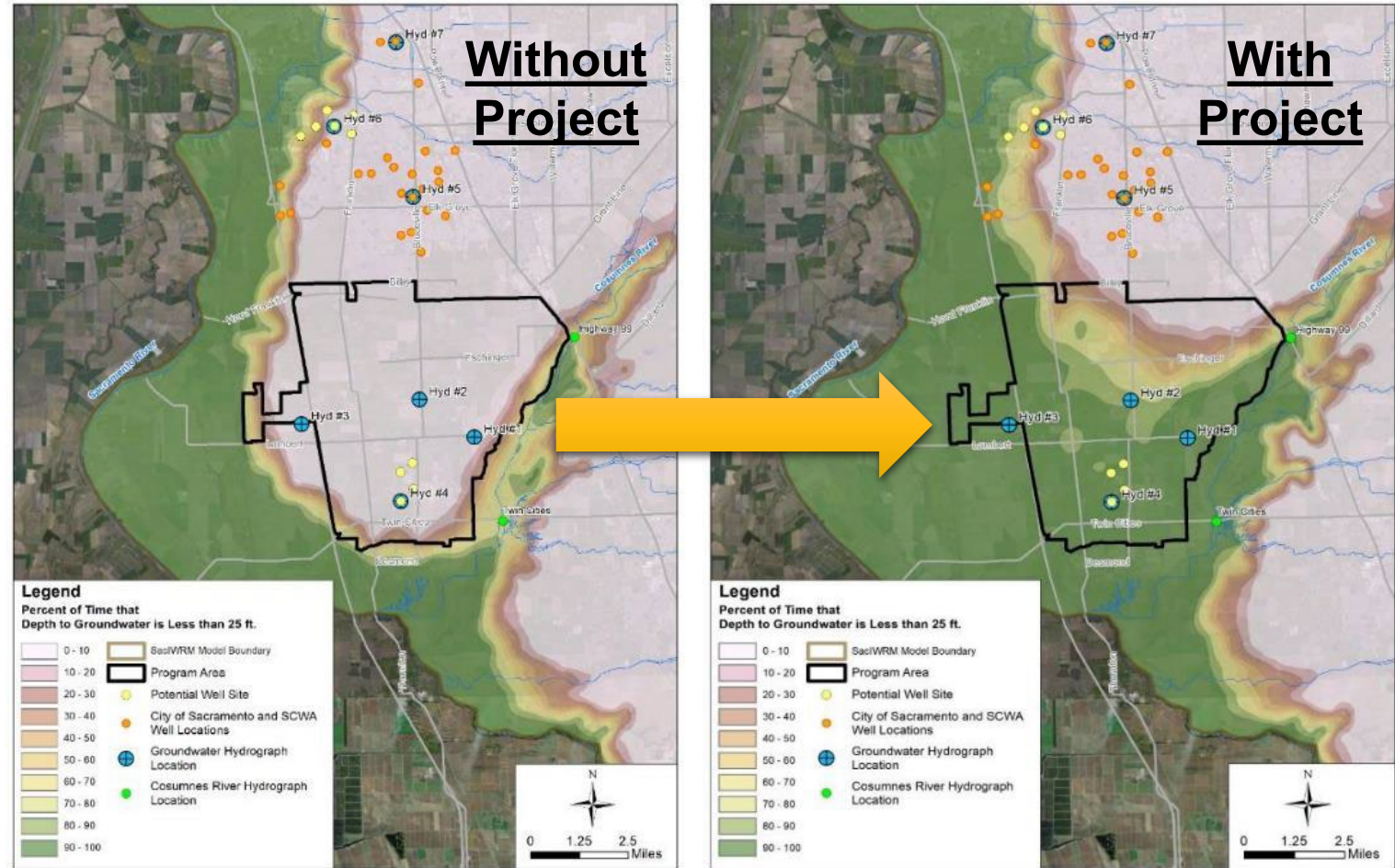
Recycled Water In-lieu Recharge Creates Significant Groundwater Benefits

- Restores groundwater levels up to 35 feet within 15 years
- Improves stream flows in the Cosumnes River
- Increases groundwater storage by ~ 370,000 AF
 - (1/3 of Folsom Lake)
- Provides ~30,000 AFY for conjunctive use during droughts
- Helps improve regional water supply sustainability
- Resilient to climate change



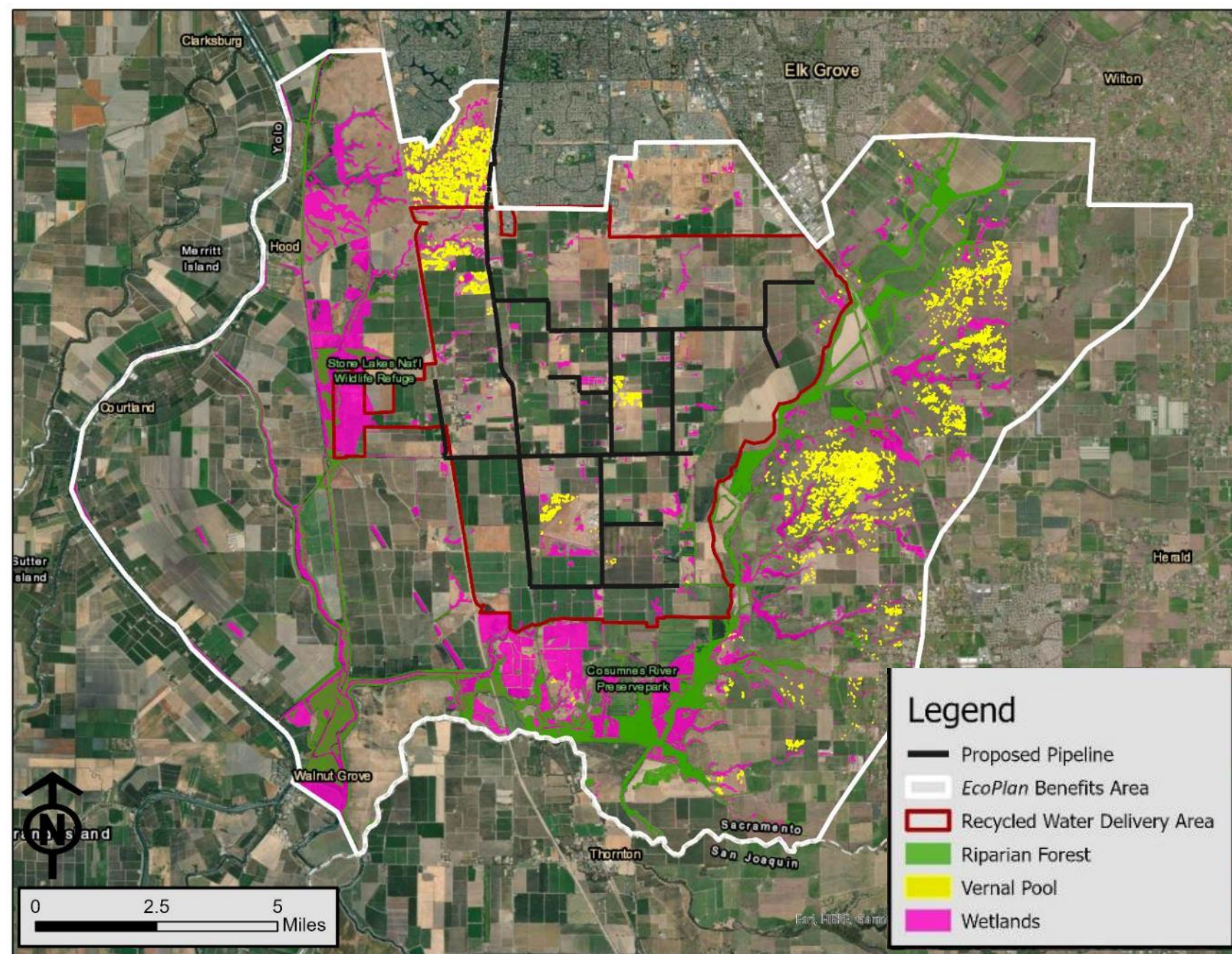
Increasing Connectivity of Groundwater

- Harvest Water's groundwater restoration is the foundation that produces the "Public Benefits"
- Greatly increases the percentage of time groundwater elevations are within riparian root zone
- Improves groundwater & surface water connectivity in the Cosumnes River corridor



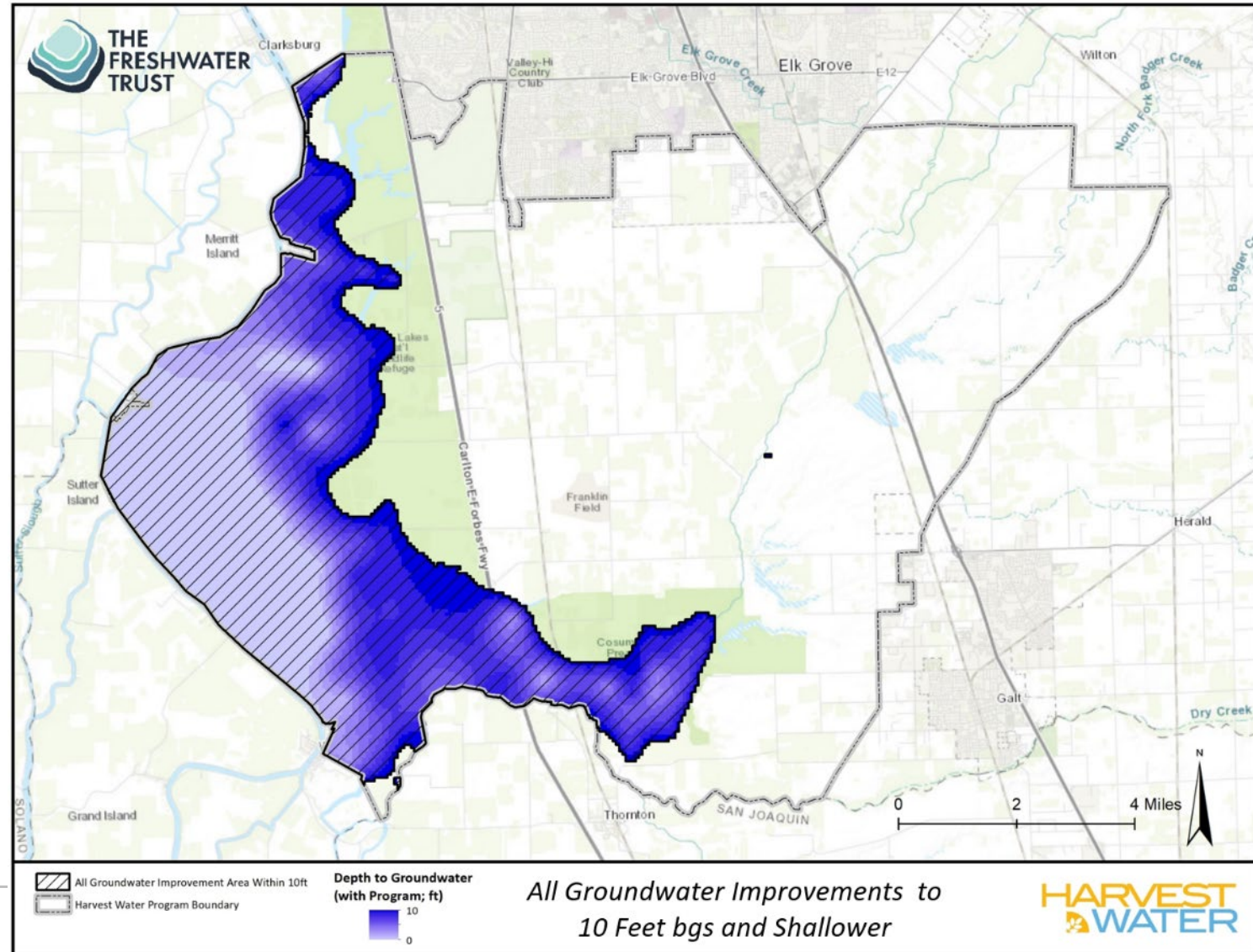
EcoPlan Benefits Area Boundary

Groundwater and
Ecosystem
Improvements Extend
Beyond Recycled
Water Delivery Area



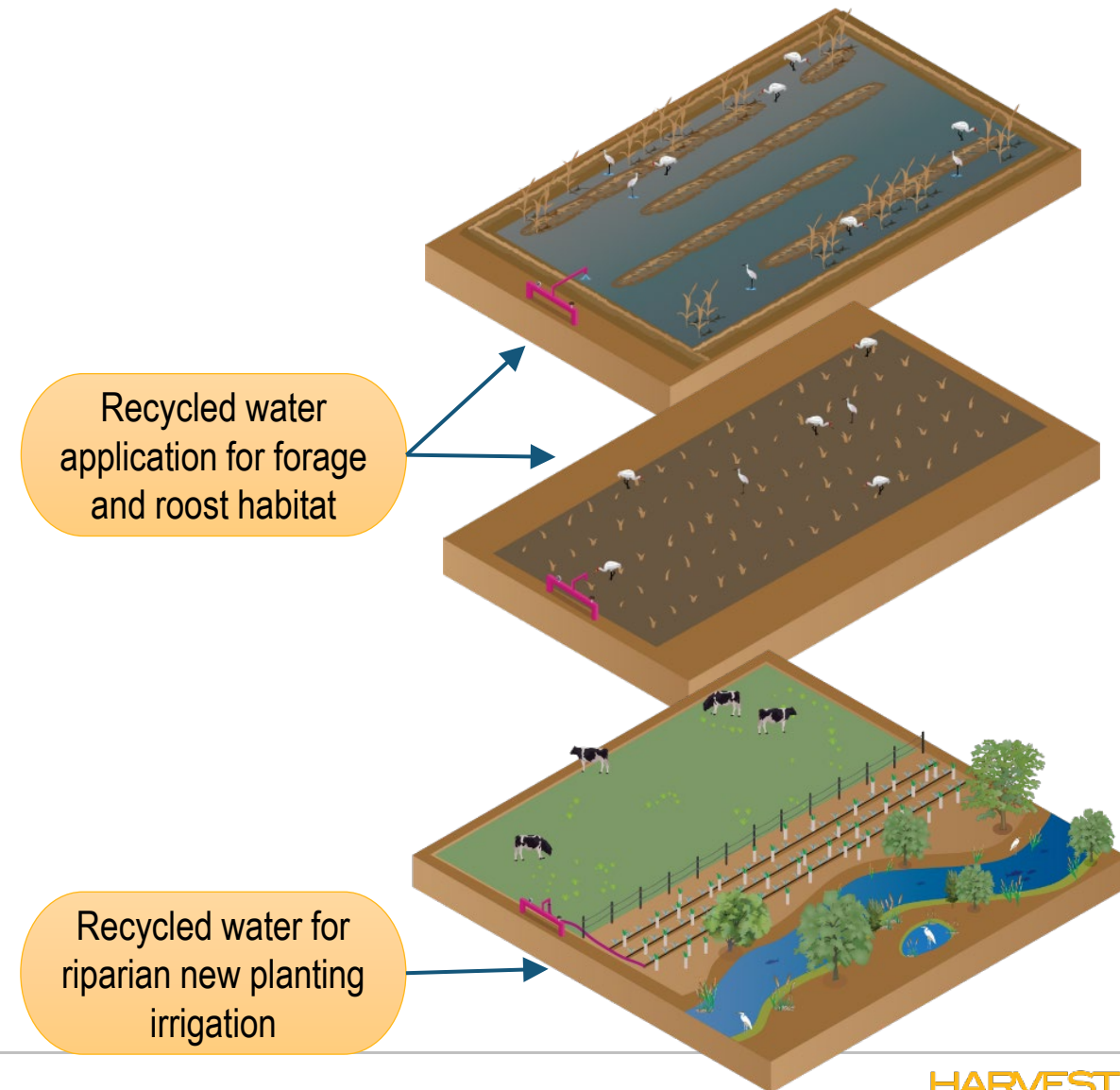
Program Supports Riparian & Wetland Habitat

- Harvest Water will raise groundwater to within 10 ft. or shallower to support 3,976 acres of extent wetlands
- Significant positive impacts on Groundwater Dependent Ecosystems (GDEs)



EcoPlan Development Continues

- ◆ Recycled water irrigation provides both roost and forage opportunities for Sandhill cranes
- ◆ Riparian and wetland protection with control fencing and new plantings irrigated with recycled water
- ◆ First Letter of Intent (private landowner) and special use permit (US Fish & Wildlife) secured for *EcoPlan* participation



Additional Benefits

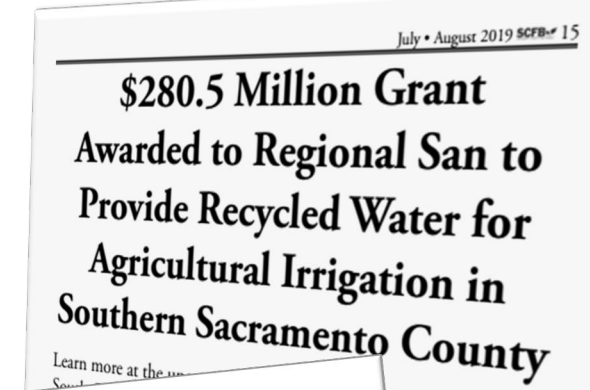
- ◆ Emergency fire response – provides water for firefighting, reducing response times and minimizing property damage and injuries
- ◆ Sustainable Groundwater Management Act (SGMA) goals – Harvest Water is a key near-term objective of the South American Subbasin Groundwater Sustainability Plan
- ◆ Farmland and Open space protection – supports conservation easements, provides a reliable water supply and enhances and protects open space
- ◆ One Water approach – provides a local water supply and effluent discharge diversification for Regional San customers

Program Outreach and Support



Outreach is On-going and has Taken Many Forms

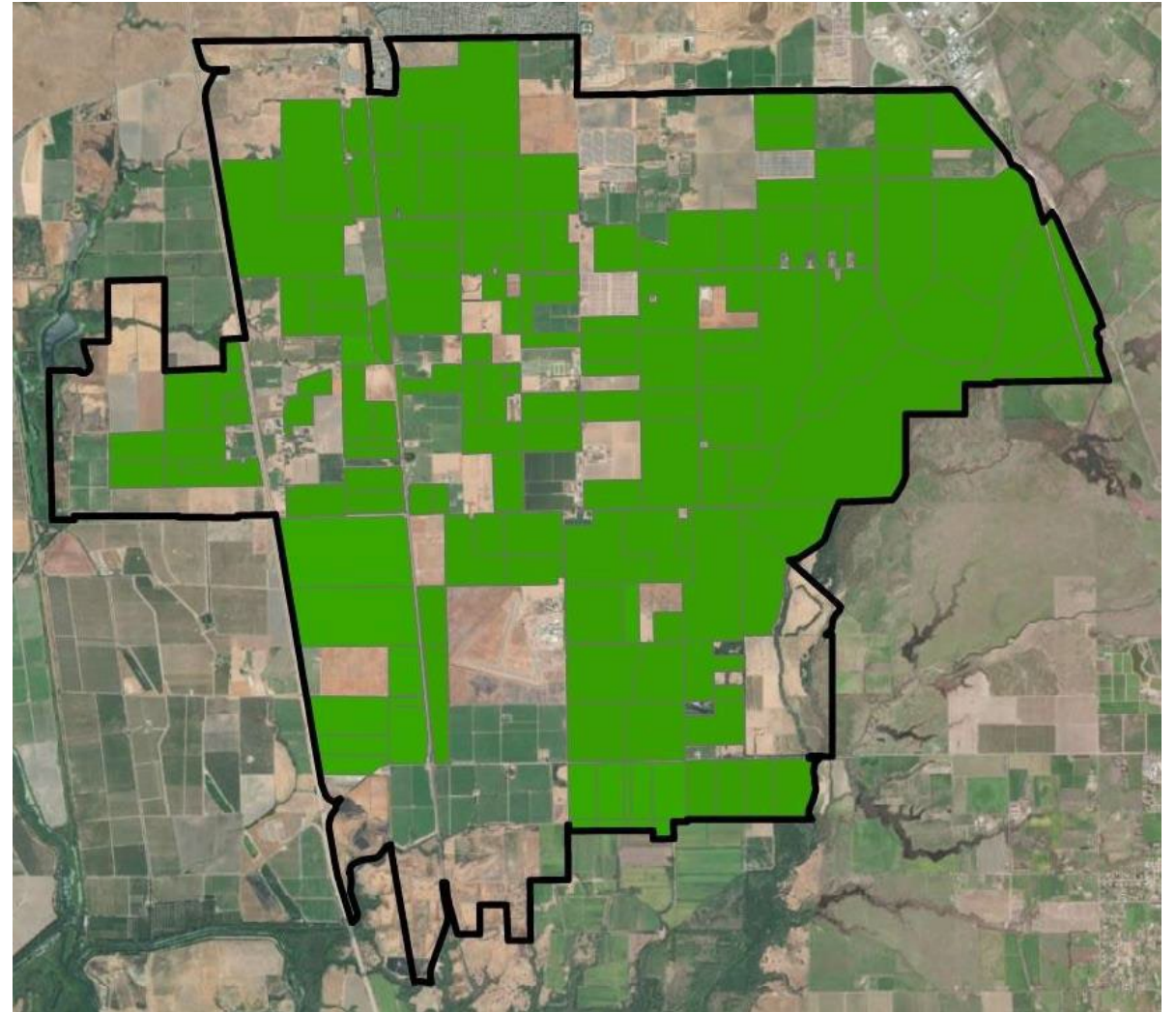
- One-on-one site visits with landowners
- Direct Mailers
- Continued partnership with the Sacramento County Farm Bureau
 - Articles in bi-monthly printed newsletter and electronic news blasts
 - Attending events and Board meetings
- Building partnerships and wildlife corridors with other stakeholders



Extensive Landowner Outreach has Garnered Significant Interest

Updated 12/2022

- ◆ Regional San has received Letters of Intent (LOI) for irrigated lands representing 100% of the demand goal for summertime irrigation
 - Approx. 42,000 AFY
 - 62 landowners
 - More than 17,000 acres across 148 parcels



Outreach, Landowner Interest, Partnerships

- Hosted EchoWater plant tours and informational meeting on the development of an enterprise management system for scheduling recycled water service
- Continued field visits with landowners to site connection turnouts and investigate existing groundwater monitoring wells



Program Updates



Program Refinements During Planning

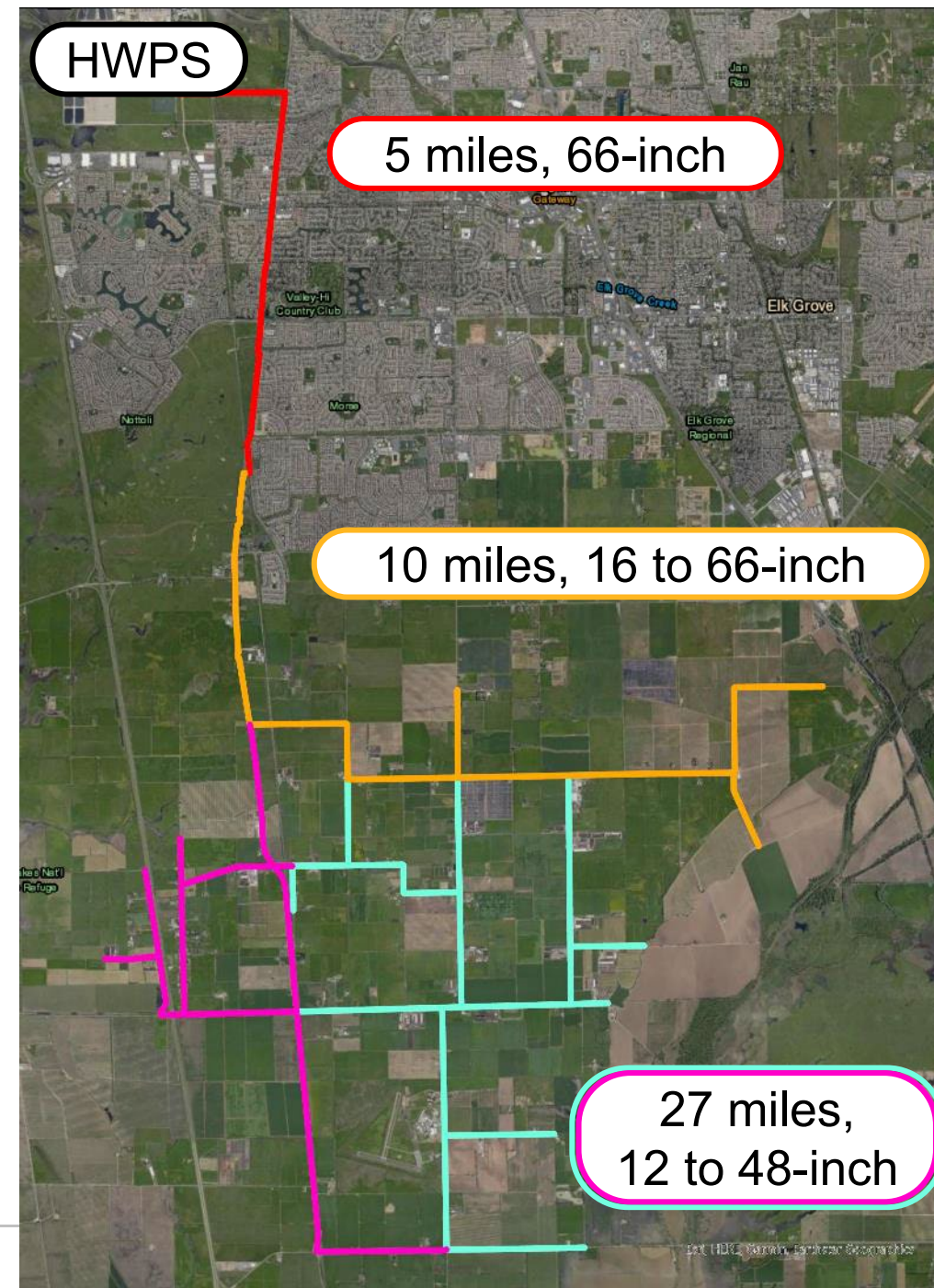
- ◆ Harvest Water is fundamentally unchanged
- ◆ Program goal to maximize recycled water deliveries to landowners
- ◆ Incorporated a 10-year ramp-up to connect customers, enroll habitat lands, and achieve full deliveries
- ◆ Average annual recycled water deliveries estimated at 41,250 AFY (or more, up to 50,000 AFY)
 - Incorporates cutbacks required by water rights during dry and critically dry years
 - Cutbacks only apply for the first 25 years or so

Harvest Water Status to Date

- Completed feasibility study
- Completed four supplemental CEQA documents and a NEPA environmental document
- Obtained all necessary environmental permits
- Secured Wastewater Petition for Change to deliver up to 50,000 AFY
- Completed annexation process with Sacramento LAFCo for Program Area
- Achieved significant progress on landowner recruitment for both recycled water service and *EcoPlan* participation
- Project designs underway

All Capital Projects are in Final Design

1. Harvest Water Pump Station (HWPS)
2. Elk Grove Transmission Pipeline
3. Franklin/Eschinger Distribution Pipelines
4. Central/South Distribution Pipelines
5. West Distribution Pipelines
6. On-Farm Connections (approx. 125)



Benefits Largely Same as 2018 Application

💧 Environmental Benefits

- ❑ Sandhill Crane – no change
- ❑ Passive wetland and riparian – no change
- ❑ Active wetland – no change
- ❑ Active riparian – no change
- ❑ Vernal – increase in wetted acres and slight reduction in total acres
- ❑ Cosumnes River Flow – slight reduction in flow improvement (due to cutbacks)

💧 Water Quality Benefits – no change

Updated Estimated Program Budget and Funding

March 2023 Update

Budget Item	\$M, 2023
Recycled Water Infrastructure Construction	\$379.6
Ecological Program	\$79.4
Other Program Costs	\$103.1
Construction & Program Contingencies	\$35.1
TOTAL	\$597.2

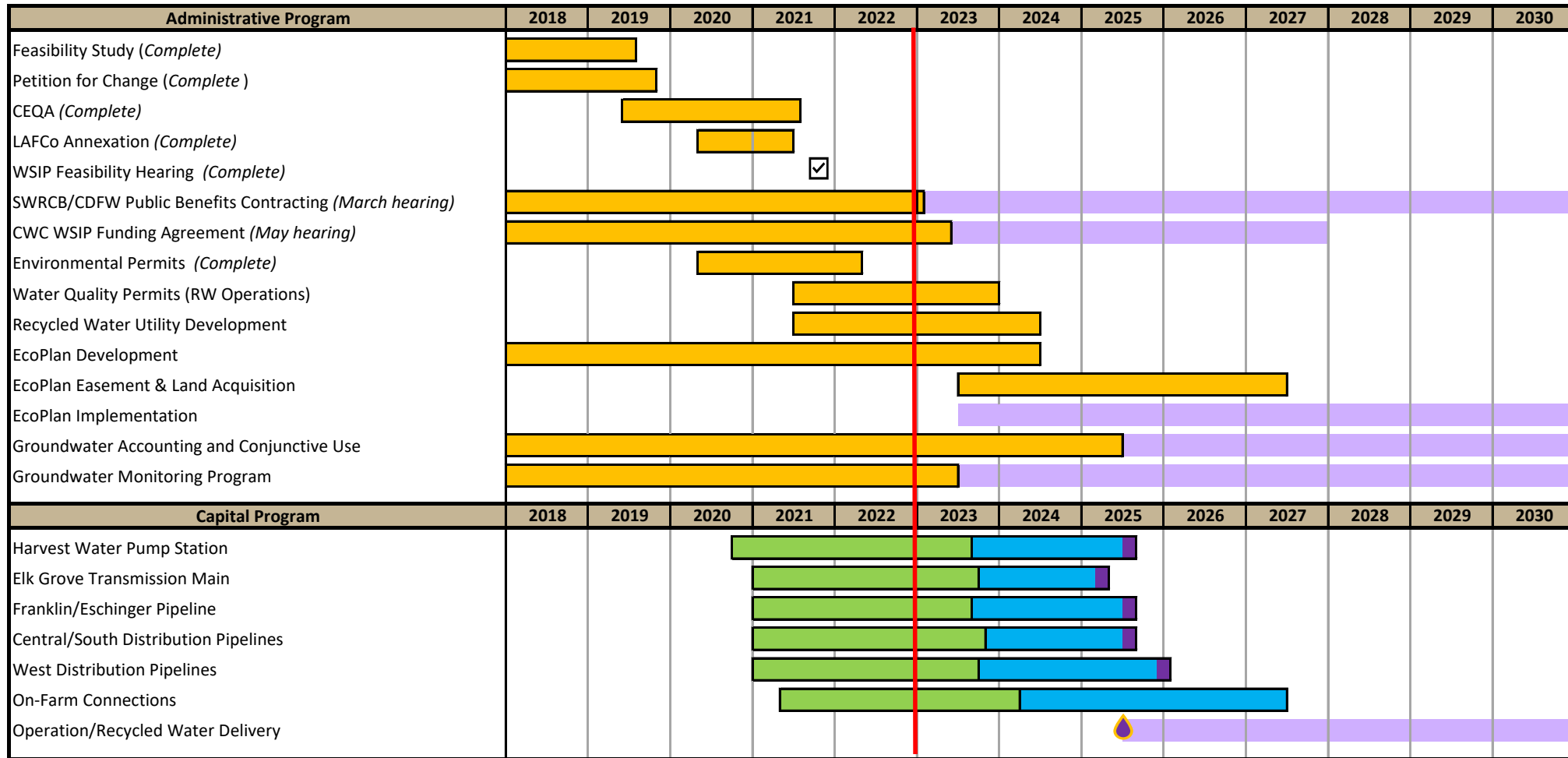
Funding Awarded	\$M
WSIP Grant	\$291.8
USBR WIIN Grant	\$30.0
Potential Grant Funding to Date	\$321.8

- Current funding gap of approximately \$275M
- Remainder to be funded by Regional San rate payers or potential additional grant opportunities

Cost Estimate Updates Through Design

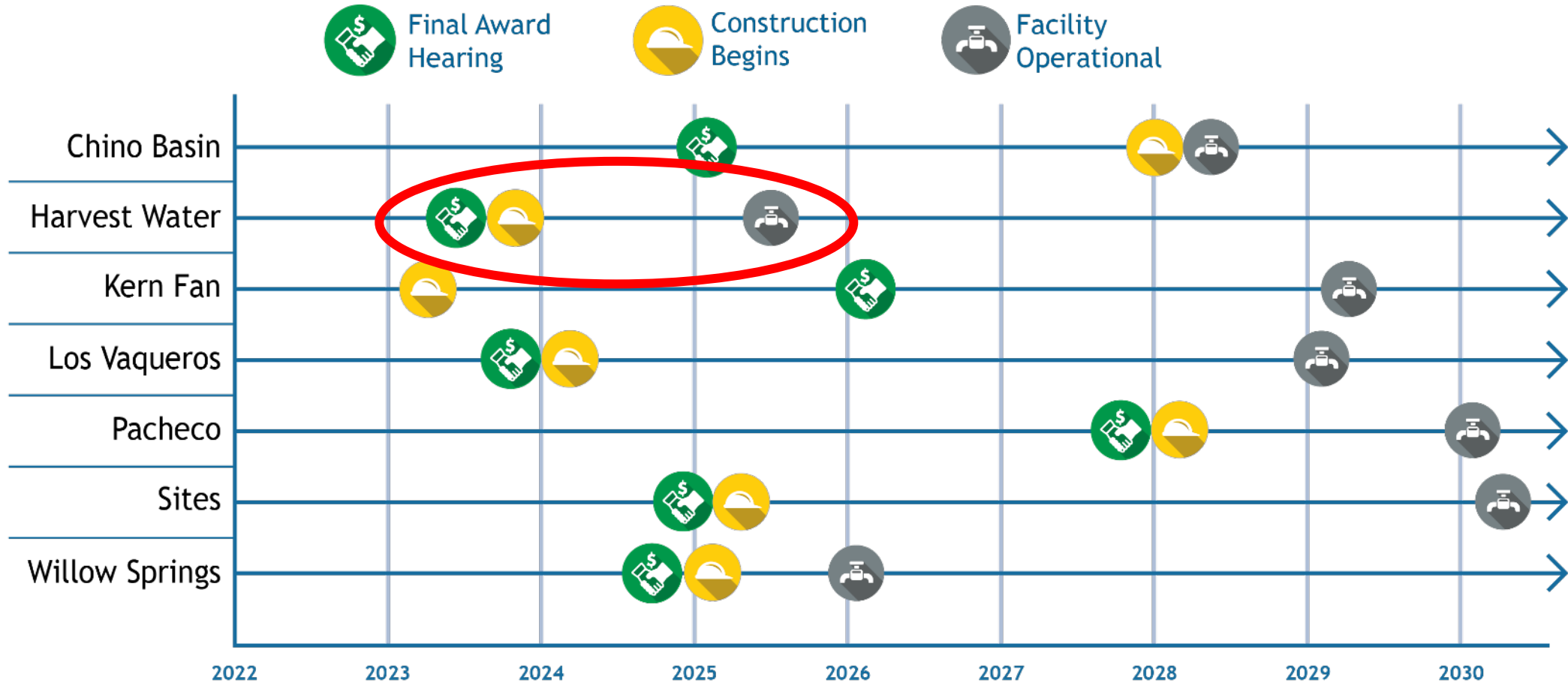
- Construction cost escalation from inflationary pressures and supply chain disruptions
 - The Bureau of Reclamation's Construction Cost Trends (CCT) index increased 38.3% between January 2015 and January 2023
- Federal grant funding requirements under Build America, Buy America Act (adds approx. 4%)
- Additional grower connections and increased level of service to meet delivery goals

Harvest Water Program Schedule



- Planning/Development
- Capital Project Planning and Design
- Construction
- Commissioning
- Operation/Implementation/Compliance

Harvest Water is on Target to Begin Construction this Year!



Questions?

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