

HARVEST WATER: EXPANDING RECYCLED WATER USE FOR SUSTAINABLE AGRICULTURE AND ECOSYSTEM SUPPORT

HEIDI ORIOL – SACRAMENTO AREA SEWER DISTRICT
MAX MUTTER – THE FRESHWATER TRUST
SARAH RHODES – WOODARD & CURRAN

MARCH 10, 2026

UPDATES THROUGH JULY 2026

FOR BACWA RECYCLED WATER COMMITTEE

LOS
ANGELES
MARCH 8-11

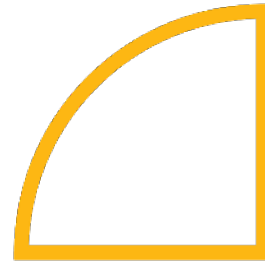


Agenda

- Project Background, Funding, Objectives
- Customer Outreach & Engagement
- Fulfilling Public Benefits through the *EcoPlan*
- Project Status & Next Steps

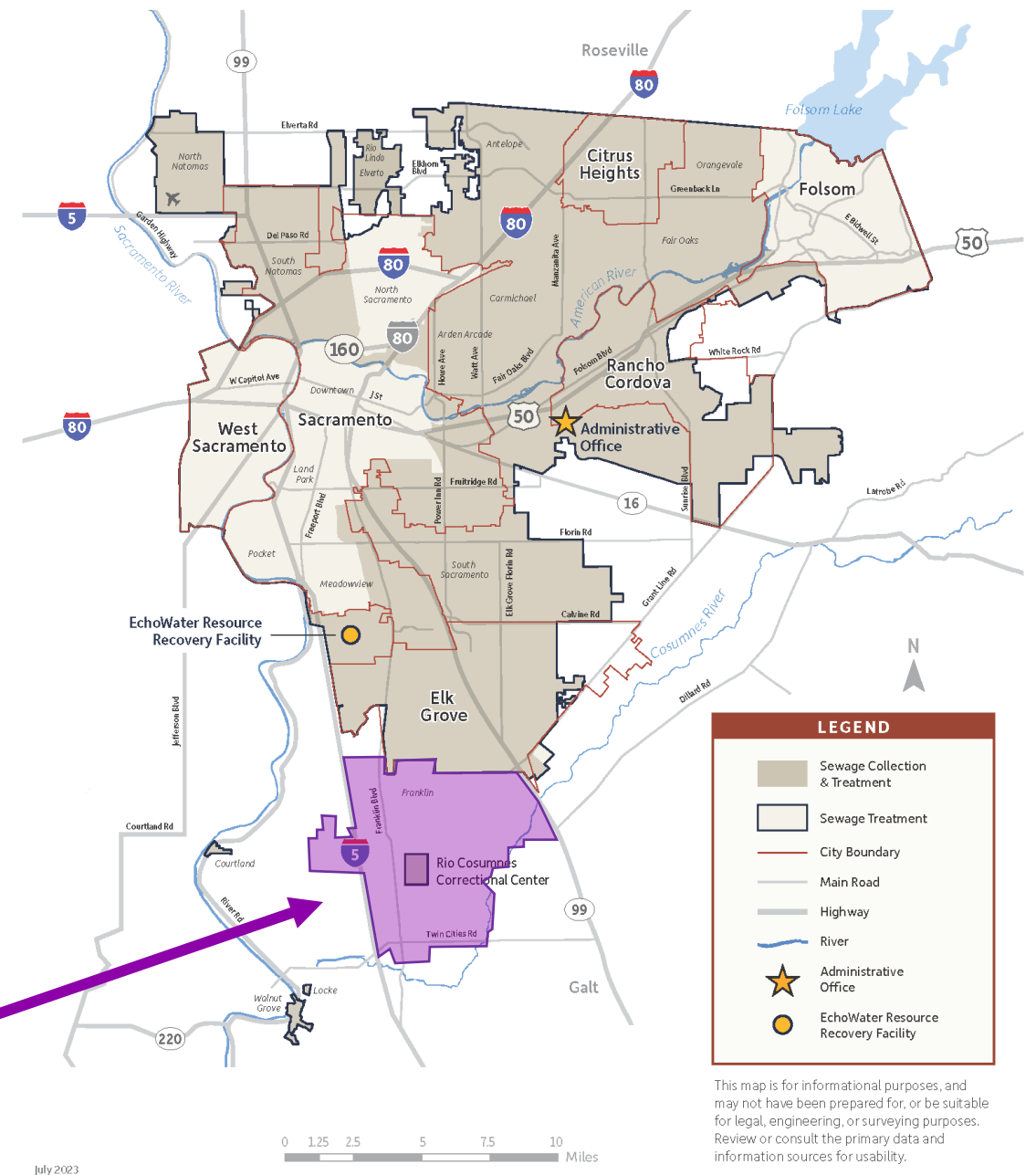


Project Background, Funding, Objectives



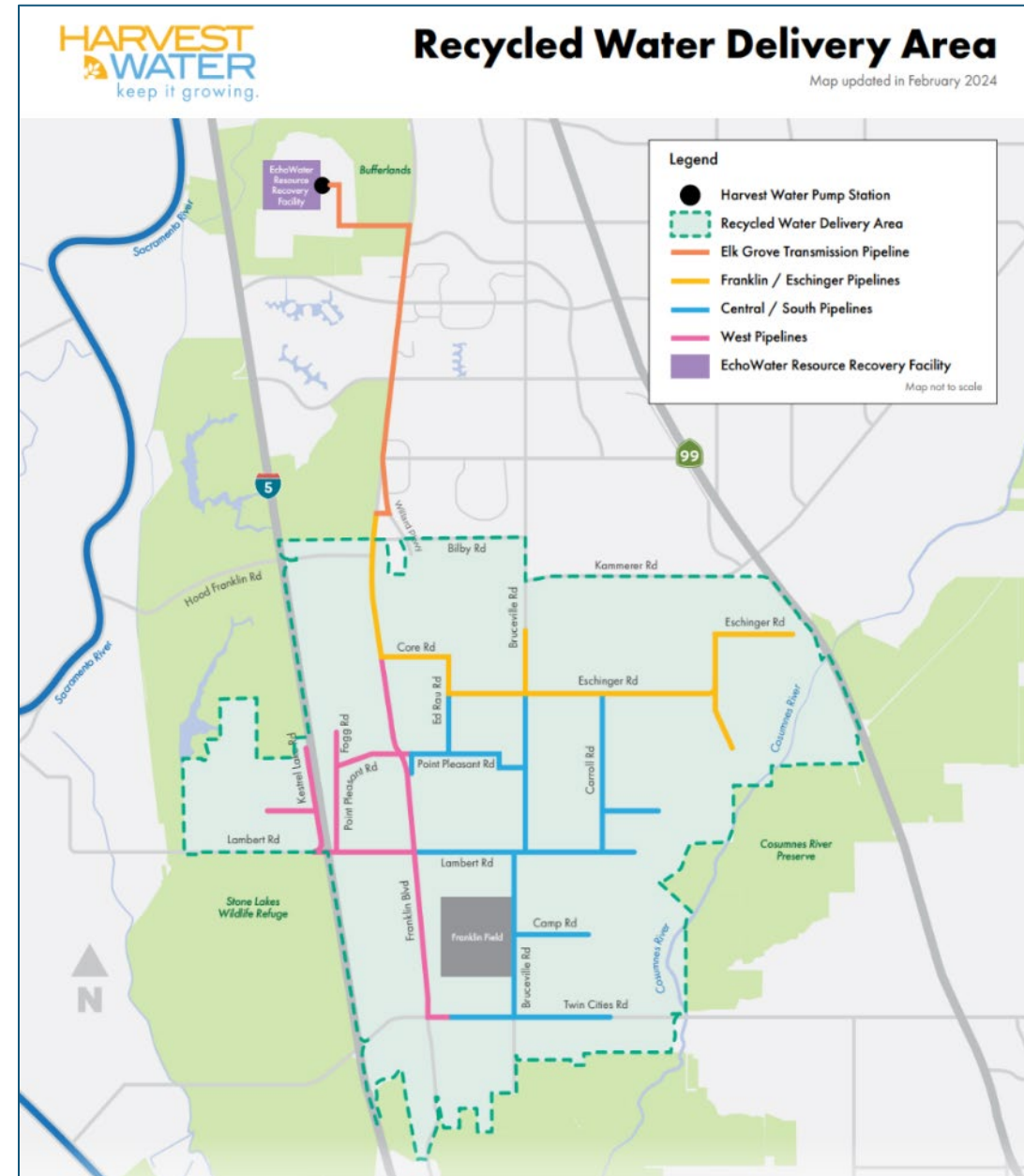
Who is SacSewer?

- Second largest sewage collection utility in California
- SacSewer has been providing recycled water since 2004
 - 3.5 mgd recycled water for parks, street medians, commercial and school sites.
 - 1 mgd to Campbell Power Plant cooling towers
- EchoWater Resource Recovery Facility is the second largest of its kind in the nation
 - Upgrades completed in 2023
 - Tertiary capacity = 181 mgd
- Harvest Water will greatly expand recycled water use
- Deliveries anticipated to start in 2027



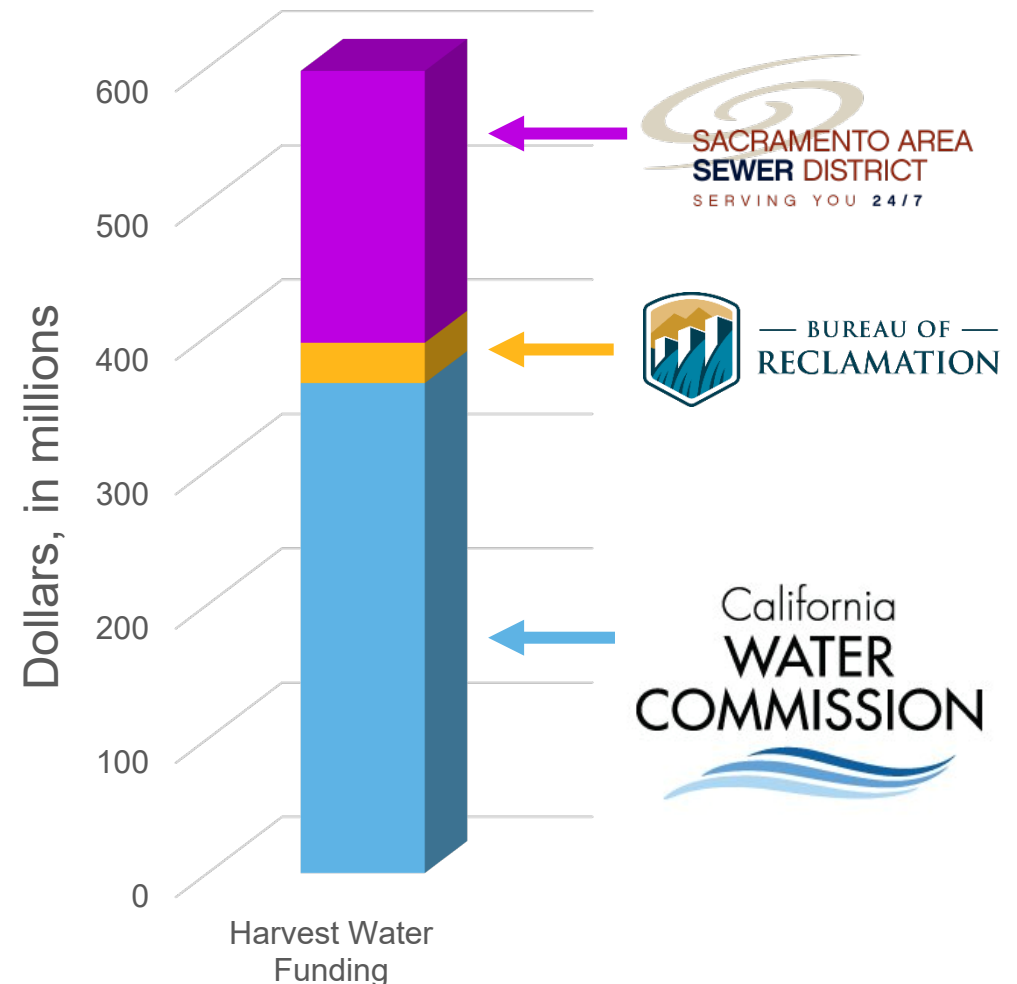
What is Harvest Water?

- 💧 Largest agricultural recycled water project in California
- 💧 Will deliver up to 50,000 AFY of recycled water to over 16,000 acres of agricultural and habitat land
- 💧 Produces multiple public benefits
 - ❑ Groundwater restoration
 - ❑ Ecosystem improvements
 - ❑ Water quality improvements
 - ❑ Conjunctive use
 - ❑ Climate resiliency



Grant Funding Propels Harvest Water Forward

- 💧 Capital Cost = \$597.2M
 - ✓ CA Water Storage Investment Program (WSIP) = ~~\$364.8M~~ \$417.0M
 - ✓ USBR's Water Infrastructure Improvements for the Nation (WIIN) = \$30M
 - ✓ CA Water Recycling Funding Program (WRFP) – \$15M – **executed in June**
 - ☐ USDA's Rural Development Water & Environmental Program – looking to secure \$1M
 - ☐ **WRFP Ph 2, WCB, Cost Shares with SacDOT and SCWA**
- 💧 **Approximately 80% funded**



WSIP Funding is Based on Public Benefits

- 💧 Proposition 1: The Water Quality, Supply and Infrastructure Improvement Act, dedicated \$2.7 billion for investments in the public benefits of water storage projects through the Water Storage Investment Program (WSIP).
- 💧 To qualify for funding, projects are required to provide specific public benefits:

- ☐ Ecosystem
- ☐ Water Quality
- ☐ Flood Control
- ☐ Emergency Response
- ☐ Recreation



Harvest Water Ecosystem and Water Quality Improvements Benefits



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



Additional 353 acres of vernal pool habitat, which supports many listed



Longer migration window for Fall-run Chinook salmon as a result of increased streamflow volume in the Cosumnes River

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

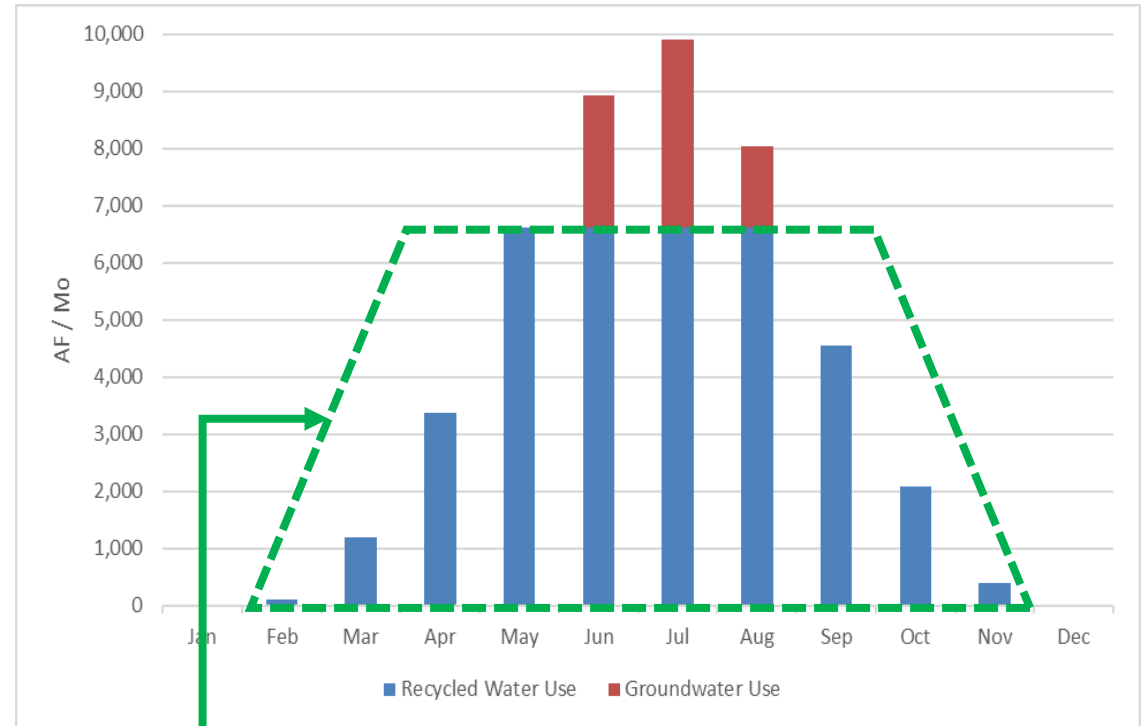


Reduced salinity load to Sacramento & Delta waterways by approximately 95 tons/day

Program Requires Conjunctive Use of Recycled Water and Groundwater

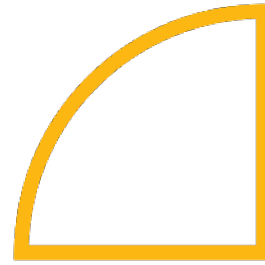
- 💧 Recycled water will offset a significant portion of local groundwater use, allowing groundwater storage to increase over time = ***in-lieu recharge***
- 💧 Growers will need to use groundwater to meet peak summer demands

Summer Ag Irrigation Demands

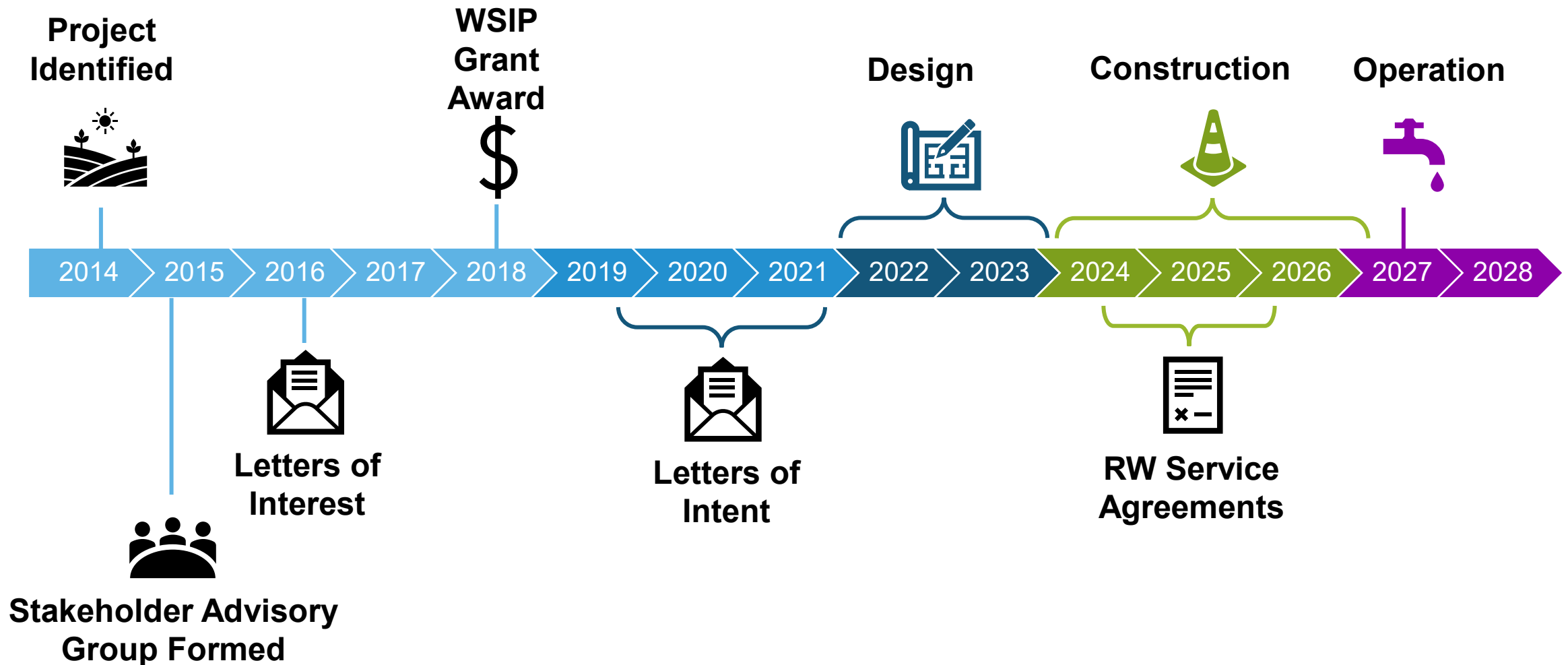


Groundwater not pumped =
in-lieu recharge =
32,500 AFY

Outreach and Engagement



Landowner Outreach from the Beginning



Starting Early: 2019 Engagement Set the Stage for Recruitment

\$280.5 Million Grant Awarded to Regional San to Provide Recycled Water for Ag Irrigation in Southern Sacramento County

The California Water Commission announced that Regional San will receive up to \$280.5 million in Proposition 1 grant funding through the Water Storage Investment Program (WSIP) to help make the South County Agricultural and Habitat Lands Water Recycling Program a reality for the Sacramento region.

The Program will:

- Preserve working farmland
- Deliver up to 50,000 afy of recycled water for agricultural irrigation
- Restore groundwater levels
- Improve Cosumnes River flows
- Provide water quality and ecosystem benefits to the region

Planning is underway!

Regional San will be reaching out directly to potential agricultural customers in late summer 2019. Recycled water deliveries could begin as soon as late 2023.

Learn more:

Program Staff will be available to provide additional information at the following Farm Bureau University Workshops:

- June 20th: Farmland Easements Workshop
- July 18th: South County Ag Program Info Session

For more information:

Visit regionalsan.org/socag
 Contact (916) 876-3322 or southcountyag@sacsewer.org

REGIONALSAN
 SOUTHERN SACRAMENTO COUNTY AGRICULTURAL AND HABITAT LANDS WATER RECYCLING PROGRAM

SCFB
 SOUTHERN SACRAMENTO COUNTY FARM BUREAU

SOUTH COUNTY AG PROGRAM INFORMATION SESSION

Recycled water for agricultural irrigation and wildlife

When: July 18, 2019, at 6-8 pm.
 Where: Sacramento County Farm Bureau
 1070 Elk Grove Blvd., Elk Grove, CA 95624
 RSVP: Randy@scfb.org 916.685.6958 ext.

REGIONALSAN
 SOUTHERN SACRAMENTO COUNTY AGRICULTURAL AND HABITAT LANDS WATER RECYCLING PROGRAM

www.sacfarmbureau.org November • December 2019 issue 15

New Affordable & Reliable Water Source on the Horizon for Southern Sacramento County Ag

The Sacramento Regional County Sanitation District (Regional San), in collaboration with regional stakeholders, is advancing a program to deliver up to 50,000 acre-feet per year (AFY) of safe, reliable, tertiary-treated recycled water for agricultural irrigation in southern Sacramento County. This recycled water is targeted to be available as soon as late 2023. Up to \$280.5 million was awarded to Regional San to develop the South County Agriculture & Habitat Lands Recycled Water Program (South County Ag Program). It is anticipated that recycled water could be provided at a cost of \$30 per acre-foot or less, as a result of this grant award. The project team is currently seeking landowner feedback, which is critical at this stage for making this a successful program that benefits the local community and agricultural businesses.

Landowners within the proposed water delivery area (see map) will receive an informational packet in early November that will describe opportunities and benefits from participating in the South County Ag Program. This mailer also includes a Letter of Intent request to confirm interest in receiving recycled water. Initial commitment is non-binding but vital for the project to move forward. Learning about your interest in receiving this recycled water will help the project team understand the level of need and ensure the project creates a useful resource for farmers and supports working lands in our community. It will also help confirm compatibility of the program with local farming operations and business bottom lines. We encourage you to keep an eye out for this packet in your mailbox, return the requested forms, and contact us with your questions. If you would like a packet, and haven't received it in the mail by November 5, please reach out using the contact information provided below.

Regional San will also be following up in the coming months directly with potential agricultural customers to solicit sign-ups for receiving recycled water through this new program.

For more information:
 Visit regionalsan.org/socag
 Contact (916) 876-3322 or southcountyag@sacsewer.org

South County Ag Program Area for Recycled Water Delivery

South County Ag Program Area for Recycled Water Delivery



Recycled Water: An Alternative Source of Water for Agricultural Irrigation

The Sacramento Regional County Sanitation District (Regional San), in collaboration with regional stakeholders, is advancing a program to deliver up to 50,000 acre-feet per year (AFY) of safe, reliable, tertiary-treated recycled water for agricultural irrigation in southern Sacramento County. This recycled water is targeted to be available as soon as late 2023. Up to \$280.5 million was awarded to Regional San to develop the South County Agriculture & Habitat Lands Recycled Water Program (South County Ag Program). It is anticipated that recycled water could be provided at a cost of \$30 per acre-foot or less, as a result of this grant award. The project team is currently seeking landowner feedback, which is critical at this stage for making this a successful program that benefits the local community and agricultural businesses.

Landowners within the proposed water delivery area (see map) will receive an informational packet in early November that will describe opportunities and benefits from participating in the South County Ag Program. This mailer also includes a Letter of Intent request to confirm interest in receiving recycled water. Initial commitment is non-binding but vital for the project to move forward. Learning about your interest in receiving this recycled water will help the project team understand the level of need and ensure the project creates a useful resource for farmers and supports working lands in our community. It will also help confirm compatibility of the program with local farming operations and business bottom lines. We encourage you to keep an eye out for this packet in your mailbox, return the requested forms, and contact us with your questions. If you would like a packet, and haven't received it in the mail by November 5, please reach out using the contact information provided below.

Regional San will also be following up in the coming months directly with potential agricultural customers to solicit sign-ups for receiving recycled water through this new program.

For more information:
 Visit regionalsan.org/socag
 Contact (916) 876-3322 or southcountyag@sacsewer.org

REGIONALSAN
 SOUTHERN SACRAMENTO COUNTY AGRICULTURAL AND HABITAT LANDS WATER RECYCLING PROGRAM

3,000 SULLY ROAD
 SACRAMENTO, CA 95833-3520

Don't Worry, There's Still Time!

Visit regionalsan.org/socag
 Contact (916) 876-3322 or southcountyag@sacsewer.org

Outreach Statistics through 2025



6 Factsheets

Posted on the Harvest Water website



6 Direct Mailers

Postcards & Recruitment Packages



25+ Articles

SCFB Bi-Monthly Newsletter



10 Meeting/Tours

Stakeholder feedback



10 SCFB Events

Community engagement

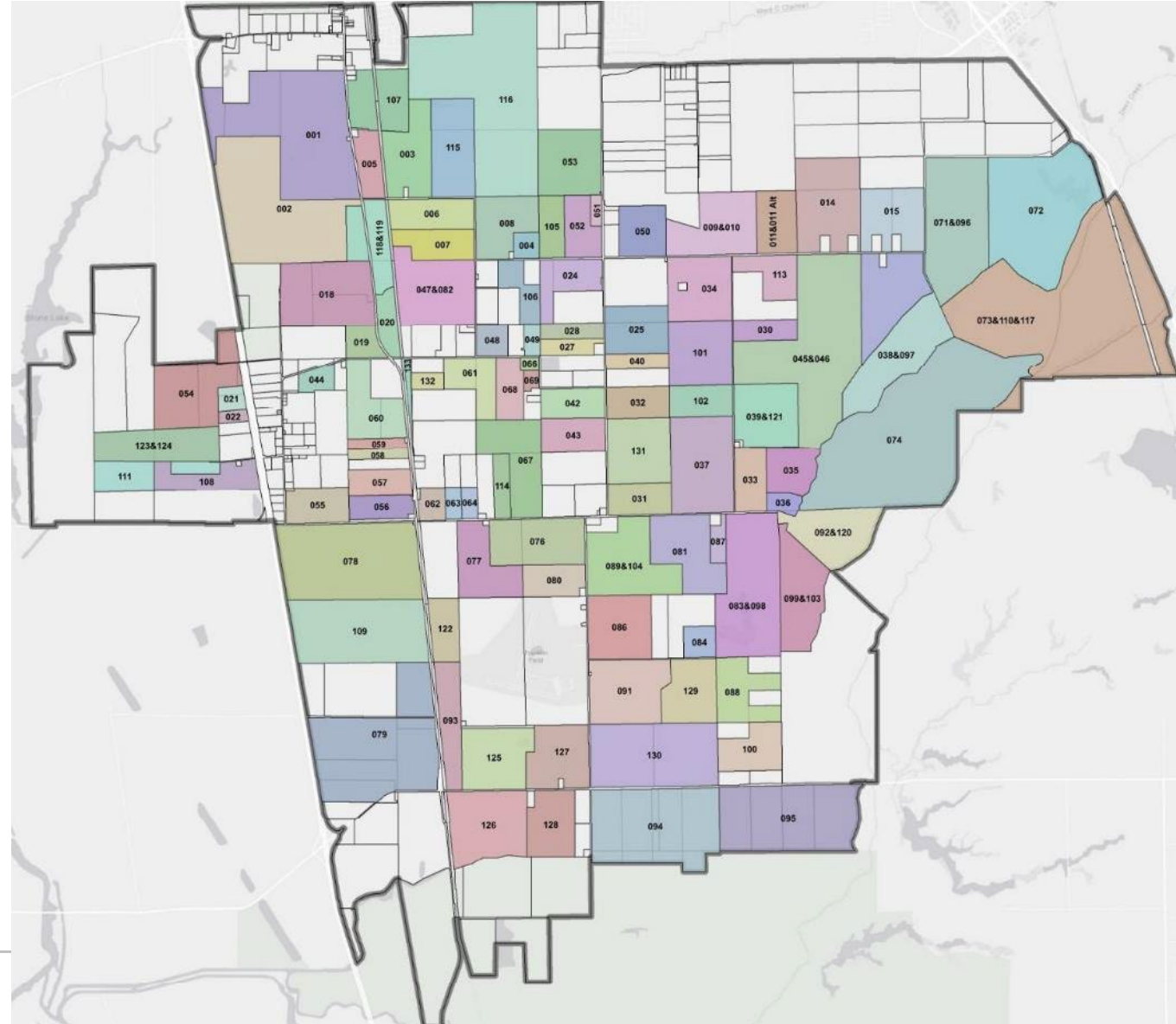


1,000+ Site Visits

Customer Outreach

Working to Deliver Recycled Water in 2027

- Over 100 potential customer connections – On-Farm Connection Assemblies (OFCAs)
- Phase 1
 - Construction started
 - 56 OFCAs with executed RW service agreements (66% of demand goal)
- Phase 2
 - RW service agreement execution underway – **28 secured; 7 remaining**
 - Will bid this year – **April 15**



What It Took to Get Here:

Building Trust, Momentum, and Scale Over Time

Trust Comes First

- Early & sustained landowner outreach
- One-on-one, listening before recruiting
- Long-term relationships, not transactions

Coordination at Scale

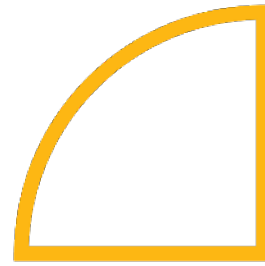
- Aligning landowners, growers, and agency
- Multiple parcels and participants
- Agricultural + ecosystem objectives

Clear Path to Commitment

- Letter of Interest → Letter of Intent → Executed Agreement
- Reduce uncertainty and build confidence
- Enabled construction and delivery

Lessons learned now directly inform future recruitment and implementation

Fulfilling Public Benefits through the *EcoPlan*



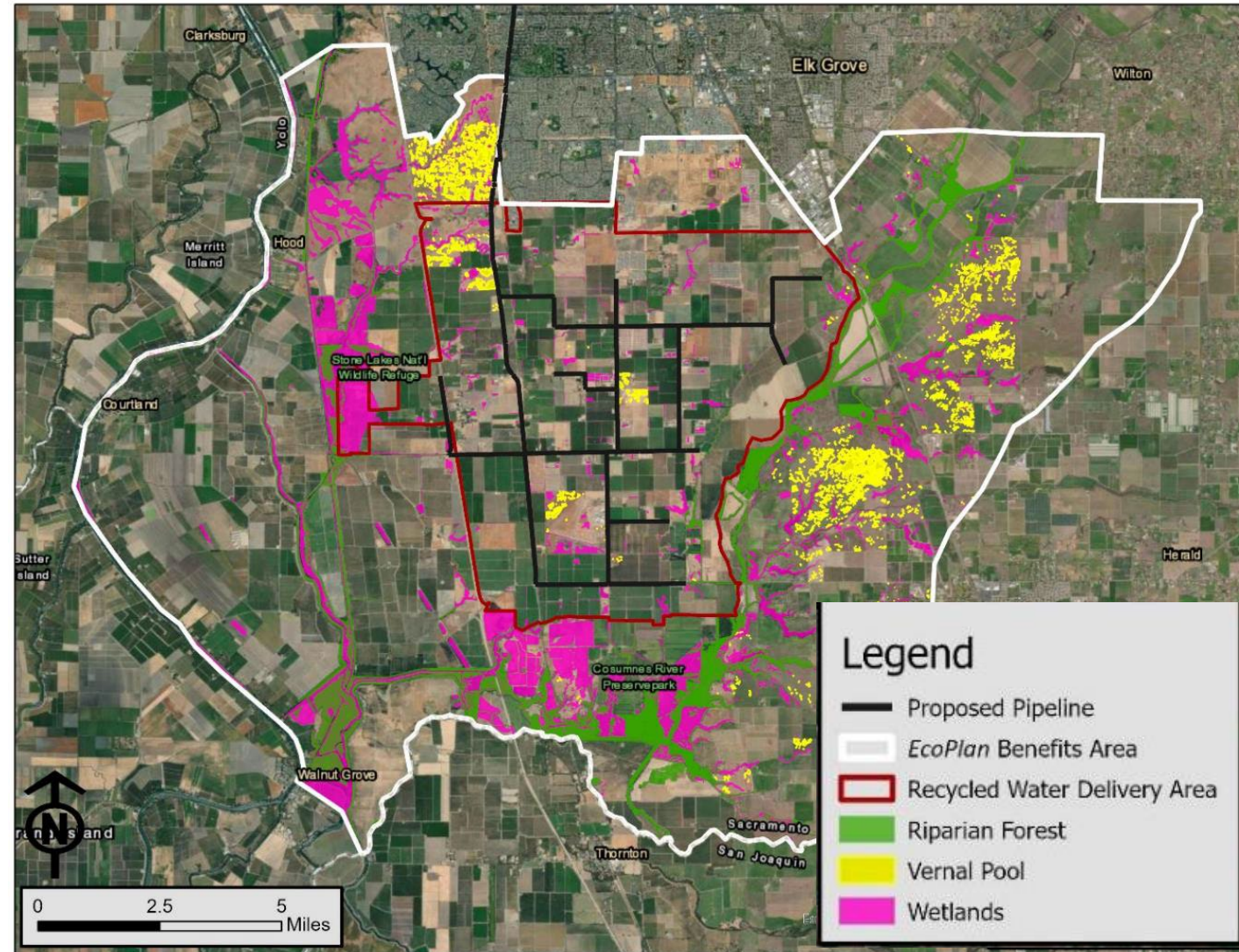
EcoPlan Benefit Types

💧 Passive Benefits:

- ❑ Rely on recycled water use in-lieu of groundwater only

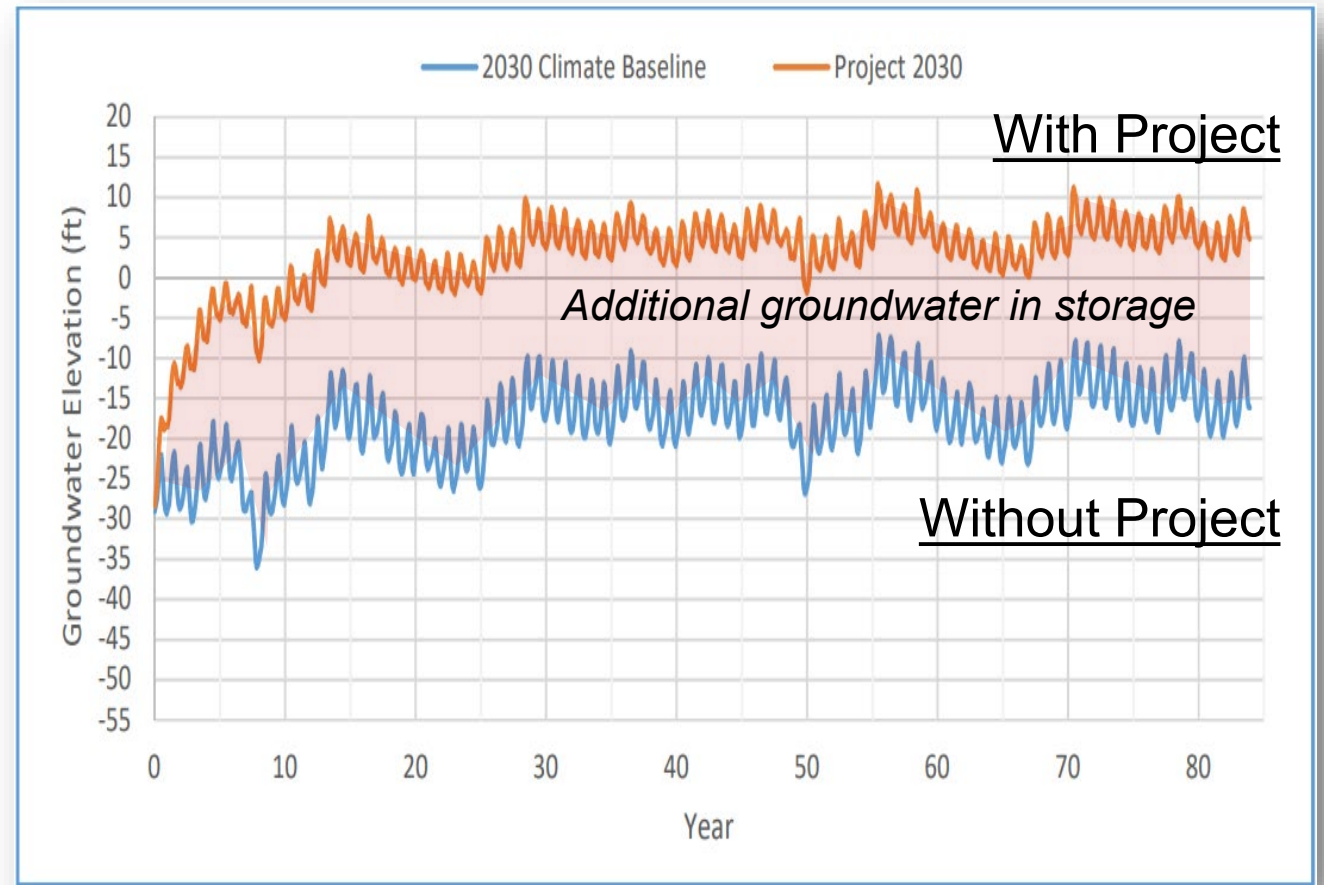
💧 Active Benefits:

- ❑ Require additional direct action, beyond RW delivery
- ❑ Physical improvements to riparian/wetland habitats, Sandhill crane habitat, and vernal complexes



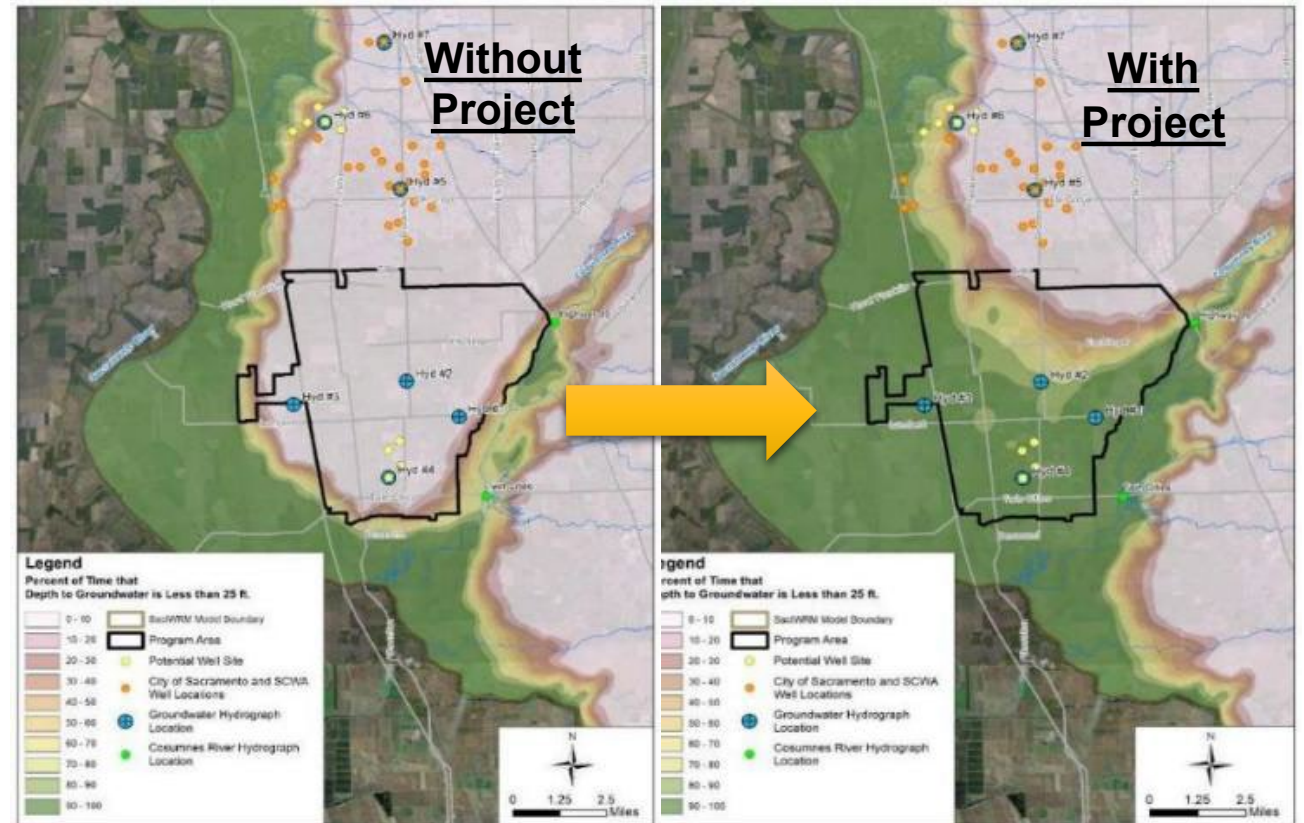
Groundwater Benefits of Using Recycled Water for Irrigation

- 💧 In-lieu recharge restores groundwater levels up to 35 feet within 15 years
 - ❑ Over time, increases groundwater storage up to 370,000 AF
- 💧 Provides ~30,000 AFY for conjunctive use during droughts



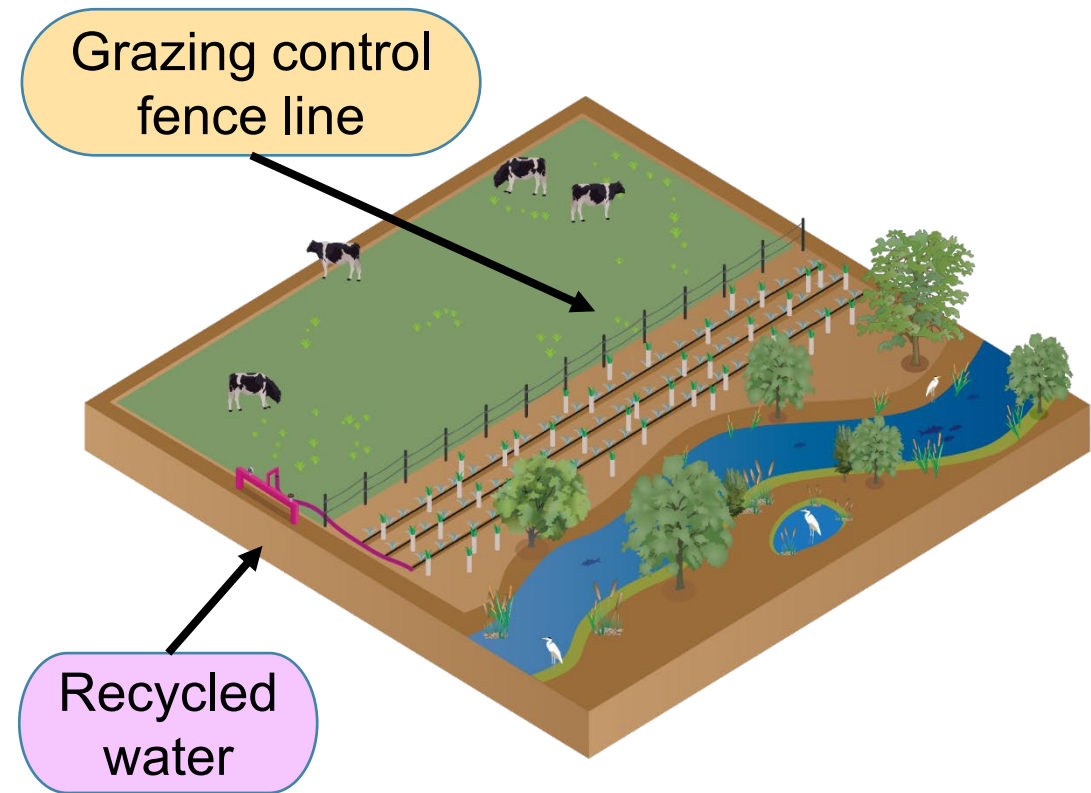
Passive Benefits Improve Ecosystems

- Extensive positive impacts on groundwater dependent ecosystems
- Improves streamflow in the Cosumnes River creating a longer migration window for Fall-run Chinook salmon



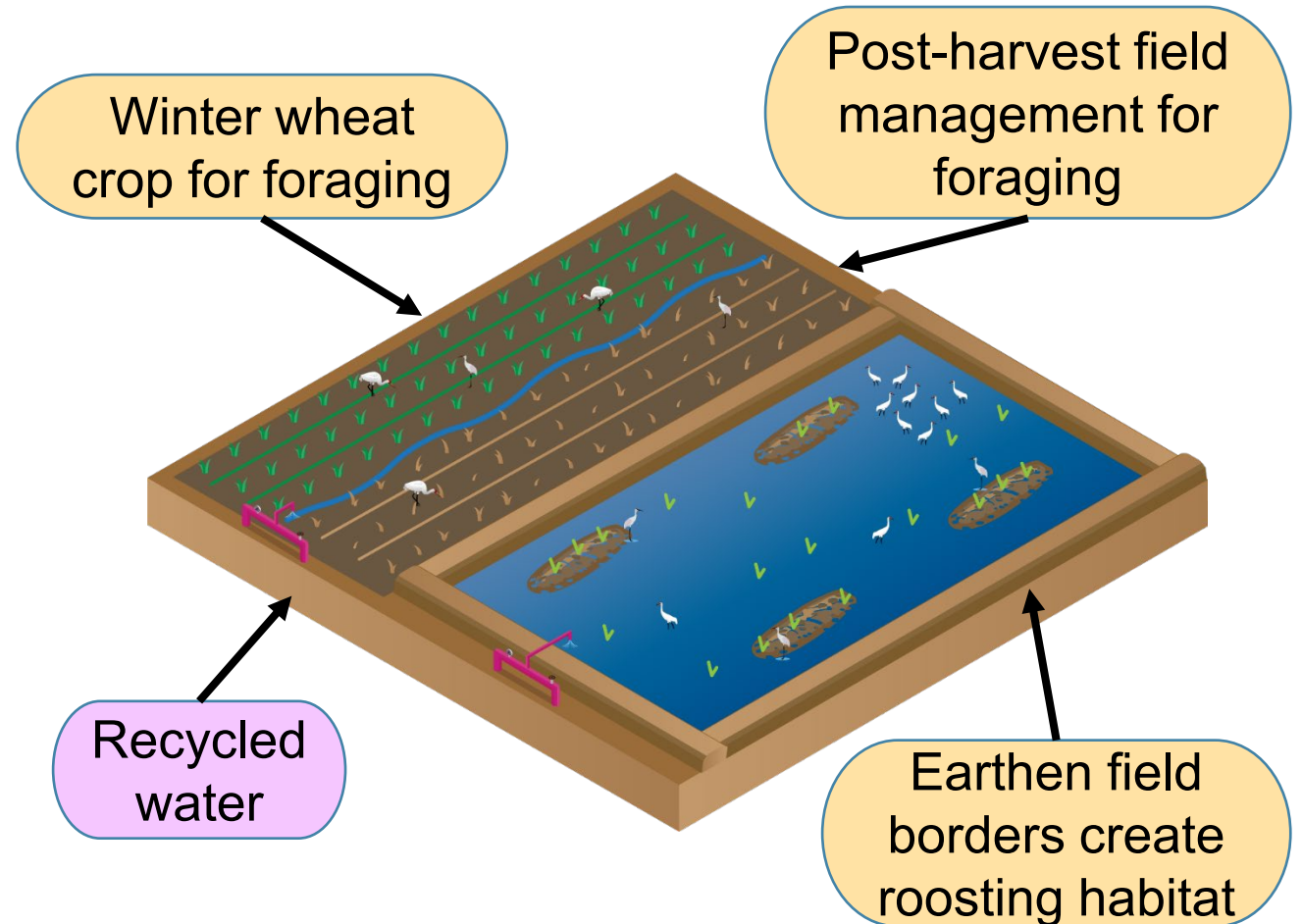
Active Benefit: Riparian and Wetland Habitat

- 💧 Recycled water irrigation for establishing new plantings
- 💧 Riparian and wetland habitat protection with control fencing



Active Benefit: Sandhill Crane Habitat

- Recycled water irrigation provides both roost and forage opportunities for Sandhill cranes



Recruiting Landowners for *EcoPlan* Participation



EcoPlan: Enhancing Local Agriculture & Ecosystems

Harvest Water will provide up to 50,000 acre-feet of reliable, high-quality recycled water to agricultural lands and existing habitats in southern Sacramento County, allowing local agricultural operations to pump less groundwater and offer natural recovery in the groundwater basin.

Harvest Water is made possible largely through funding from California's Proposition 1 Water Storage Investment Program, which supports projects that provide public benefits, including ecological ones. This allows Harvest Water to work with interested farmers and ranchers to implement specialized habitat management activities through the Harvest Water EcoPlan.

Benefits of Harvest Water EcoPlan

Farmers and Ranchers

Implementing the Harvest Water EcoPlan can directly benefit farmers and ranchers. Some examples:

- Assisting with infrastructure and management practices—such as fencing, forage improvement, and weed management—that can be mutually beneficial to your operations and Harvest Water
- Enhancing existing wetlands and riparian habitats with practices such as revegetation and weed management
- Providing leases or agreements including compensation for qualified practices
- Strengthening existing wildlife-friendly agricultural management activities
- Providing recycled water at no charge during winter for qualified practices
- Improving the groundwater table by reducing groundwater use

EcoPlan is a way to manage land and water activities by:

- ▶ **STRIVING** to keep south Sacramento County agricultural lands economically viable
- ▶ **SUPPORTING** existing farming operations
- ▶ **PROTECTING** existing habitat

SacHarvestWater.org | (916) 876-3322 | HarvestWater@sacsewer.com

- Early fall irrigation to alfalfa or pasture fields

SacHarvestWater.org | (916) 876-3322 | HarvestWater@sacsewer.com

Sacramento County Farm Bureau Bulletin

3

Delta, Groundwater & Every Drop In Between

Harvest Water: Notable Milestones This Season

The Central Valley, including southern Sacramento County, is a natural highway for many migrating birds, including the rancous Sandhill crane. Cranes like to spend the winter here thanks to the absence of snow. At night, they roost in pockets of shallow standing water away from predators. During the day, they forage for insects, snails, frogs, and rodents in nearby fields. Mated pairs of cranes and their juvenile offspring spend the winter together. Their distinctive calls to each other sound like trills on a bugle (or even a rusty wheel) and can be heard for several miles! In the spring, flocks of cranes take off for Northern California, Oregon, Washington, British Columbia and Alaska for breeding. As the season changes, we will wish the cranes farewell and look forward to their return in the fall.



Sandhill cranes in southern Sacramento County. Photo by John Day.

Harvest Water Construction Update

Activity related to Harvest Water pipeline construction is underway and crews will work to minimize impacts.

What to expect:

- Access to residences and businesses within the work areas will be maintained
- Road and lane closures will be in place along various roadways in southern Sacramento County
- Clearly marked detours will be in place with flaggers directing traffic during construction hours
- Intermittent noise, vibration and dust may be noticed during construction
- Follow construction signage and drive with caution
- Delays are possible; allow for extra travel time

Thank you for your patience during the construction of this important project. Detailed construction maps and updated schedules are available at SacHarvestWater.org.



Bruceville pipeline waiting for installation.



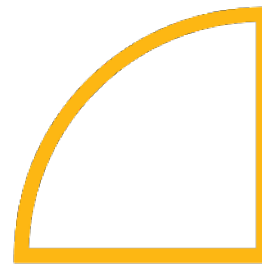
EcoPlan Pilot Projects Underway



A Model for Climate-Resilient Agricultural Water Supply

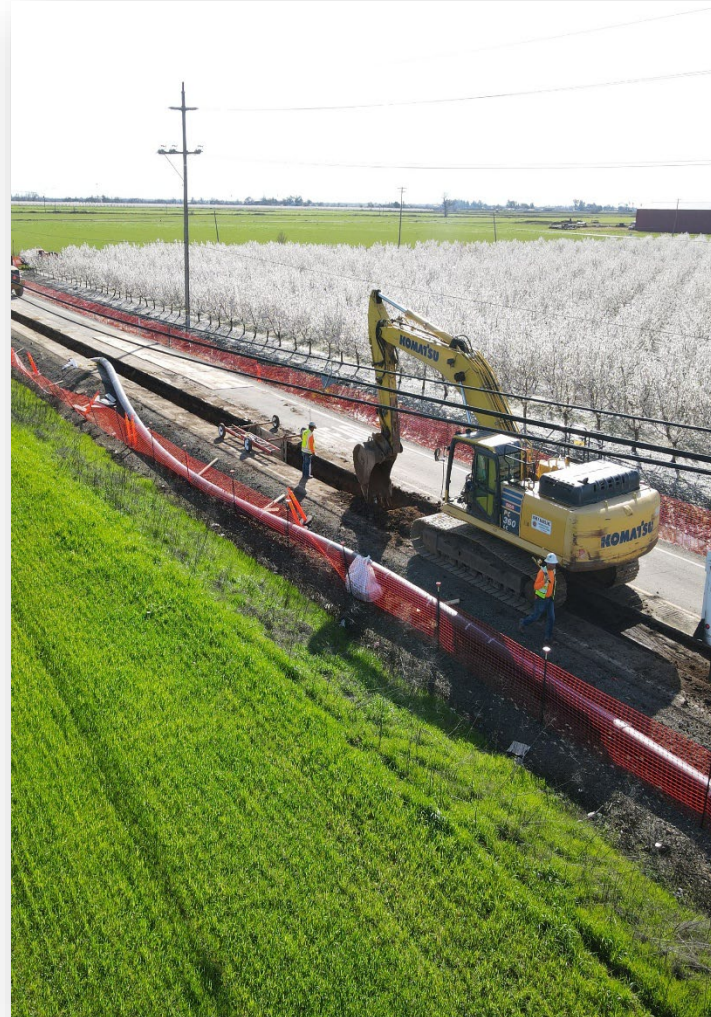
- 💧 Provides drought-resistant recycled water for farms and habitats
 - ❑ Reduces reliance on groundwater for irrigation
 - ❑ In-lieu recharge supports wetland habitats and water storage
- 💧 Supports:
 - ❑ 3,500 acres of Sandhill crane habitat
 - ❑ 353 acres of vernal pool complexes
 - ❑ 5,000 acres of wetlands and riparian forests
 - ❑ Long-term agricultural land use
- 💧 Demonstrates integrated water reuse, groundwater recovery, and habitat enhancement

Next Steps



Construction is on Target for 2027 Delivery

- 💧 Pipeline installation is complete!
- 💧 Harvest Water Pumping Station is under construction
- 💧 On-Farm Connection Assemblies are under construction
- 💧 Recycled water to be available for 2027 irrigation season



Next Steps

- 💧 Obtain coverage under CA's Recycled Water General Order
 - ❑ CA Division of Drinking Water (DDW) approved Title 22 Engineering Report in August 2025
 - ❑ Notice of Intent for permit coverage will be submitted in Q2 2026 – **submitted June 2026**
- 💧 Begin recycled water deliveries in 2027
 - ❑ Complete on-farm improvements
 - ❑ Issue recycled water use permits to customers
- 💧 Continue to build out *EcoPlan* participation



💧 Learn more

- ❑ Website: SacHarvestWater.org
- ❑ Email: HarvestWater@sacsewer.com
- ❑ Phone: (916) 876-3322



Heidi Oriol, PE
oriolh@sacsewer.com



Max Mutter
max@thefreshwatertrust.org



Sarah Rhodes, PE
srhodes@woodardcurran.com

