



South County Ag Program (South Sacramento County Agriculture & Habitat Lands Recycled Water Program)

Central Valley/Sierra Foothill Chapter of
WateReuse California

July 19, 2018

Jose Ramirez, P.E.
Senior Civil Engineer

Background

Water Recycling Goal

- 2004 – Regional San Board of Directors adopted a water recycling goal up to 40 MGD or 23,000 AFY by the year 2024

Master Plan Level Study

- 2007 – Water Recycling Opportunity Study (WROS)

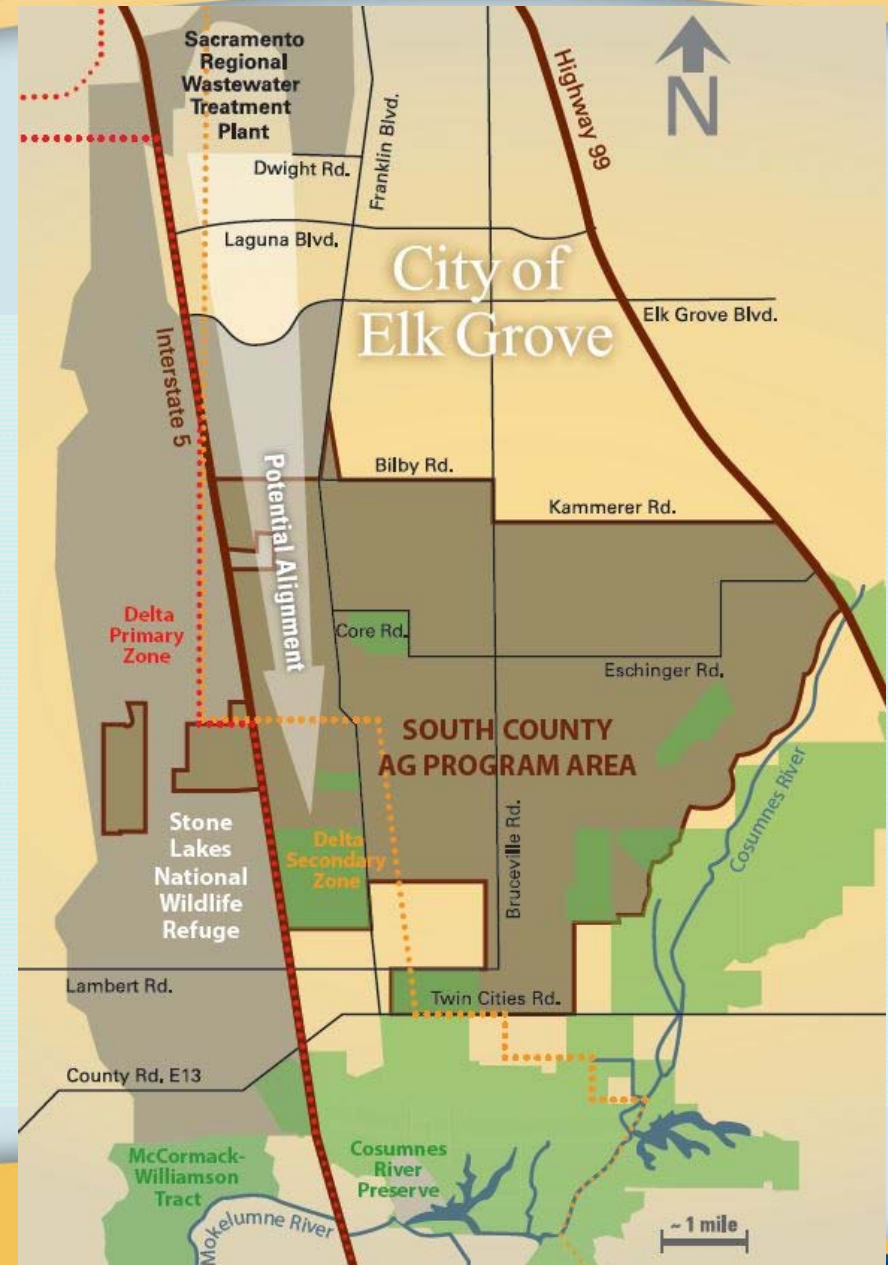
South County Ag Program (Program)

- 2007 to 2008 – High level study/Technical Memorandum
- 2009 to 2010 – Harness support to form SWR Coalition
- 2011 to 2014 – USBR Title XVI Feasibility Study
- 2015 to 2017 – Facilities Plan Report (10% level of design)

South County Ag Program Overview

Recommended Program and Concept

- Refined place of use
- Irrigates up to 16,000 acres of ag and habitat conservation lands
- Delivers up to 50,000 AFY of recycled water
- Recharges groundwater basin
- Provides conjunctive use
- Cost-effective



Program Benefits

Farmers

- Provides a sustainable water supply for agriculture
- Reduces groundwater pumping costs
- May help to lower well maintenance and replacement costs

Region

- Creates a new water supply
- Restores local groundwater levels by up to 35 feet within 15 years
- Increases groundwater storage by ~245,000 AF in 10 years
- Provides ~30,000 AFY for conjunctive use during droughts
- Helps accomplish objectives of SGMA

Regional San

- Meets the goals for a large scale water recycling program
- Reduces effluent discharge to Sacramento River
- Provides an effluent management option
- Promotes environmental stewardship and maximizes use of recycled water for beneficial uses

Environmental

- Improves stream flows in the lower Cosumnes River
- Benefits the Chinook salmon
- Increases riparian and wetland habitats
- Supports a variety of threatened species
- Supports adjacent Preserve & Refuge

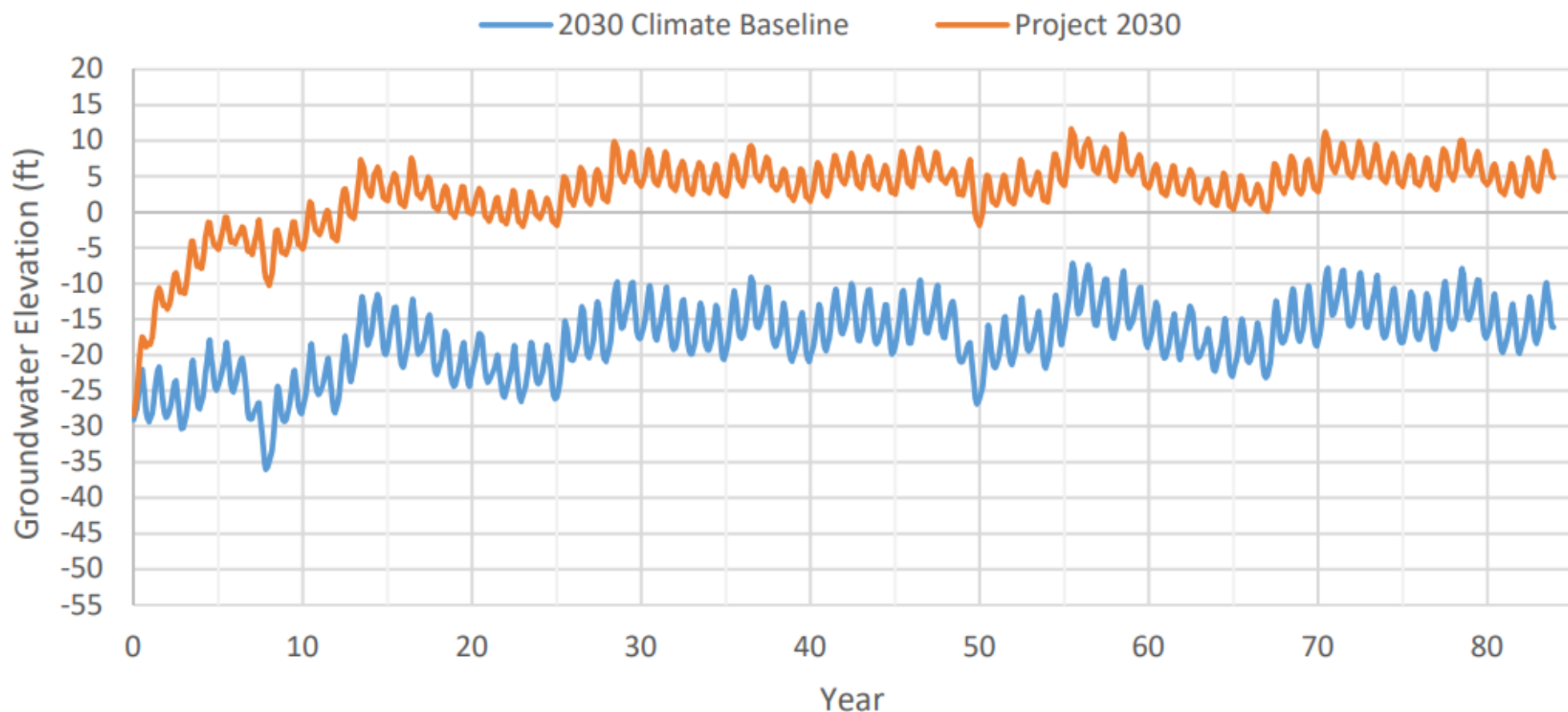
Mass Balance Analysis and Water Supply Benefits

Description	Million-Acre Feet
Benefits to Groundwater within Model Area	0.5
Benefits to Surrounding Basins	1.6
Benefits to Streamflow	2.1
Total	4.2

Notes:

- 1) Assumes 84-year simulation period
- 2) Used SacIWRM Integrated Hydrologic Model

GW Elevation with Project — Comparison to Baseline —



Restores local groundwater levels by up to 35 feet within 15 years

Increase in Groundwater Storage

Difference between Project 2030 versus Baseline 2030

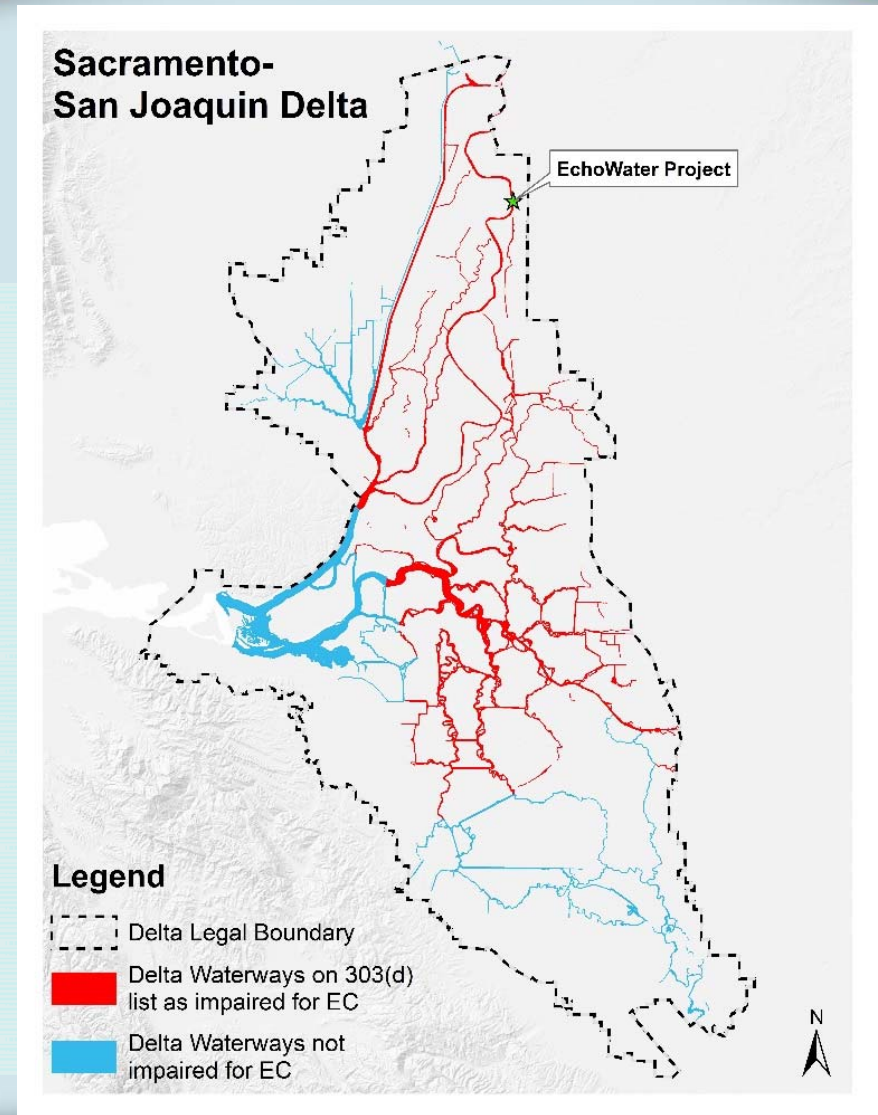


Increases groundwater storage by ~245,000 AF in 10 years

(Folsom Dam picture)

Water Quality Benefits

- Reduce salt loading to Sacramento River by 95 tons per day
- Equivalent benefit would require costly reverse osmosis treatment for salt removal



Ecosystem Benefits



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



Additional 500 acres of vernal pool habitat, which supports many listed species



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



Improved groundwater conditions and strategic water delivery can improve up to approximately 5,000 acres of wetlands and riparian forests by 2030

Collaboration and Stakeholders

Local

- Farmers, landowners, SCFB, conservancy agencies
- Stakeholder Advisory Group
- Sacramento Water Recycling Coalition
- Water agencies and land use jurisdictions

Regional

- Regional Water Authority (American River Basin IRWMP)
- Coalition to Support Delta Projects

State

- SWRCB, DWR, CVRWQCB, CDFWS, CWC

Federal

- U.S. Bureau of Reclamation
- Congressional delegation

Facilitating Collaboration & Building Partnerships



Environmental Documentation

Environmental Impact Report (EIR) – CEQA / STATE

- Lead agency: Regional San
- Draft EIR was published on 7/8/2016
- Held public meeting on 7/25/2016
- 15 comment letters received for Draft EIR on 8/22/2016
- EIR Certification expected in February 2017

Environmental Impact Statement (EIS) – NEPA / FEDERAL

- Lead agency: U.S. Bureau of Reclamation
- EIS process to restart after EIR process is completed

Petition for Change / Water Rights

- Water Code Section (WCS) 1210 – Acknowledges rights of POTWs
- WCS 1211 – Requires Filing Petition for Change with SWRCB
- Petition filed on 8/3/2016
- Five protests received by 9/21/2016
- Protest dismissal terms have been reached
- SWRCB expects to issue the approved order by Sep. 2018

Please indicate County where your project is located here:

MAIL FORM AND ATTACHMENTS TO:
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
<http://www.waterboards.ca.gov/waterrights>

PETITION FOR CHANGE

Separate petitions are required for each water right. Mark all areas that apply to your proposed change(s). Incomplete forms may not be accepted. Location and area information must be provided on maps in accordance with established requirements. (Cal. Code Regs., tit. 23, § 715 et seq.) Provide attachments if necessary.

☐ Point of Diversion Wat. Code, § 1701 ☐ Point of Rediversion Cal. Code Regs., tit. 23, § 791(e) ☐ Place of Use Wat. Code, § 1701 ☐ Purpose of Use Wat. Code, § 1701

☐ Distribution of Storage Cal. Code Regs., tit. 23, § 791(e) ☐ Temporary Urgency Wat. Code, § 1435 ☐ Instream Flow Dedication Wat. Code, § 1707 ☐ Waste Water Wat. Code, § 1211

☐ Split Cal. Code Regs., tit. 23, § 836 ☐ Terms or Conditions Cal. Code Regs., tit. 23, § 791(e) ☐ Other

Application Permit License Statement

I (we) hereby petition for change(s) noted above and described as follows:

Point of Diversion or Rediversion – Provide source name and identify points using both Public Land Survey System descriptions to ¼-¼ level and California Coordinate System (NAD 83).
Present:
Proposed:

Place of Use – Identify area using Public Land Survey System descriptions to ¼-¼ level; for irrigation, list number of acres irrigated.
Present:
Proposed:

Purpose of Use
Present:
Proposed:

Split
Provide the names, addresses, and phone numbers for all proposed water right holders.

In addition, provide a separate sheet with a table describing how the water right will be split between the water right holders: for each party list amount by direct diversion and/or storage, season of diversion, maximum annual amount, maximum diversion to offstream storage, point(s) of diversion, place(s) of use, and purpose(s) of use. Maps showing the point(s) of diversion and place of use for each party should be provided.

Distribution of Storage
Present:
Proposed:

Governance Alternatives

- Seven alternatives were evaluated
- Three alternatives remain under discussion:
 - Regional San annexes service area
 - Contract directly with farmers
 - Hybrid Alternative (Annexation and Individual User Agreements)

Customer Concerns

- Recycled water pricing
- Onsite retrofit costs
- Water quality and reliability
- Crop marketability
- Market and user assurances
- Extraction of banked groundwater
- Governance
 - Representation
 - Another government agency
 - Imposition of new fees
 - Acceptable to customers

Seeking State and Federal Funding

- **State**

- Clean Water State Revolving Fund
- Prop. 1 Water Bond - Water Storage Investment Program
- Integrated Regional Water Management Plan

- **Federal**

- USBR Title XVI and WaterSMART Programs
- Water Infrastructure and Improvement for the Nation Act (WIIN, S.612)

Proposition 1 Water Bond – Water Storage Investment Program

Table 1. Project Rankings and Suggested MCEDs.

Project (By Score)	Application Score (Maximum 100)	Rank	Funding Request \$ in Millions (May 2018)	Suggested MCED \$ in Millions
Pacheco Reservoir Expansion Project	82	2	\$484.55	\$484.55
South County Ag Program	77	2	\$280.50	\$280.50
Los Vaqueros Reservoir Expansion Project	76	2	\$459.00	\$459.00
Temperance Flat Reservoir Project	73	2	\$171.33	\$171.33
Chino Basin Conjunctive Use Program	70	2	\$206.90	\$206.90
Sites Project	61	3	\$916.62	¹
Kern Fan Groundwater Storage Project	54	3	\$85.66 ²	¹
Willow Springs Water Bank	53	3	\$123.29	¹

¹Regulations section 6010(e)(5) prohibits staff from making a suggested MCED for Rank 3 projects.

²Funding request was \$85.70 million from May 2018. Program eligible amount determined in the May Commission meeting is \$85.66 million.

Source: CWC Meeting Agenda/Handout for July 24, 2018

Schedule

[illegible]

Next Steps

- Preliminary award of Prop. 1 WSIP Grant – End of July 2018
- Approval of order for Petition for Change – By Sep. 2018
- Continue pursuing state and federal funding - Ongoing
- Continue engaging potential users - Ongoing
- Develop institutional and governance frameworks - Ongoing
- Prepare Basis of Design Report – late 2018 to 2019
- Enter into agreements with funding agencies and partners – Ongoing
- Establish governance framework - ongoing

Questions

<https://www.regionalsan.com/water-recycling>