

South American Subbasin Groundwater Sustainability Plan Development

CONSIDERATION OF POTENTIAL PROJECTS AND MANAGEMENT ACTIONS

Presentation for Public Meeting No. 3

SASb GSPWG:

County of Sacramento

Northern Delta

Omochumne-Hartnell Water
District

Sacramento Central Groundwater
Authority

Sloughouse RCD

March 25, 2021



Project and Management Action: Data Gathering

- Performed extensive literature review of available planning documents
- Conducted a dozen interviews with local experts representing:
 - City of Sacramento
 - Sacramento County
 - Omochumne-Hartnell Water District (OHWD)
 - Northern Delta
 - Sloughhouse RCD
 - Sacramento Central Groundwater Authority (SCGA)
 - Elk Grove Water District
 - Sacramento Regional County Sanitation District (Regional San)
 - Golden State and Cal American Water Companies
 - Regional Water Authority (RWA)
 - Sacramento Area Flood Control Agency (SAFCA)

Project and Management Action Groupings

- Conjunctive Use (coordinated use of surface water and groundwater supplies)
- Recycled Water Use (use recycled water in lieu of groundwater)
- Supply Augmentation (recharge groundwater basin)
- Demand Management (conservation, irrigation efficiency)

Conjunctive Use - Definition

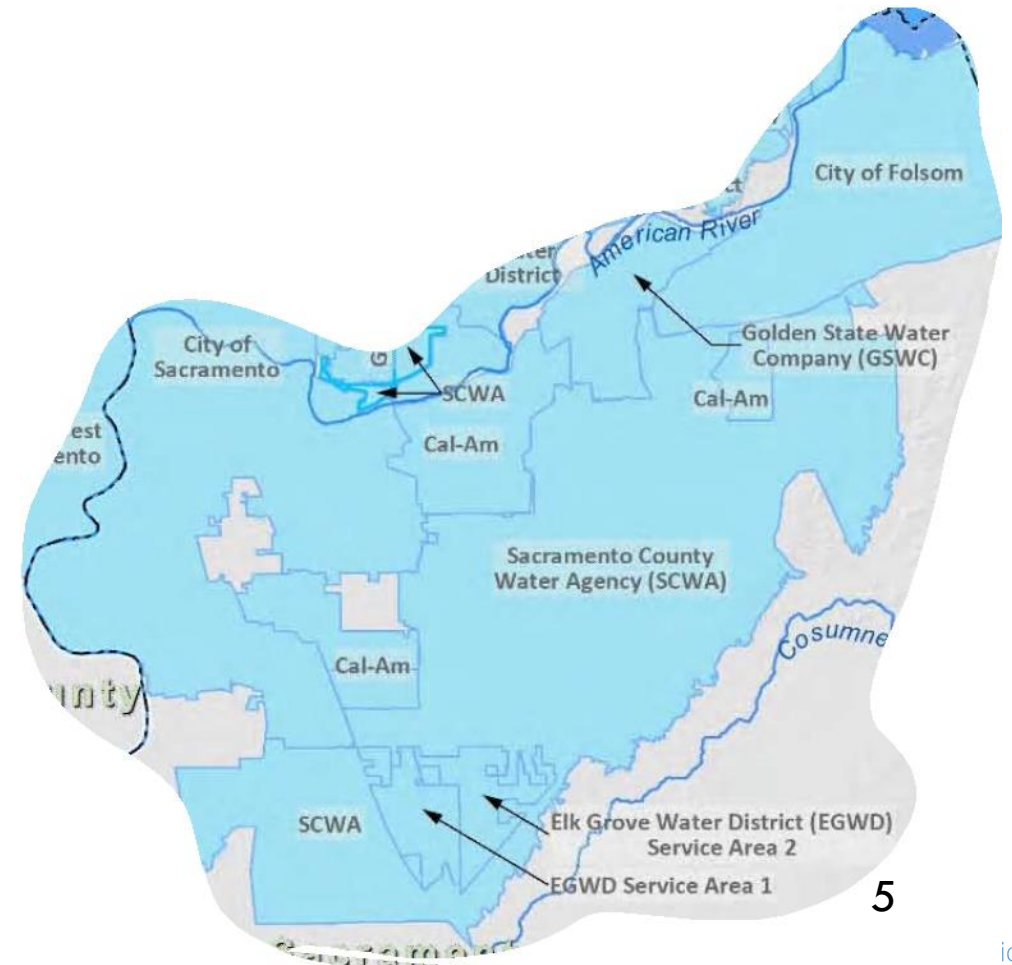
Storing surface water in a groundwater basin in wet years and withdrawing stored groundwater in dry years

Benefits

- Optimizes water supply opportunities – “goes with the flow”
- Provides drought resiliency
- Avoids evaporative losses

Conjunctive Use – Typical Rules of Operation

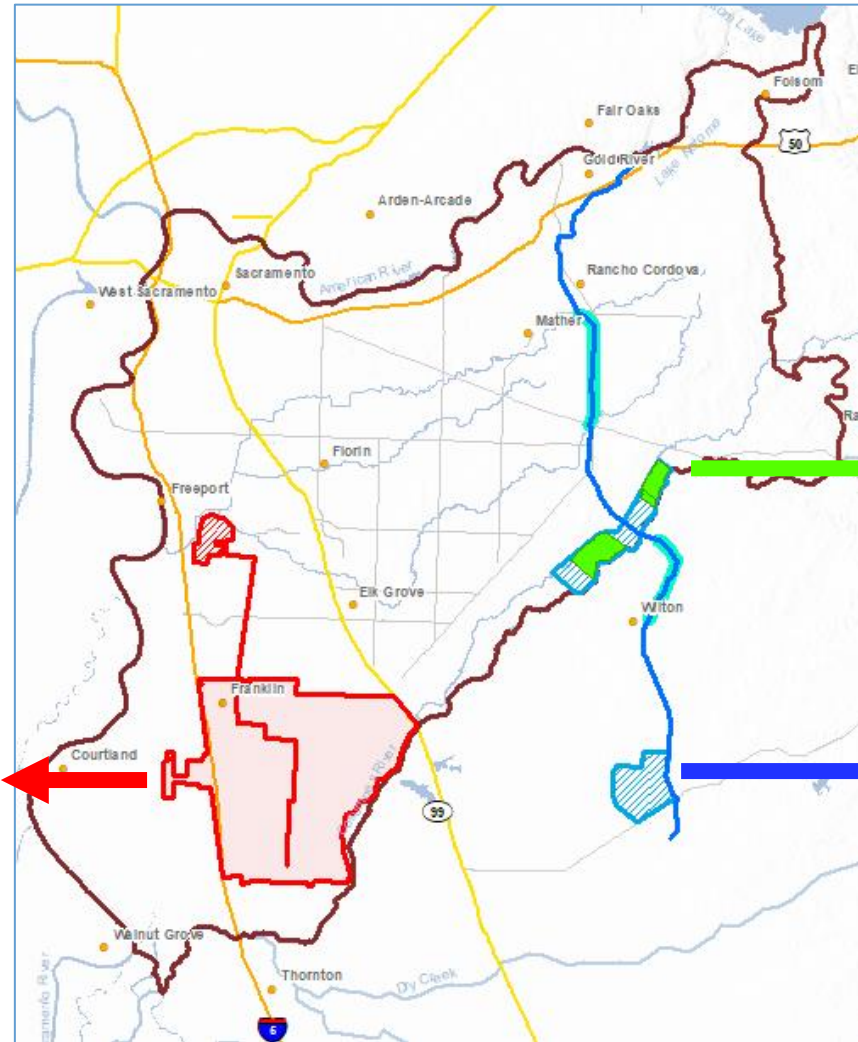
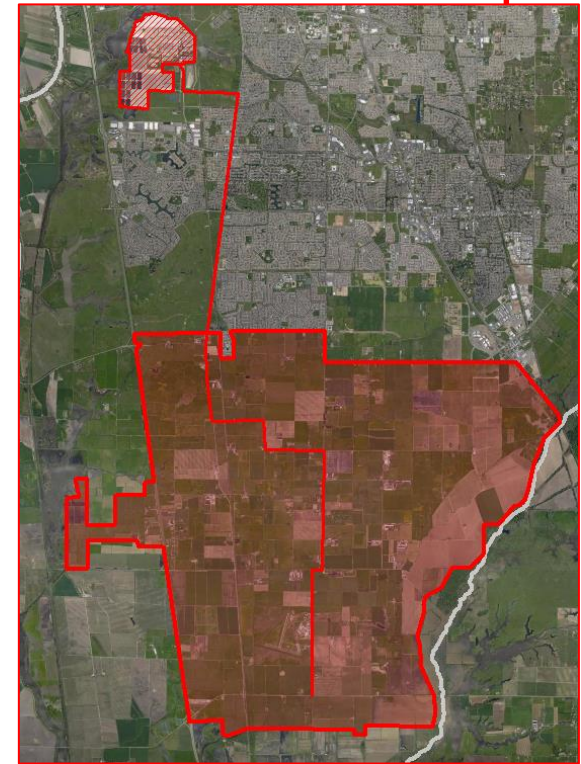
- Positive Basin Storage Requirement
 - Storage must precede withdrawal
- Incremental increase in storage
 - “Leave behind” of X%



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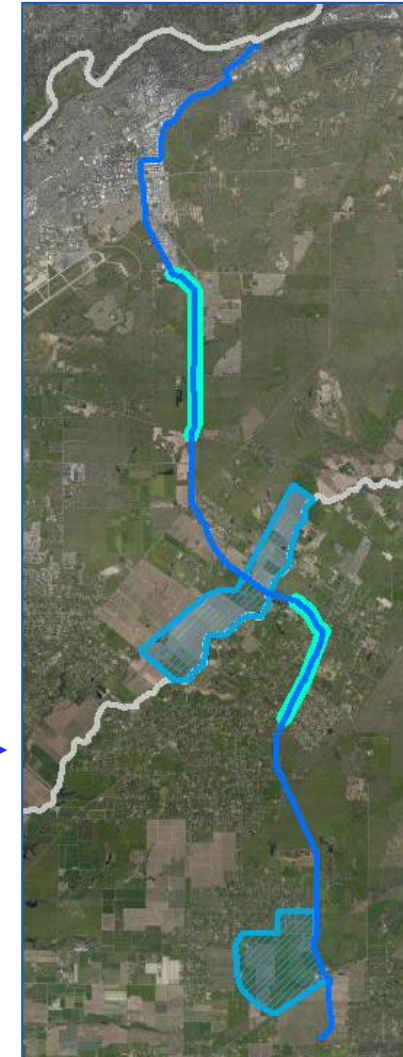
Major Projects – Location Map

Harvest Water Project



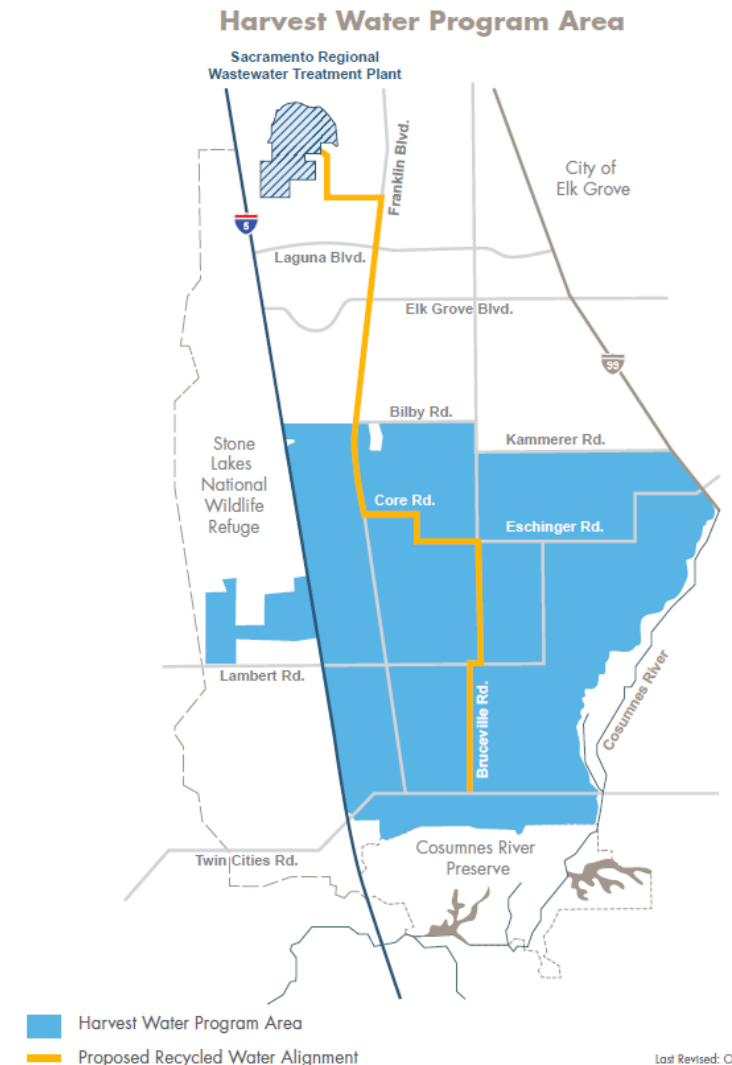
OHWD Cosumnes
Recharge

SAFCA Flood-MAR



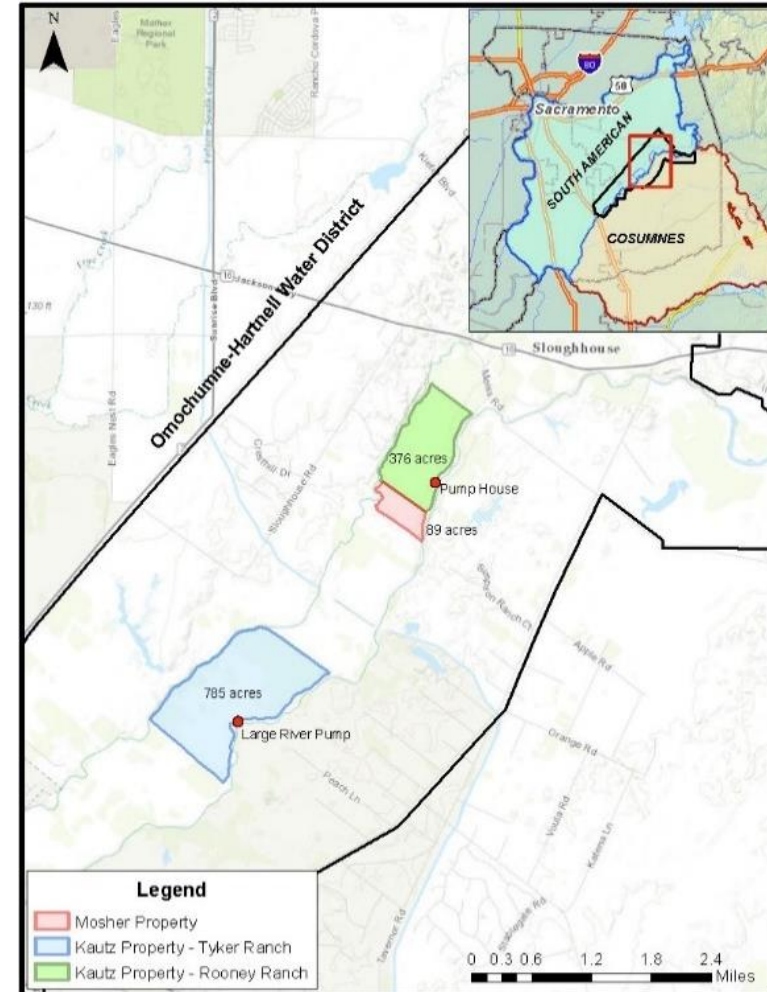
Harvest Water Project – Recycled Water

- Use of recycled water from upgraded Regional San Wastewater Treatment Plant
- In summer, recycled water used in lieu of groundwater
- In winter, recycled water used to create wildlife habitat
- Will increase groundwater storage and raise groundwater levels



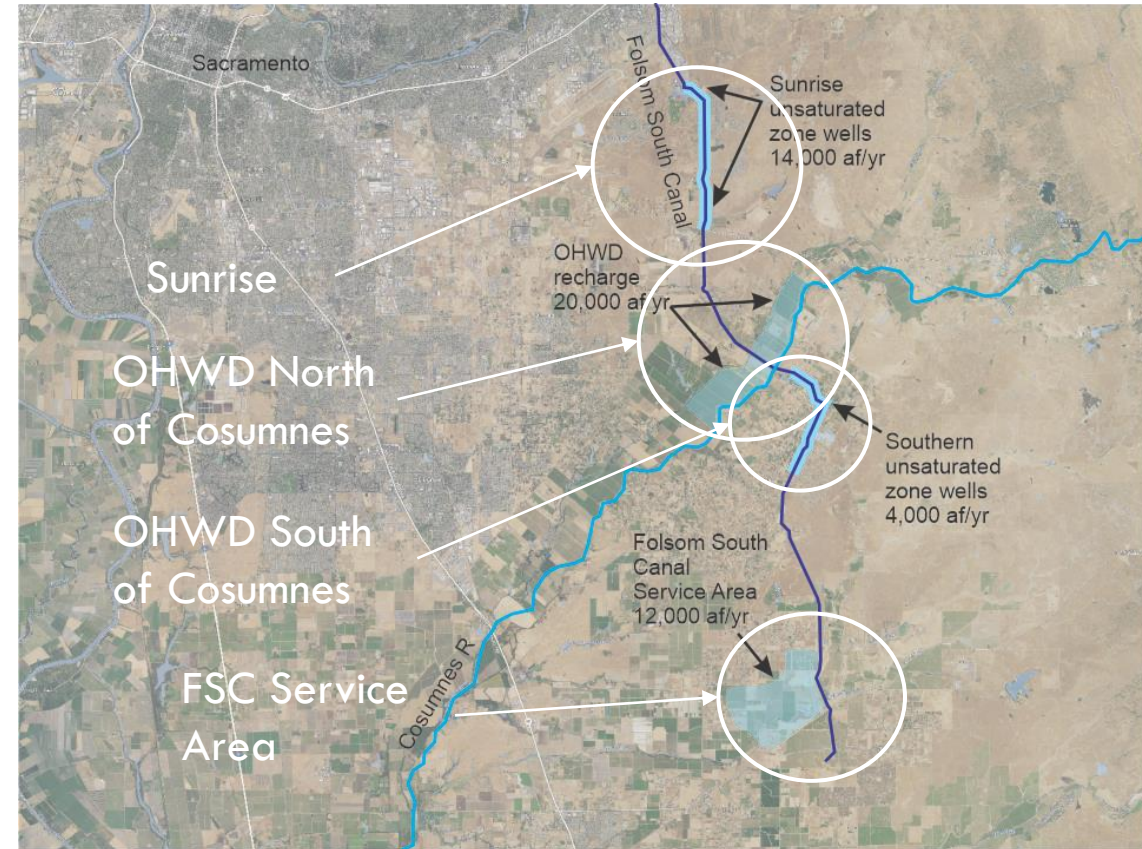
Omochumne-Hartnell Water District (OHWD) – Seasonal Recharge

- Divert portion of peak winter flows from Cosumnes River
- Apply water to over 1,000 acres of farmland along Cosumnes River
- Will recharge groundwater basin and raise GW levels along the Cosumnes River



Sacramento Area Flood Control Agency (SAFCA) – Wet Year Recharge

- Would involve revised operation of Folsom and upstream reservoirs
- Revised flood control operation would “free up” significant volumes of water from American River basin in wet years
- Would transfer water to recharge areas using the Folsom South Canal



Summary – Major Project Groupings

- **Conjunctive Use**
 - Multiple, Complex Conjunctive Use Options
 - Components include: Groundwater Banking, System Interties, Groundwater Well Rehabilitation, Active Groundwater Recharge (structural and non-structural)
- **Recycled Water Use for Irrigation and Habitat Enhancement**
 - Harvest Water (50,000 AFY)
 - City of Sacramento Recycled Water Program (2,700 AFY)
- **Supply Augmentation (recharge)**
 - OHWD - Cosumnes
 - SAFCA Flood-MAR
- **Demand Management**
 - Urban Conservation components: high-efficiency appliances, water-friendly landscapes, plumbing retrofits, water audits (residential, commercial, large landscape), others
 - Agricultural components: Irrigation efficiency, others

Next Steps – Ongoing Technical Work

- Using CoSANA model to evaluate impacts of the projects and actions discussed today
- Projecting future GW levels
- Determining impacts on:
 - Shallow Wells
 - Stream Depletion
 - Groundwater Dependent Ecosystems (GDEs)
 - Storage volumes
- Use information in preparation of draft GSP

Shallow Well Protection – Under Consideration

- Program to provide financial assistance to owners of shallow wells that may be impacted by future drops in groundwater levels
- Possible solutions:
 - Lowering pump in well
 - Deepening well
 - New well
- If approved, would be sponsored by GSAs

Questions?

Thank you!

