A Model Multi-Benefit Recycled Water, Groundwater Storage, and Conjunctive Use Project

Water Education Foundation
Water 101 Tour
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Topics Covering Today

• Overview of the South County Ag Program
• Summary of WSIP Funding Award

• Public Benefits of the Program
• Next Steps
Project Overview

- Deliver up to 50,000 AFY of recycled water (includes in-lieu recharge and wintertime irrigation)
- Irrigate up to 16,000 acres of ag and habitat lands
- Produce Public Benefits
  - Groundwater Restoration
  - Ecosystem
  - Water Quality
  - Potential recreation and fire response benefits
WSIP Program Overview

• 2014 Water Bond – Prop. 1 provided $7.5 Billion for variety of water supply and ecosystem improvements

• Chapter 8 provided $2.7 billion for water storage projects (surface and groundwater)

• California Water Commission (CWC) tasked with developing & implementing WSIP

• Regional San awarded up to $280.5 million for the South County Ag Program!
WSIP Program Overview

- WSIP can fund only the Public Benefits of a water storage project (ecosystem, water quality, recreation, flood control, and emergency response)
- Projects must also benefit Delta ecosystem or its tributaries
- Funding available - Up to 50% of the public benefits (however, ecosystem benefits must be 50% public benefits)
- Conjunctive use projects can receive up to 100% of the Public benefits
WSIP Timeline & Process
To Receive Funding

• Requires contracts with DFW, SWRCB and DWR regarding public benefits
• Requires all draft supplemental environmental documents complete by Jan 1, 2022
• Requires major environmental permits to be secured
  – CEQA review needed to support environmental permits
• CWC funding agreement cannot go forward until these steps are complete
Groundwater Restoration Benefits

Provides Multiple Public Benefits through Conjunctive Use

- Restores groundwater levels up to 35 feet within 15 years
- Improves stream flows in the Cosumnes River
- Increases groundwater storage by ~ 245,000 AF in 10 years
- Provides ~30,000 AFY for conjunctive use during droughts
GW Elevation with Project — Comparison to Baseline —
Increase in Groundwater Storage

Difference between Project 2030 versus Baseline 2030

Folsom Dam picture courtesy of Freshwaters Illustrated
Percentage of Time with Groundwater Elevations within 25' of the Surface

Baseline

Project
2030 Water Table
Baseline
- 20 feet below surface or greater

2030 Water Table
With Project
- 20 feet below surface or greater
Ecosystem Benefits – In the Delta!
$246.30 Million

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
Water Quality Benefits
$47.7 Million

- Reduce salt loading to Sacramento River by 95 tons per day

- Four of eight Delta Waterways are included on State’s 303(d) list for electrical conductivity

- Equivalent benefit would require costly reverse osmosis treatment for salt removal
Other Non-Monetized Public Benefits

- Improves Climate Change Resiliency
- Improves Habitat Connectivity –
- Preserves Working Farmlands
- Improves Groundwater Dependent Ecosystem Science
- Aids in Emergency Fire Response
- Increases Recreation
- Helps accomplish objectives of Prop. 1 and SGMA
Facilitating Collaboration & Building Partnerships
How Will Public Benefits Be Achieved?

- Design & Construct Conveyance and Distribution Facilities
  - Including on-site facilities for end users
- Develop & Implement Ecosystem Improvements
- Develop & Implement Conjunctive Use Program
- Develop & Implement Groundwater Accounting Program & Integrate with SGMA
  - 70% to GW recharge & 30% for extraction during critically dry years
- Establish Monitoring & Reporting Program and Manage Adaptively
Key Next Steps

- On-going stakeholder collaboration
- Secure Petition for Change
- Develop Agreements/Contracts with CWC, DWR, SWRCB & DFW
- Finalize Ecological Plan (identify high “eco-value” areas)
- Develop & Secure Agreements with landowners/farmers/water suppliers
- Establish Pricing of Recycled Water
- Design & Construction (conveyance and distribution, including farmers and urban water suppliers)
- Supplemental CEQA Documents
Summary of South County Ag Program’s Multiple Benefits
Summary of South County Ag Program’s Multiple Benefits
Questions?

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