



REGIONALSAN
TAKING THE WASTE OUT OF WATER
Sacramento Regional County Sanitation District

Water Recycling Program Update

January 22, 2015

WRCA Central Valley / Sierra Foothill Chapter

By: Jose Ramirez, P.E.

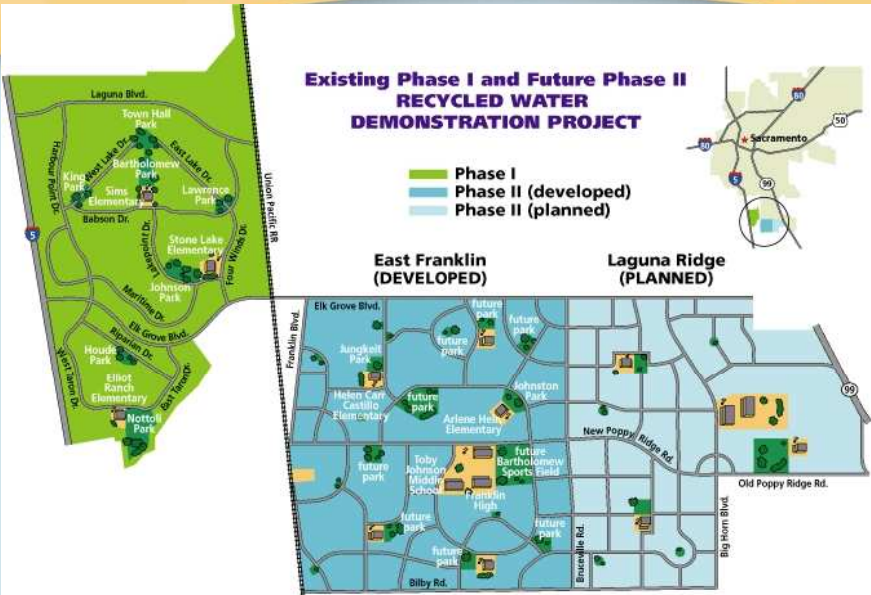
Overview

- Regional San Water Recycling Efforts
 - **City of Elk Grove Projects**
(landscape irrigation)
 - **South County Ag Program**
(agriculture and habitat lands irrigation)
 - **Sacramento Power Authority / City of Sacramento Projects**
(industrial and landscape irrigation)
 - **Recycled Water Trucking Program**
(Tanker trucks, street-sweeper, etc.)

City of Elk Grove Projects

(Landscape Irrigation)

- Regional San and Sacramento County Water Agency Partnership
- Water recycling facility built at SRWTP
- Phase I in service since 2003 (~3 MGD)
- Phase II expansion may be functional by 2023 (~4 MGD)
- Landscape irrigation and limited industrial uses
- Phase II needs RW T-Main



South County Ag Program – Video

(Agriculture & Habitat Lands Irrigation)



South County Ag Program – Service Area

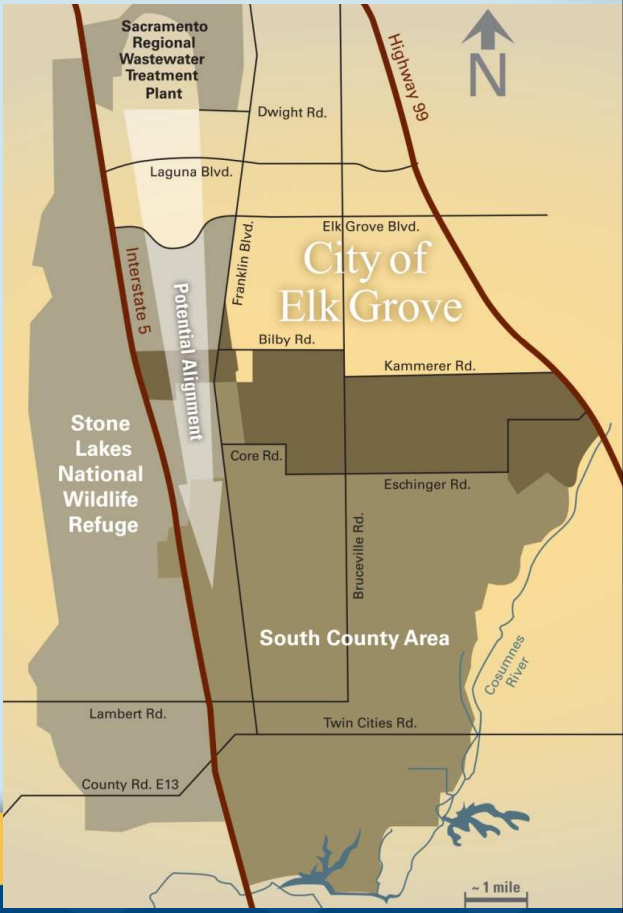
Description

The program would provide up to 52,000 acre-feet per year of recycled water to irrigate up to 18,000 acres of permanent agriculture and habitat conservation lands.

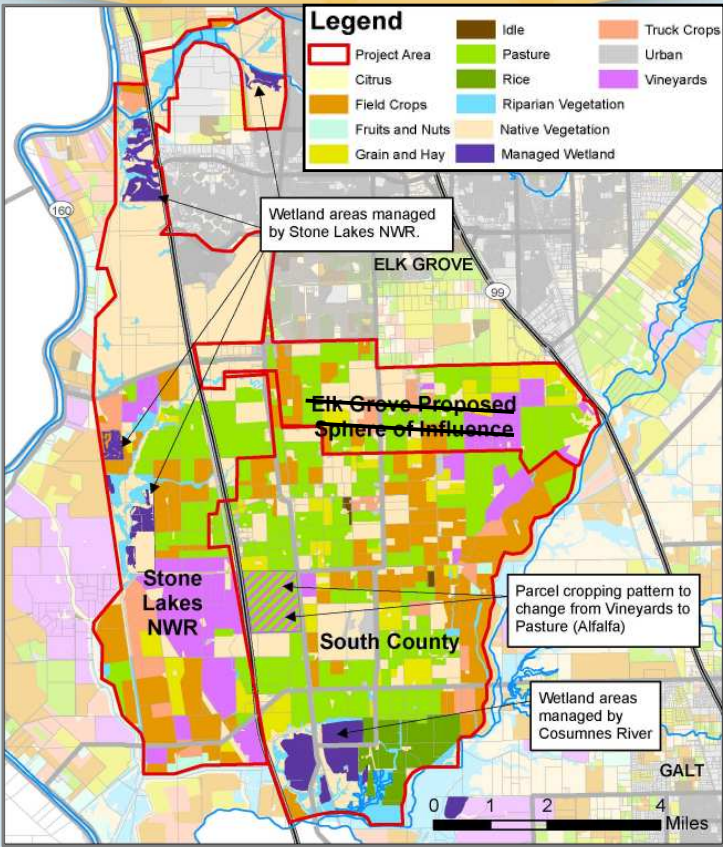
Title XVI Feasibility Study Area

Subarea	Total Acreage
Stone Lakes Refuge	17,880
Proposed Elk Grove SOI	6,250
South County Area	18,270
Total Acreage	42,400

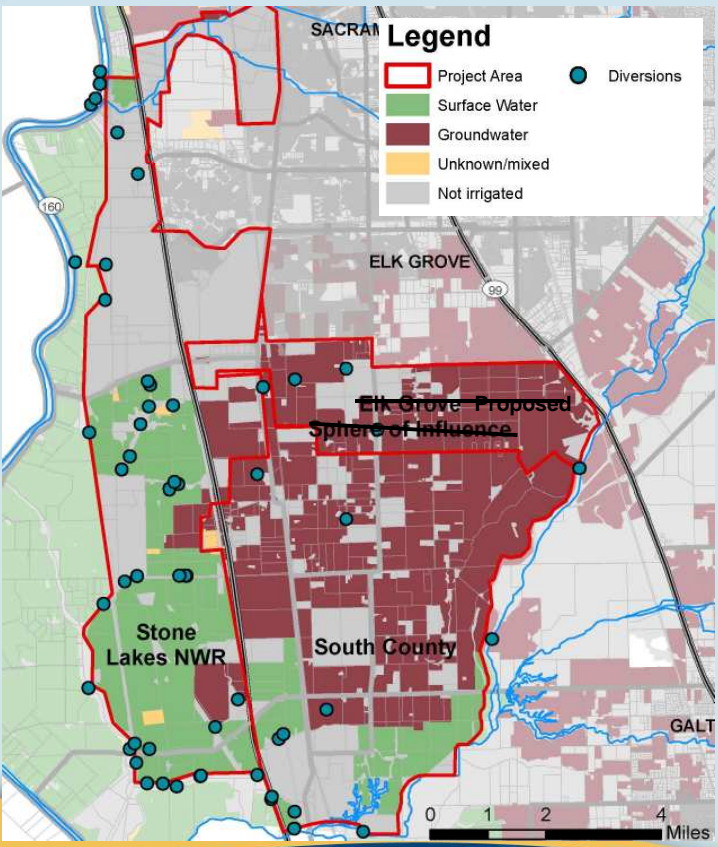
- USBR provided \$110,000 grant for feasibility study
- May 2014 Report and Revised Jan. 2015 Report

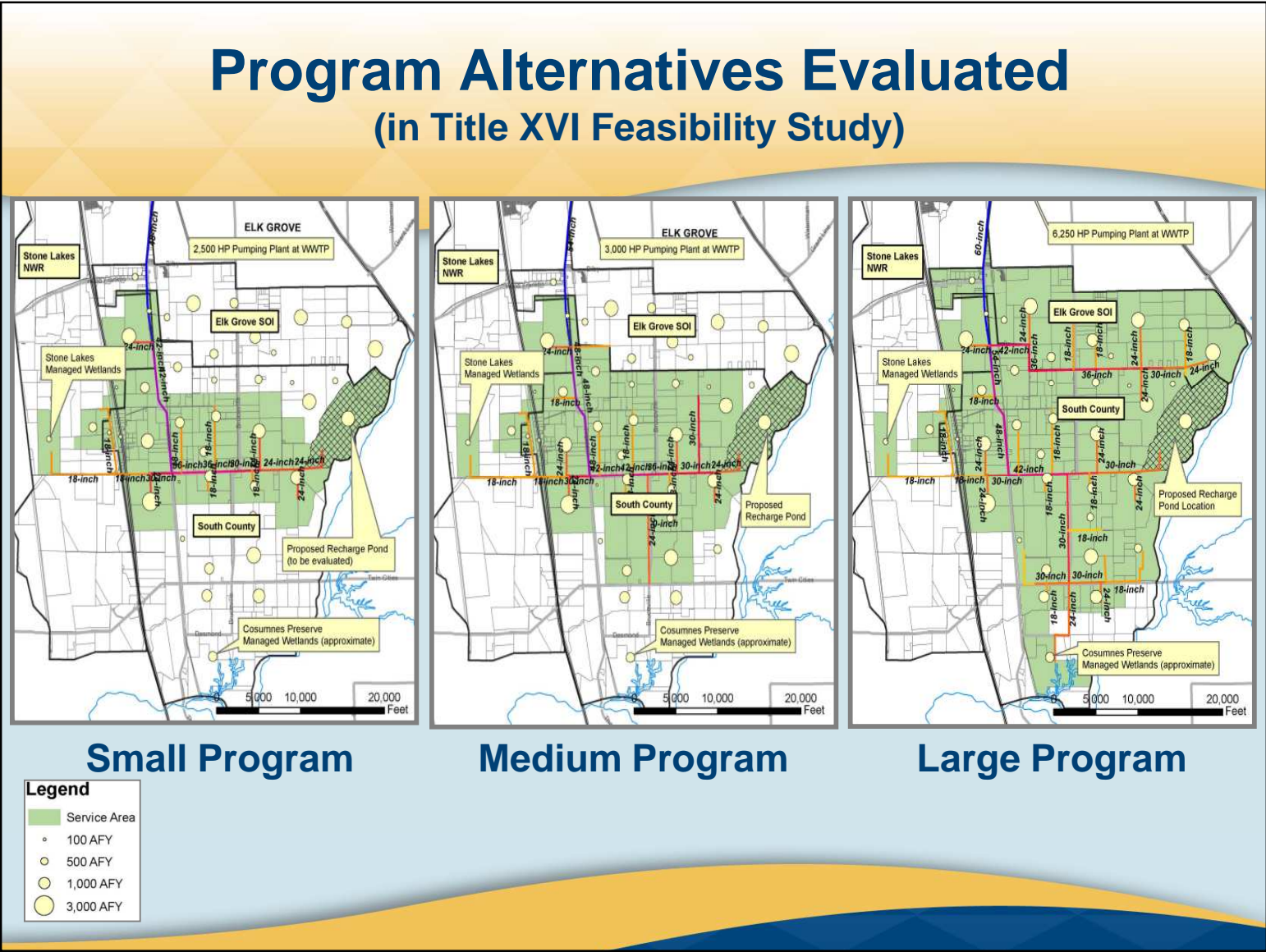


Types of Crops



Existing Water Supplies





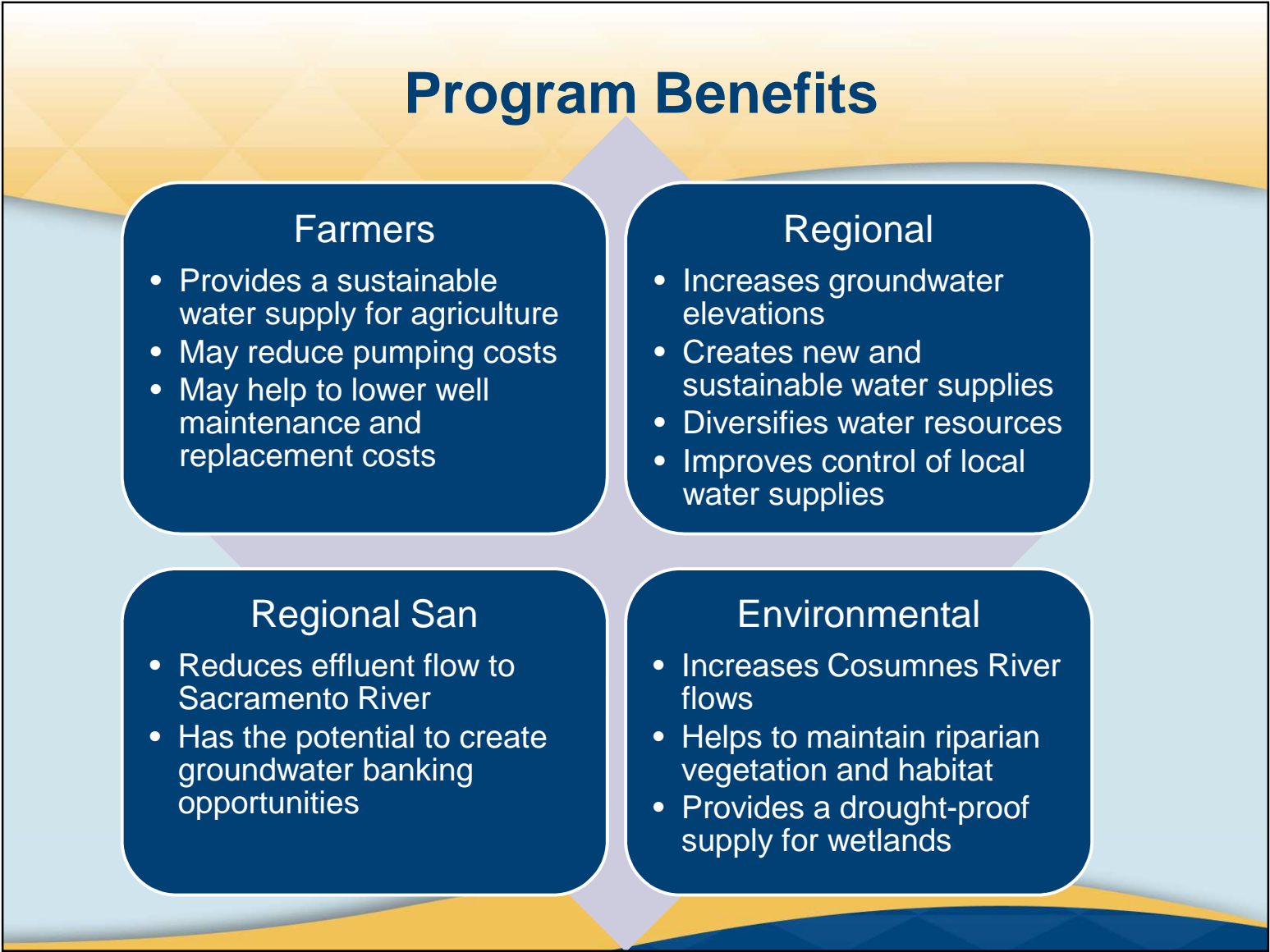
Program Alternatives Evaluated

(in Title XVI Feasibility Study)

- Alternatives build in size to balance cost-benefits and to facilitate financing

Program Size	Irrigated Acreage	Recycled Water Delivered (AFY)	Capital Cost (Millions)	Annual Unit Cost (\$/AF)
Small	8,000	27,000	\$140	\$250/AF
Medium*	11,000	34,000	\$175	\$240/AF
Large	18,000	52,000	\$245	\$230/AF

**Recommended alternative in the Title XVI Feasibility Study
(Currently moving forward with a **Medium Plus Alternative**)*



Schedules of Two Major Programs

Programs & Tasks	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
EchoWater Program															
Planning / Pilot Testing / Design															
Construction															
Startup / Operations															
South County Ag Program															
Feasibility Study															
Facilities Plan and EIR/EIS Docs.															
Final Design															
Construction															
Startup / Operations															

EchoWater Program= Treatment (Ammonia and nitrate removal; Filtration; Higher level of disinfection)
South County Ag Program= Recycled Water Delivery and Reuse

Schedule for Facilities Plan Development

	2014							2015							2016	
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
1. Management Workshops																
2. Facilities Plan Report																
3. Environmental Documentation																
4. Institutional Development																
5. Stakeholder and Public Outreach																

- Key Dates:
- CEQA Notice of Preparation Issued: Late January, Early February 2015
 - CEQA Certification: February 2016

Facilities Planning Scope:
Onsite Retrofits; Hydraulic Modeling; Pipeline Alignment; Pump Station; Facilities Plan Report

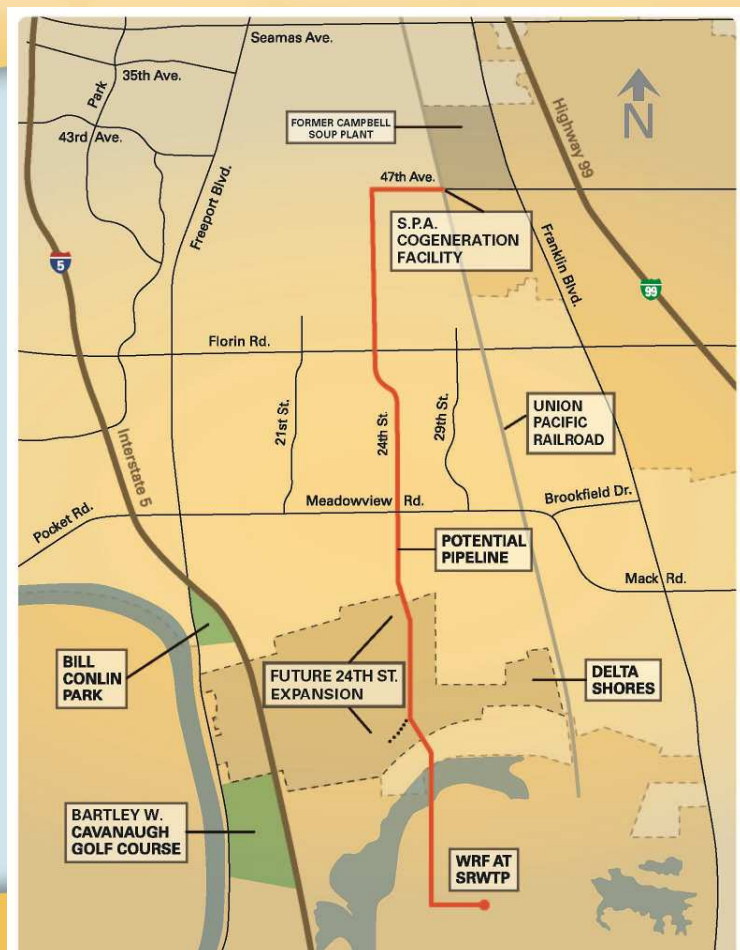
Next Steps

Facilities Plan Report (10% design)

- Develop facilities plan and environmental documentation (CEQA and NEPA)
- Develop institutional and governance frameworks
- Expand stakeholder outreach efforts
- Submit Change-of-use Petition to SWRB
- Continue to pursue state and federal funding

SPA Cogen Project – Industrial Use

- 1,000 AFY (1 MGD) of year-round recycled water demand
- 6.3 miles of 10"-18" diameter transmission pipeline
- Estimated capital cost is \$15 million
- Secured ~\$3.7 million in state grant funding (Propositions 50 and 84)
- Prop. 50 requires completion by Dec. 2015 and Prop. 84 by June 2016
- Pipe upsized to connect other future users by upsizing pipeline



Future Expansion Opportunities in the City of Sacramento – Landscape Irrigation

- Initial service to SPA (SMUD)
- Upsized T-Main pipeline (10" to 18" diameter) to serve other future users
- Additional recycled water demand: ~2,855 AFY
- Approx. 562 acres irrigated
- Phased approach to expand program with future grants



Next Steps

Final Design, Permitting, Construction

- CEQA PLUS (completed in November 2014)
- Complete institutional and governance framework
- Submit Change-of-use Petition to SWRCB
- Continue to pursue funding at state and federal levels
- Construction (Fall 2015 to Fall 2016)

Proposed Recycled Water Trucking Program

- **Potential users:** tanker trucks, street-sweepers, cleaning/washing companies, landscaping companies, residential customers, etc.
- **Potential uses:** dust control, soil compaction, decorative fountains, power and street washing, landscape irrigation and ponds, sewer cleaning, etc.
- Stakeholder engagement
- Feasibility Study & Technical phases
- Identify location of Fill Stations



http://www.youtube.com/watch?v=SlbvLUvmyso&feature=player_embedded

Video About Water and Water Recycling

- A video promo for “Last Call at the Oasis” (2012) - a documentary about water supplies

http://www.youtube.com/watch?v=II_YIUDAv3c&feature=youtu.be

Questions?

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