



The Davis Woodland Water Supply Project

WOODLAND ROTARY
CLUB

December 13, 2016



WOODLAND - DAVIS
Clean Water Agency
A Partnership for a Sustainable Future

Presentation Overview

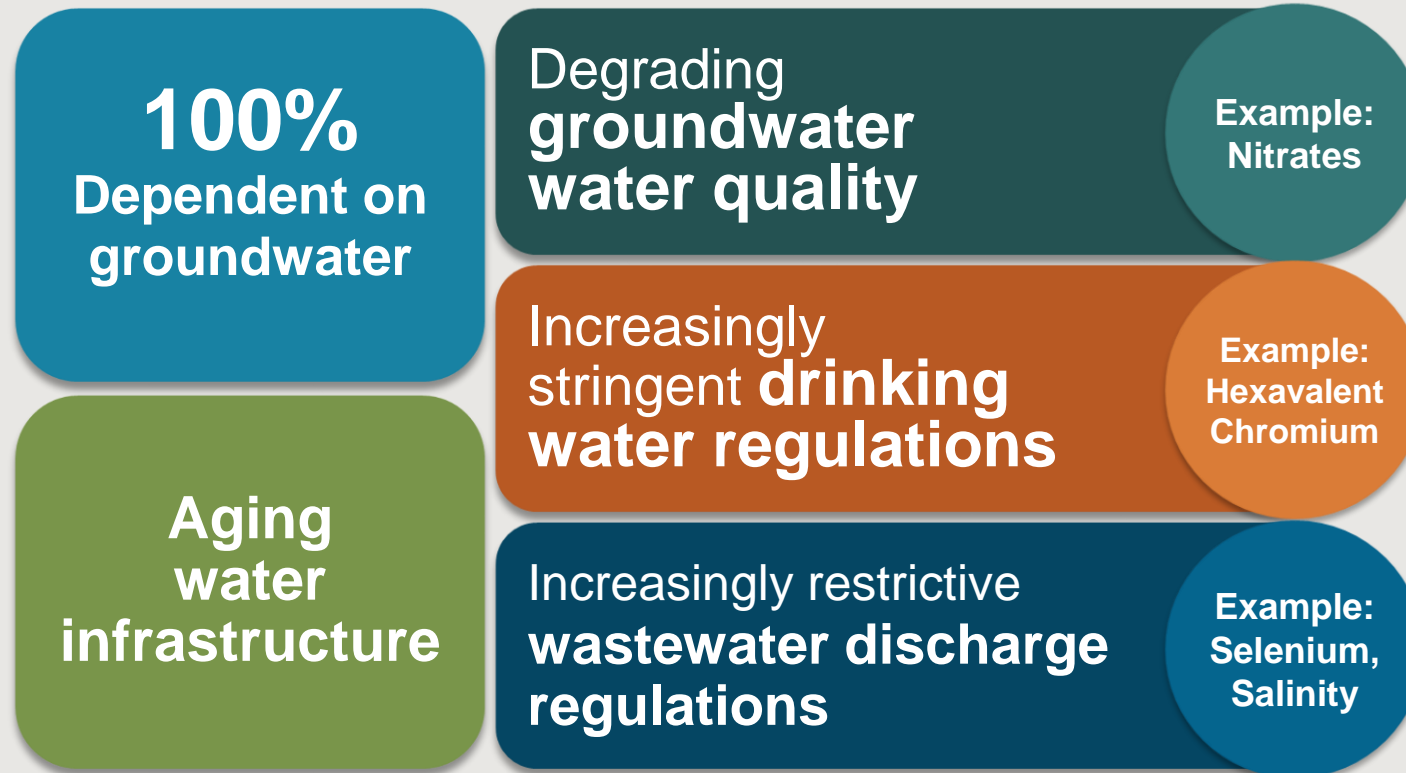
Surface Water Project Overview

Project Delivery Method

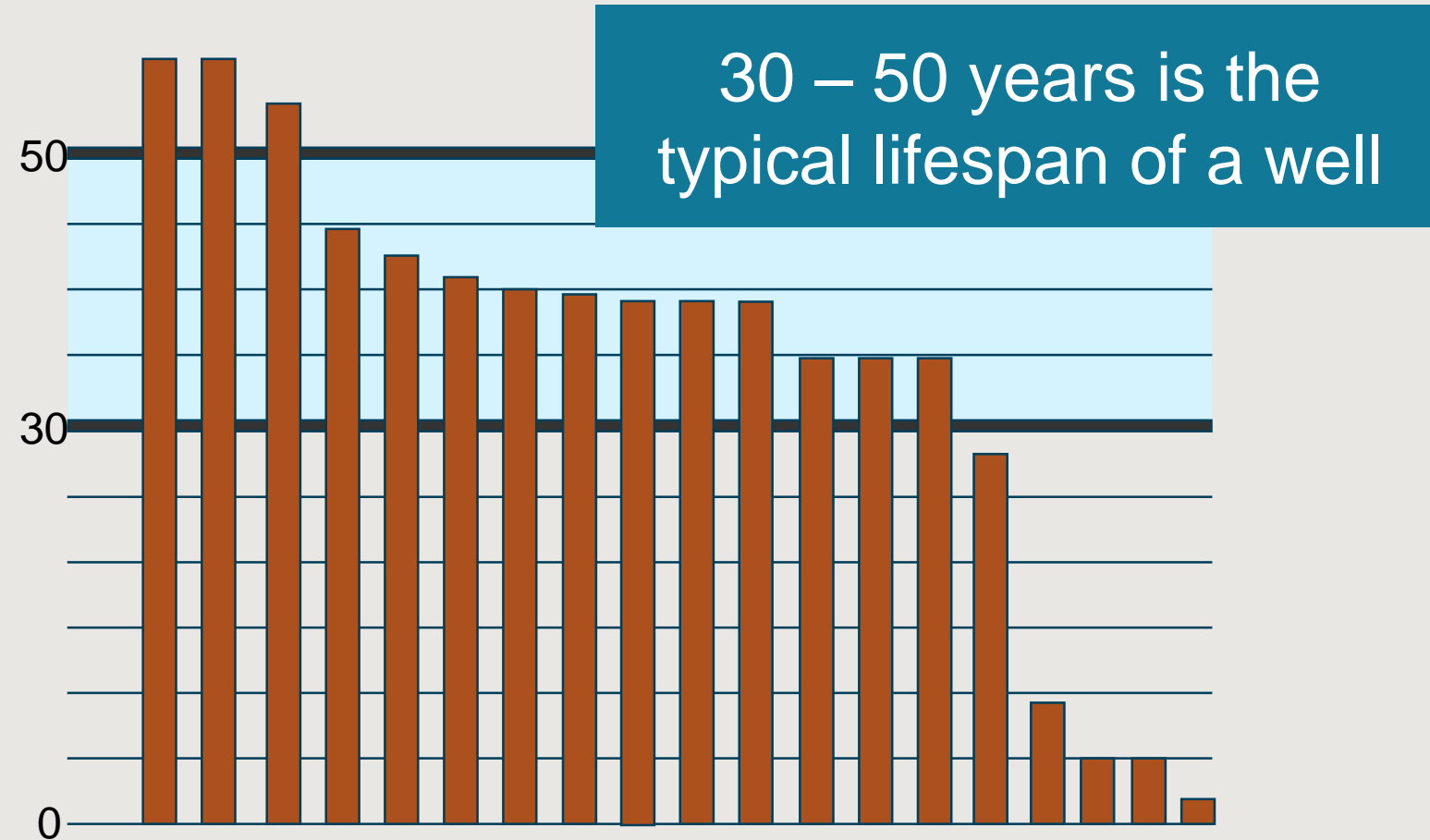
Water Rights & Operations

Budget and Schedule

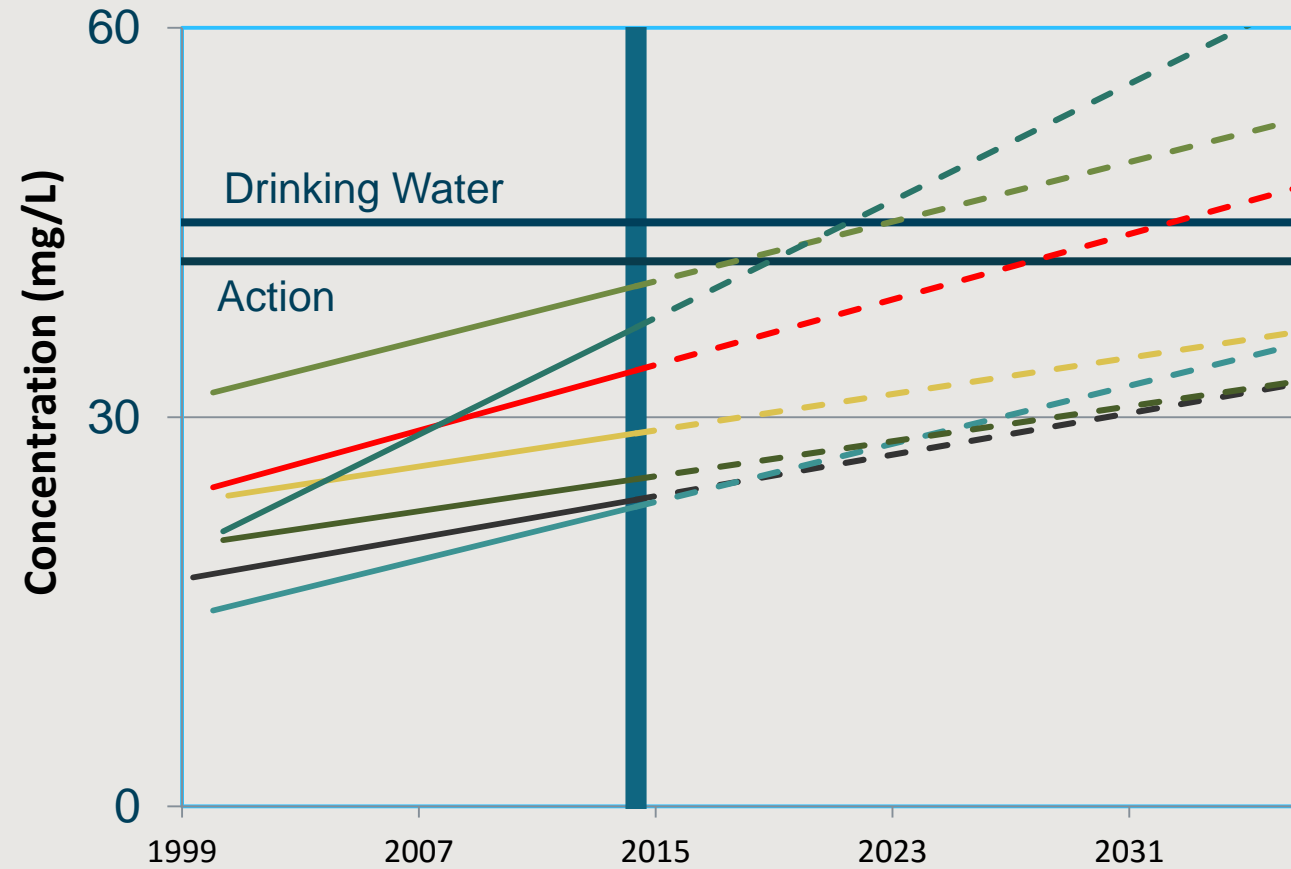
Water Supply Issues



Woodland Aging Well System



City of Davis Well Nitrate Levels



Well Shutdowns



- ▲ Well shut downs
- Active wells
- ◆ Under Construction



Governing Board:

2 council members from each city

Non-voting representative from UC Davis and Yolo County

FORMED

September 15, 2009

JPA

Davis and Woodland

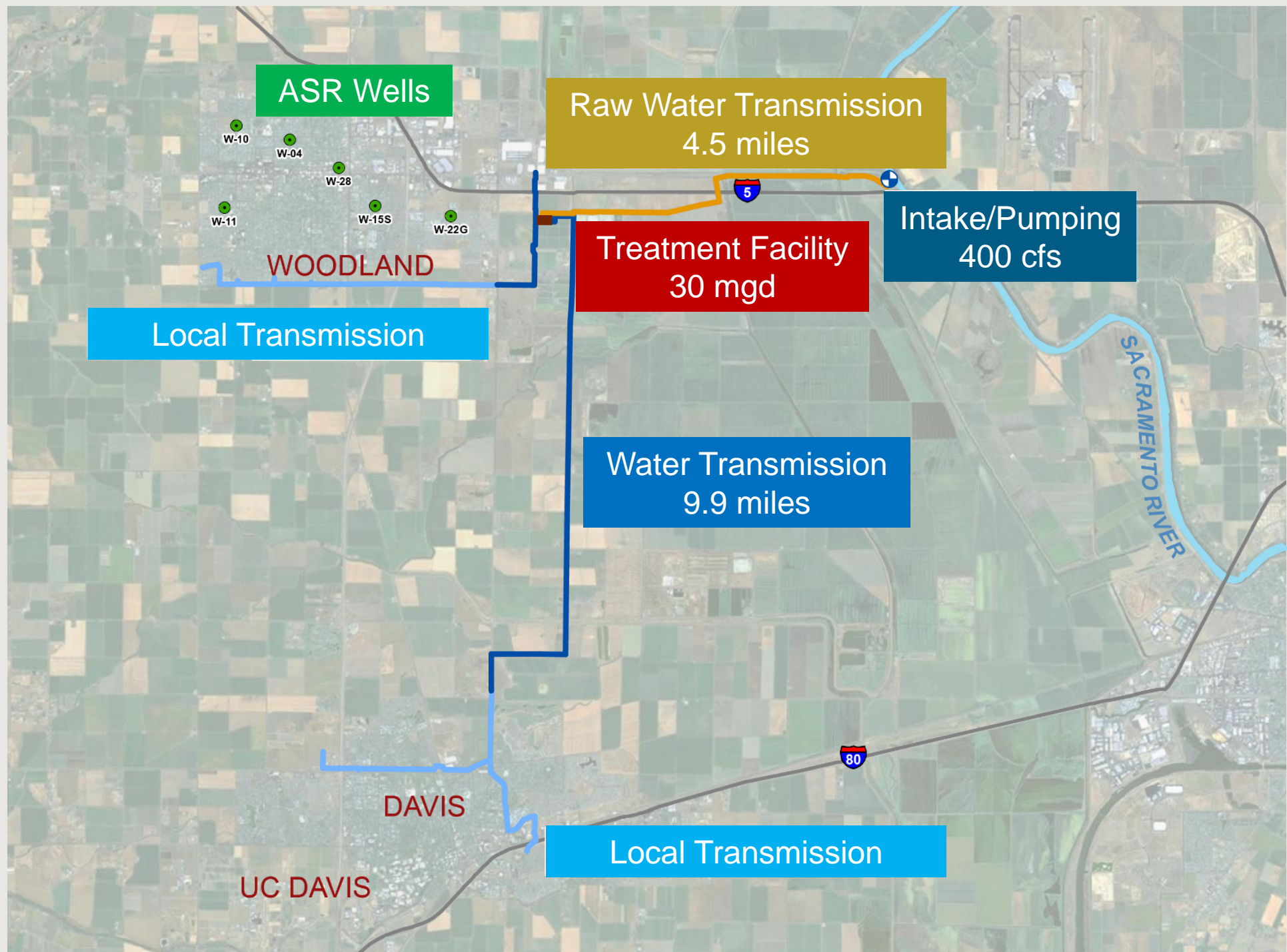
UC Davis a Contracting Agency

Funded

User fees in each city; cost sharing based on capacity allocation

Project Goals and Objectives

Quantity & Quality	Improve water supply quantity and quality
Regulations	Comply with drinking water & wastewater discharge regulatory requirements
Environmental	Provide environmental benefits and minimize impacts
Diversify	Diversify supply portfolio to improve supply reliability
Sustainable GW	Allow sustainable groundwater pumping integrated with ASR wells
Conservation	Integrate water conservation elements



Project Partners

Intake

Reclamation District **2035**

**Davis-
Woodland
Water Supply
Project**

City of Davis 

City of Woodland



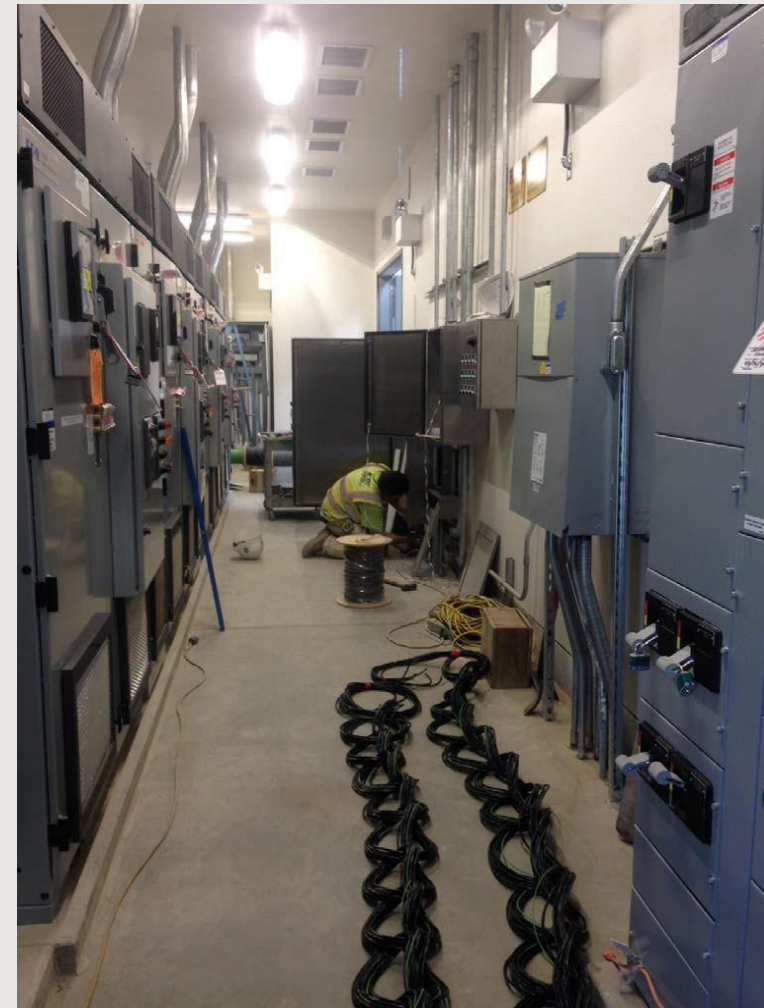
UCDAVIS
UNIVERSITY OF CALIFORNIA

Joint Intake Concept Drawing





Joint Intake
Raw Water Piping in Pump Room



Joint Intake

Installation of vibration sensors (left), ongoing electrical work (right)



Joint Intake
Architectural work on building exterior

Groundbreaking Ceremony- April 10, 2014



May 2, 2016



CH2MHILL - Davis Woodland Water Supply Project / Photo by Multivista / San Francisco
Slideshow - May 2 2016 - **Picture 16**

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Delivery Methods Selected

Design-Build-Operate

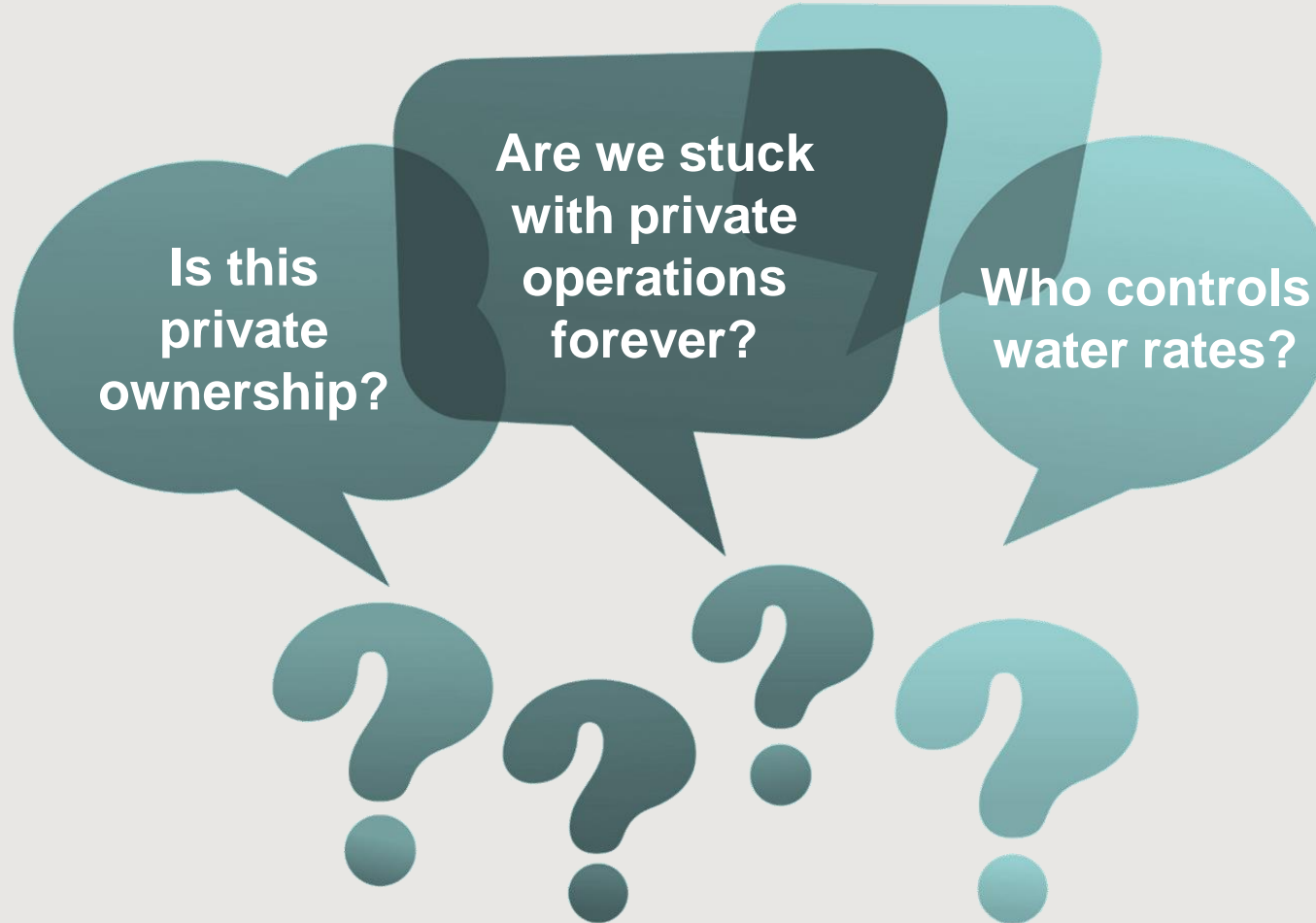
- Treatment Plant & Transmission Pipelines

Design-Bid-Build:

- Intake
- City distribution pipelines

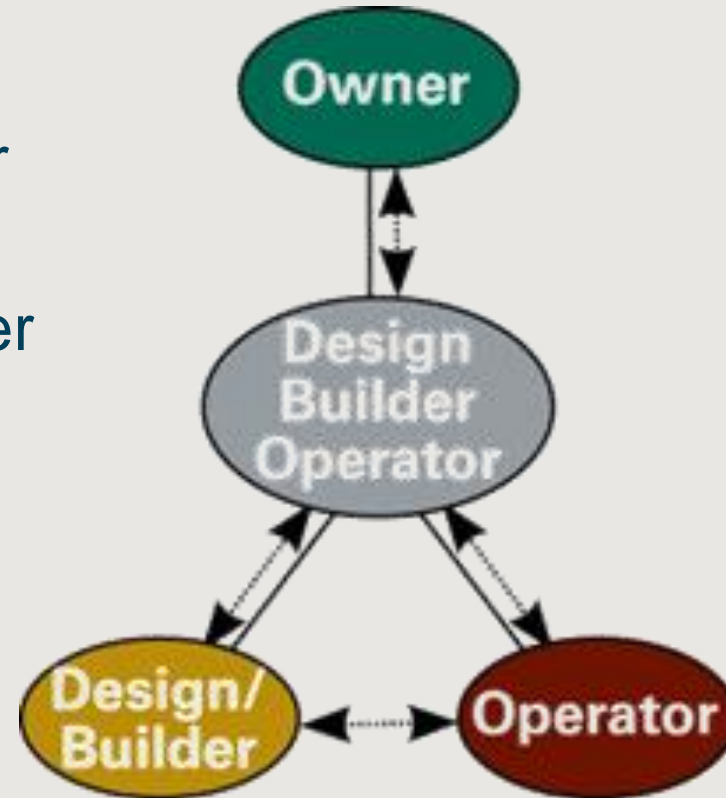


Design-Build-Operate Initial DWWSP Concerns



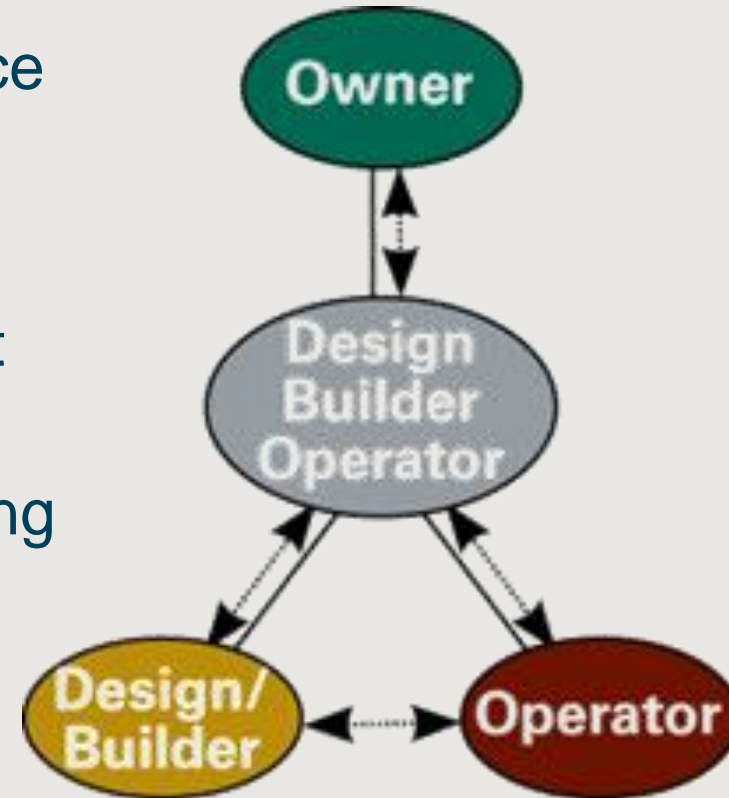
DBO is NOT...

- Private ownership
- Establishment or control of water rates
- Private determination of customer water quality
- Permanent private operation
- Replacement of city staff



DBO is...

- Guaranteed price for performance
- Cost-effective operations
- Timely project completion
- Facilities repair and replacement program
- Local employment and contracting
- Allocation of risk between public and private



Design-Build-Operate Benefits to DWWSP

- Faster Delivery
- Life Cycle Cost Savings
- Early Price Certainty
- Opportunity for Innovation
- Collaborative Selection and Negotiation Process
- Singular Responsibility
- Appropriate Allocation of Risk
- Long-Term Operations



Service Contract Items Important to Community



Local employment and contracting



Pre-approval of subcontractors and key personnel



Quality Management Plan

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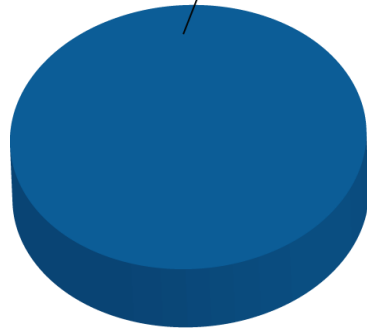
Balancing Supply and Demand

**Demands/Plant
Sizing**

**Supply Yield
Analysis**

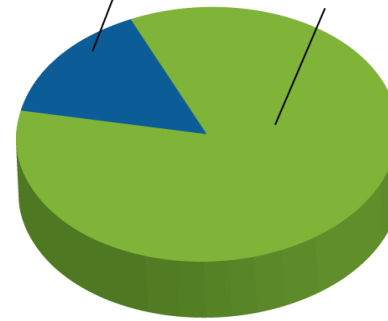
**Supplemental
Supply Sources**

100%
Groundwater



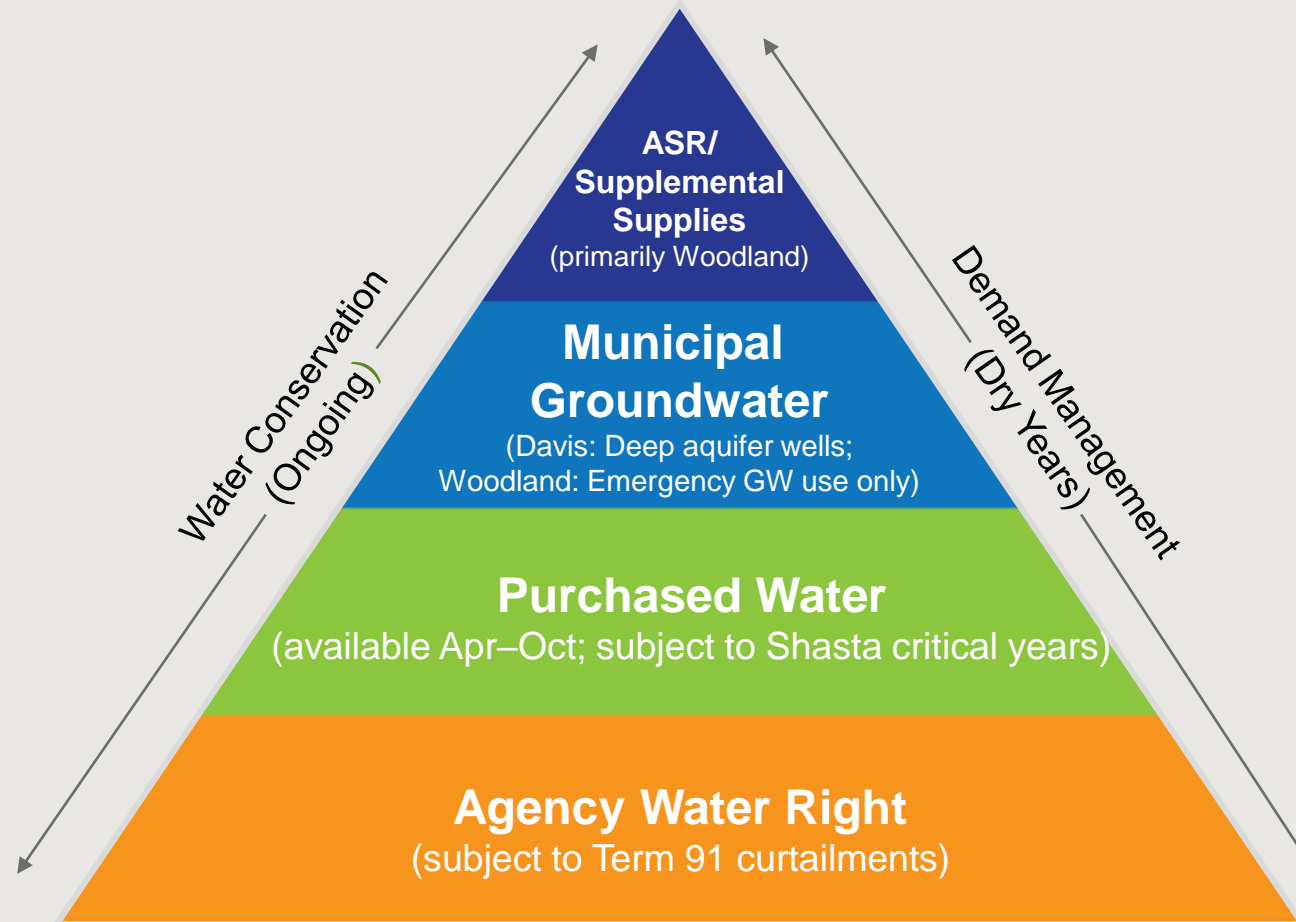
PREVIOUS

5 – 15% **85 – 95%**
Groundwater Treated
Surface
Water



FUTURE

Water Supplies



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Project Costs – June 2016 (million dollars)

Capital Costs, 2009-2016

Construction Costs

Project Component	Cost
DBO Contract	145.86
Agency Quality Assurance & Contract Compliance ^(a)	7.52
Joint Intake	17.57
TOTAL	170.95

(a) Includes Agency design review, construction quality assurance and contract compliance, submittal and RFI review, environmental construction monitoring, environmental mitigation, Agency permitting and incidental costs.

Cost Category	Total	Woodland	Davis	UC Davis
Agency Administration	3.18	1.56	1.47	0.16
Program Management	4.40	2.17	2.05	0.17
Water Supply	1.81	1.29	0.50	0.02
Environmental & Permitting	1.27	0.62	0.60	0.06
Land/ROW Acquisition	4.24	2.00	2.00	0.25
Pre-Design	5.94	3.21	2.51	0.22
Construction	170.95	91.26	68.74	10.94
Capital Contingency	5.19	2.63	2.34	0.22
Costs Expended 2009-2011	7.59	4.02	3.48	0.06
Total Regional Costs	204.54	108.75	83.69	12.11
Woodland and Davis Local Facilities	74.70	31.50	35.50	7.70
TOTAL CAPITAL COSTS	279.2	140.2	119.2	19.8

Project Funding

Intake

Federal/State Grants

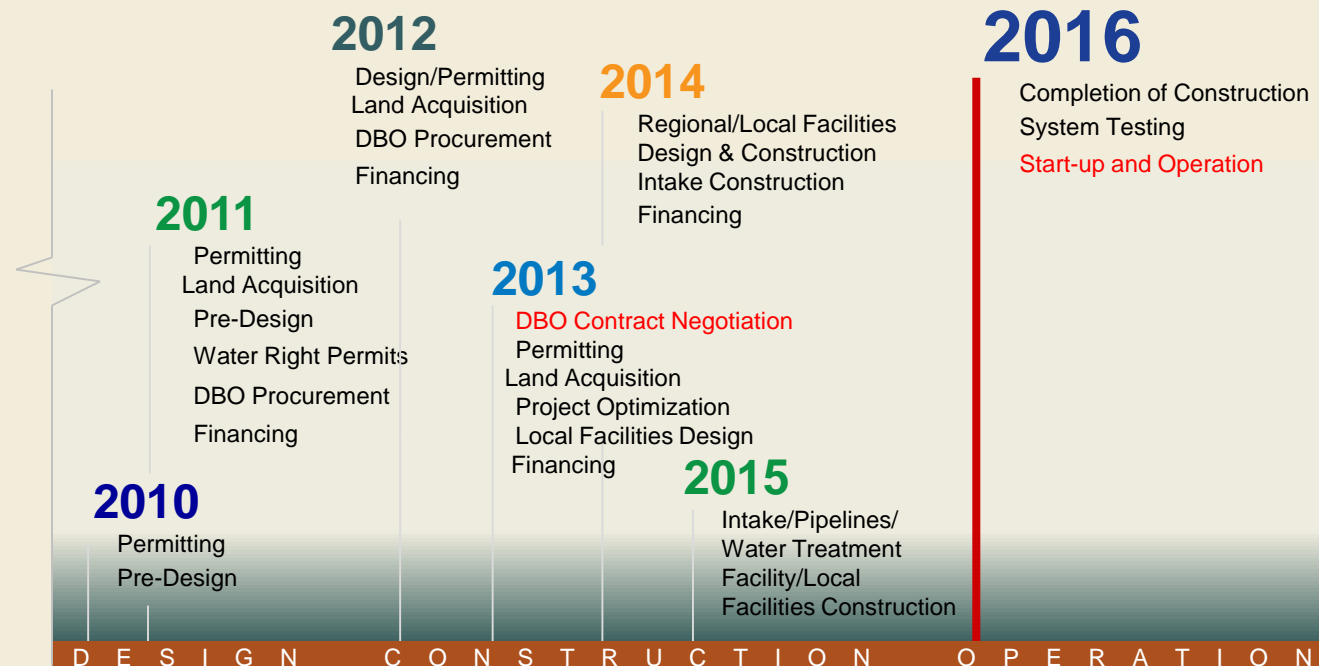
- \$40.2M obtained (\$20.1M each)
- Local WDCWA Share

Project

State Revolving Fund Loans

- Wastewater Nexus
- Safe Drinking Water and Clean Water SRF loan programs
- \$274M of SRF loans secured

Project Implementation Schedule 2010-2016



Schedule Milestones

Task	Completion By
Begin Initial Water Deliveries to Cities	Early June 1 2016
Completion of Acceptance Test and Commencement of Operations Period	June 29, 2016
Begin deliveries of raw water through Joint Intake Facility	September 2016
Substantial Completion of Joint Intake Facility	December 2016



Dedication and ribbon cutting ceremony at the new
RWTF – July 28, 2016



Joint Intake Dedication Ceremony September 13, 2016

Operations

- Currently delivering ~ 12 mgd of treated surface water:
 - Woodland: ~ 6 mgd
 - Davis: ~ 6 mgd
- Meeting all regulatory and contract drinking water requirements
- CH2M working to optimize process operations

Questions



