

Investing in Local Water Services and the Importance of Integrated Resource Management

Mayor Gary Soiseth
City of Turlock, CA



California's Central Valley



Map Source: map-of-usa.co.uk



Map Source: US Geological Survey <http://rca.water.usgs.gov>



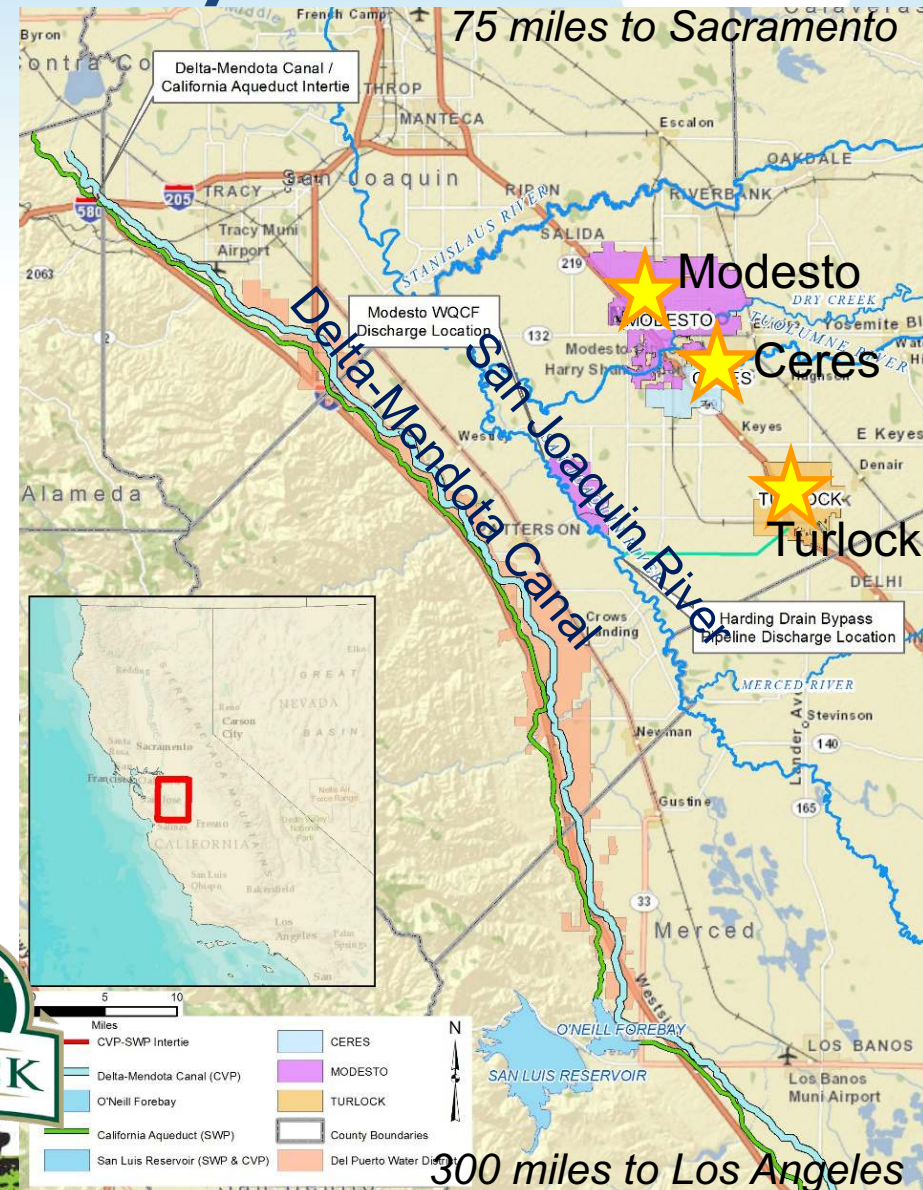
Turlock's Economy

- Population 74,000; 100,000 (Day Time)
- WWTP capacity = 375,000 people
- Home to large food processors
 - Foster Farms
 - California Dairies
 - Sunnyside Farms
 - Land O'Lakes
 - Blue Diamond Growers, etc.
- Residential water use low, but **significant** wastewater generation from industries



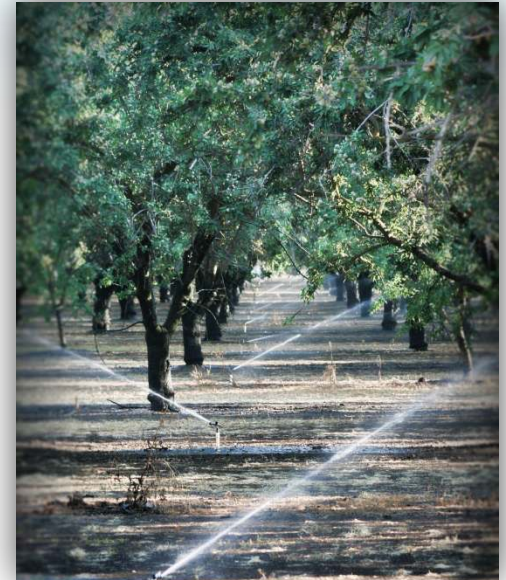
North Valley Regional Recycled Water Program

- Del Puerto Water District
- City of Ceres
- City of Modesto
- City of Turlock
- Stanislaus County
- US Bureau of Reclamation (USBR)

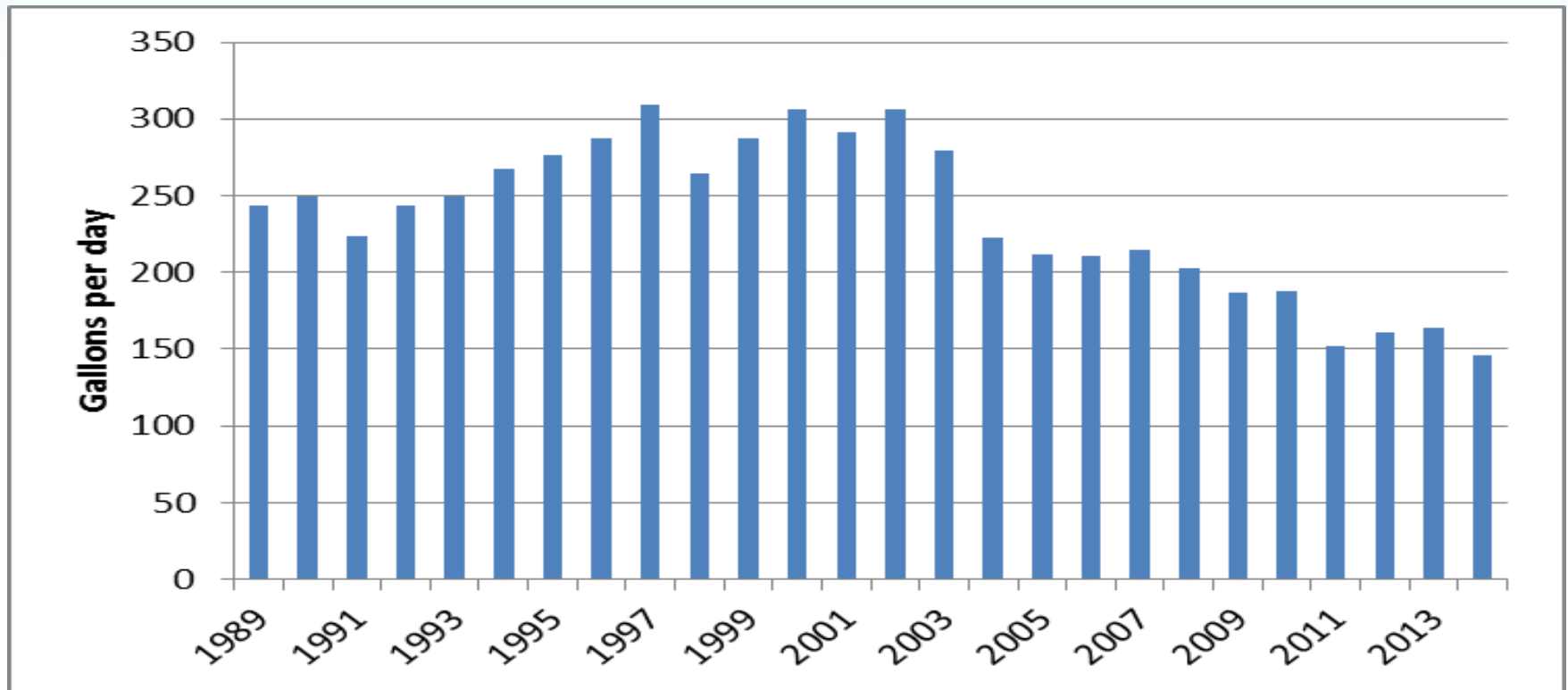


North Valley Regional Recycled Water Program Partnership was established to:

- Provide a regional solution for a local water supply crisis
- Make recycled water available for agricultural irrigation and potential wildlife refuges
- Allow Cities to eliminate discharge to the San Joaquin River
- Provide long-term, reliable water supplies to DPWD to mitigate on-going and severe contractual water supply shortages
- Reduce reliance on Delta conveyance and groundwater pumping to meet unmet water supply needs



RESIDENTIAL Per Capita Water Use 1989-2014



Need for the Program



The Cities' Wastewater Story

Modesto's Wastewater

- 25 MGD
 - Seasonally discharged to San Joaquin River
 - Irrigation of 2,530 acres on City-owned ranch land
- NPDES permit requires tertiary-treatment

Turlock's Wastewater

- 10 MGD
- San Joaquin River disposal of tertiary-treated wastewater
- Recently upgraded outfall from an open drain to a closed pipeline for compliance with NPDES permit

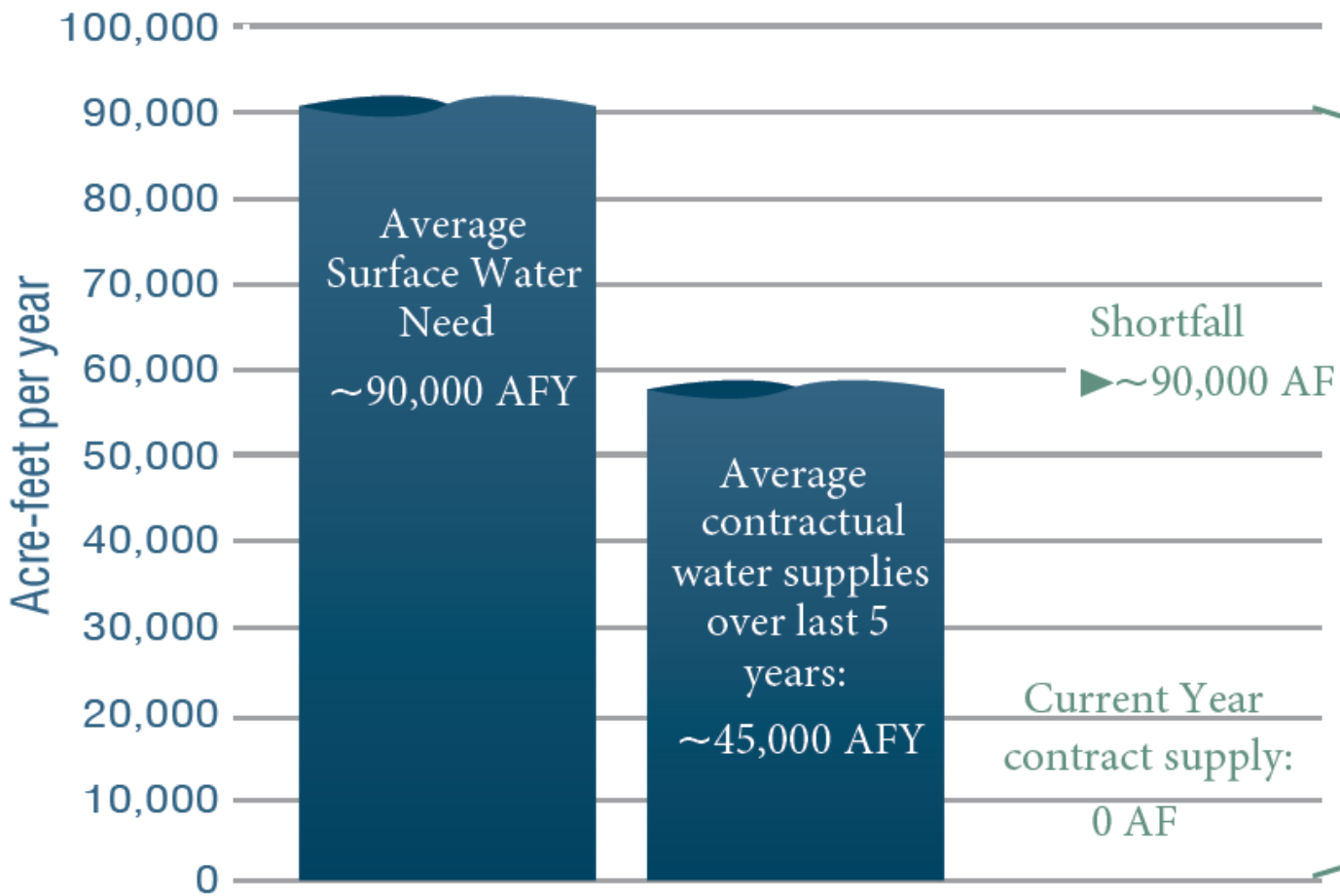


Together the partners can work through their challenges

- Del Puerto Water District
 - Primary water source is Federal allocations from the Central Valley Project (CVP)
 - CVP allocations have been restricted due to drought and environmental concerns
- Cities of Modesto and Turlock
 - Both cities treat to tertiary levels with minimal reuse
 - Cities within irrigation districts that have Pre-1914 Senior Water Rights



Del Puerto Water Customers Have Experienced Significant Shortages and Decreased Reliability in the Last 20 Years



Primary Crops in Del Puerto

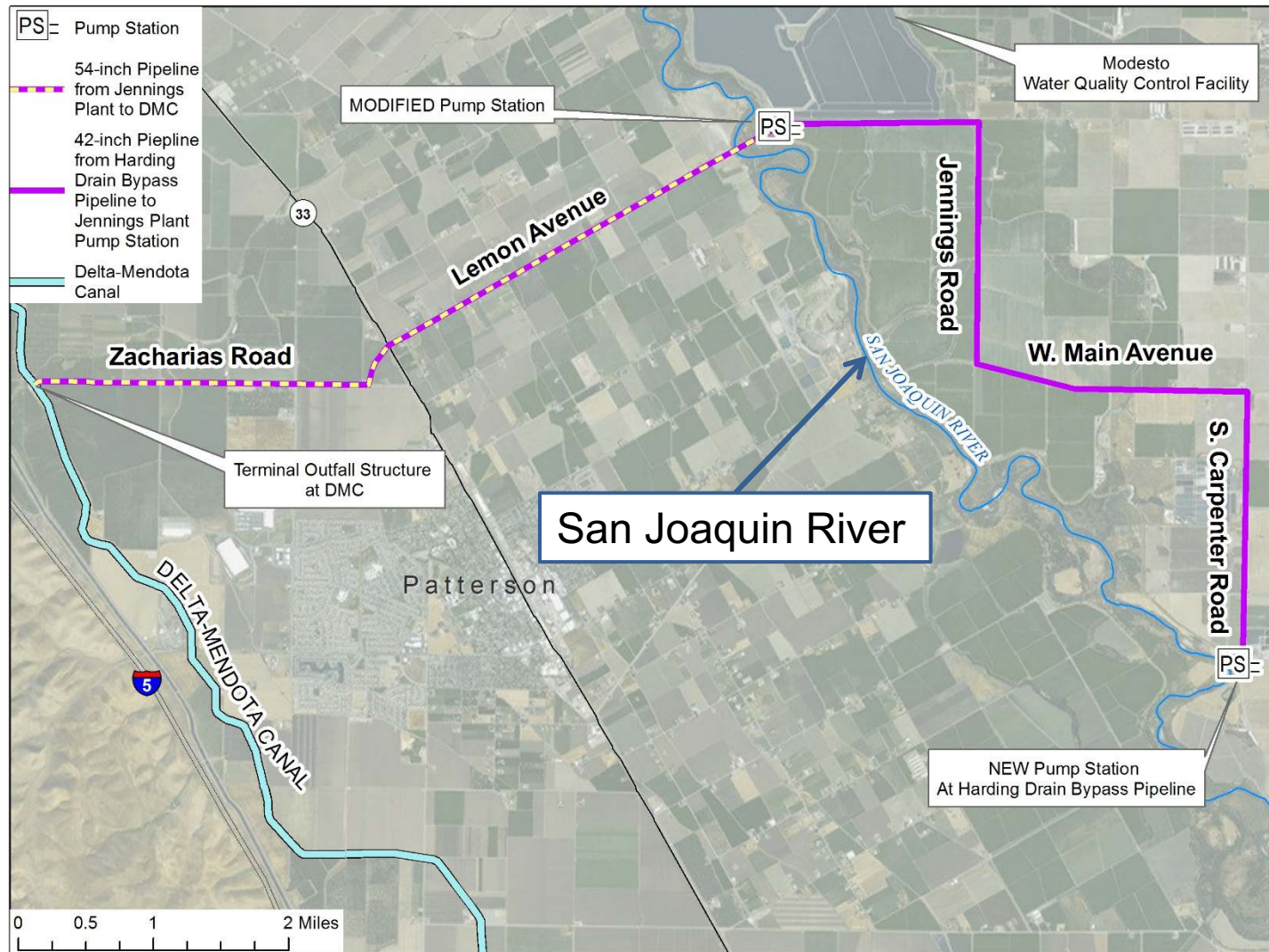
- Almonds (15,000 ac)
- Tomatoes (5,000 ac)
- Beans (3,000 ac)
- Apricots (2,500 ac)
- Barley/Oats (2,500 ac)
- Alfalfa (2,000 ac)
- Walnuts (2,000 ac)
- Other – Misc. (3,500 ac)
- Fallowed (7,500 ac)
- **Total = 43,000 acres**



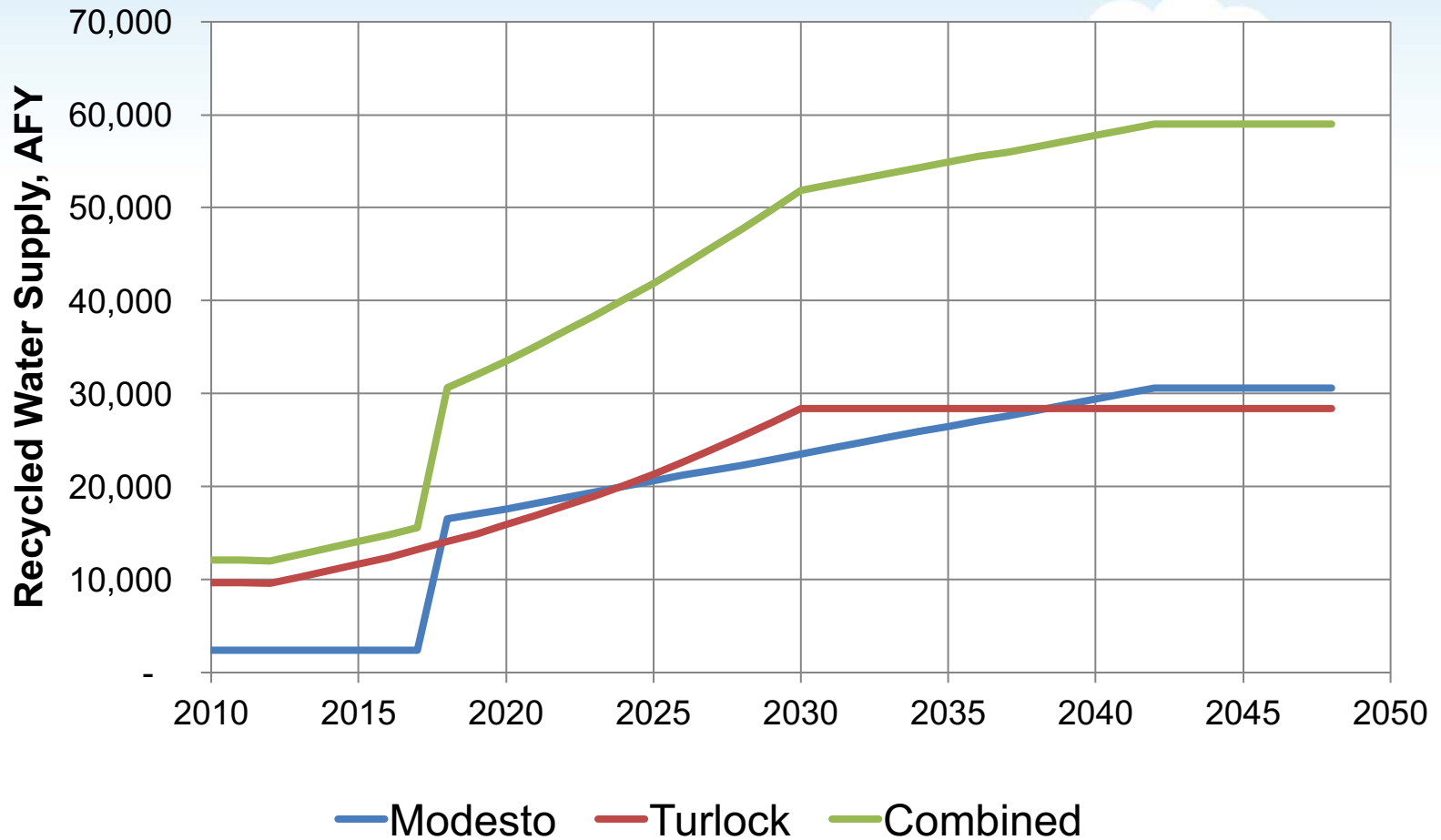
Conceptual Solution



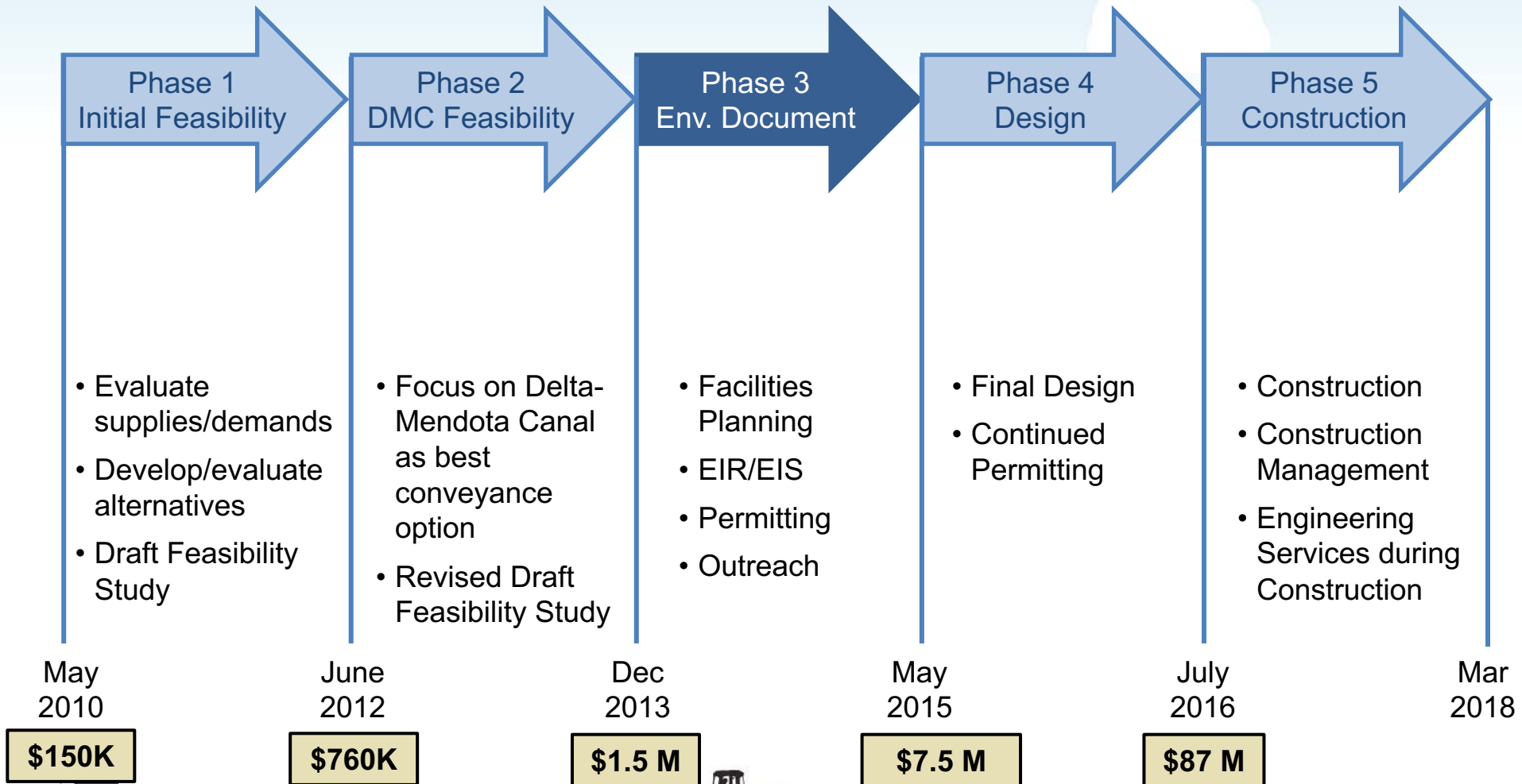
Single Pipeline to Delta Mendota Canal



Recycled Water Supplies



NVRRWP Implementation Phases



Estimated Project Costs

	Single Pipeline Alternative
Base Construction	\$76 M
Implementation Costs	\$22 M
Total Capital Cost	\$98 M

Depending on grants and financing mechanisms, the first year water cost is estimated at \$180-\$320 per acre-foot



Basic Scenarios Over Time

	Rate	2018 (30,600 AF)	2028 (47,700 AF)	2038 (56,600 AF)	2048 (59,000 AF)
Bonds – 30 yr	5%	\$321	\$234	\$215	\$79
SRF – 20 yr	2.5%	\$267	\$199	\$71	\$79
SRF – 30 yr	2.5%	\$213	\$164	\$156	\$79

Costs are shown as \$ per acre-foot



Questions?

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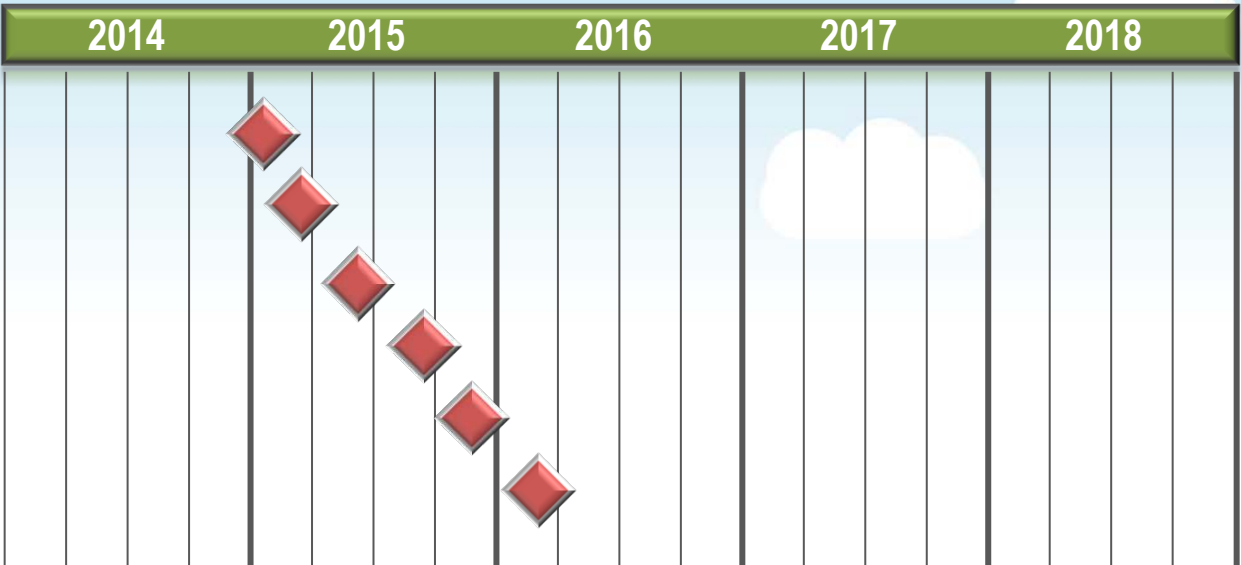


Back Up Slides



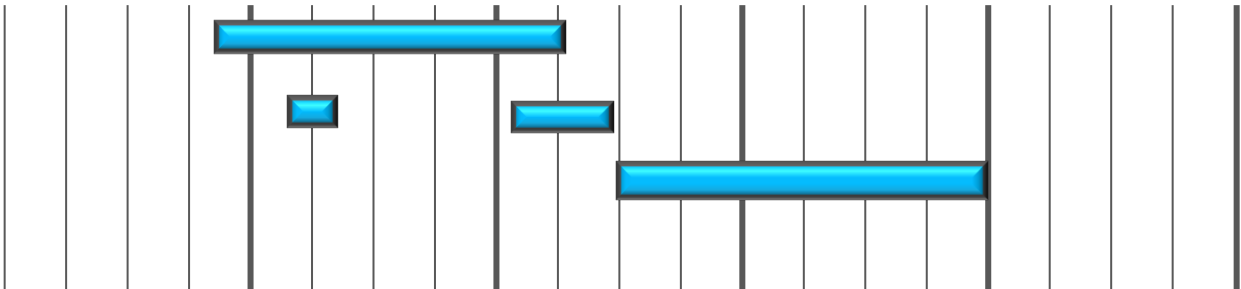
Project Scheduled to be On-Line by 2018

- Issue Draft EIR/S
- Public Hearing
- Final EIR/EIS
- NPDES Permit
- Water Rights
- Reclamation Approvals
(ROD, Warren Act Agmt., Approval
for Recycled Water in DMC)



Design /Construction

- Design
- Contractor Procurement
- Construction



Per Capita Water Use 1989-2014

