



Surface Water Supply Project

Initial Project Capacity, Estimated Cost and Rate Impacts
August 3, 2017

Project Drivers

100%
Dependent on
groundwater

Degrading
**groundwater
water quality**

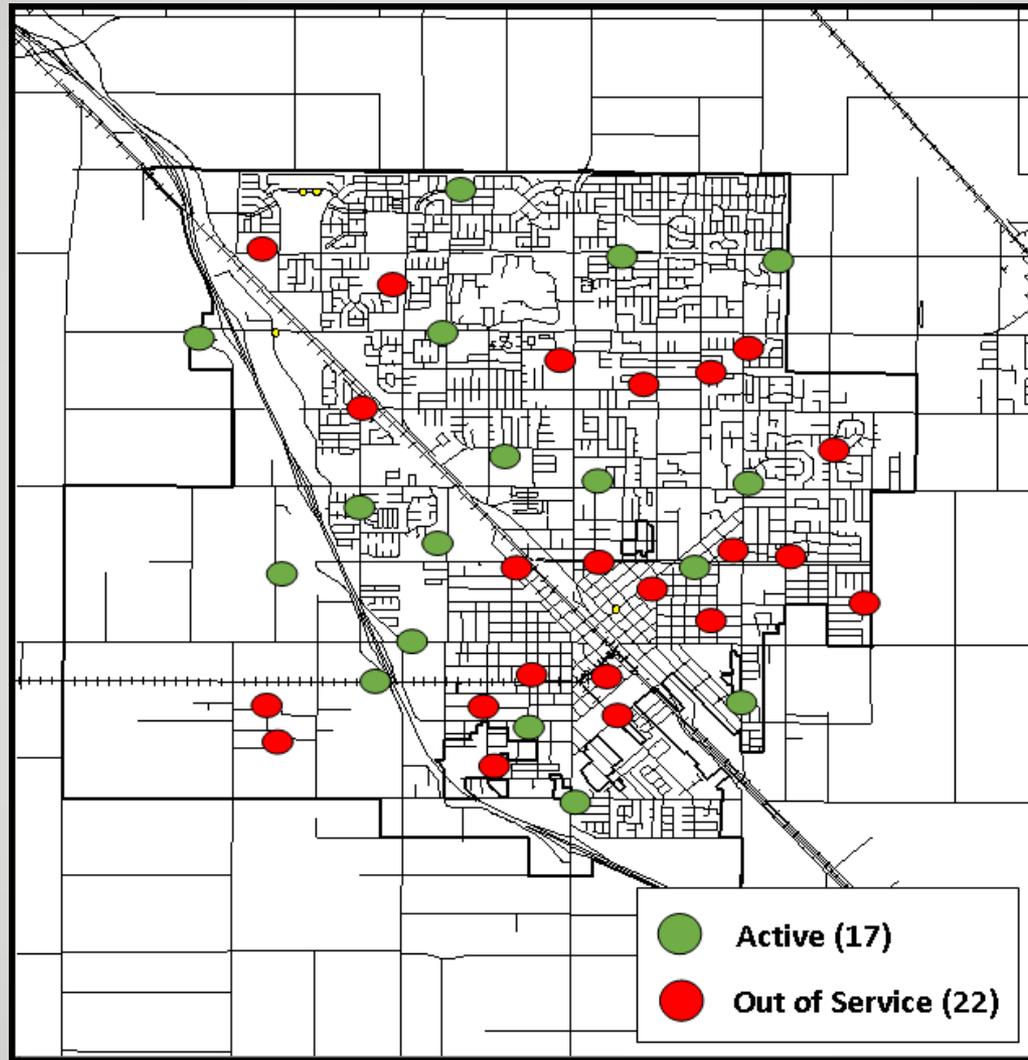
Groundwater
depletion

Increasingly stringent
**drinking water
regulations**

Project Drivers

On-going and increasingly significant new costs with continued sole reliance on groundwater

Turlock Groundwater System

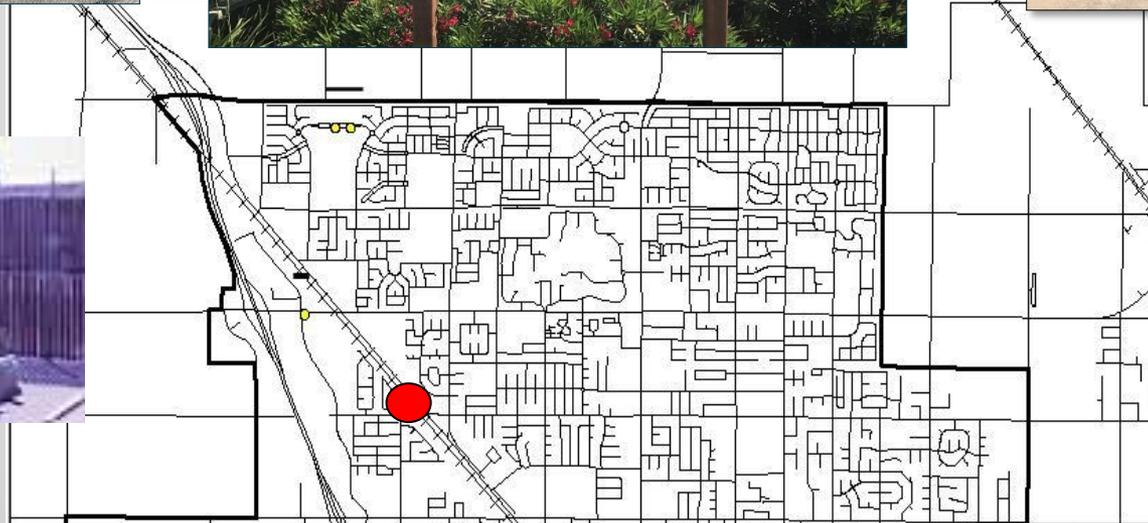


City of Turlock

Groundwater Quality Impacts

YEAR	WELL	CONTAMINANT
2009	24	Nitrates
2011	28 & 38	Arsenic
2014	31	Arsenic
2014	10	PCE
2017	3 & 14	Bacteria & Nitrates
2018	?????	Trichloropropane

Turlock Groundwater Well Rehabilitations



City of Turlock

Groundwater Quality Impacts



Project Benefits

Quality

Improve water quality

Diversify

Improve supply reliability with a diversified water portfolio

**Sustainable
GW**

Provide in-lieu aquifer recharge to support groundwater sustainability

**System
Operations**

Increase operational flexibility

Environmental

Provide environmental benefits to Tuolumne River aquatic species

Surface Water Supply Project

Intake & Pump Station

Connect to existing infiltration gallery

Treatment Plant

New water treatment plant

Transmission Mains

Raw and finished water pipelines

Local Facilities

Reservoir, pump station & piping



Existing Infiltration Gallery

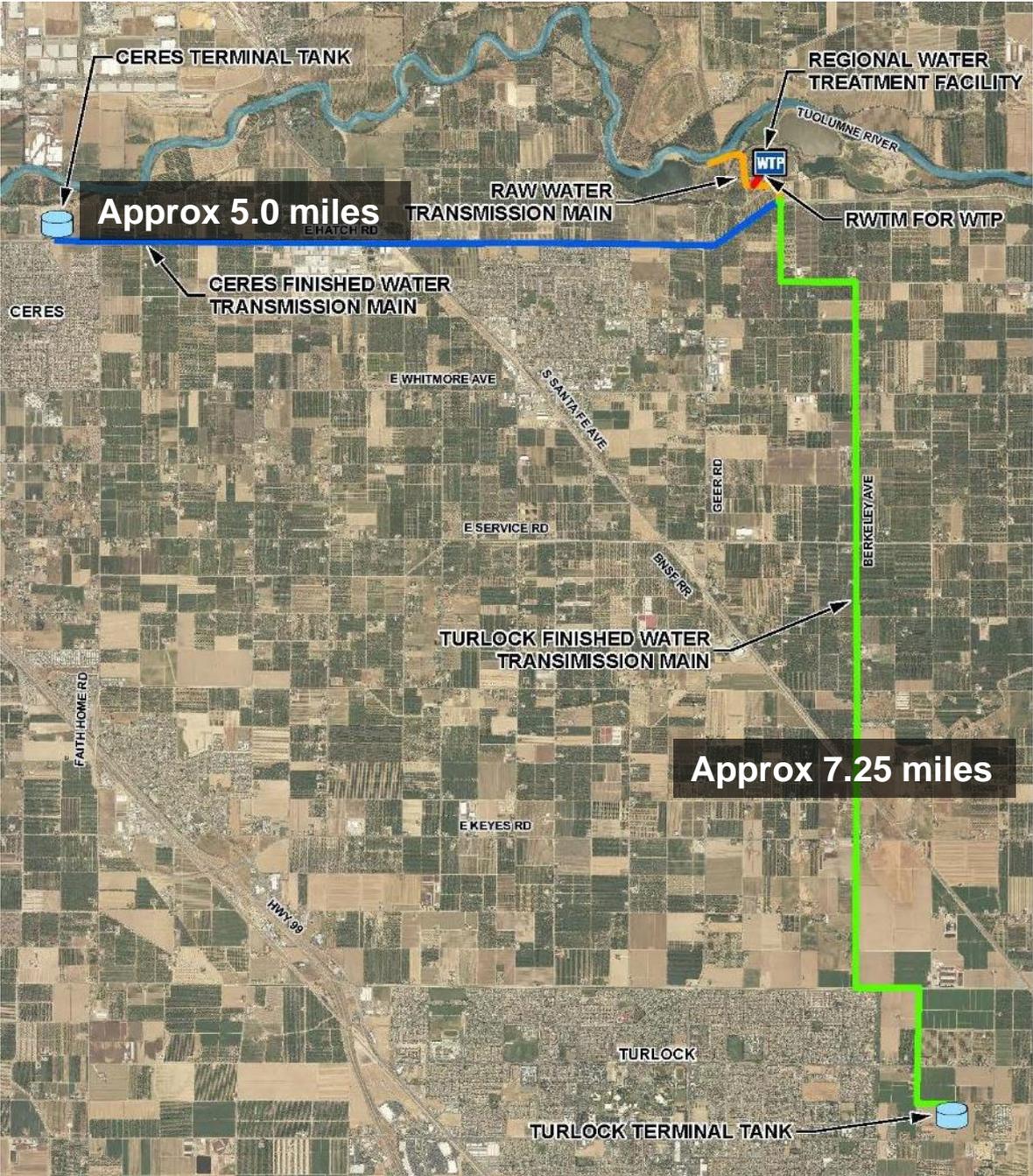
- Previously installed by Turlock Irrigation District (TID)
- Perforated pipes embedded in gravel layer beneath Tuolumne River bed
- Allows diversion of water without harming fish



Project Components Adjacent to Tuolumne River



Finished Water Pipelines



Other Project Benefits

- Reliable conjunctive-use system
- Drought resilient water supplies
- Reliable water quality
- Decreases hardness and mineral content in:
 - Drinking water
 - Wastewater effluent discharge
- Benefits ag community
 - Reduced urban groundwater pumping
 - Delivery of “offset” water
- Potential to provide water to disadvantaged communities and other regional partners

**DROUGHT
RESILIENT**

Project Capital Cost Estimate

\$288M Project Capital Cost

- Assumptions:
 - 15 mgd initial raw water pumping and WTP capacity
 - 45 mgd raw water transmission main capacity
 - 15 mgd Ceres finished water transmission main capacity
 - 30 mgd Turlock finished water transmission main capacity
 - Conventional treatment process with ozone
 - Planning-level estimate for WTP and “soft costs”
 - Includes Ceres and Turlock local facility costs
 - Construction mid-point: June 1, 2020
 - 2% annual inflation
 - 5% construction contingency

Approximate Project Partner Costs

Total	Ceres	Turlock	TID
\$288M	\$100M	\$182M	\$6M



Regional Project Facilities

- Wet Well / Infiltration Gallery Development
- Raw Water Pump Station
- Raw Water Transmission Main
- Water Treatment Plant
- Finished Water Pipelines

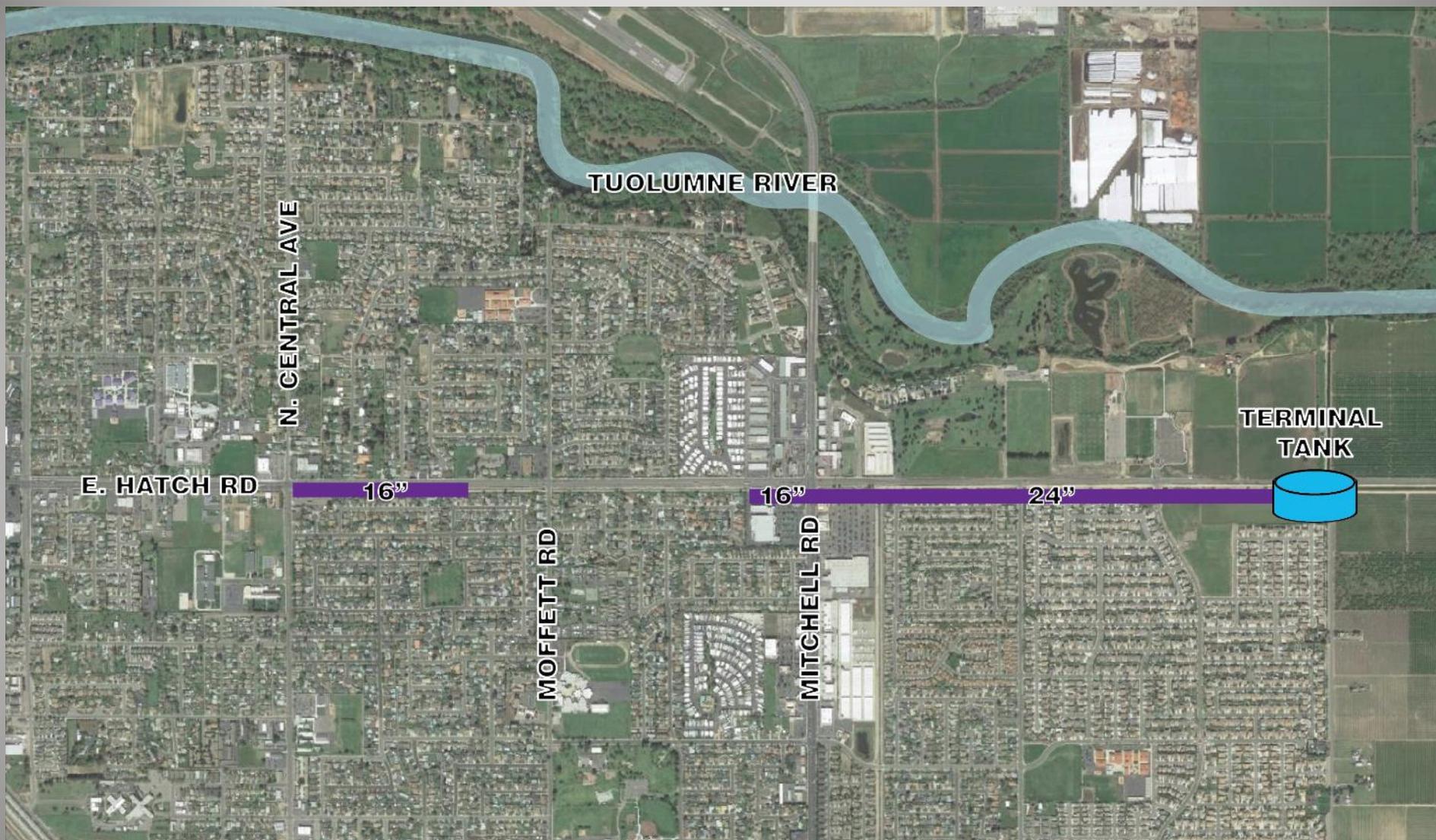


Local Facilities

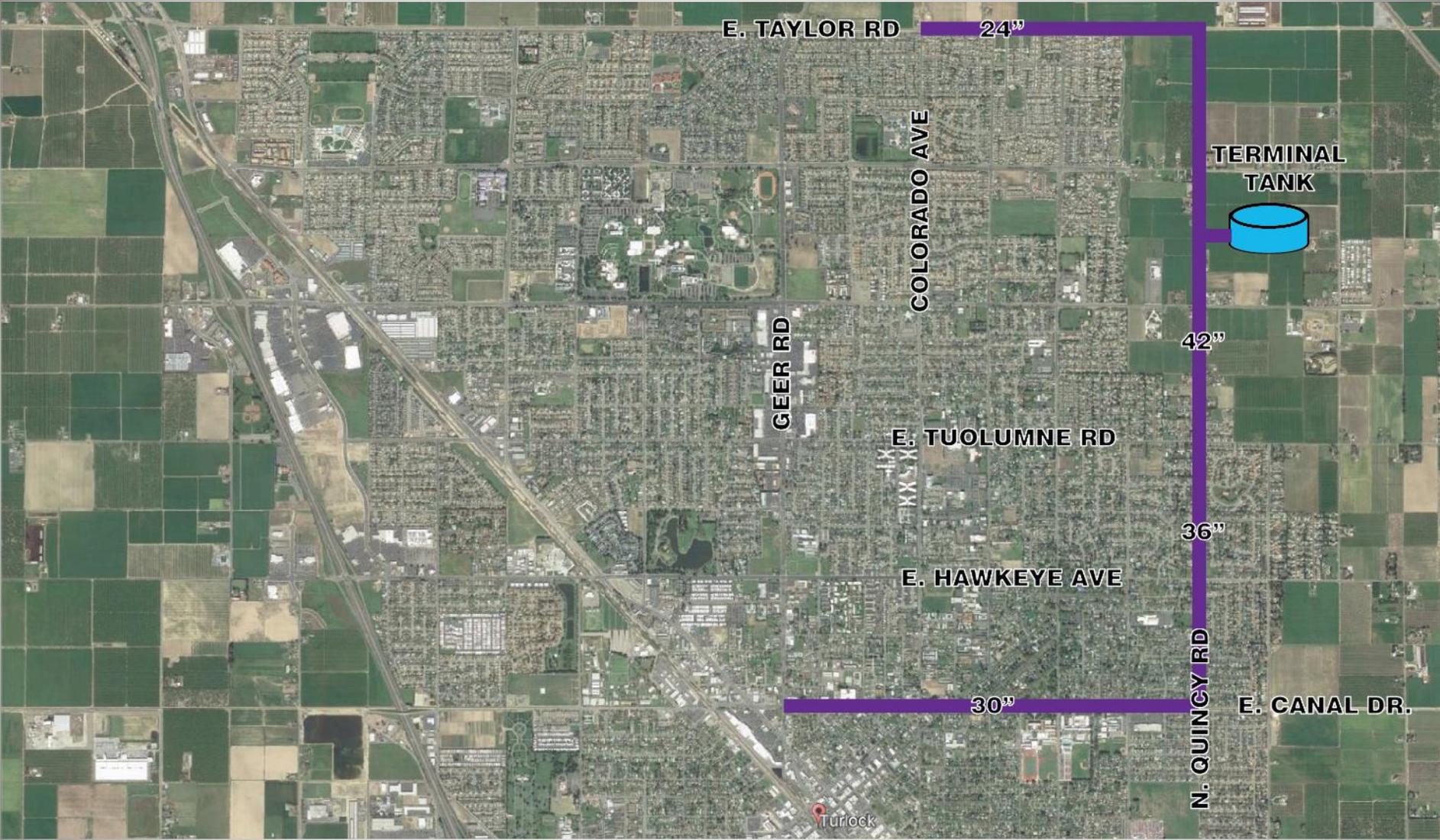
- Terminal tanks/
pump stations
- Distribution system
improvements
- Specific to each
City



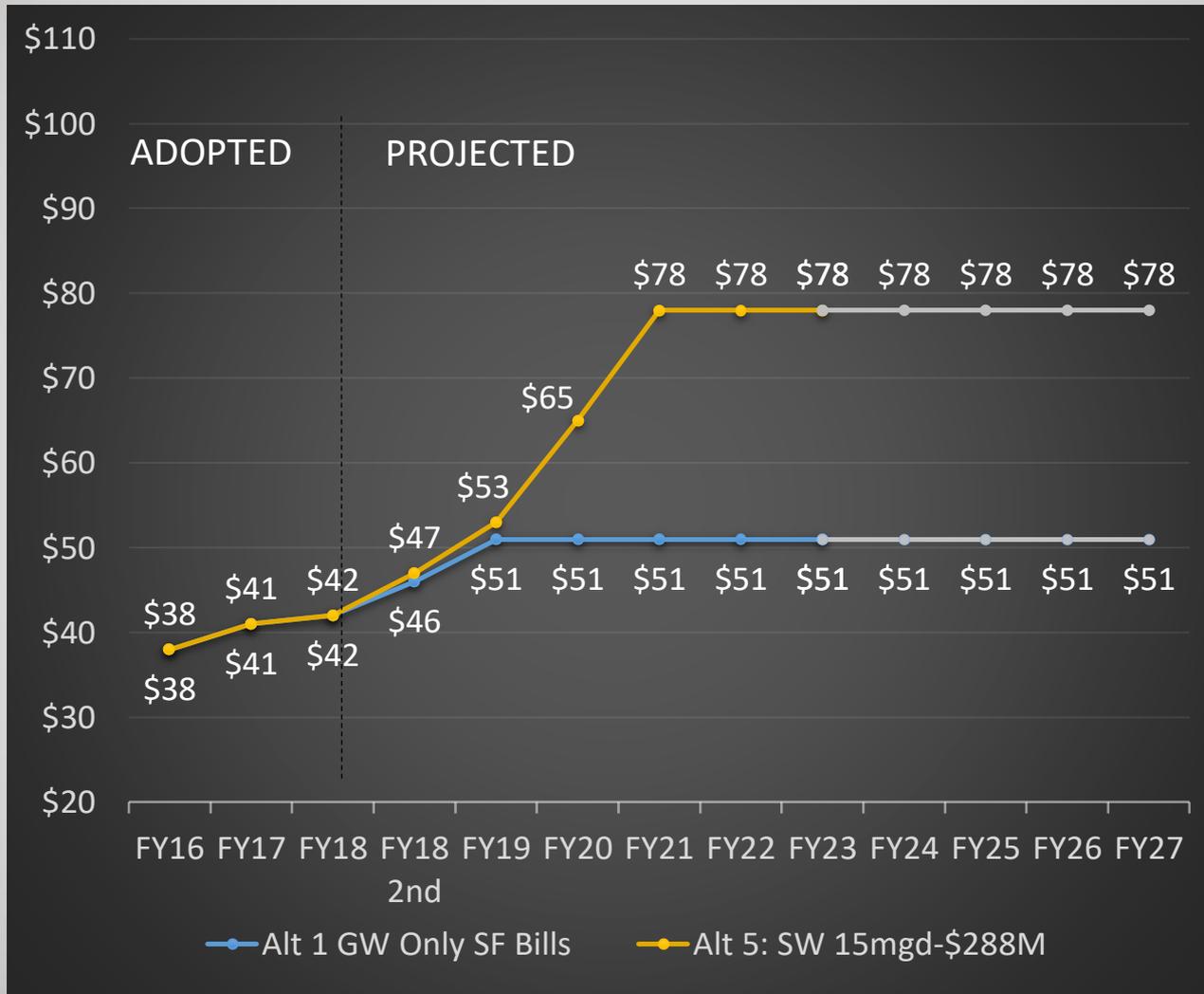
Ceres Local Facility Infrastructure (for integration of initial 5 mgd from Project)



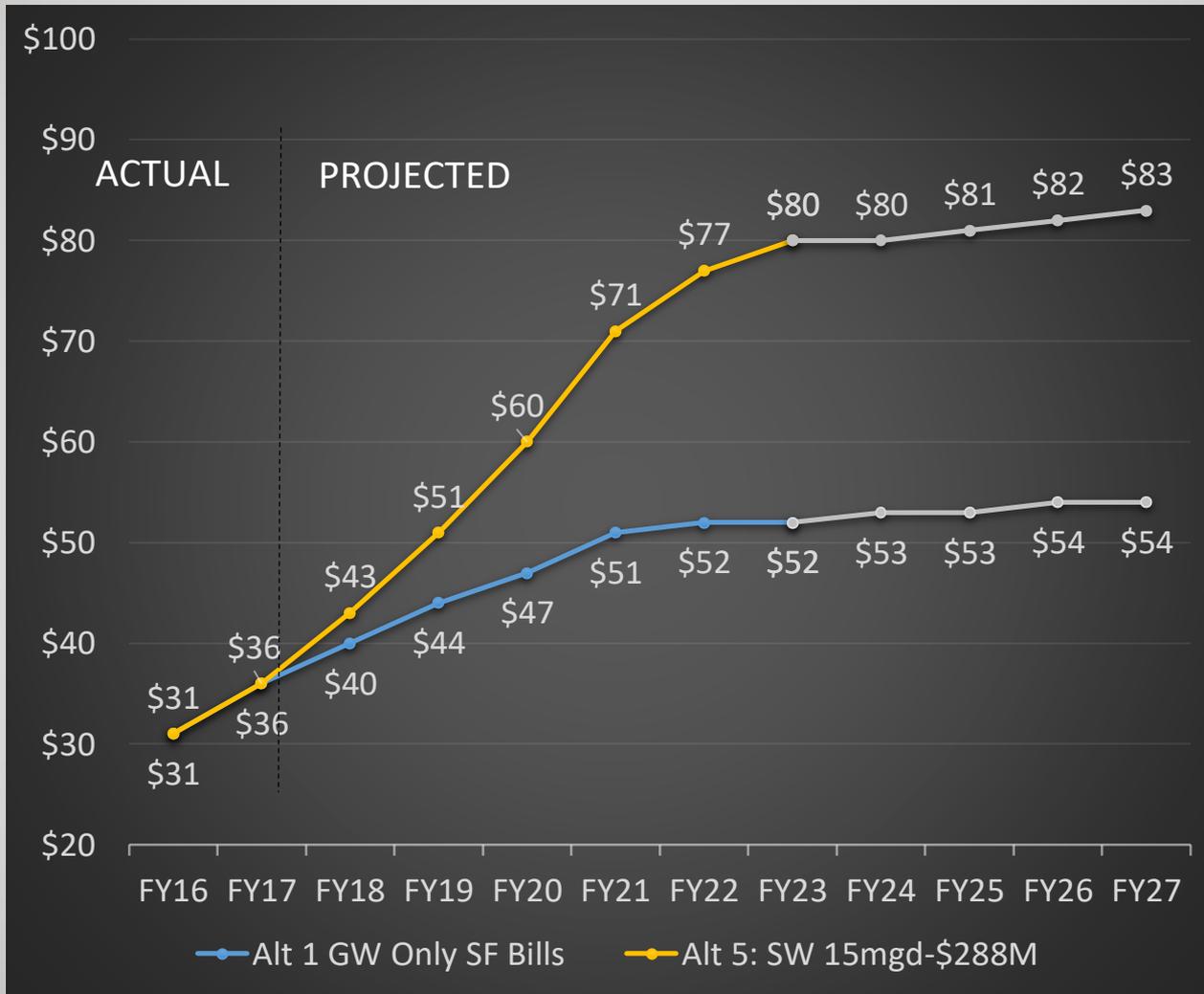
Turlock Local Facility Infrastructure (for integration of initial 10 mgd from Project)



Ceres Estimated Average Residential Customer Monthly Bill Impacts



Turlock Estimated Average Residential Customer Monthly Bill Impacts

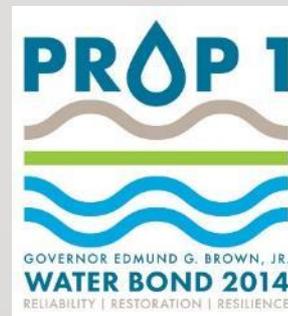


Estimated Average Residential Customer Monthly Bill Impacts

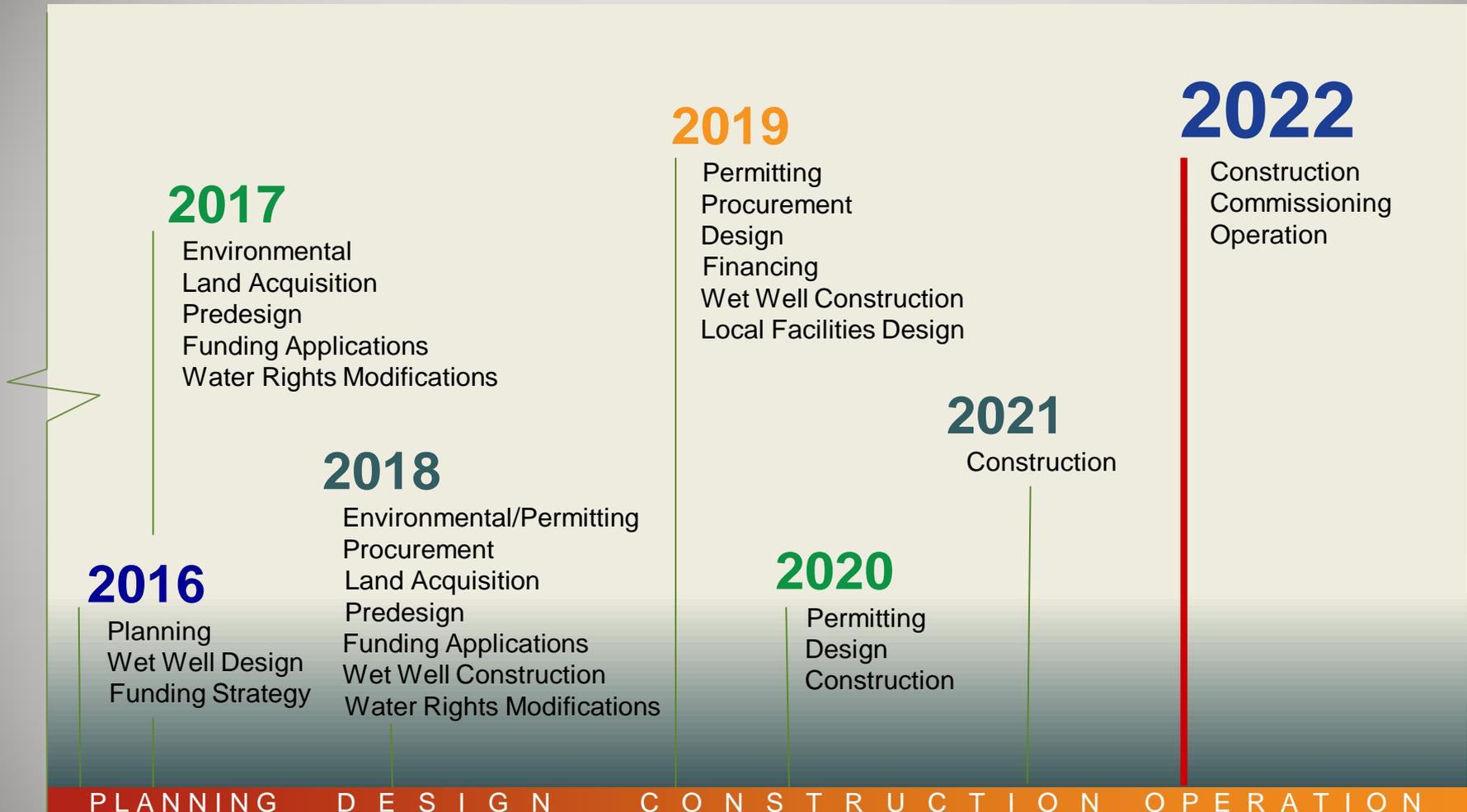
- Assumptions:
 - \$288M Project Capital Cost
 - Includes Cities' local capital, debt and operating costs
 - SRF loan financing for Project, including local facilities
 - 30 year @ 2% interest rate
 - Includes projected O&M expenses

Project Funding Opportunities

- Drinking Water State Revolving Fund (SRF) loan program
- Proposition 1 Grants
 - Integrated Regional Water Management (IRWM) Implementation Grant Program
 - Stream Flow Enhancement Program
- US Bureau of Reclamation WaterSMART Grant Program
- Continually searching for other funding opportunities



Project Schedule



PLANNING DESIGN CONSTRUCTION OPERATION



SRWA
STANISLAUS REGIONAL
WATER AUTHORITY

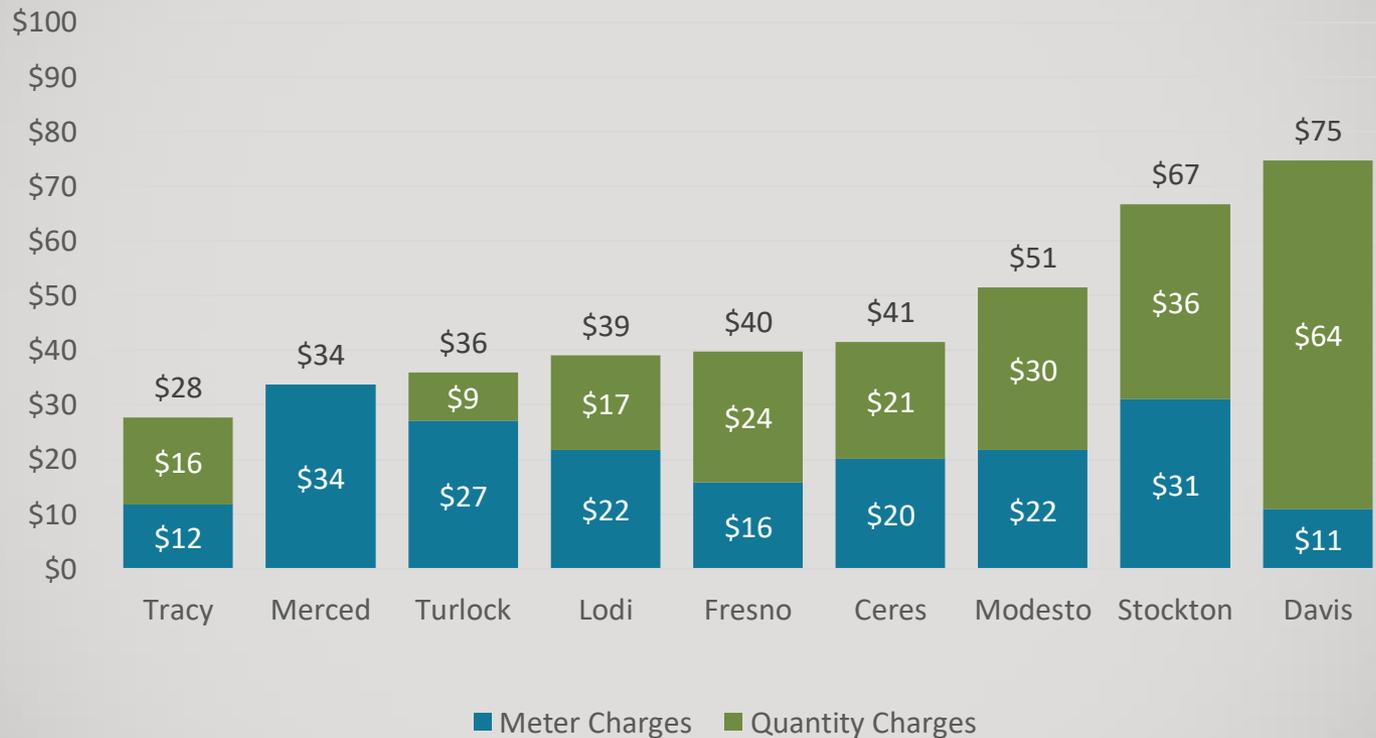
www.stanrwa.org



2017 Rate Comparisons

Single Family Monthly Bills - 1 inch or less Meter and 16 HCF

based on rates effective between January 1 and July 1, 2017

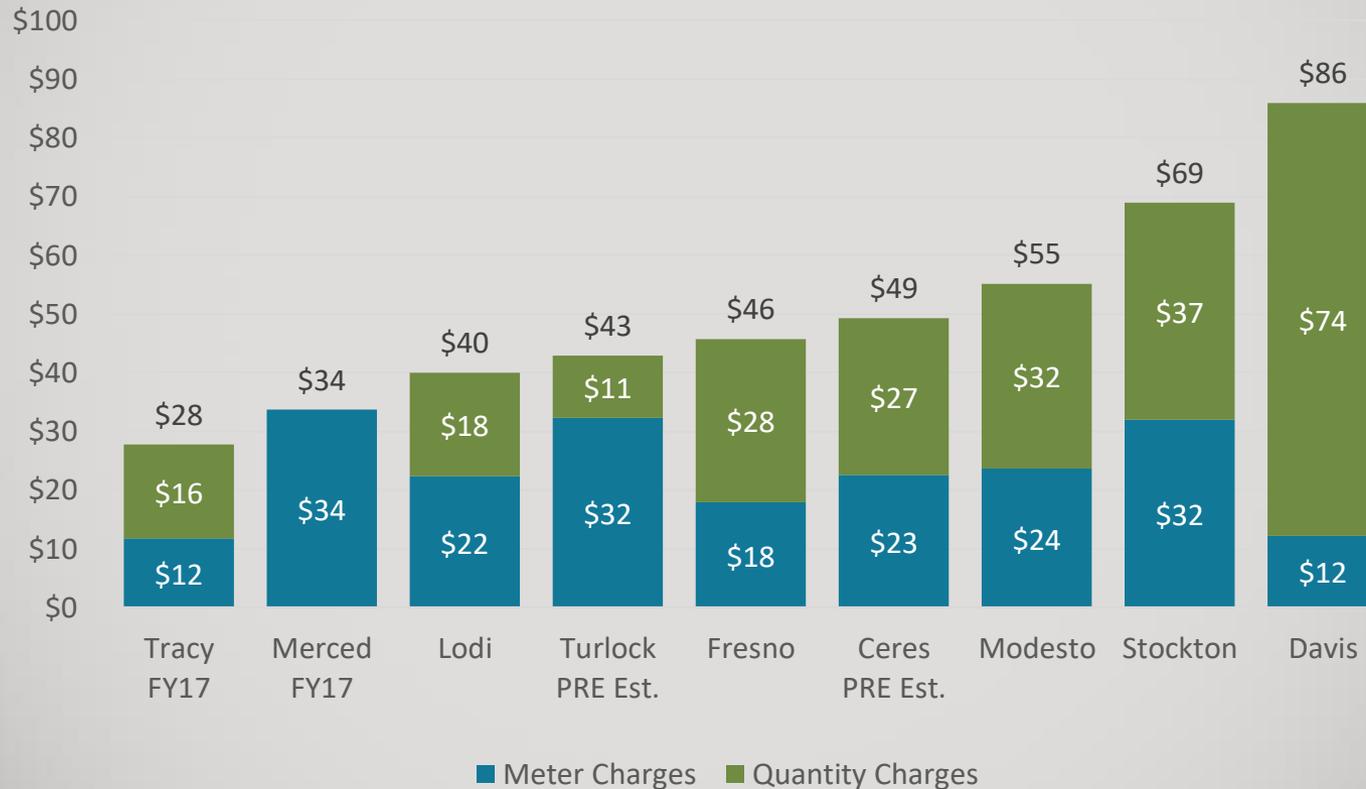


*HCF = hundred cubic feet

2018 Rate Comparisons

Single Family Monthly Bills - 1 inch or less Meter and 16 HCF

based on rates effective between January 1 and July 1, 2018 (except as noted)



*HCF = hundred cubic feet

Multiyear Local Rate Comparison

Single Family Monthly Bills - 1 inch or less Meter and 16 HCF

Bills for each City are for FY17, FY18, FY19 and FY20 using adopted or estimated rates

