



DERWA

*DSRSD • EBMUD Recycled Water Authority
PARTNERS IN WATER RECYCLING*

Supplemental Supply and Demand Management Efforts

**DERWA Board Meeting
September 26, 2022**

Discussion Topics

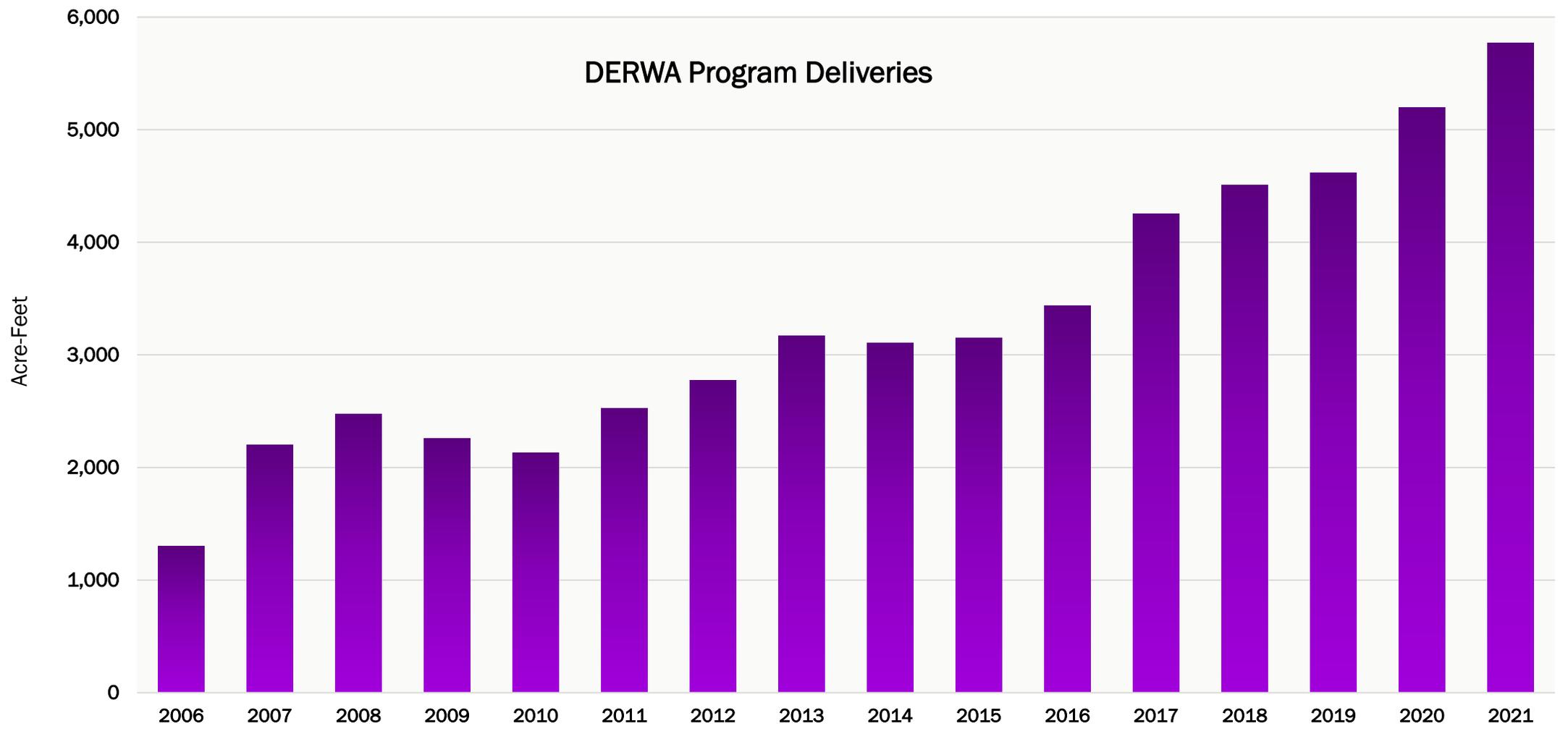
- ▶ Background
- ▶ Supply and Demand
- ▶ Supplemental Supply Options
- ▶ Recommended Next Steps



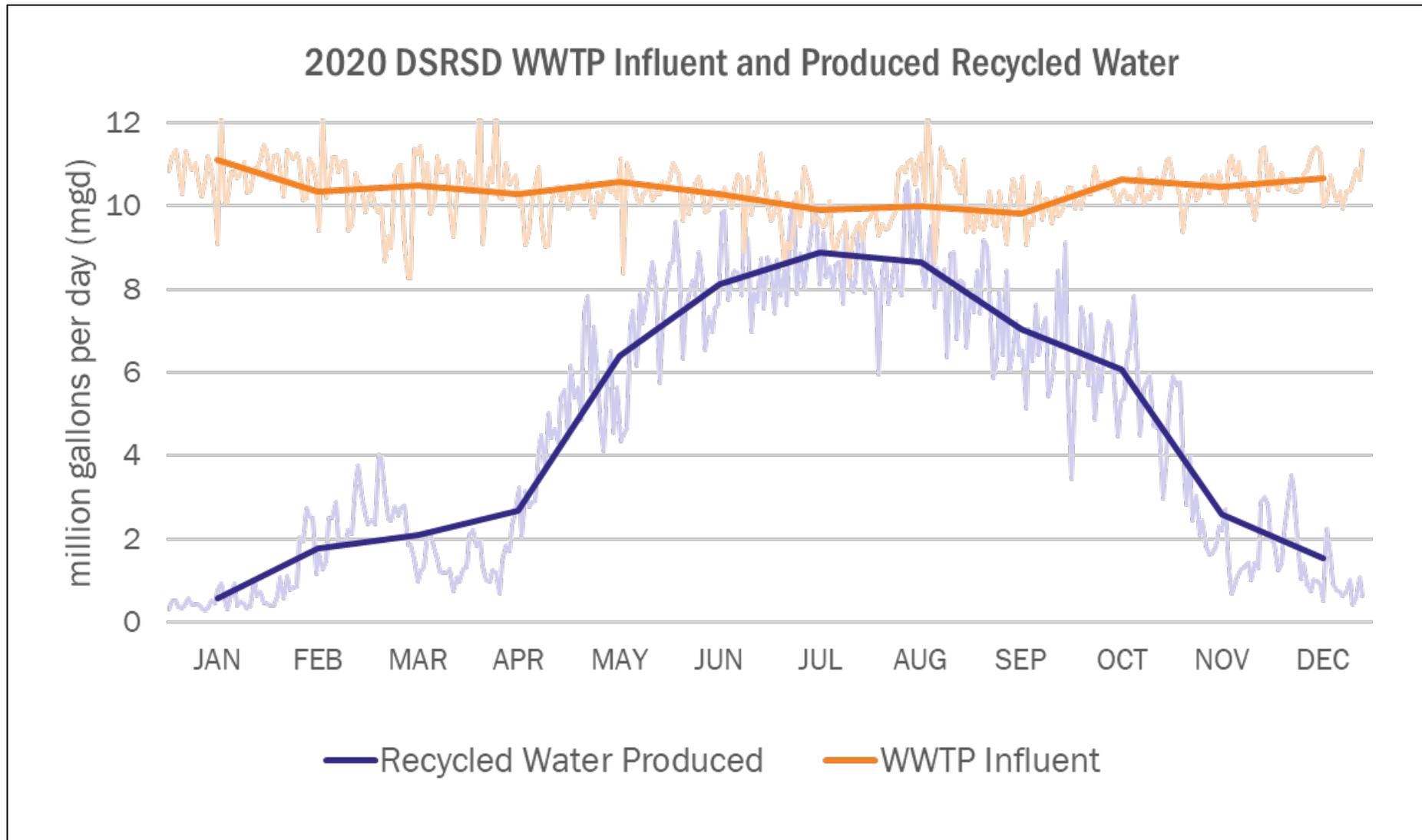
Background

- ▶ **July 2018 – Supply and demand update**
 - Need for 4 MGD or 250 MG storage by 2020 based on 2018 demand projections
 - Near-term supplemental supply options
- ▶ **March 2019 – Connection moratorium request and direction to implement demand management**
- ▶ **March 2022 – Interim Agreement formalizing “pause period”**
 - Effectiveness of demand management strategies
 - Feasibility of securing permanent supplemental supplies
 - Changes in regulations that could affect wastewater flows

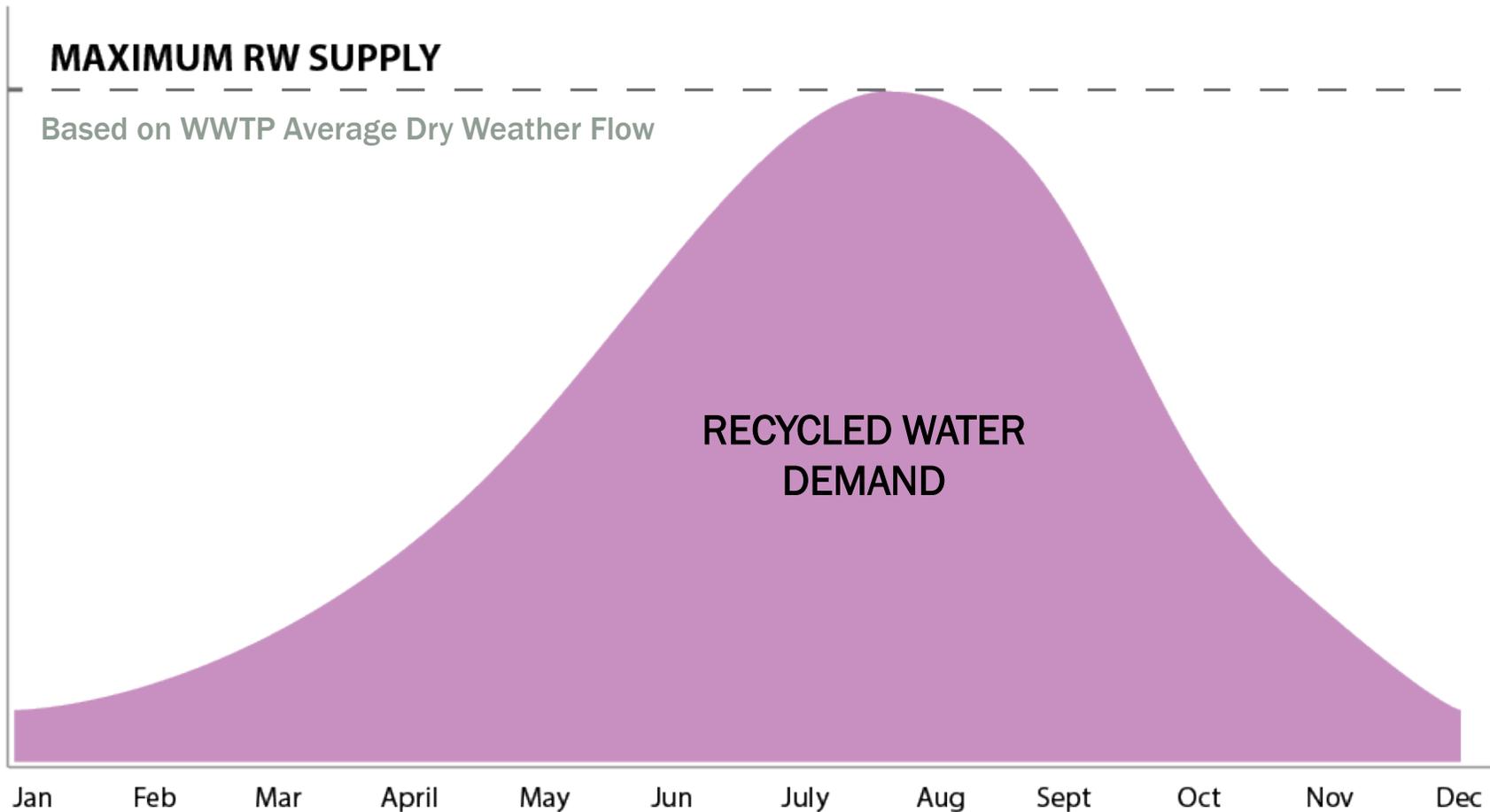
Growth in Recycled Water Program



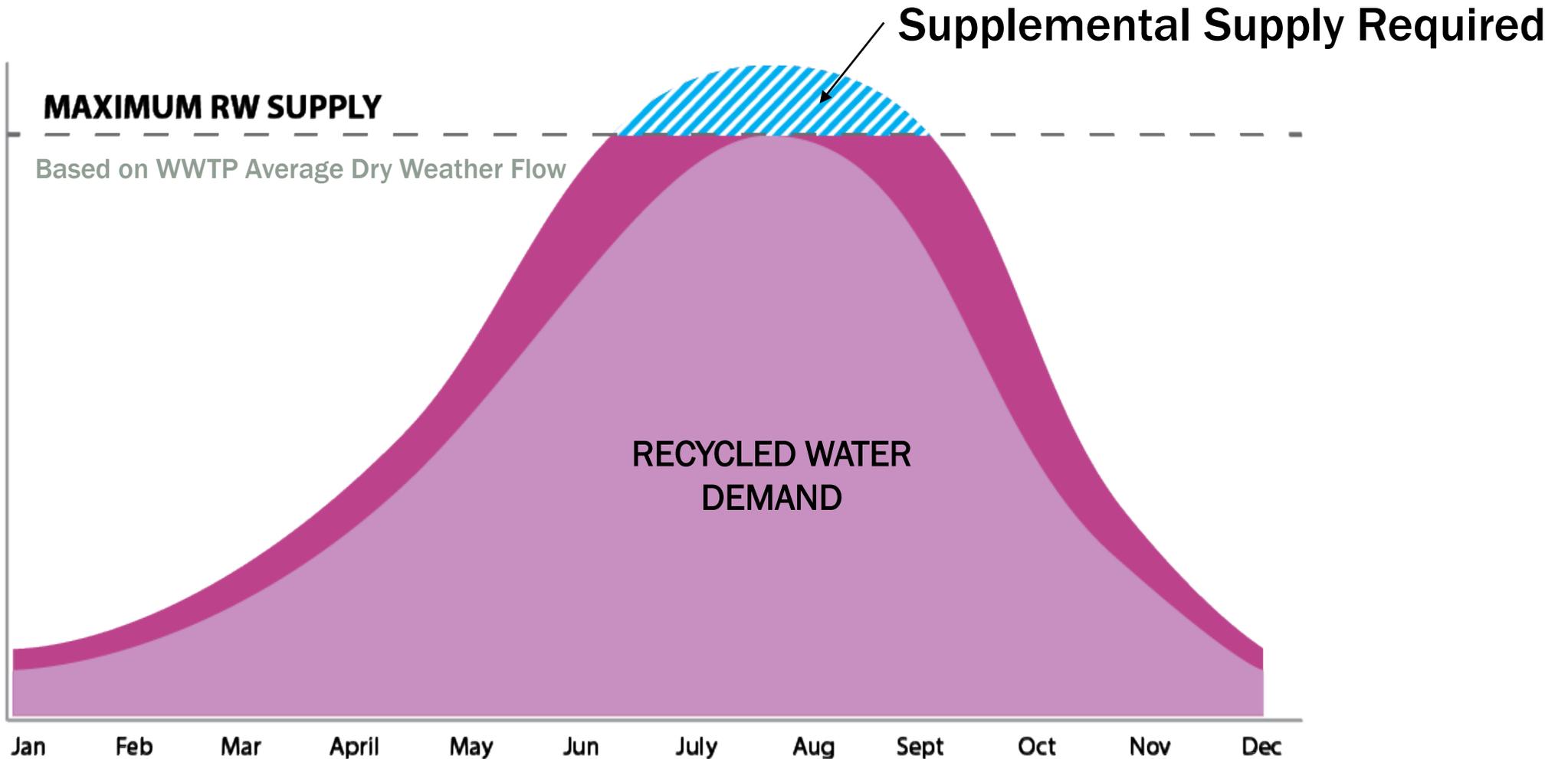
Recycled Water Supply Limitation



What is DERWA's Supplemental Supply Need?

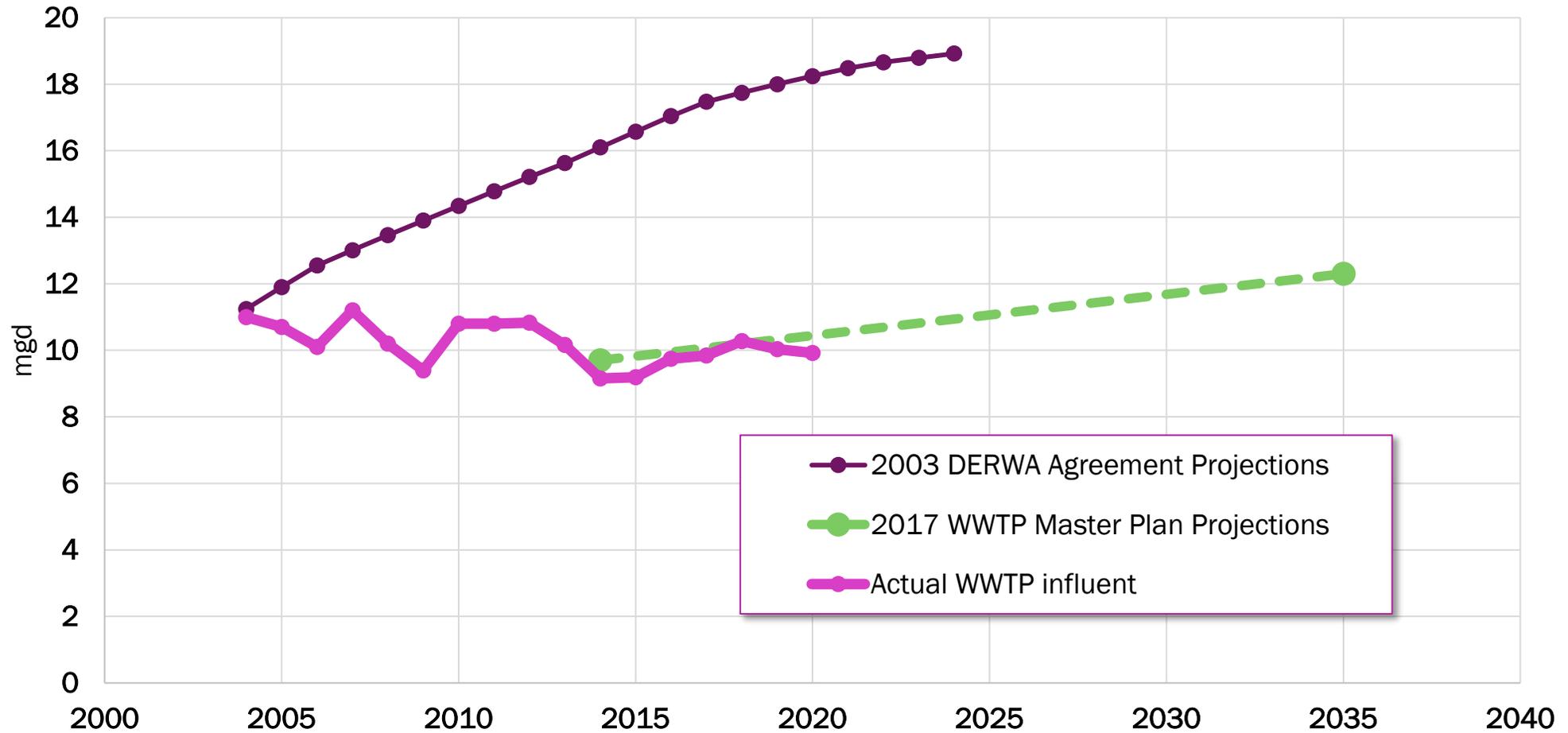


What is DERWA's Supplemental Supply Need?



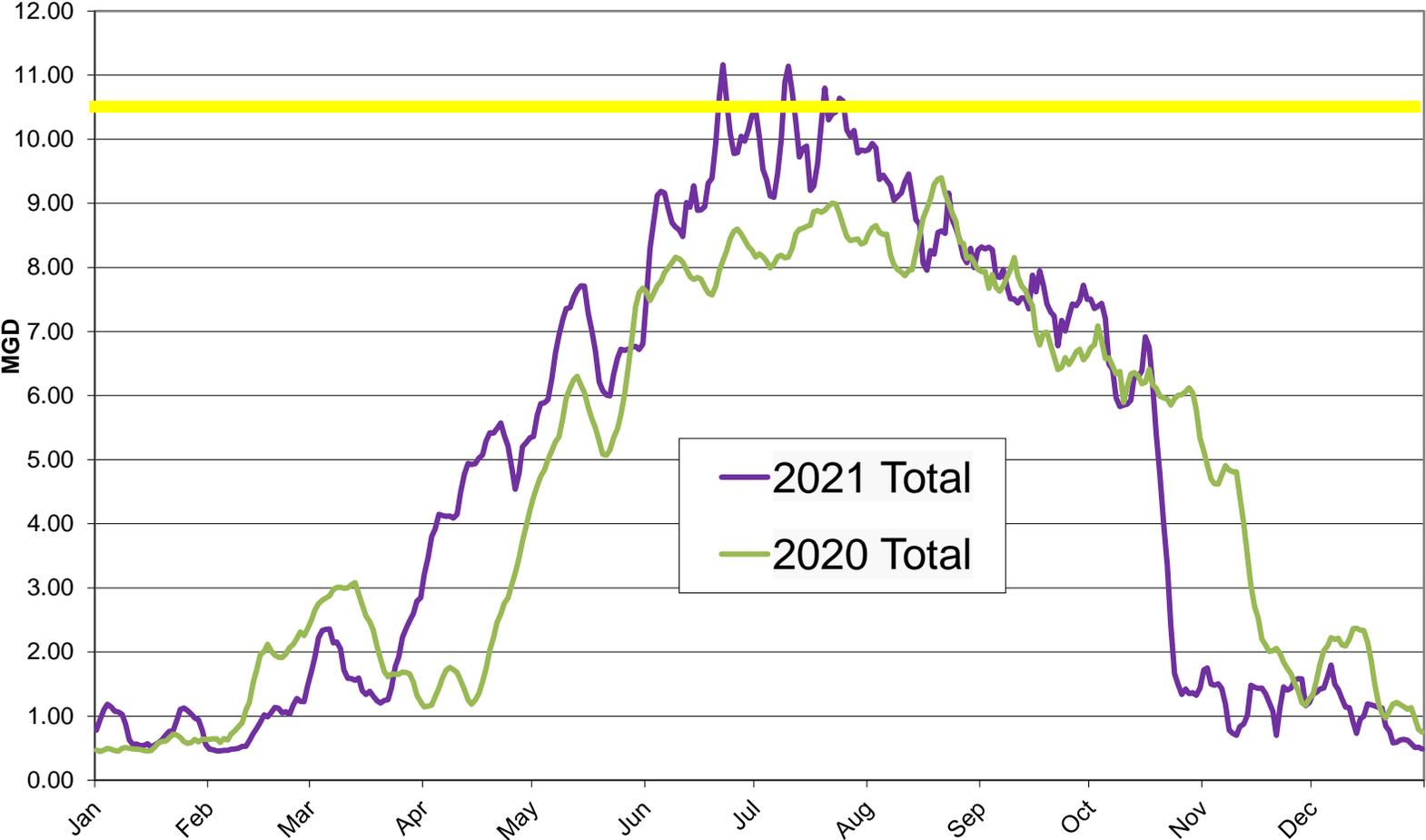
Wastewater Supply Projections

WWTP Influent – Average Dry Weather Flow



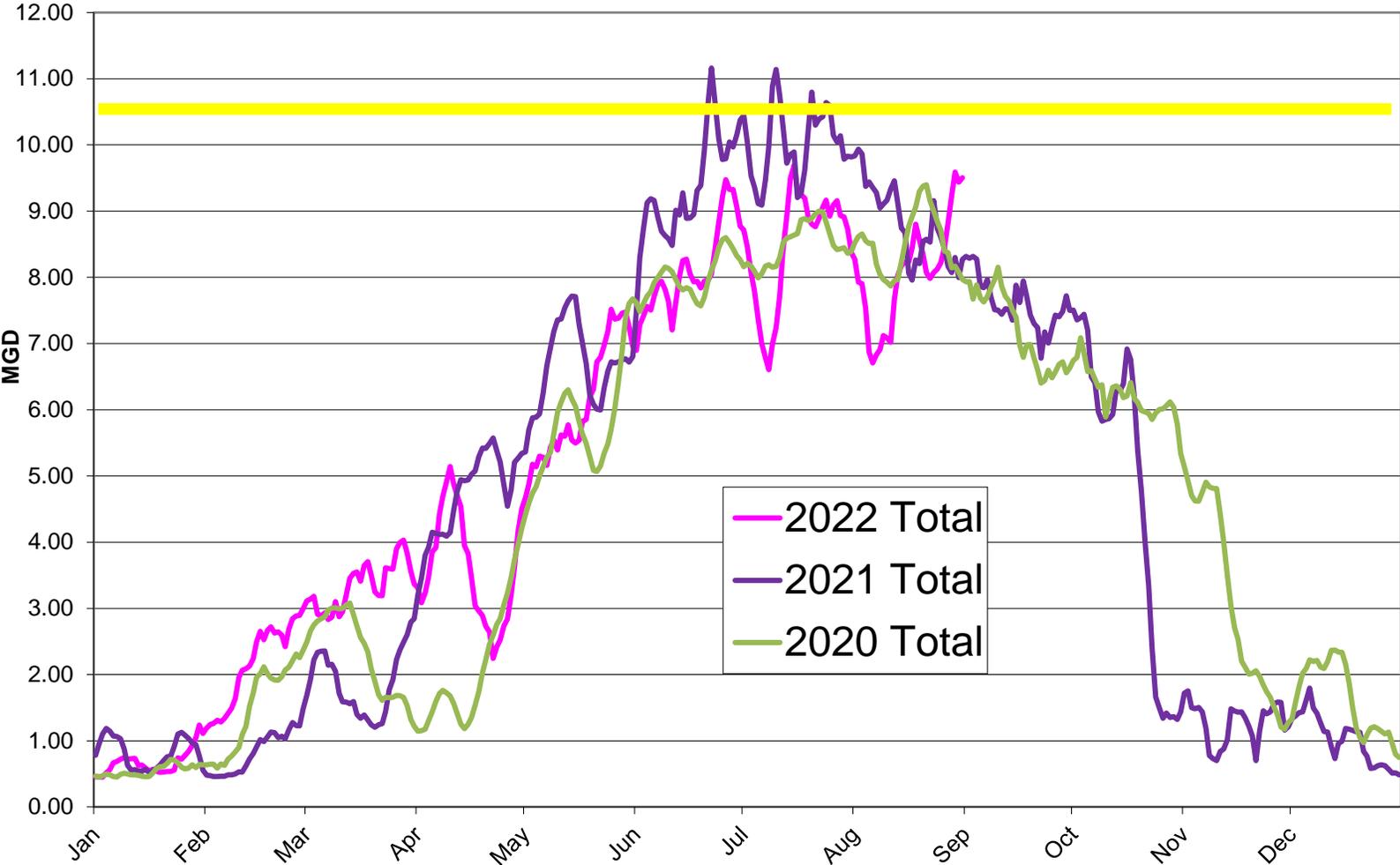
DERWA Recycled Water Demands (2020 - 2021)

DERWA 7-Day Running Average Recycled Water Demand



DERWA Recycled Water Demands (2020 - 2022)

DERWA 7-Day Running Average Recycled Water Demand



Demand Management Strategies

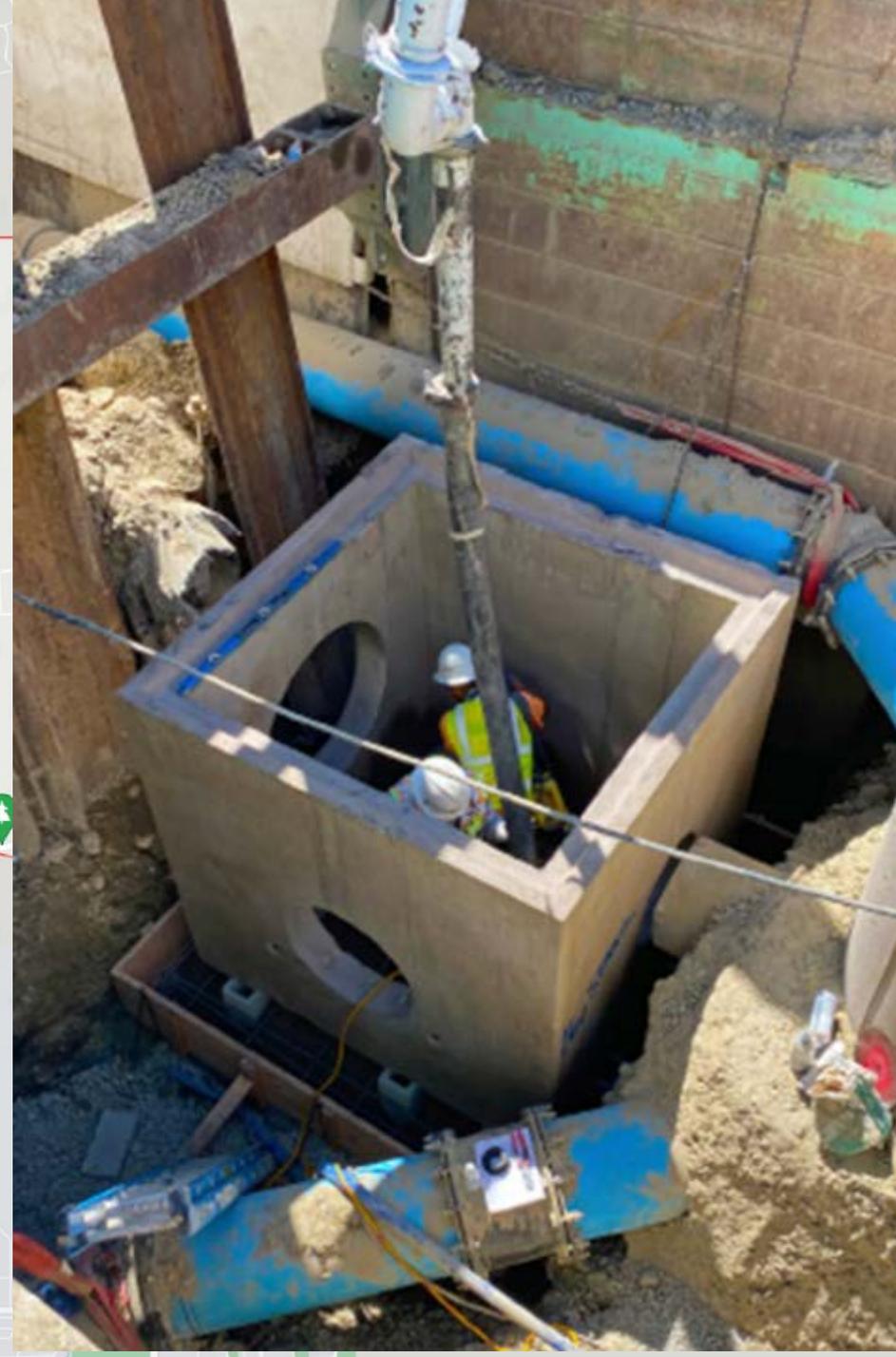
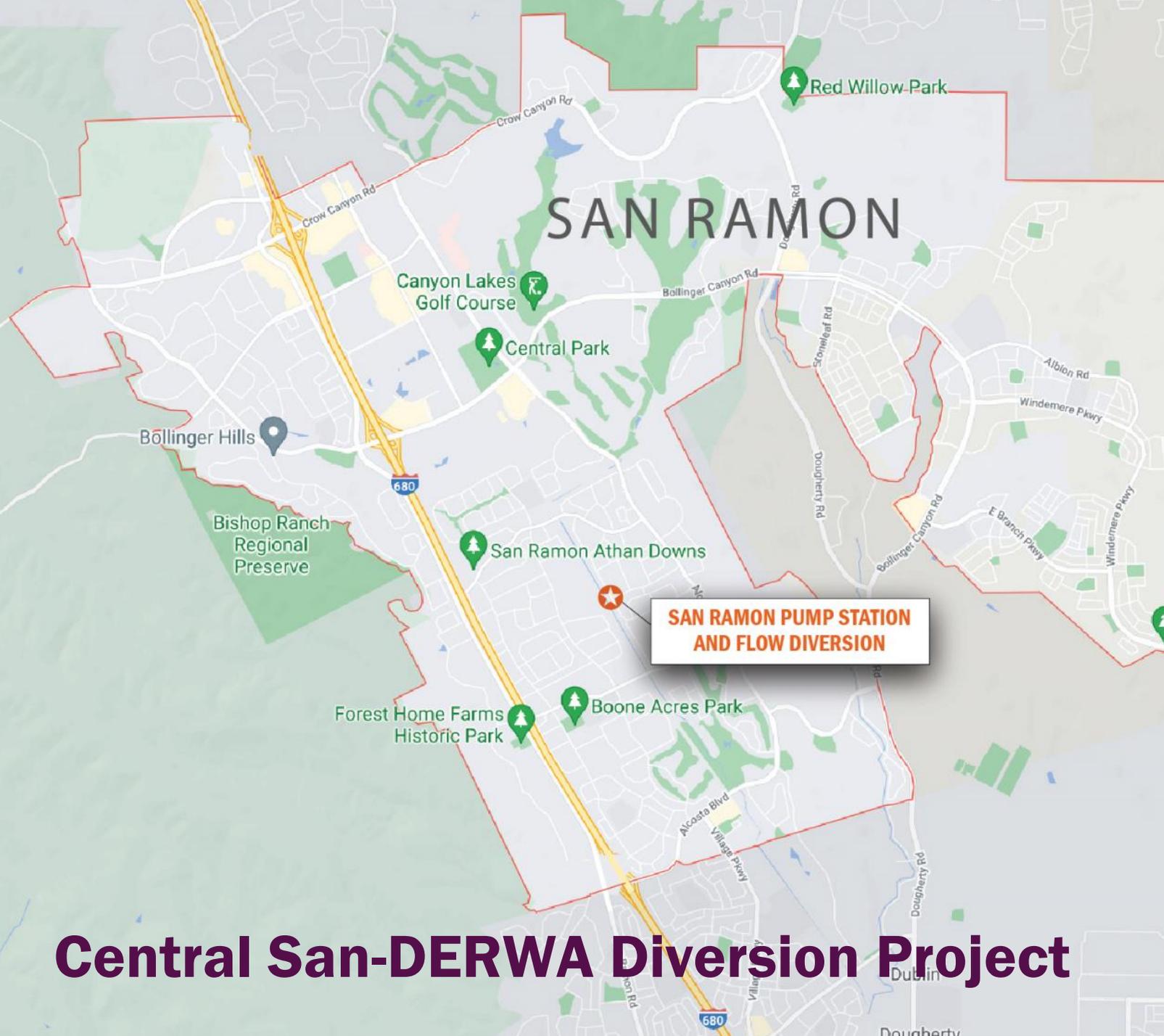
- ▶ Demand Management Working Group
- ▶ Customer communication
- ▶ Customer account reviews
- ▶ Potential rebate programs
- ▶ Changes to irrigation watering schedules
- ▶ Recycled water shortage actions

Near-term Focus



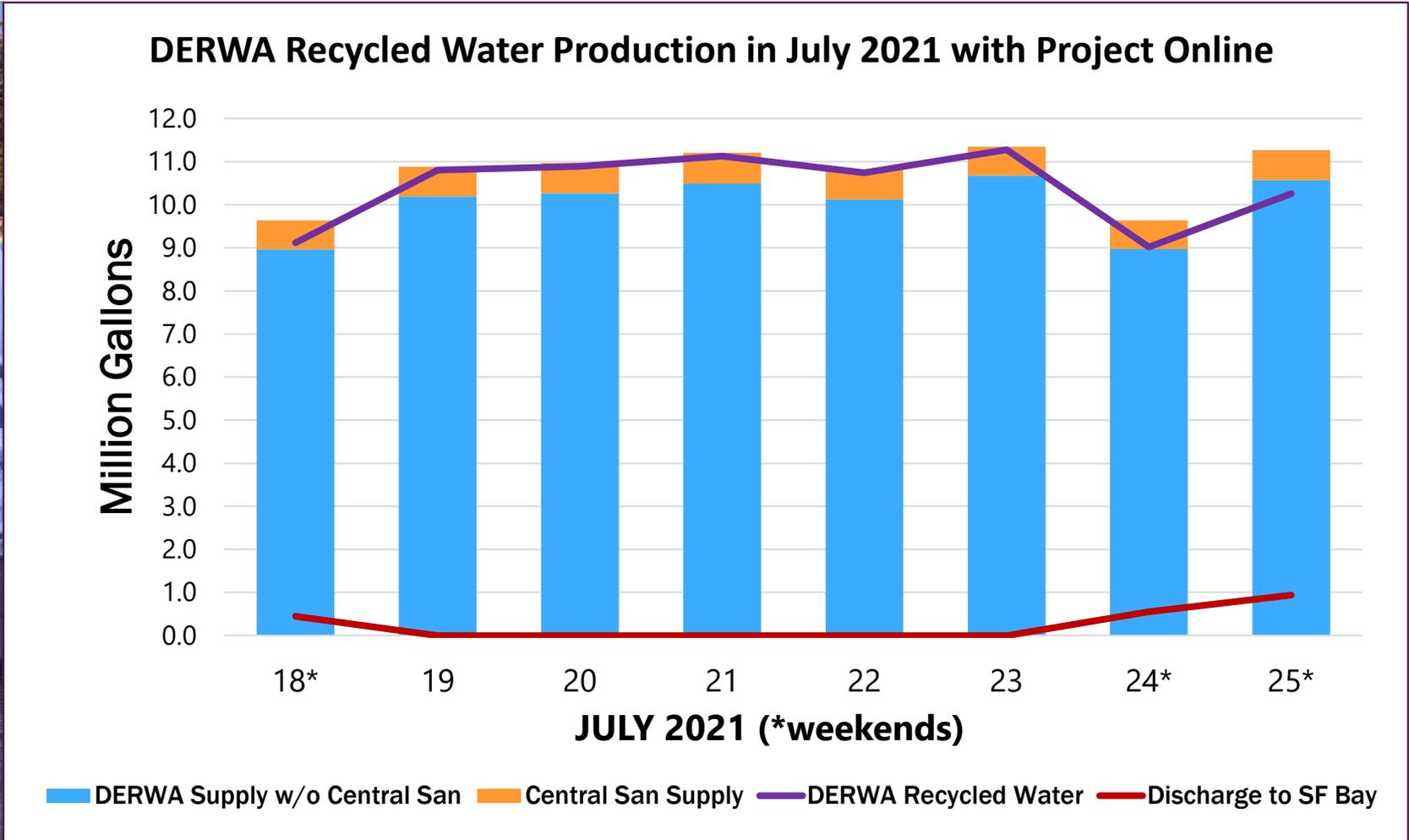


SUPPLEMENTAL SUPPLY OPTIONS



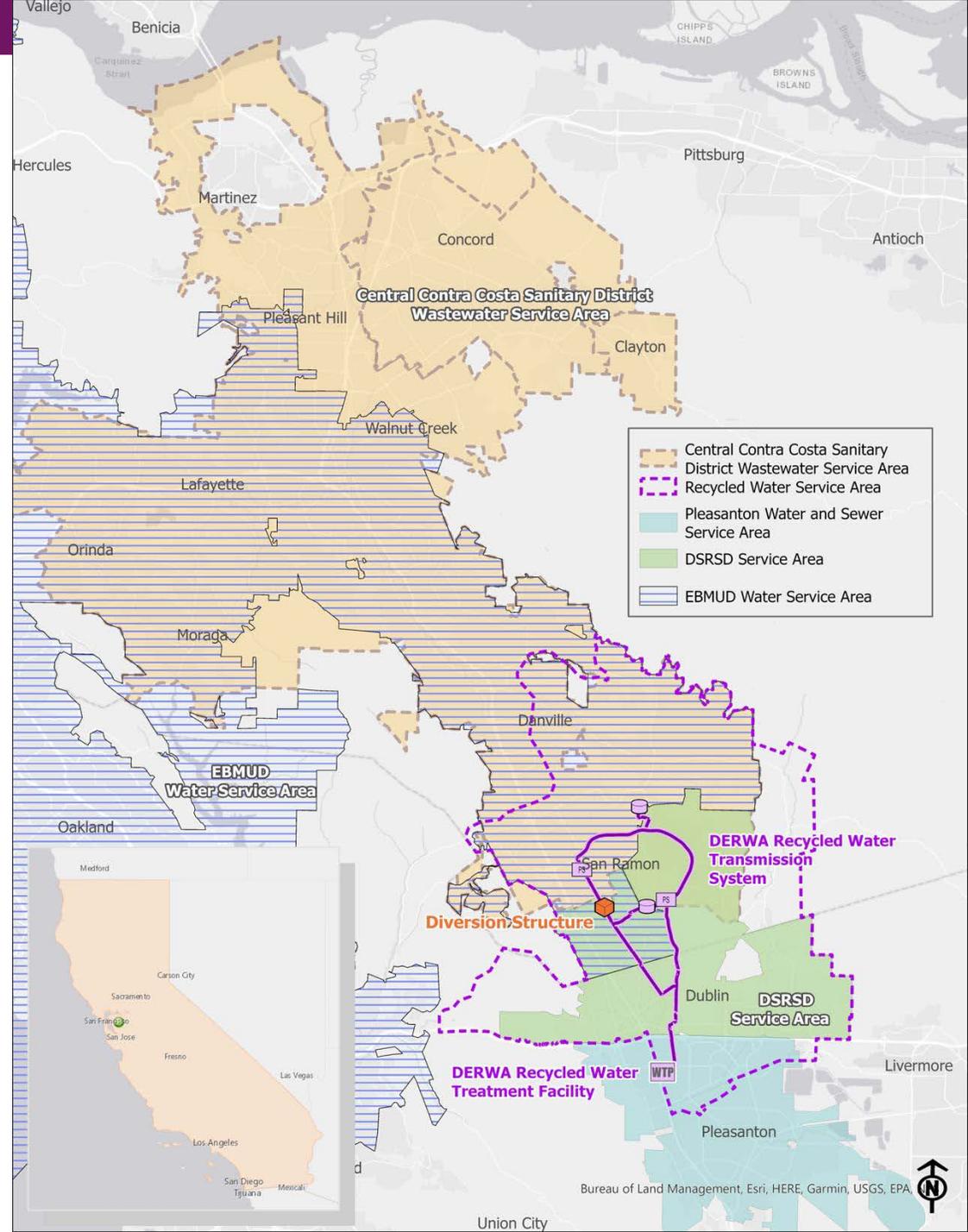
Central San-DERWA Diversion Project

First Year of Operation in 2021



Future Partnership Opportunities with Central San

- ▶ Temporary diversion project has helped address near-term supply needs
- ▶ EBMUD and Central San planning to study a range of recycled water opportunities within overlapping service area



Use of Operational Storage to Meet Daily Peaks



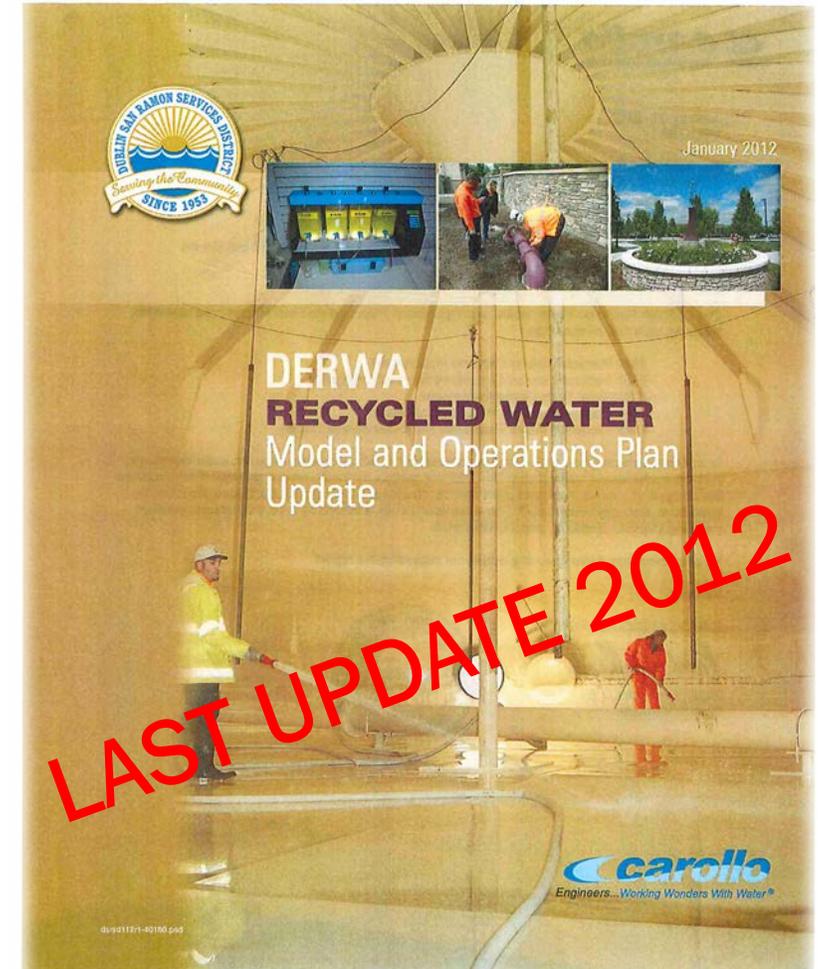
Pleasanton Tassajara Reservoir (8 MG)



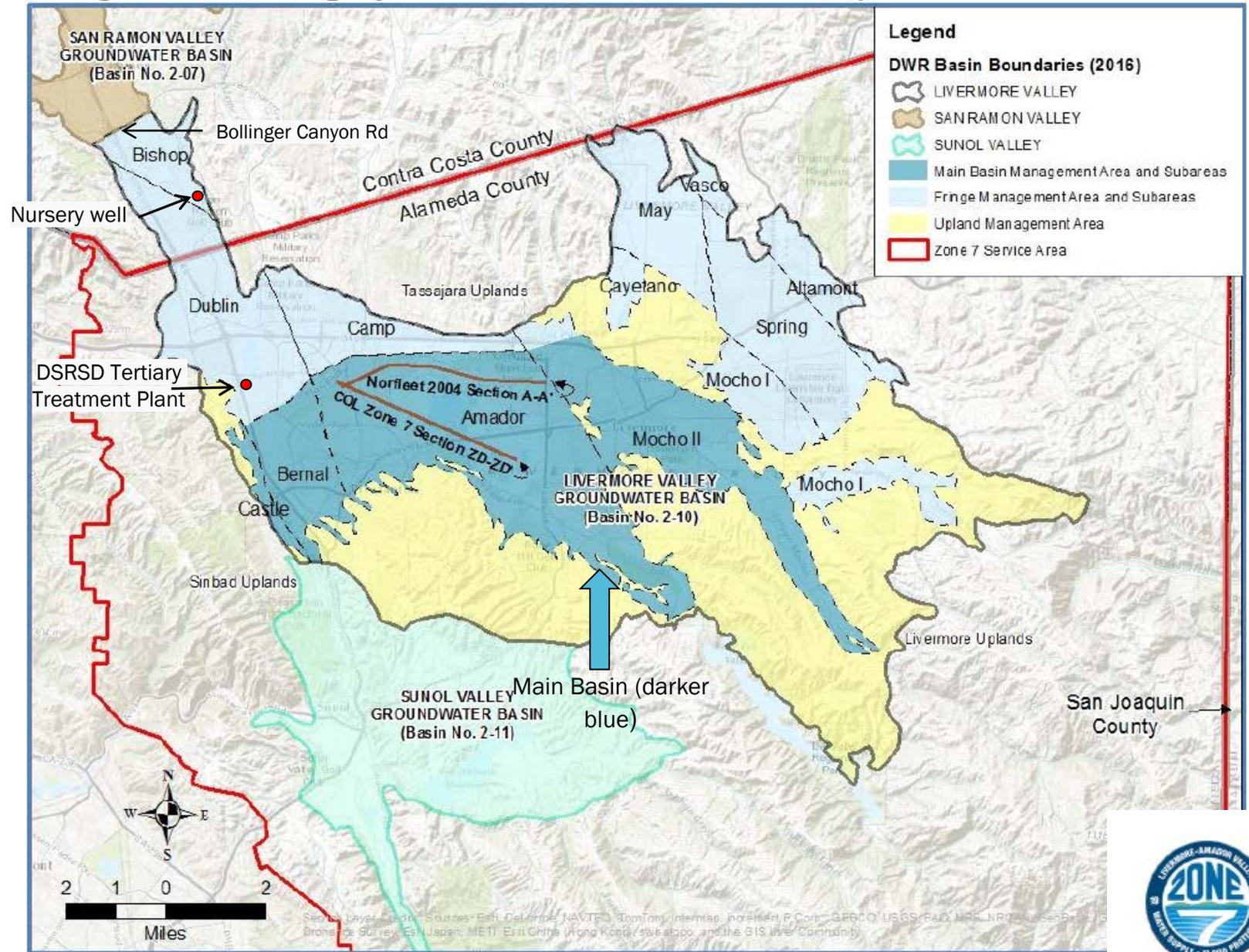
DSRSD WWTP Storage (~ 20 MG)

Operational Storage Considerations

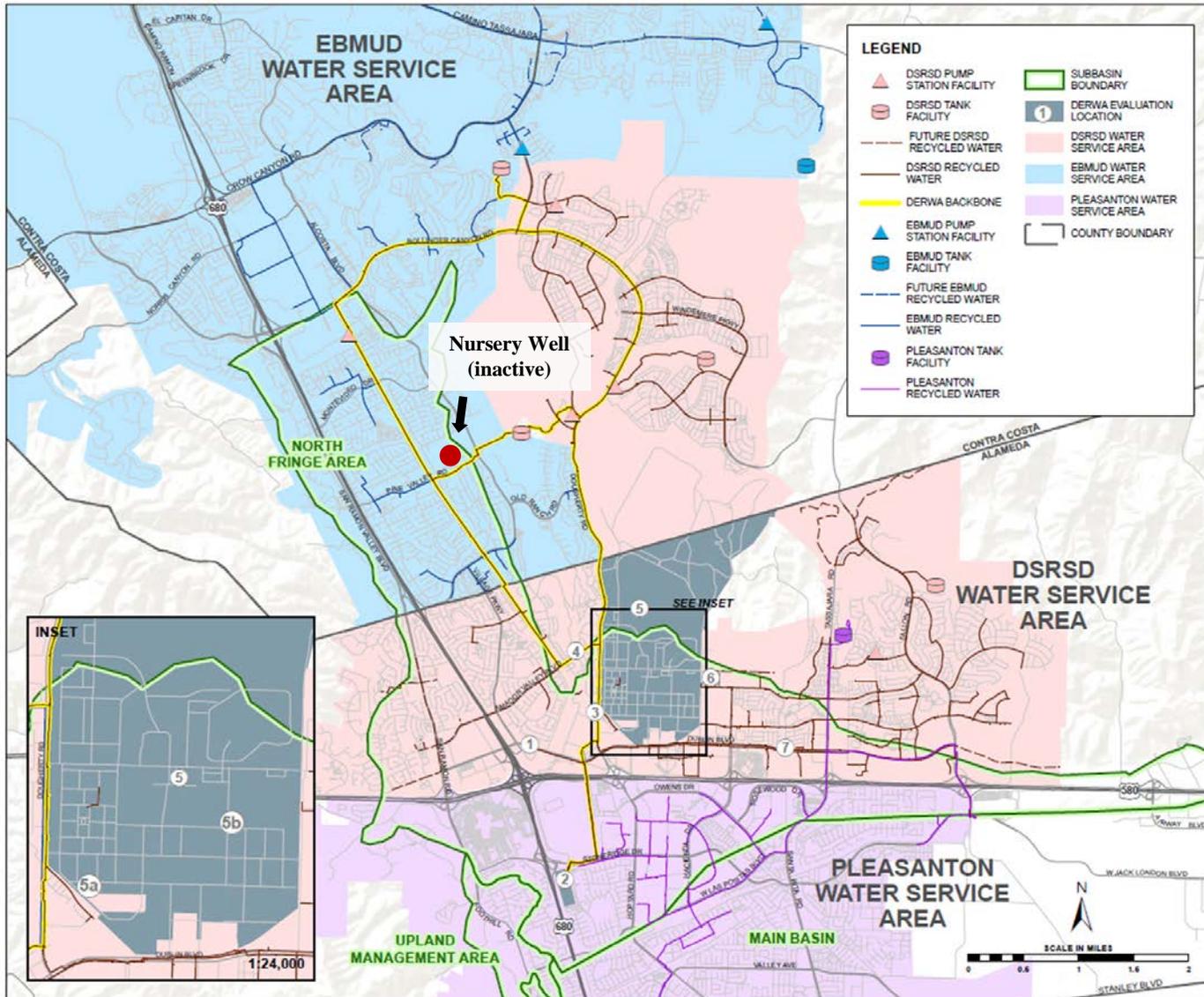
- ▶ Successfully demonstrated benefits of operational storage in 2022
- ▶ Added costs to utilize WWTP holding basins
- ▶ Limitations on using Tassajara Reservoir
- ▶ Pressure and water quality issues
- ▶ Additional modeling needed to optimize storage operations



Supplemental Groundwater Alternatives



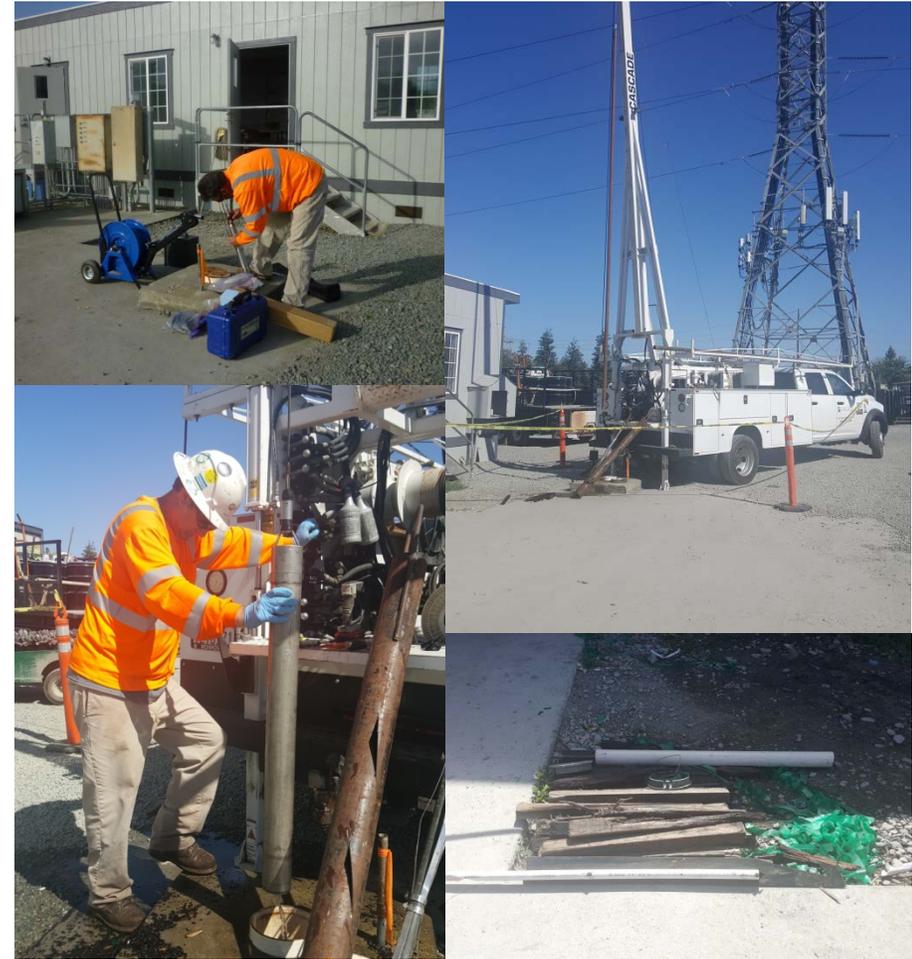
Previous Groundwater Investigations



- ▶ Groundwater Supply Assessment (CDM, 1999)
- ▶ Groundwater Reconnaissance Evaluation (Luhdorff & Scalmanini, 2001)
- ▶ Field Reconnaissance and Testing (Luhdorff & Scalmanini, 2004)
- ▶ Review of Fringe Basin Groundwater Options (EBMUD, 2019)

San Ramon Nursery Irrigation Well

- ▶ Property owned by PG&E, leased to Devil Mountain Nursery
- ▶ Well installed in 1990, not used because of water quality issues
- ▶ Performed survey and testing in mid-2019
- ▶ Entered into 3-year License Agreement with PG&E in October 2019
- ▶ Proposed pilot project:
 - <0.2 MGD
 - \$470,000 (2019 dollars)



Nursery Well Considerations

- ▶ **PG&E License Agreement expires October 21, 2022**
- ▶ **Supply likely not needed to meet near-term demands**
- ▶ **High cost and limited long-term potential**
- ▶ **Zone 7 interest in working with DERWA to identify more productive locations in the Fringe Basin (closer to Main Basin)**

Supplemental Groundwater Investigations – Next Steps

- ▶ **Recommend allowing PG&E License Agreement for Nursery Well site to expire**
- ▶ **Work with Zone 7 on investigating potential groundwater options in Fringe Basin**
- ▶ **Drop Main Basin options from further consideration at this time**

Potable Water Addition

Potable Water Connection	Capacity (MGD)	Status
Pleasanton turnout at WWTP	1.1	10-year agreement executed in August 2019; automatic renewals unless terminated
DSRSD at Tassajara Reservoir	1.0	Completed and tested
EBMUD at R100	0.5	On hold

- ▶ **Per 2022 Interim Agreement, Parties agreed not to add potable water to the DERWA system for the “*express purpose of meeting recycled water demands due to insufficient wastewater flows*”**

Recommended Next Steps

- ▶ **Perform a more comprehensive Supply and Demand Evaluation and Recycled Water Operations Plan Update**
- ▶ **Utilize the Demand Management Working Group to explore and implement potential demand management strategies**
- ▶ **Allow PG&E lease for Nursery Well site to expire**
- ▶ **Work with Zone 7 to review supplemental groundwater supply options only in Fringe Basin**



Questions?