Update on Long-term Water Resiliency Efforts

DSRSD Board of Directors Meeting
May 16, 2023

Dublin San Ramon Services District
Water, wastewater, recycled water

Discussion Topics

- Background
- Updates
  - Zone 7 long-term water projects
  - Near-term pilots
  - Recycled water supply efforts
  - Long-term conservation framework
- Next steps

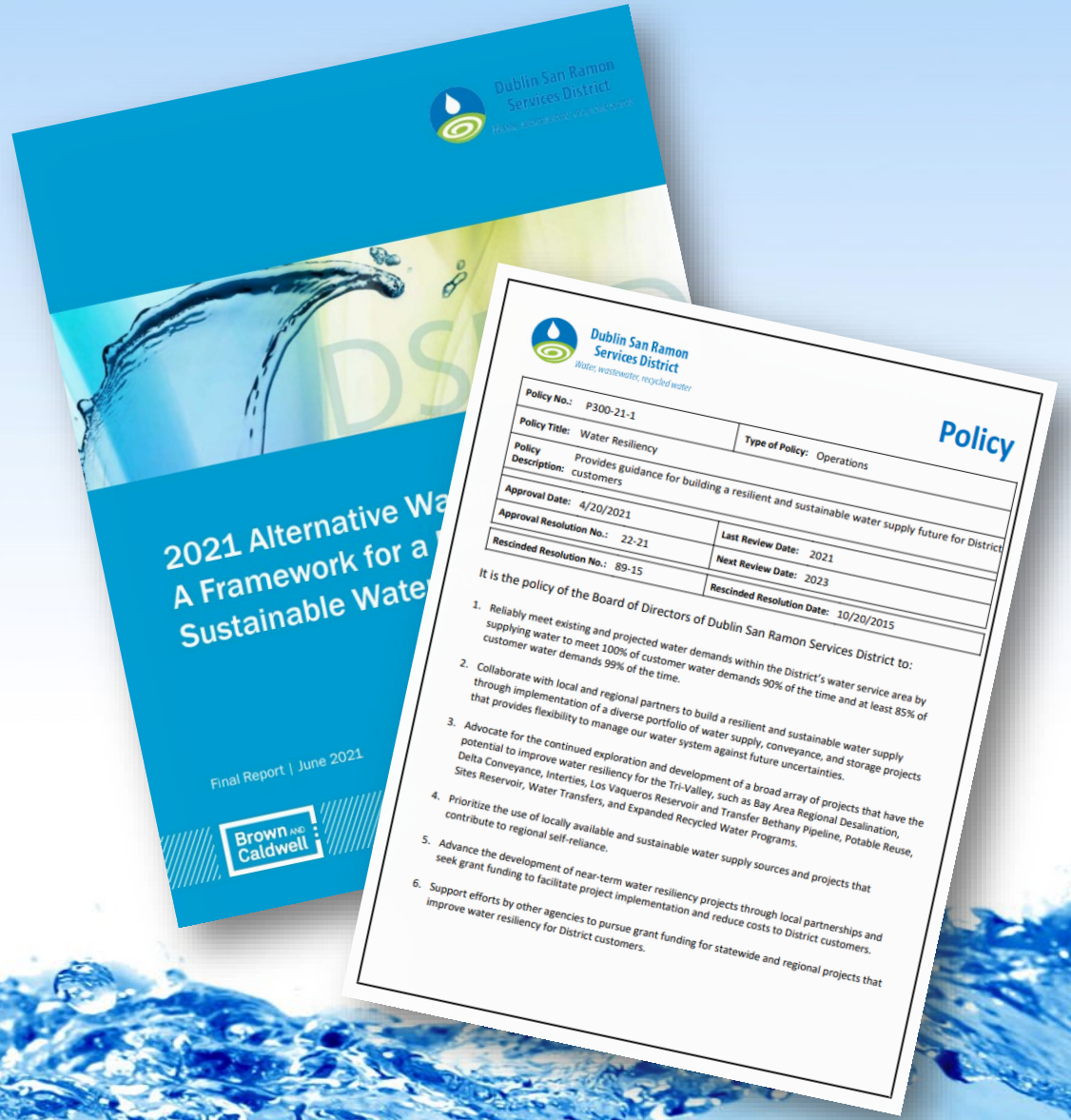
2024 – 2028 Strategic Plan Goal

» Improve the resiliency of the District's water supplies against future uncertainties

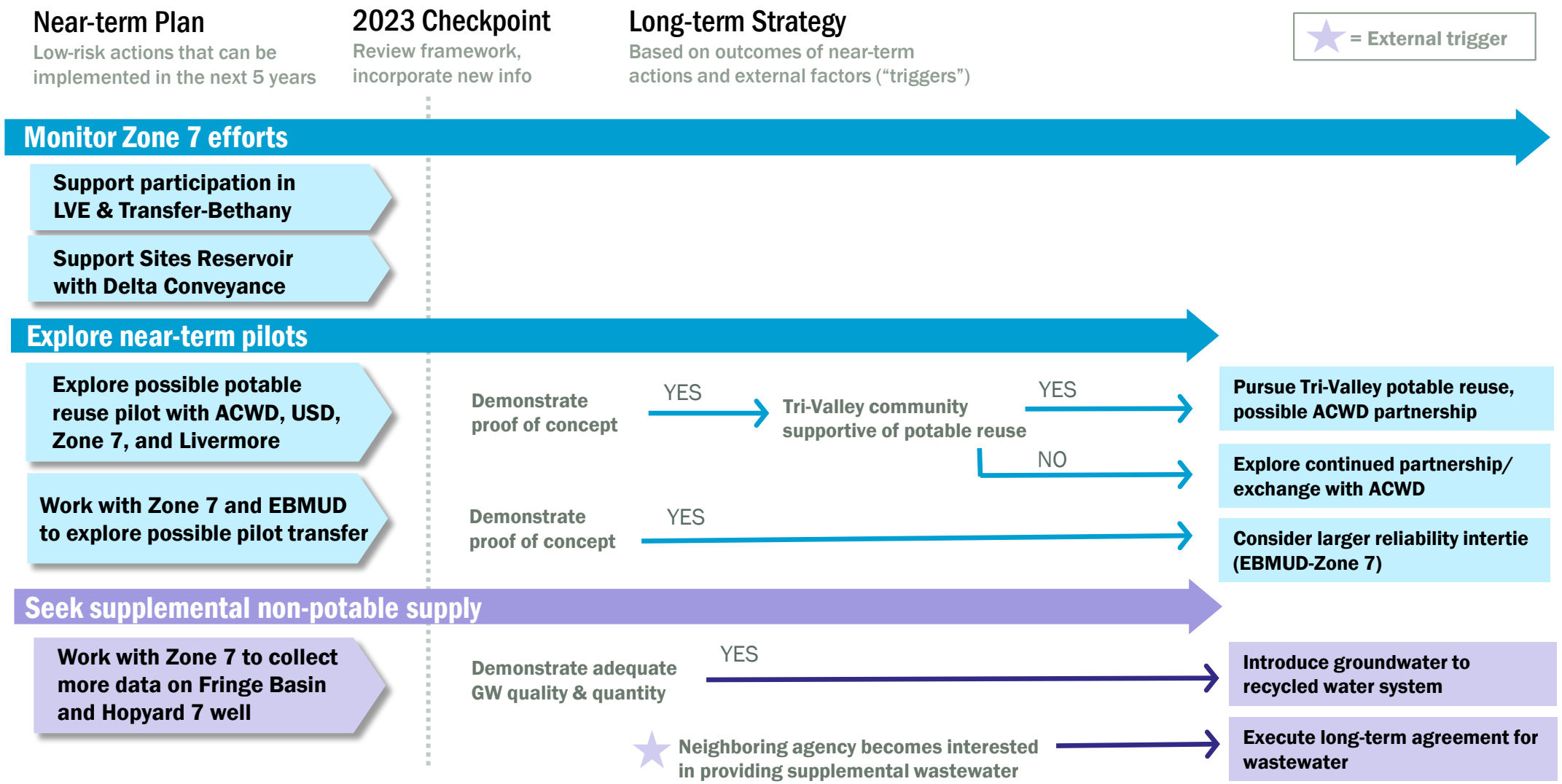
- Work collaboratively with our Tri-Valley and regional partners in the development of a more diversified and resilient water supply
- Prepare and implement water conservation strategies to reduce water demand, improve system reliability, and comply with state regulations

DSRSD Long-term Water Resiliency Framework

- **2021 Water Resiliency Policy**
  - Emphasis on collaborative partnerships
  - All of the above approach
- **2021 Alternative Water Supply Study**
  - Monitor and support Zone 7 efforts
  - Explore near-term pilots
  - Seek opportunities to expand recycled water program



2021 AWSS Recommended Framework



ZONE 7 LONG-TERM WATER PROJECTS

Photo by Redwood Hikes Press

Zone 7 Water Supply Reliability Policy

- Meet 100% of water demands 90% of the time (10% chance of shortage)
- Meet at least 85% water demands 99% of time (1% chance shortage exceeds 15%)

The “No New Water Supply” Scenario: At Buildout

Reference: Draft 2022 Zone 7 Water Supply Evaluation

Los Vaqueros Reservoir

Long-term Water Options

Potential Projects	Supply	Storage	Conveyance
Delta Conveyance	√		√
Sites Reservoir	√	√	
Los Vaqueros Reservoir Expansion and Pipeline		√	√
Bay Area Desalination	√		
Potable Reuse	√		
Chain-of-Lakes	√		√
Interties			√
Water Transfers	√		

Los Vaqueros Reservoir

Long-term Water Options

Potential Projects	Supply	Storage	Conveyance
Delta Conveyance	√		√
Sites Reservoir	√	√	
Los Vaqueros Reservoir Expansion and Pipeline		√	√

Sites Reservoir

- New off-stream reservoir located in Glenn and Colusa Counties
- Total storage of 1.5 million acre-feet
- Captures excess stormwater flows
- Zone 7 signed up for 62,340 AF of storage, yielding about 10,000 acre-feet per year of new supply (8,000 AFY after losses)
- Estimated Zone 7's share of capital cost: $176M

Participants Include:

9 Sacramento Valley governing agencies

23 Reservoir Committee members

All participants continued their support for Sites Reservoir in 2021.

These participants represent more than 24.5 million people, more than 500,000 acres of farmland, and the environmental resource agencies that have stewardship over rivers, fish, and habitat within the watershed.

30 participants span California

Blue shading represents participant service areas; does not account for State and Federal participation.

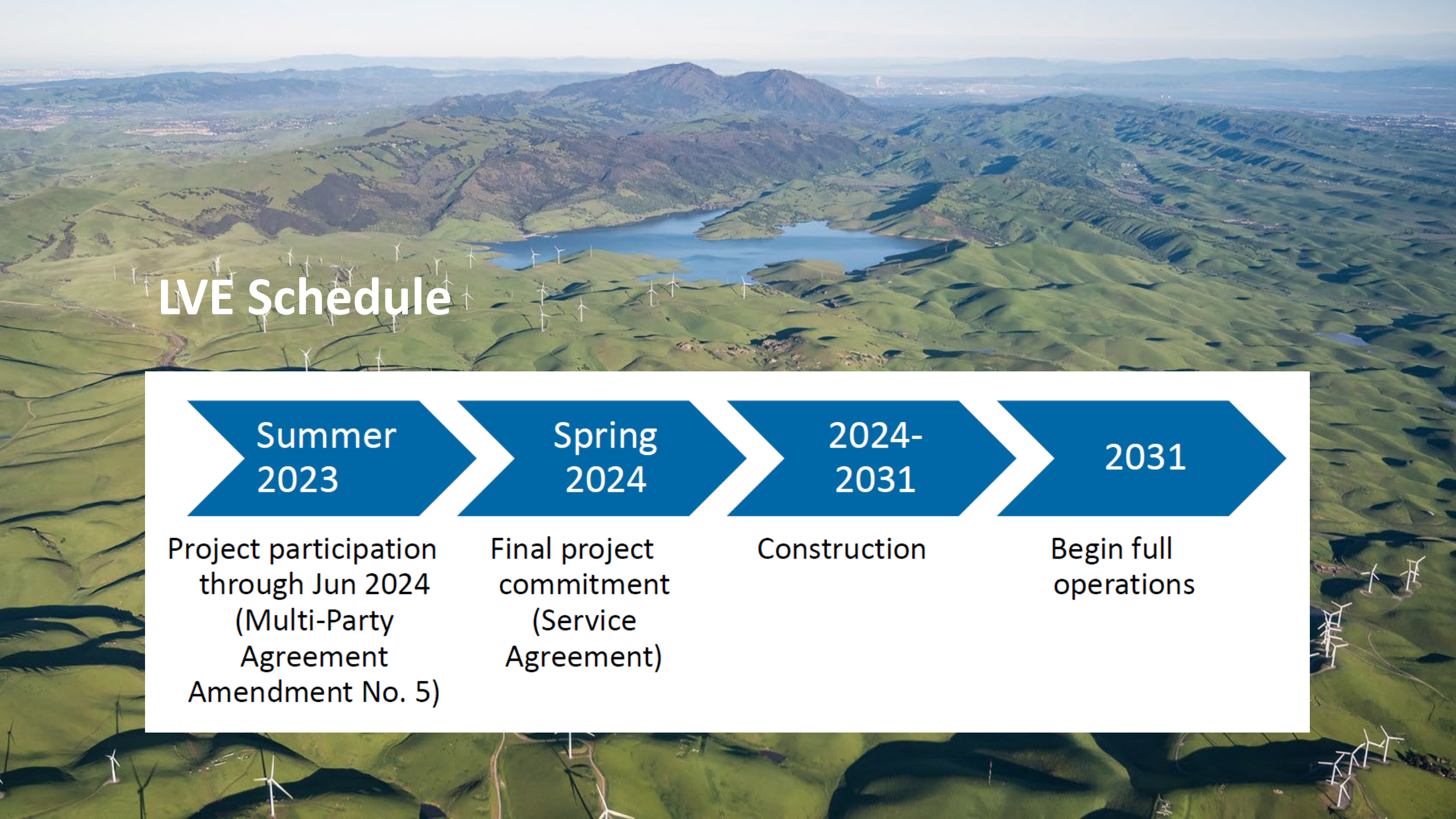
Sites Reservoir Schedule

2023	Dec 2024	2025-2031	2031
Complete CEQA & NEPA process	Final project commitment (Benefits & Obligations Contract)	Construction	Begin full operations

Los Vaqueros Reservoir Expansion and Transfer Bethany Pipeline

Benefits and Costs

- Increased storage of 115,000 AF, Zone 7's share would be 10,000 AF
- Alternative conveyance
- Emergency water supply
- Operational flexibility
- Current estimated Zone 7's share of cost: $48M



LVE Schedule

Summer 2023	Spring 2024	2024-2031	2031
Project participation through Jun 2024 (Multi-Party Agreement Amendment No. 5)	Final project commitment (Service Agreement)	Construction	Begin full operations

2022 WSE Update Results and Recommendations

- No single project will meet reliability goals
- Zone 7 analyzed 8 multi-project portfolios
- Portfolios with 3 or more projects generally performed better
- Transfers needed near-term
- Zone 7 should continue to pursue multiple water supply reliability projects

NEAR – TERM PILOTS

Regional Purified Water Pilot Concept

- In 2021, DSRSD initiated a study to develop a regional purified water demonstration project
- Purified water is one of multiple water supply options being explored to improve long-term water resiliency for the region
- Feasibility study completed in mid-2022

ACWD Alameda County Water District

Livermore California

Dublin San Ramon Services District
Water, wastewater, recycled water

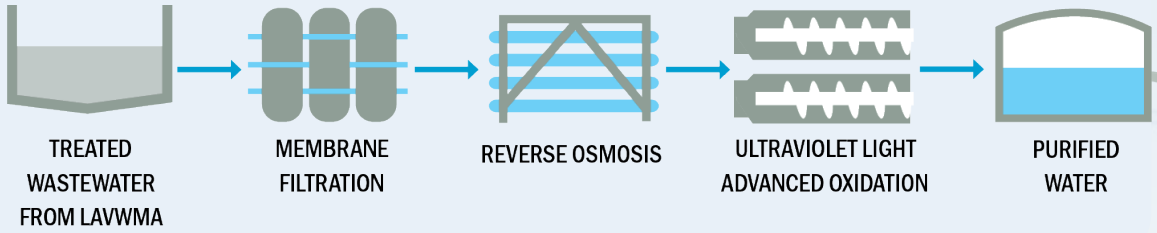
LAVWMA Water Resource Recovery

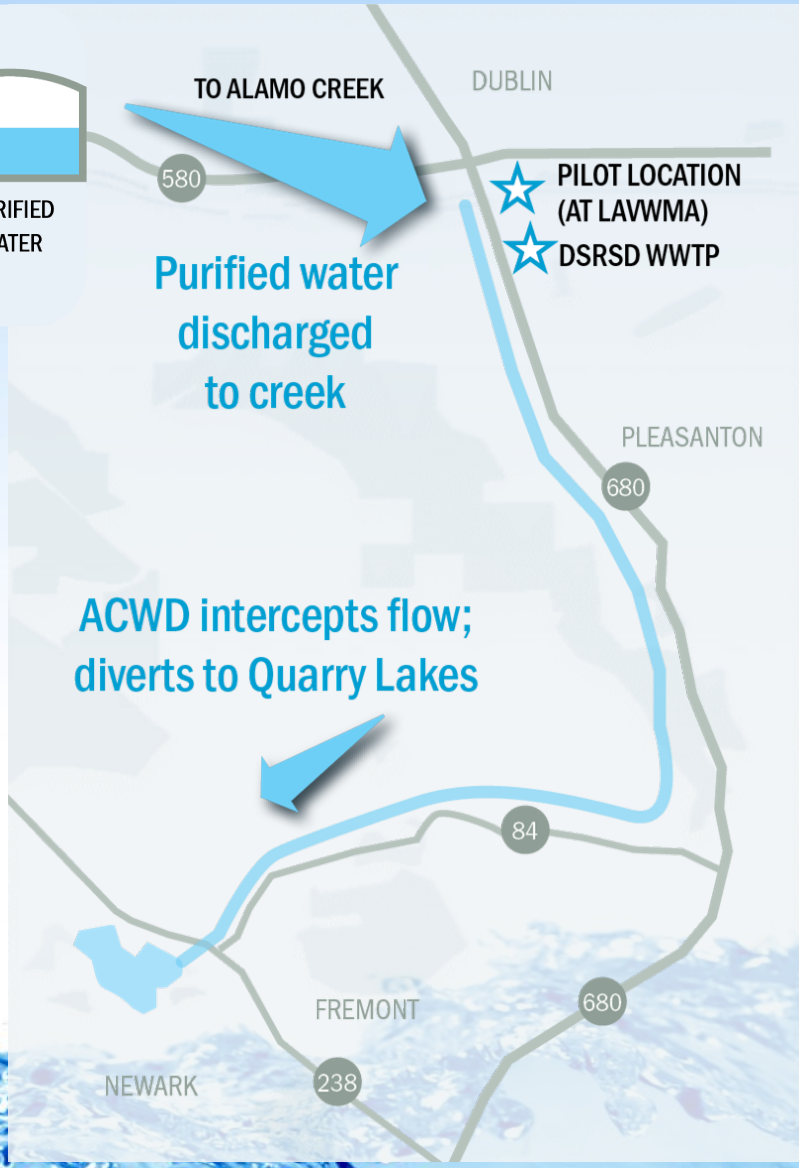
USD Union Sanitary District

Zone 7 Water Agency

Regional Purified Water Pilot Concept

Small, temporary advanced treatment system at LAVWMA:



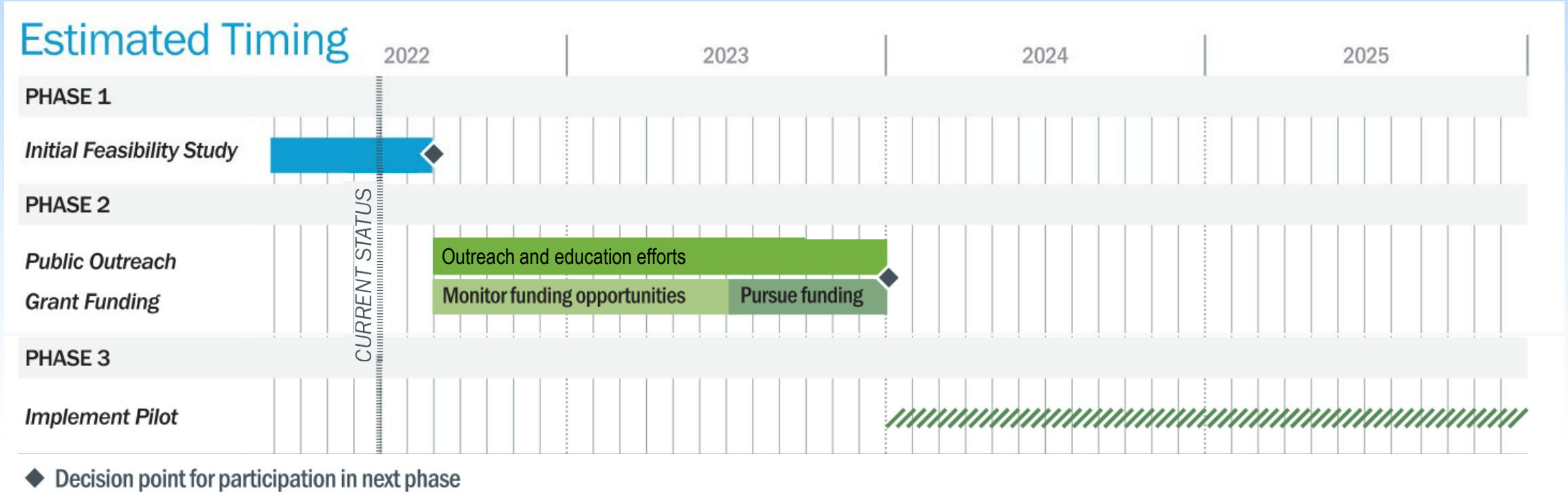


Pilot project would…

- Produce up to 0.2 mgd of purified water from secondary effluent currently discharged to SF Bay
- Deliver purified water to supplement flow in Alameda Creek
- Allow ACWD to divert flow downstream for groundwater recharge

Source: Brown and Caldwell

Schedule and Next Steps



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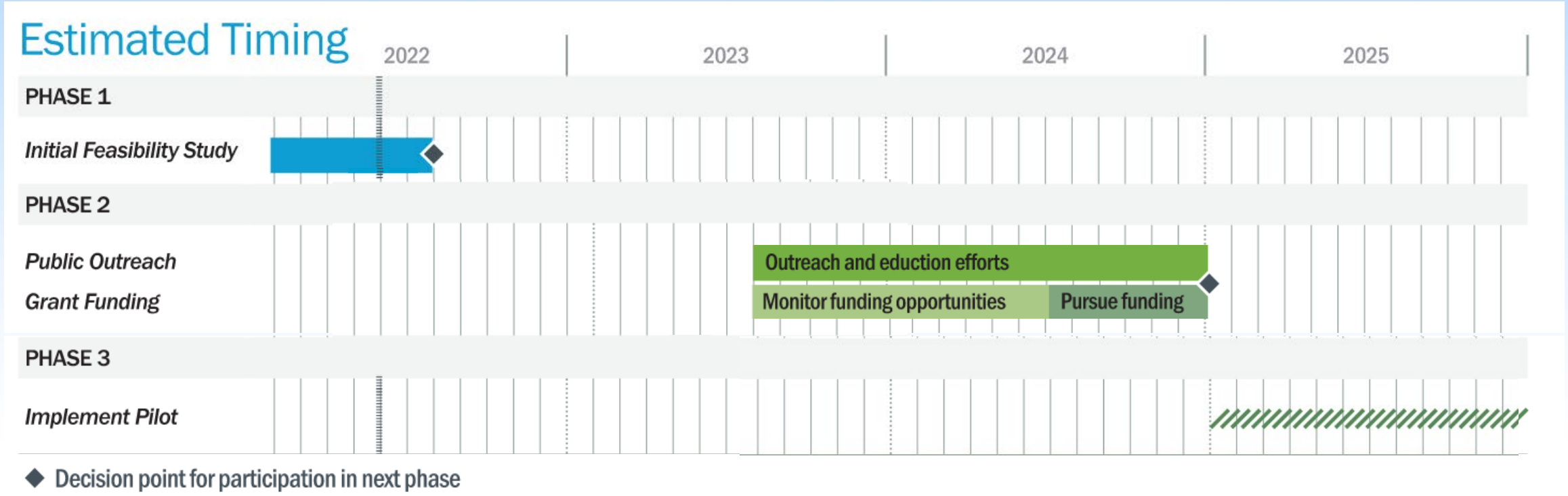
Schedule and Next Steps



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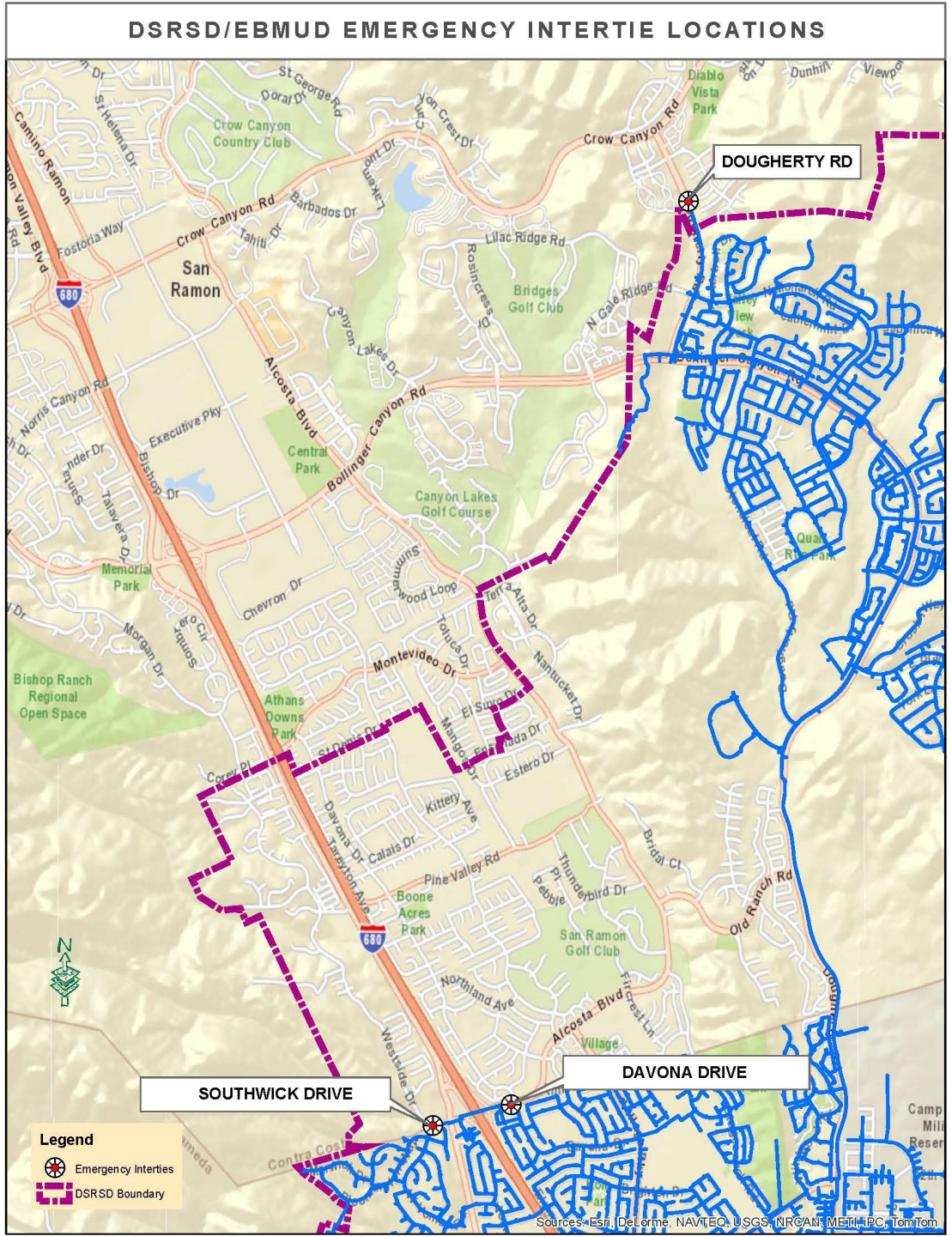
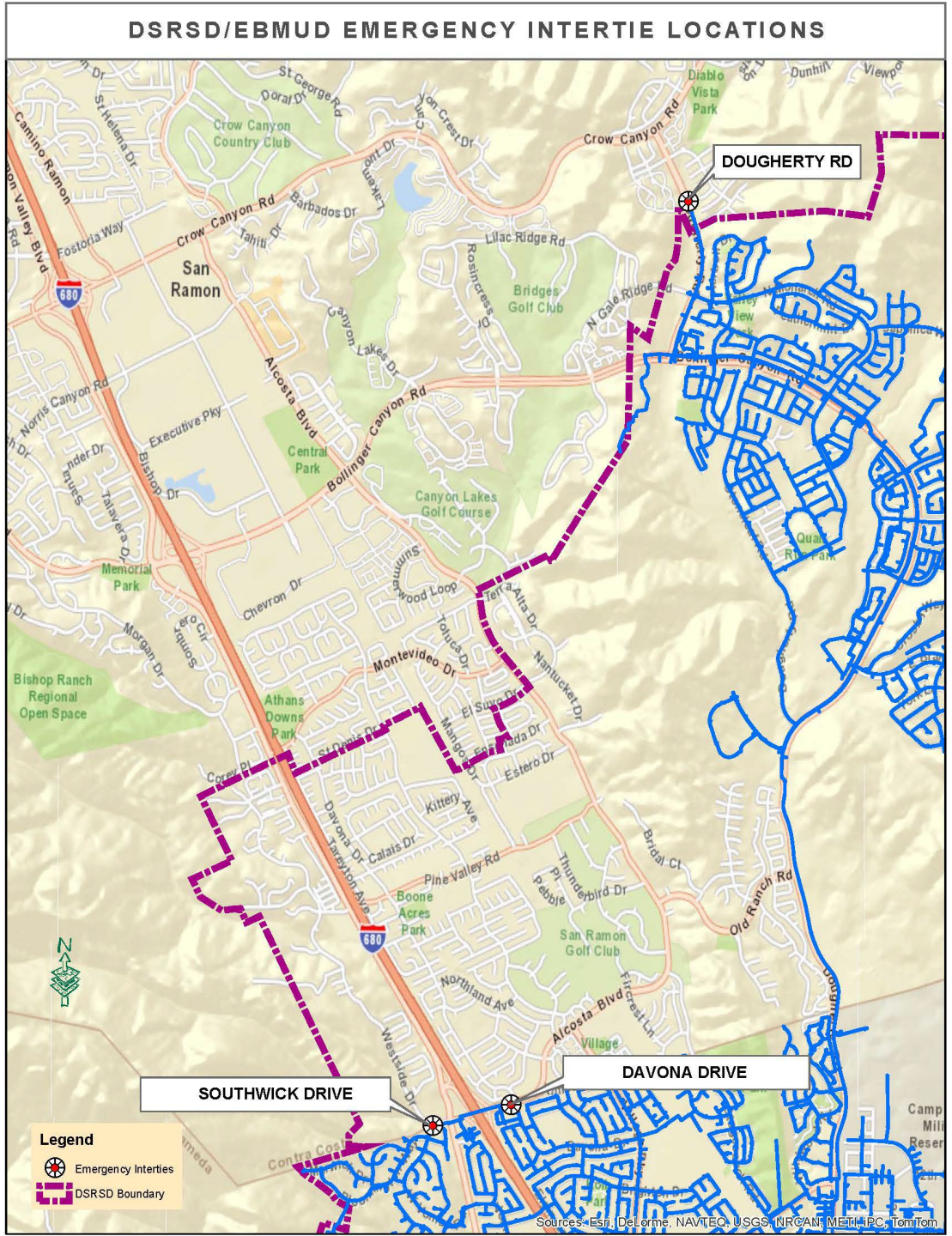


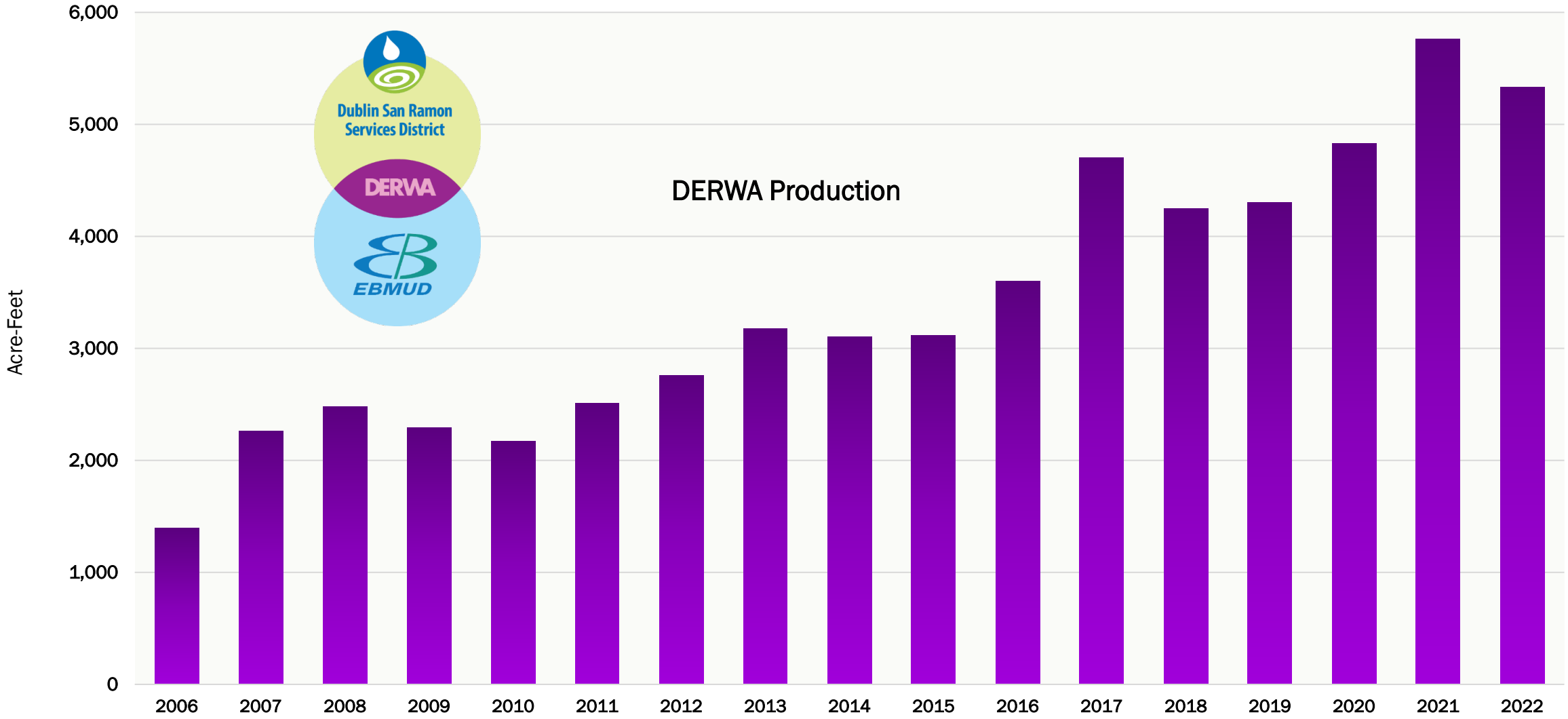
2022 Proposed Emergency Intertie Maintenance Test



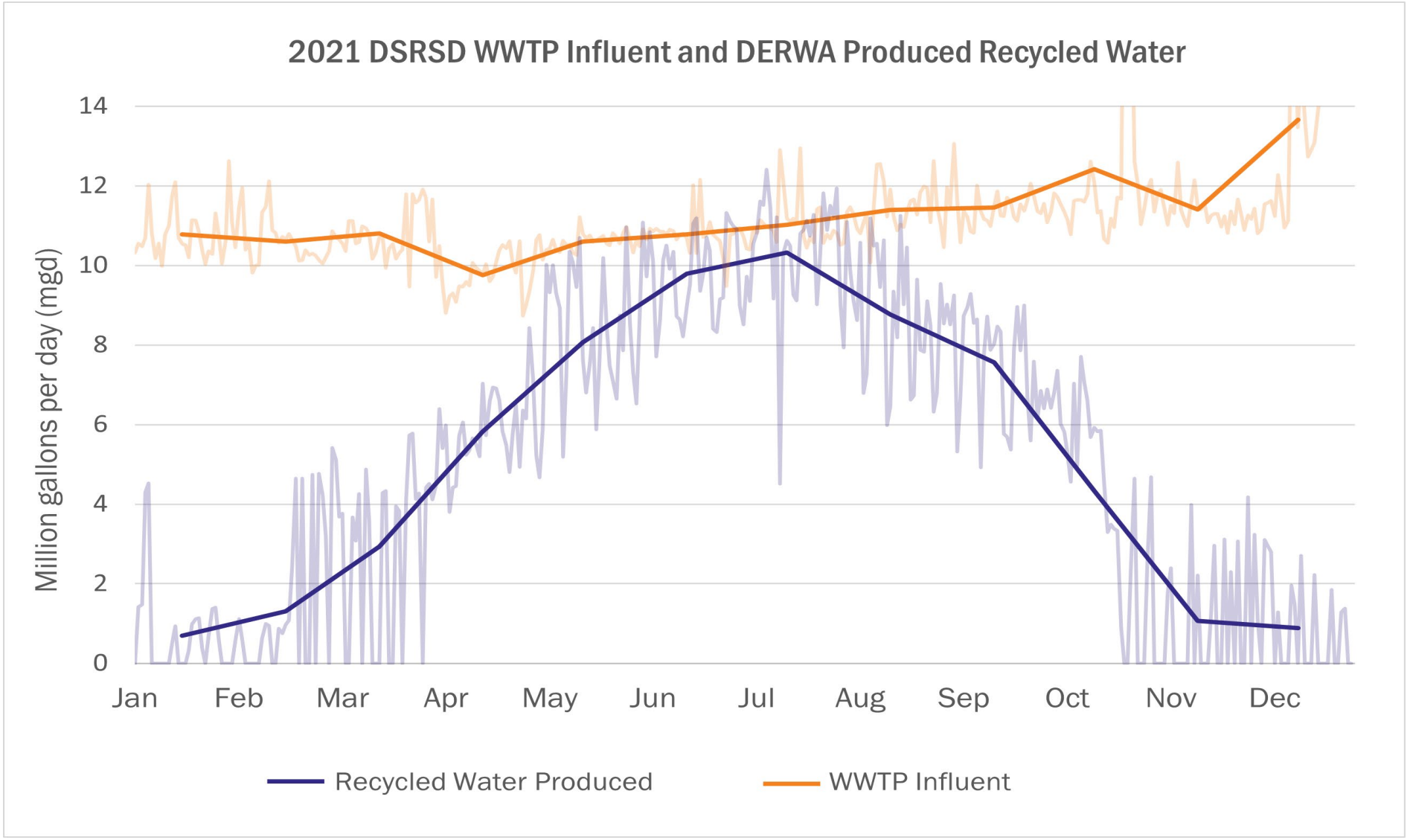
2022 Proposed Emergency Intertie Maintenance Test

SUPPLEMENTAL RECYCLED WATER SUPPLIES

Growth in Recycled Water Program



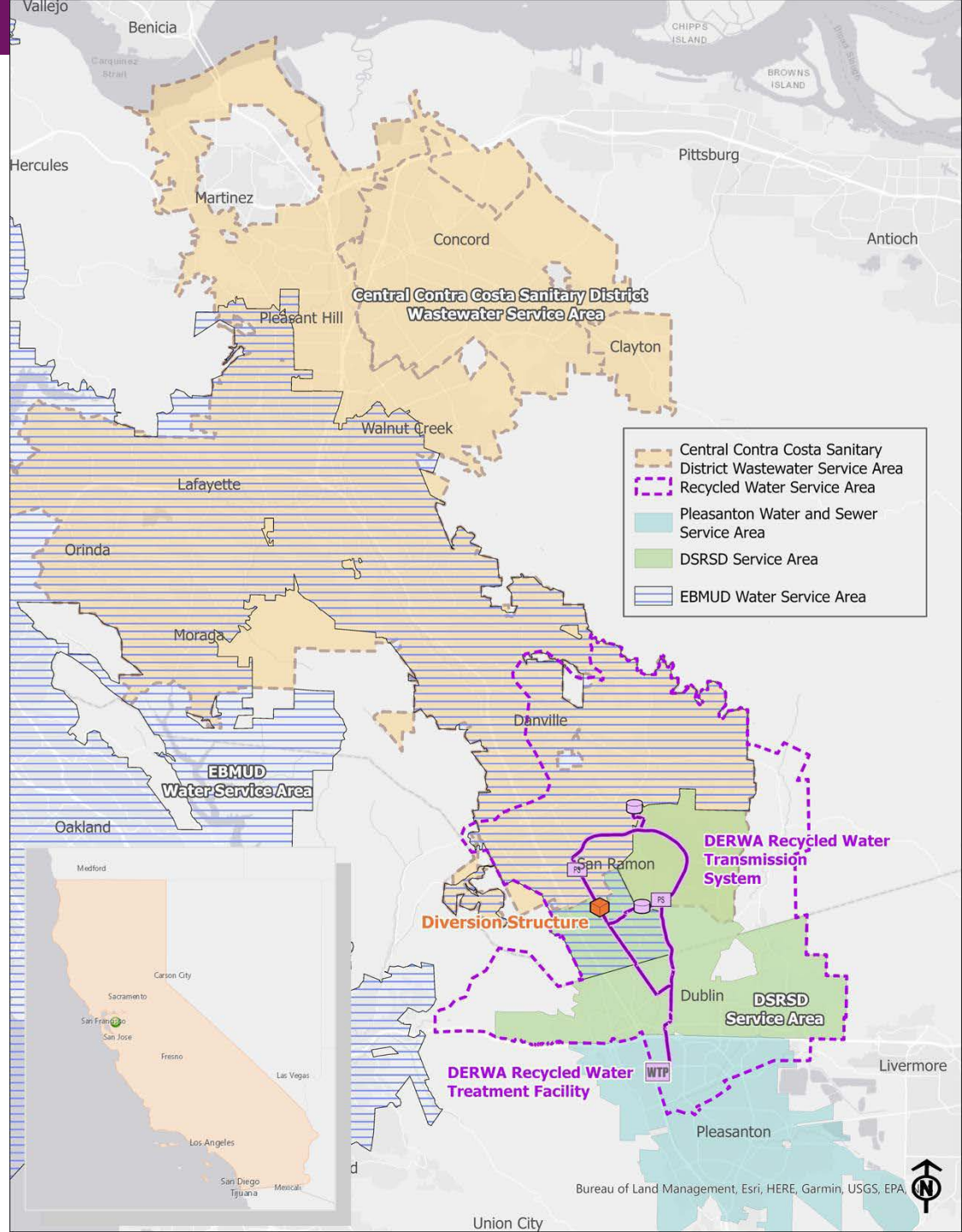
Recycled Water Supply Limitation

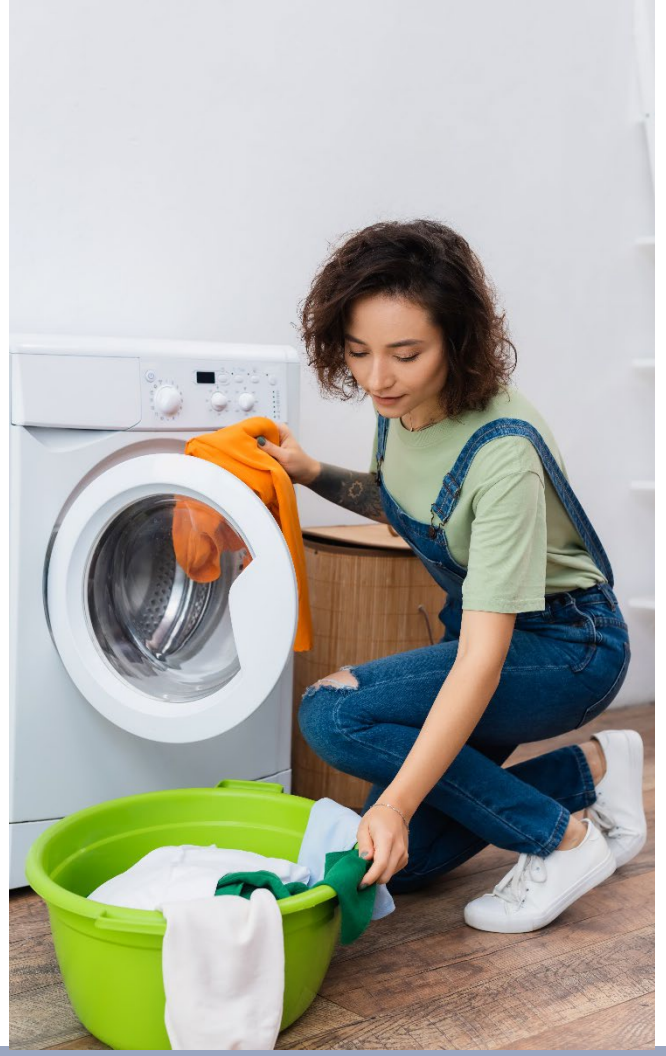


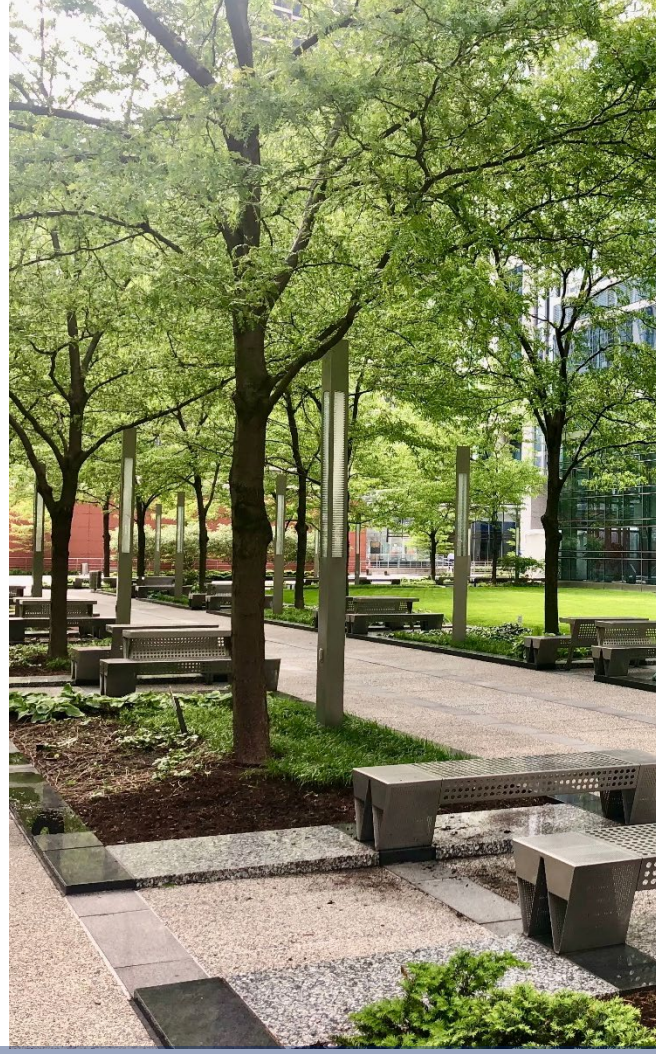
Ongoing Supplemental Supply Efforts

- Interim agreement signed in March 2022
- DERWA Recycled Water Supply and Operations Plan Update
- EBMUD and Central San Feasibility Evaluation of Recycled Water Concepts

Studies anticipated to be completed by end of 2023

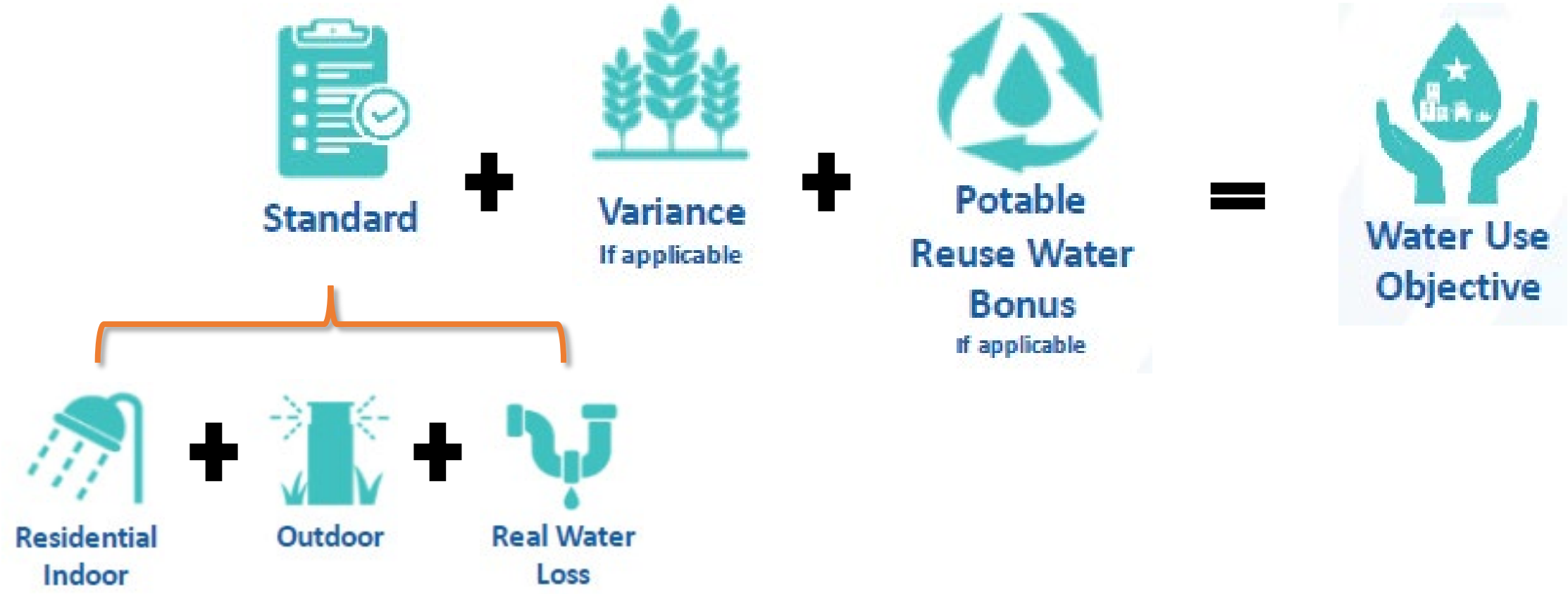




LONG-TERM CONSERVATION FRAMEWORK

2018 Conservation Legislation
AB 1668 and SB 606



DSRSD UWUO ~ 109 gallons per capita per day (DRAFT)

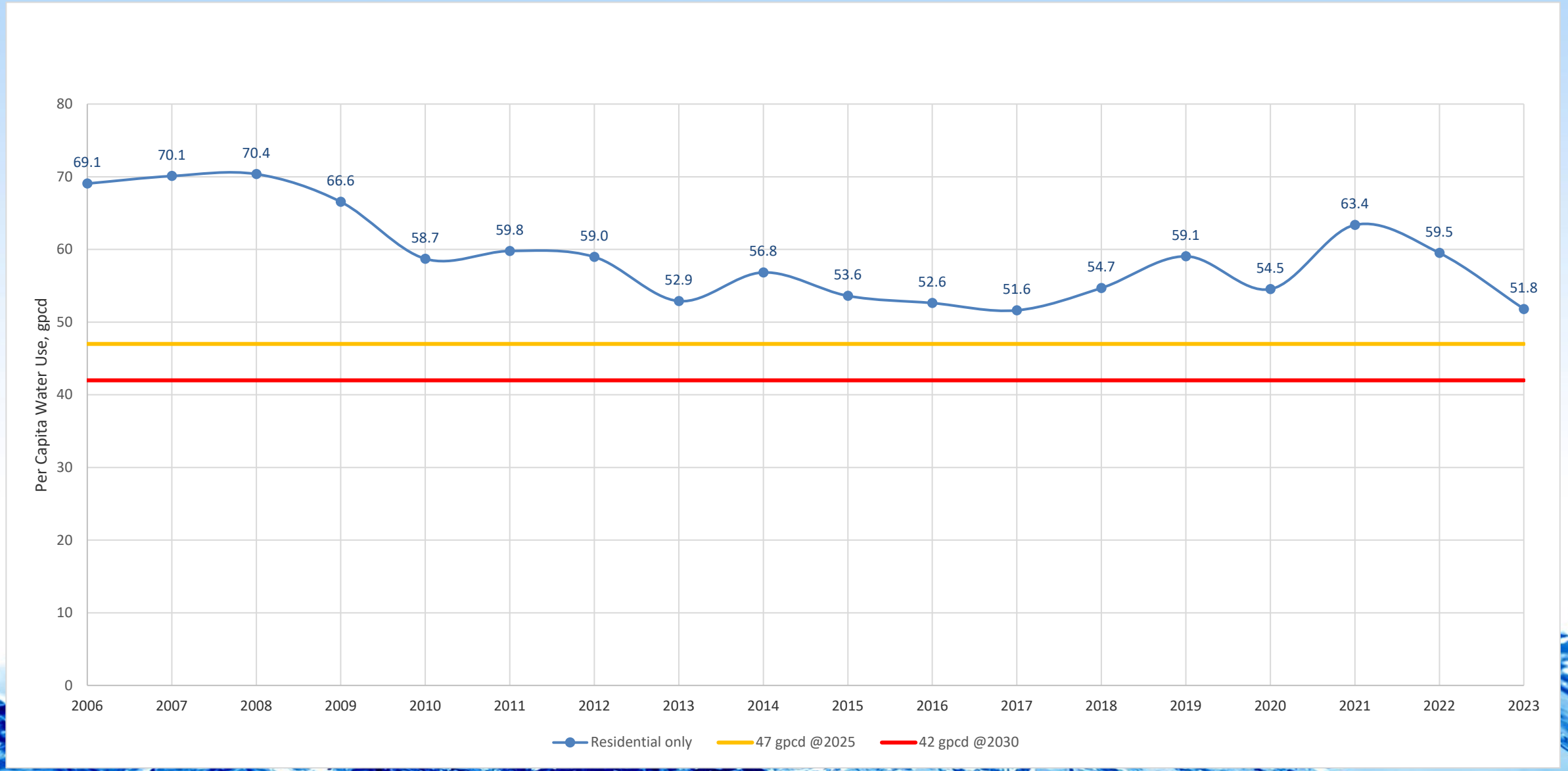
Residential Indoor Budget

Efficient Residential Indoor Standard as defined in Water Code Section 10609.4

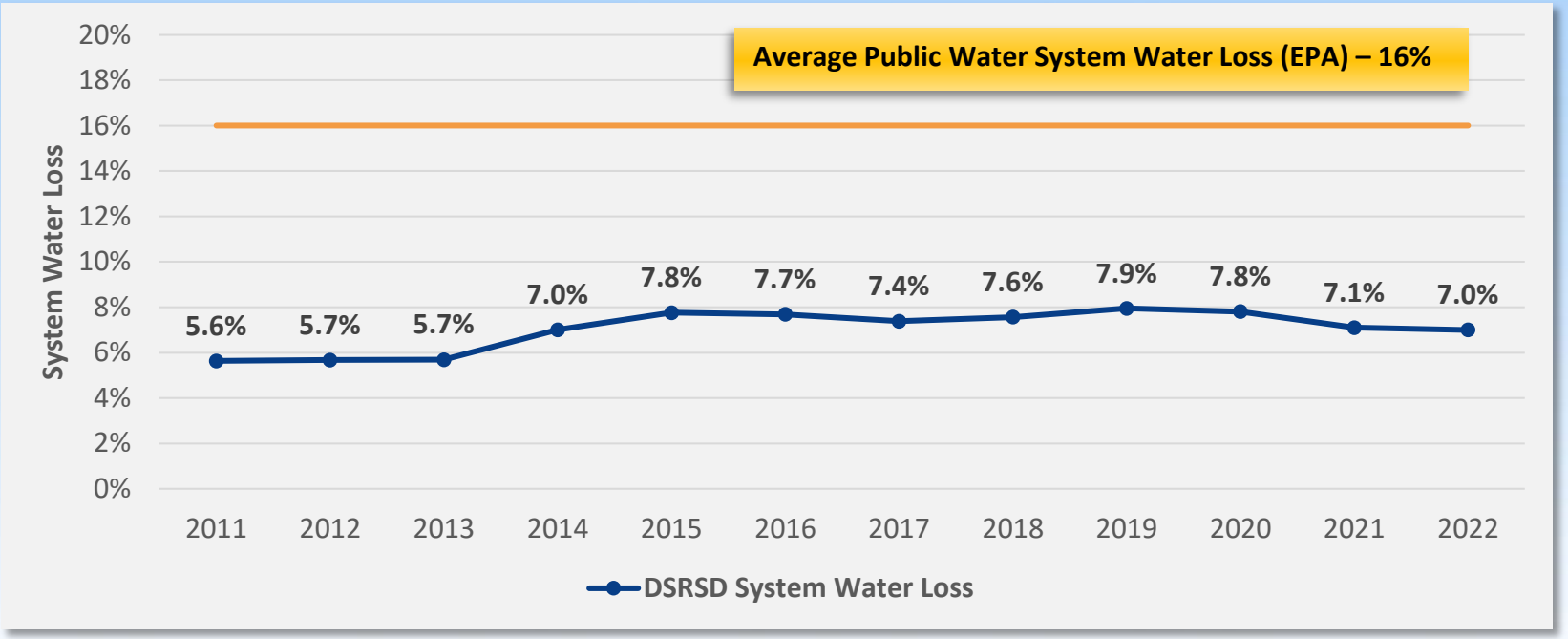
Timeline	Residential Indoor Standard (gallon per person per day)
Now to 2024	55
2025 to 2029	47
2030	42

Residential Indoor Budget = 55 x Population x 365 days

Residential Indoor Water Use - Based on Winter Month



Water Losses Budget



Water Loss Standard for DSRSD

System name	Current leakage (gal/conn/day)	Standard (gal/conn/day)	Reduction from Baseline (%)
Dublin San Ramon Services District	**10.7**	**10.7**	**No Reduction**

Real Water Loss Budget = DSRSD Standard x Connections x 365 days
2023 Budget = 102 MG

Residential Outdoor Budget

Efficient Outdoor Residential Water Use calculation based on principles of Model Water Efficient Landscape Ordinance (MWELO)

Compliance Year	Irrigable-Irrigated	Irrigable-Not Irrigated	Special Landscape Areas (i.e. Recycled Water)	New Construction/ Rehabilitation
2023	0.8	0.8	1.0 (excluding non-functional turf)	0.55
2030	0.63	0.63	1.0 (excluding non-functional turf)	0.55

CII Dedicated Irrigation Budget

Efficient Outdoor Water Use calculation based on principles of Model Water Efficient Landscape Ordinance (MWELO)

Compliance Year	Irrigable-Irrigated	Irrigable-Not Irrigated	Special Landscape Areas (i.e. Recycled Water)	New Construction/ Rehabilitation
2023	0.8	0.8	1.0 (excluding non-functional turf)	0.45
2030	0.63	0.63	1.0 (excluding non-functional turf)	0.45

CII Performance Measures

» Address Mixed Use Meters

- Required Dedicated Irrigation Meter for certain site

» Best Practices

- Identify building owners
- Collect 12 months of water use
- Provide building owners with water use data in an ESPM format

Compliance Requirement – 20% each year (starting 2024) for CII account mapping and determining landscape area measurement

Regulatory Requirement by January 1st, 2024

- **Report Urban Water Use Objective and Actual Use**
- **Submit UWMP Supplement Incorporating**
  - Demand Management Measures to achieve urban water use objective by January 1st, 2027
  - Other water use efficiency standard to be implemented by 2027

Water Conservation Master Plan (FY24/FY25)

- Review existing conservation programs (rebates, leak notification through AMI)
- Identify future conservation programs to meet water use objectives by 2030
- Cost/benefit evaluation

NEXT STEPS

Next Steps

- Continue collaborating with Tri-Valley and regional partners
- Prepare Water Conservation Master Plan
- Revisit Water Resiliency policy and long-term conservation efforts in 2025

Questions?