



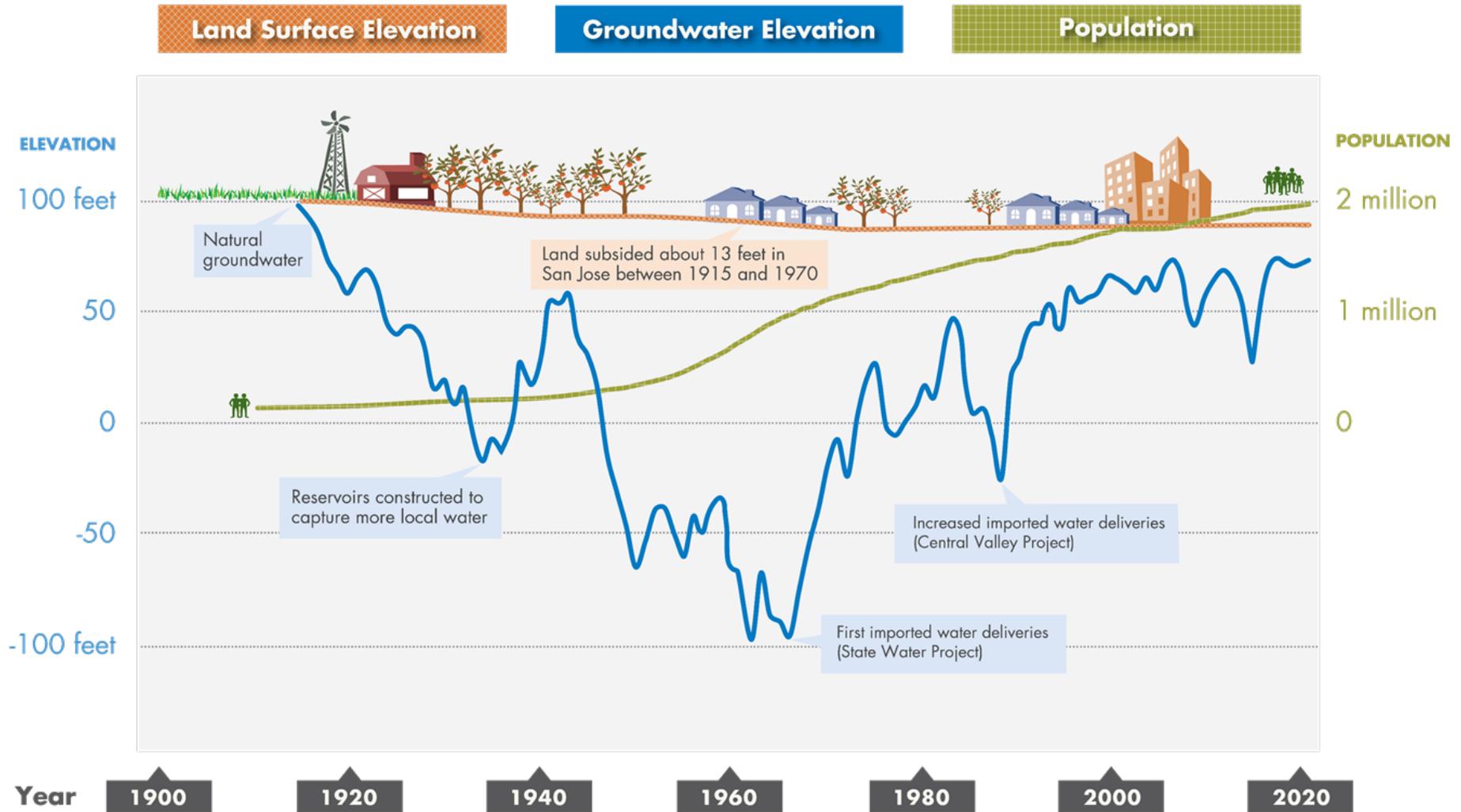
Water Supply Master Plan 2040 Monitoring and Assessment Program Annual Report and Water Demands Update

Presented by: Samantha Greene, Ph.D., Water Supply Planning and Conservation Unit

Investing in Water Supply Reliability

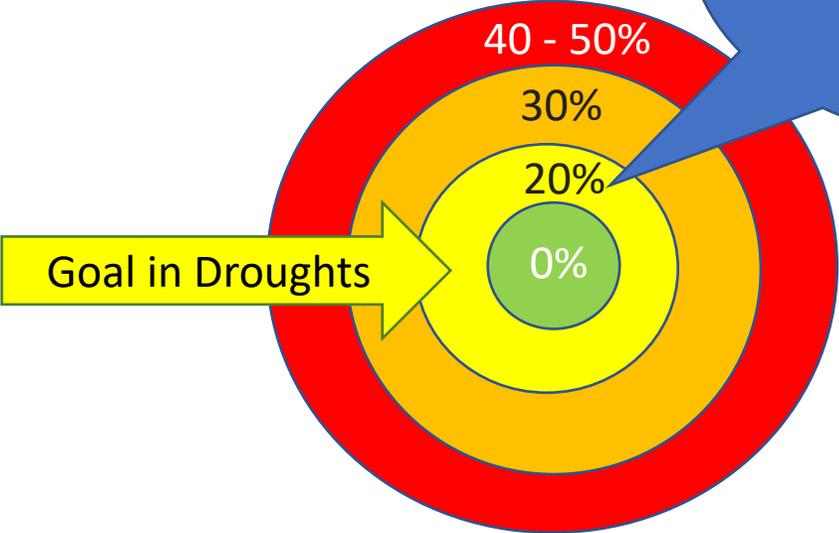
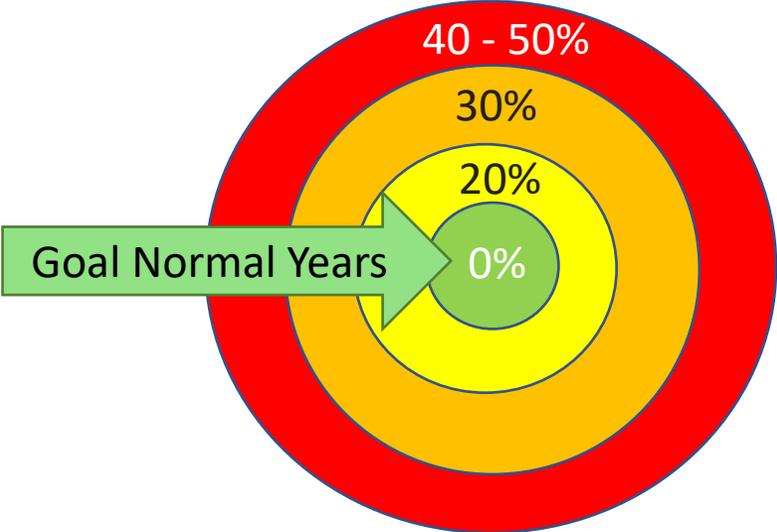
SANTA CLARA COUNTY GROUNDWATER AT-A-GLANCE

a graphic representation not intended as a technical exhibit



Level of Service Goal

Water Use Reductions



In droughts, our goal is to not ask for more than 20% water use reductions

Water Supply “Ensure Sustainability” Strategy

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Secure

- Capital Improvement Program Projects
- Delta Conveyance Project

Expand

- Water Conservation
- Stormwater Capture
- Potable Reuse

Optimize

- Pacheco Reservoir Expansion
- Transfer-Bethany Pipeline
- South County Recharge

Water Supply Planning

1. ASSESS NEEDS & GOALS



2. DEVELOP SCENARIOS

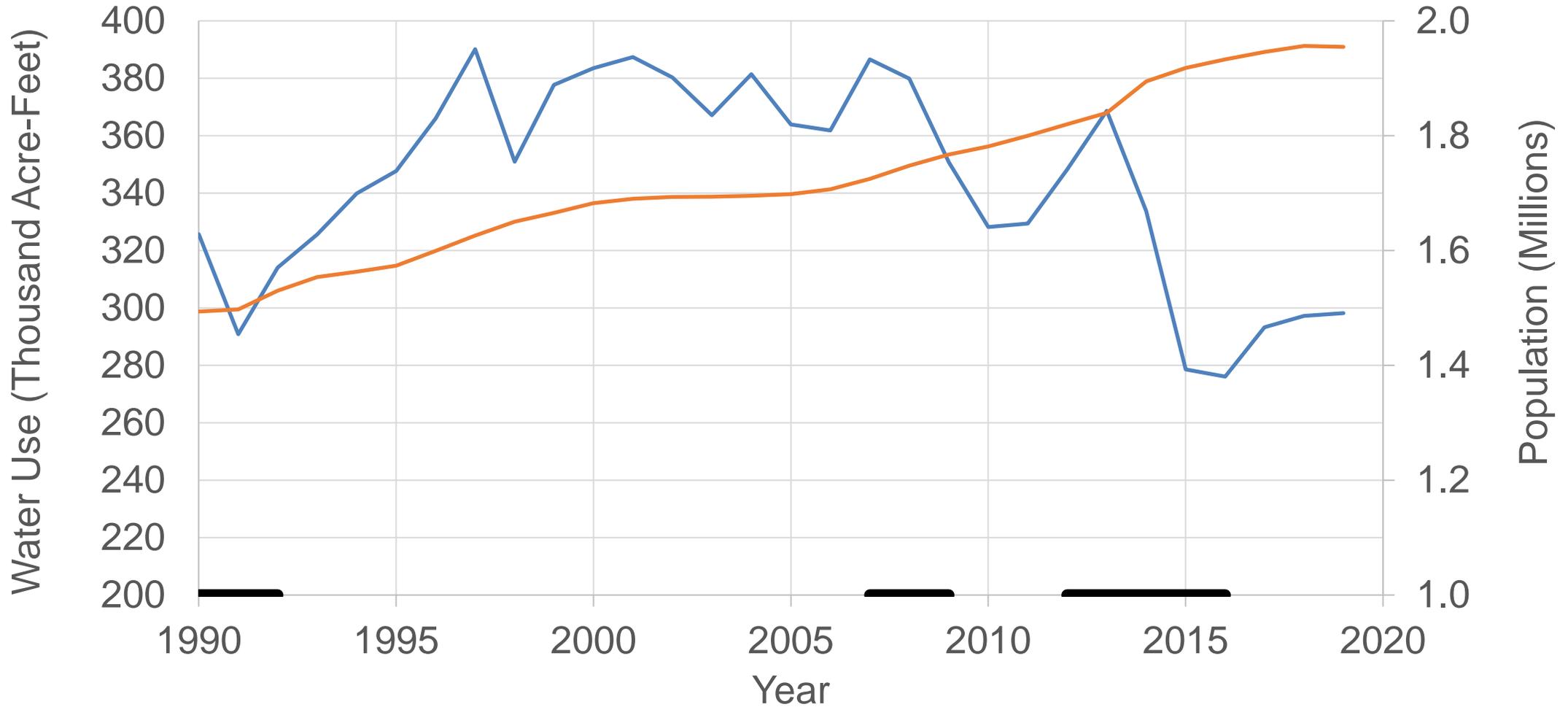


3. PLAN, INVEST & MONITOR



Historic Water Use and Population

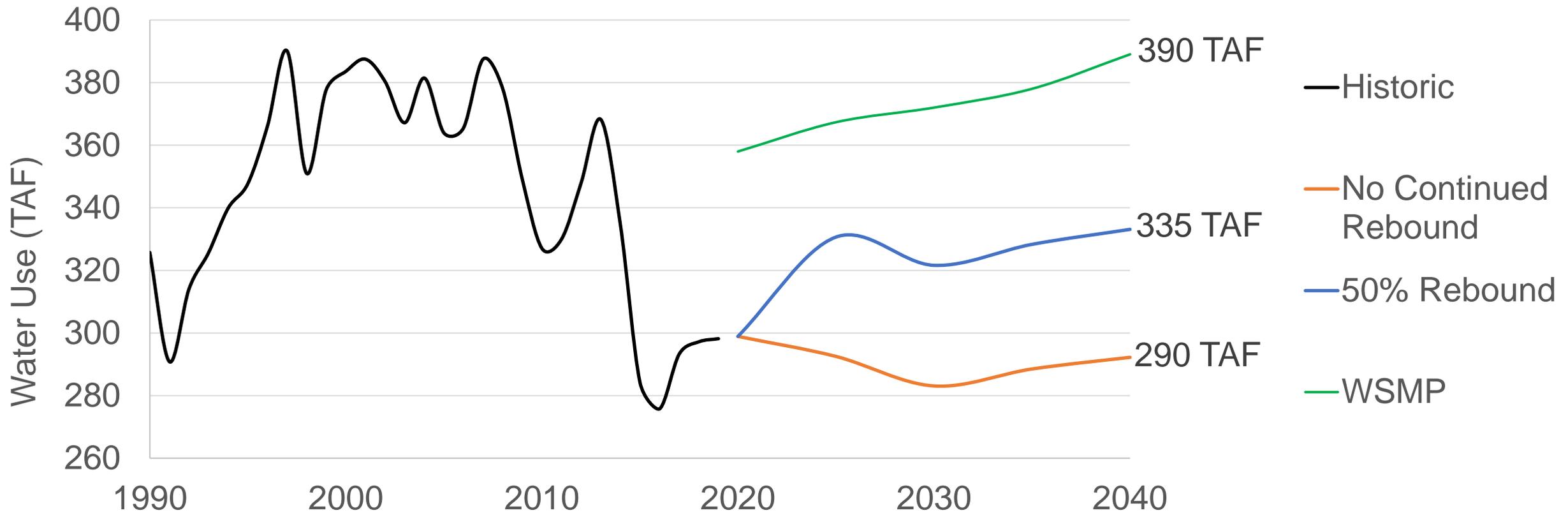
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— Water Use — Population — Drought Periods

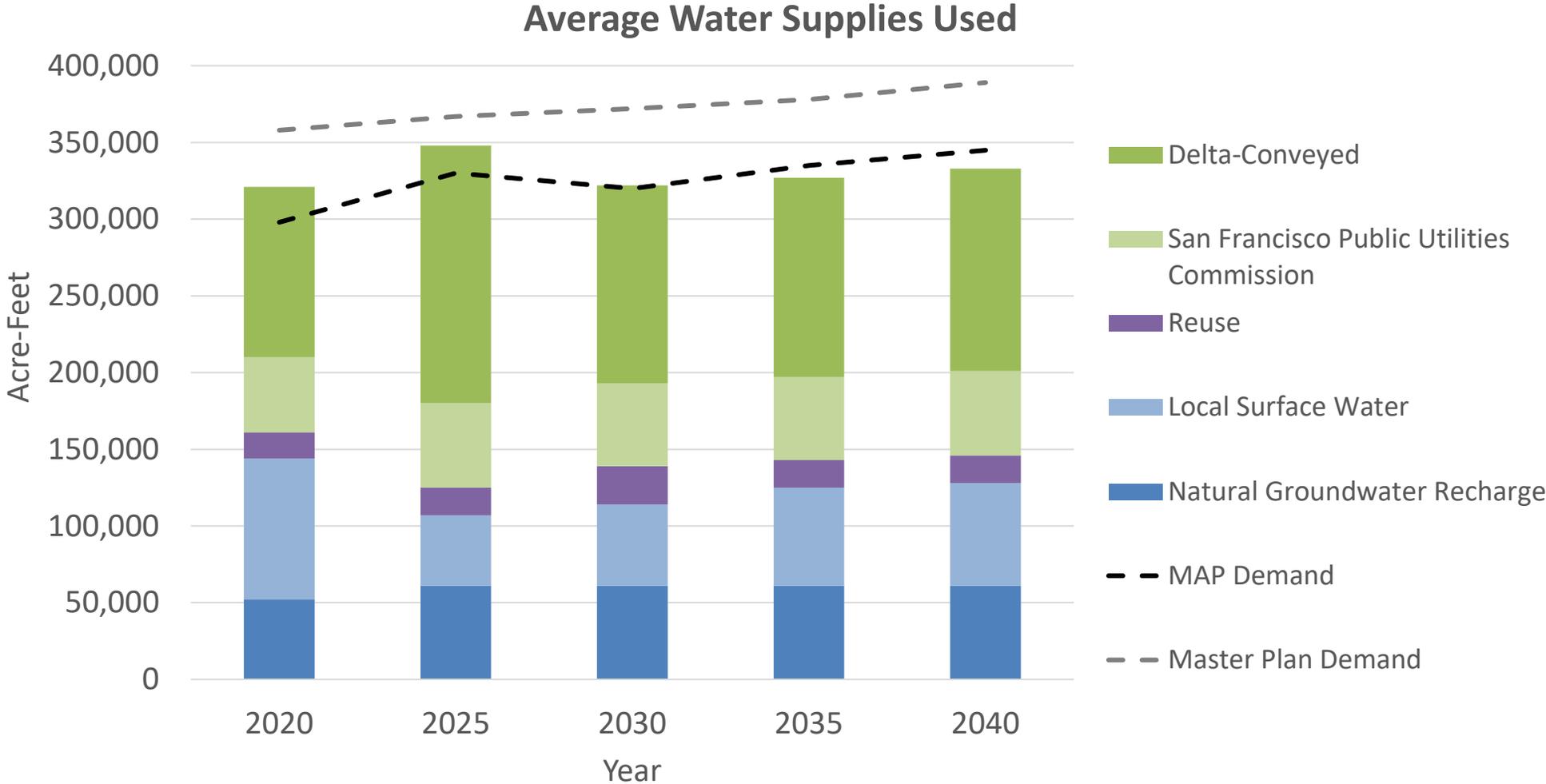


Historic and Projected Water Use (Including Water Conservation)



Water Supply Reliability

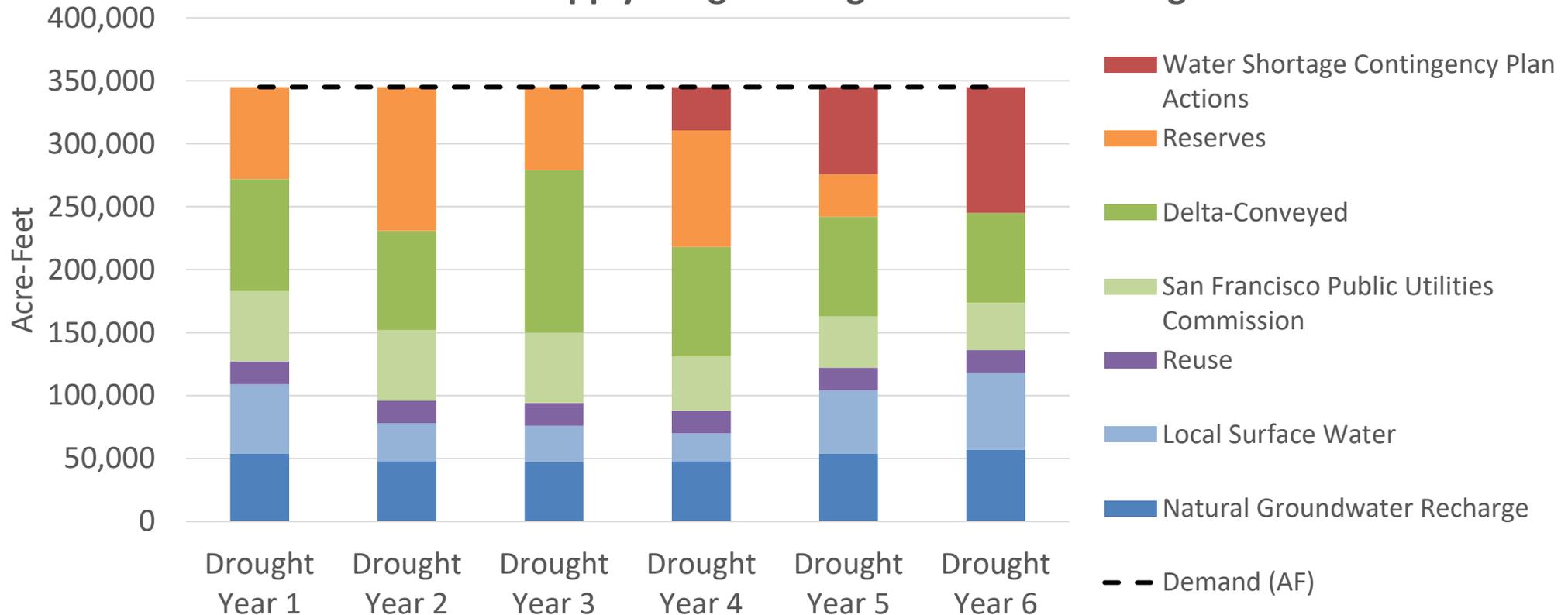
Baseline Investments with New Demands



Note: 2020 is actuals for 2019 from the FY21 Protection and Augmentation of Water Supplies report

Water Supply Reliability: Baseline Investments with New Demands

2040 Water Supply Usage During an Extended Drought



Does not achieve level of service goal

Projects Evaluated to Meet Forecasted Demands¹

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Does NOT Achieve Level of Service Goal

- Groundwater banking
- Pacheco Reservoir Expansion Project
- Transfer Bethany Pipeline
- Los Vaqueros Storage
- Sites Reservoir – 3.2% share
- Additional Centralized In-county Groundwater Recharge²

Achieves Level of Service Goal

- 10 MGD Potable Reuse
- Sites Reservoir – 6.6% share
- Lexington Pipeline
- Refinery Recycled Water

¹Projects evaluated assuming baseline projects and an additional 11 TAF of water conservation, bringing total water conservation to 110 TAF by 2040

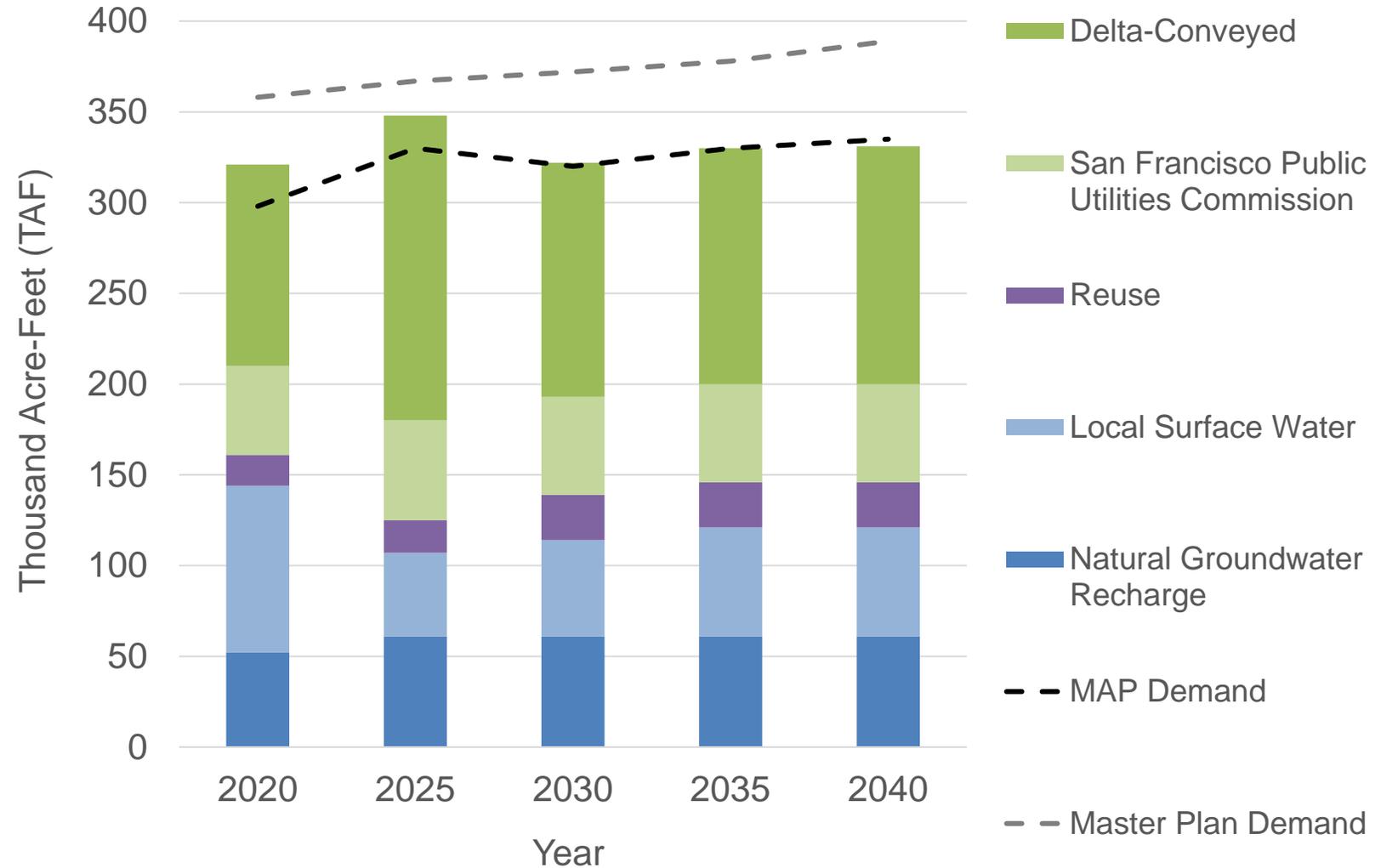
²Per the Master Plan, staff completing a thorough analysis of groundwater in the Llagas sub-basin to ensure adequate groundwater storage is maintained throughout the entire sub-basin through 2040

Reduced Level of Investment Meets Level of Service Goal

Example:

- 11 TAF additional water conservation by 2040
- 10 MGD potable reuse project

Average Water Supplies Used



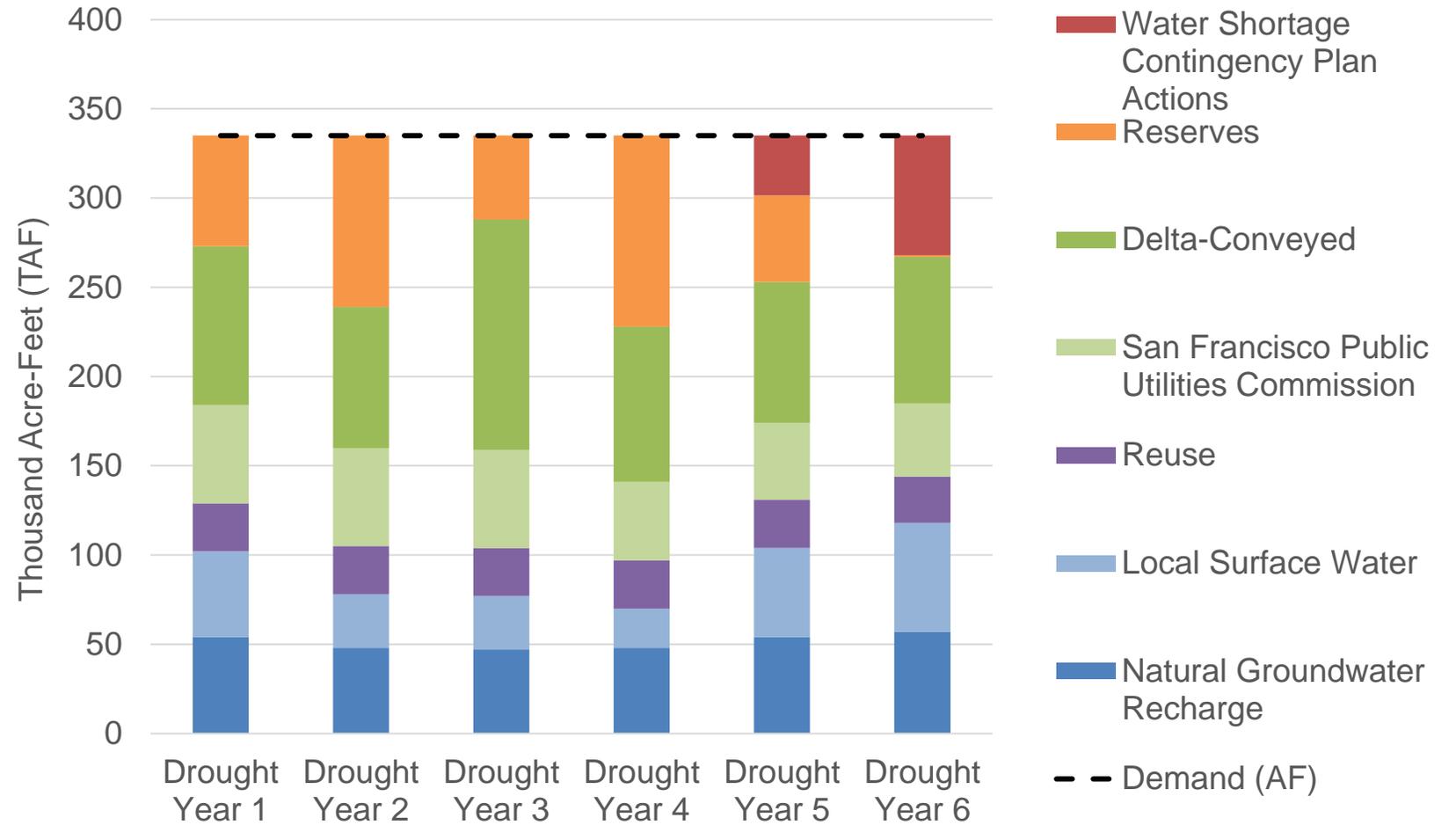
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Reduced Level of Investment Meets Level of Service Goal

Example:

- 11 TAF additional water conservation by 2040
- 10 MGD potable reuse project

Water Supply Usage During an Extended Drought



Other Considerations

- Diversification
- Reduce Reliance on the Delta
- Resilient to future uncertainties (e.g., climate change)
- Groundwater quality
- Drinking water quality regulations
- Cost
- Operational flexibility
- Valley Water influence over supplies and operations (e.g., local supply)
- Implementation complexities and barriers
- Environmental impacts and benefits
- Community benefits (e.g., flood protection)

The Road to Water Supply Security



Next Steps

- Continue to track demands and update modeling as needed
- Continue to evaluate future uncertainties (e.g., climate change)
- Continue to participate in projects that the Board approves for planning
- Return to the Board each fall with an annual update, and earlier as needed

Voluntary Call for Water Use Reduction

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- At the July 15th, 2020 Retailer Meeting, staff received informal direction from Chair Hsueh to discuss the 20% voluntary water use reduction call with the Board
- Since the last drought, Valley Water has requested a voluntary 20% water use reduction
- Highlights the importance of ending water waste
- May impact messaging for the next drought when water use reductions are required

QUESTIONS





Valley Water

Clean Water • Healthy Environment • Flood Protection