

Water Supply Master Plan Update

April 2018

Santa Clara Valley
Water District

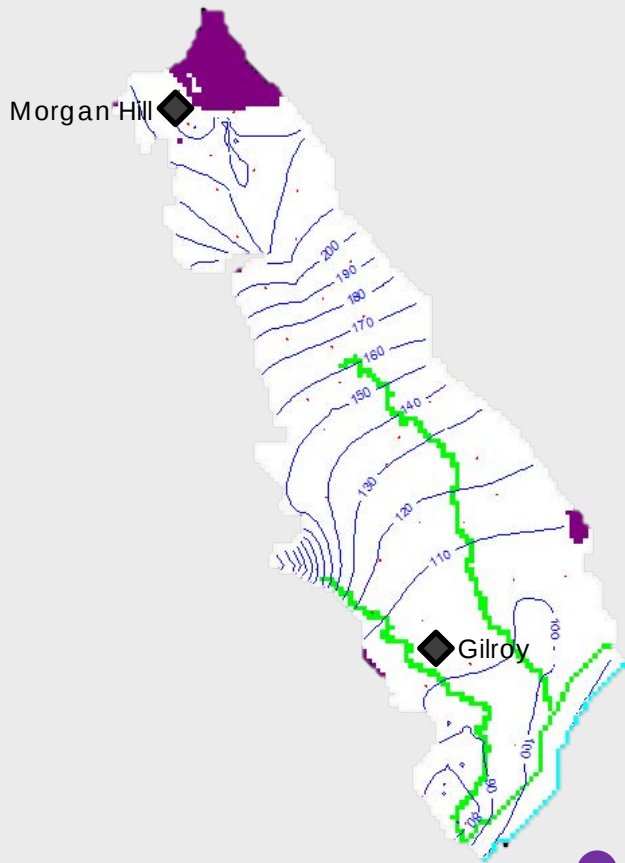


Recent Board actions incorporated into outlook

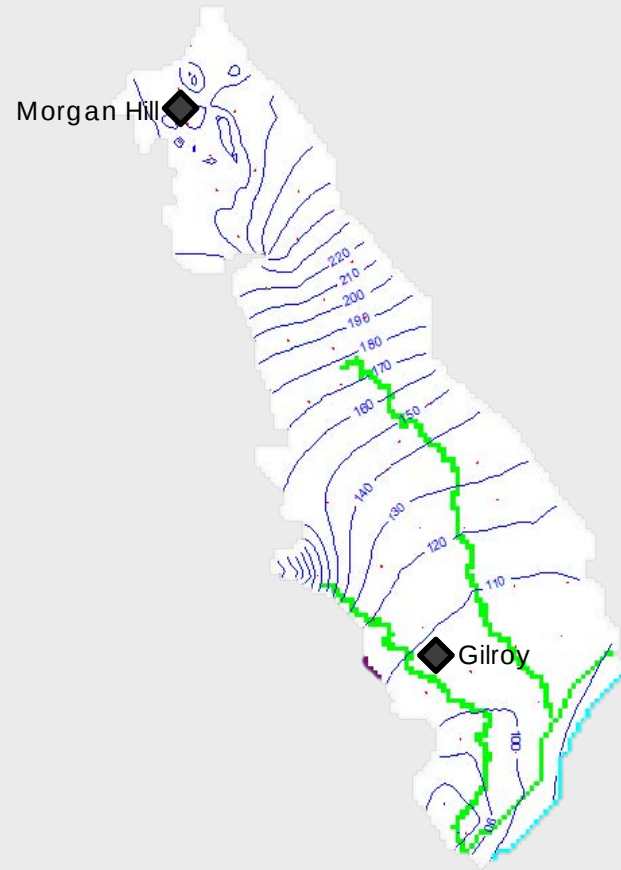
- ▶ No Regrets Package of conservation and stormwater projects approved for planning on 9/19/17
- ▶ California WaterFix conditionally approved on 10/17/17
- ▶ Up to 24,000 AFY of potable reuse at Los Gatos Ponds approved on 12/12/17

Groundwater modeling indicates need for additional Llagas Subbasin recharge

Without Additional Recharge



With Additional Recharge



● Indicates potential areas with dry wells in multi-year droughts, 2040 time frame

Projects approved for planning meet interim reliability goal

Scenario	2040 Demands	2040 Maximum Drought Shortage (in AF with percent of normal year demands)	District Lifecycle Cost (present value, 2017)
Base Case – No Action	402,000	187,000 (50%)	\$0
Approved for Planning – No Regrets Package, California WaterFix, Los Gatos Potable Reuse, and Llagas Groundwater Subbasin Recharge ¹	392,000	56,000 (15%)	\$2.0 billion

1. Llagas Groundwater Subbasin Recharge not yet approved by Board, but needed based on groundwater modeling

Alternative Water Supply Strategies



Local Flexibility

Potable Reuse at Los Gatos Ponds, Potable Reuse with Injection Wells, Potable Reuse at Ford Pond, Lexington Pipeline, Saratoga Recharge



Regional Flexibility

Los Gatos Potable Reuse, Lexington Pipeline, Saratoga Recharge, Los Vaqueros Reservoir, Dry Year Options



Local Storage

California WaterFix, Pacheco Reservoir, Groundwater Banking



Regional Storage

California WaterFix, Los Vaqueros Reservoir, Groundwater Banking



Statewide Storage

California WaterFix, Sites Reservoir

Alternative Water Supply Strategies Scenarios

Strategy Scenario*	District Lifecycle Cost (Present Value, 2017)**
Approved for Planning	\$2.0 billion
Local Flexibility	\$2.9 billion
Regional Flexibility	\$1.7 billion***
Local Storage	\$1.3 billion***
Regional Storage	\$840 million***
Statewide Storage	\$910 million***

*All strategies have annual demands of 392,000 AF and include No Regrets and Llagas Subbasin Recharge

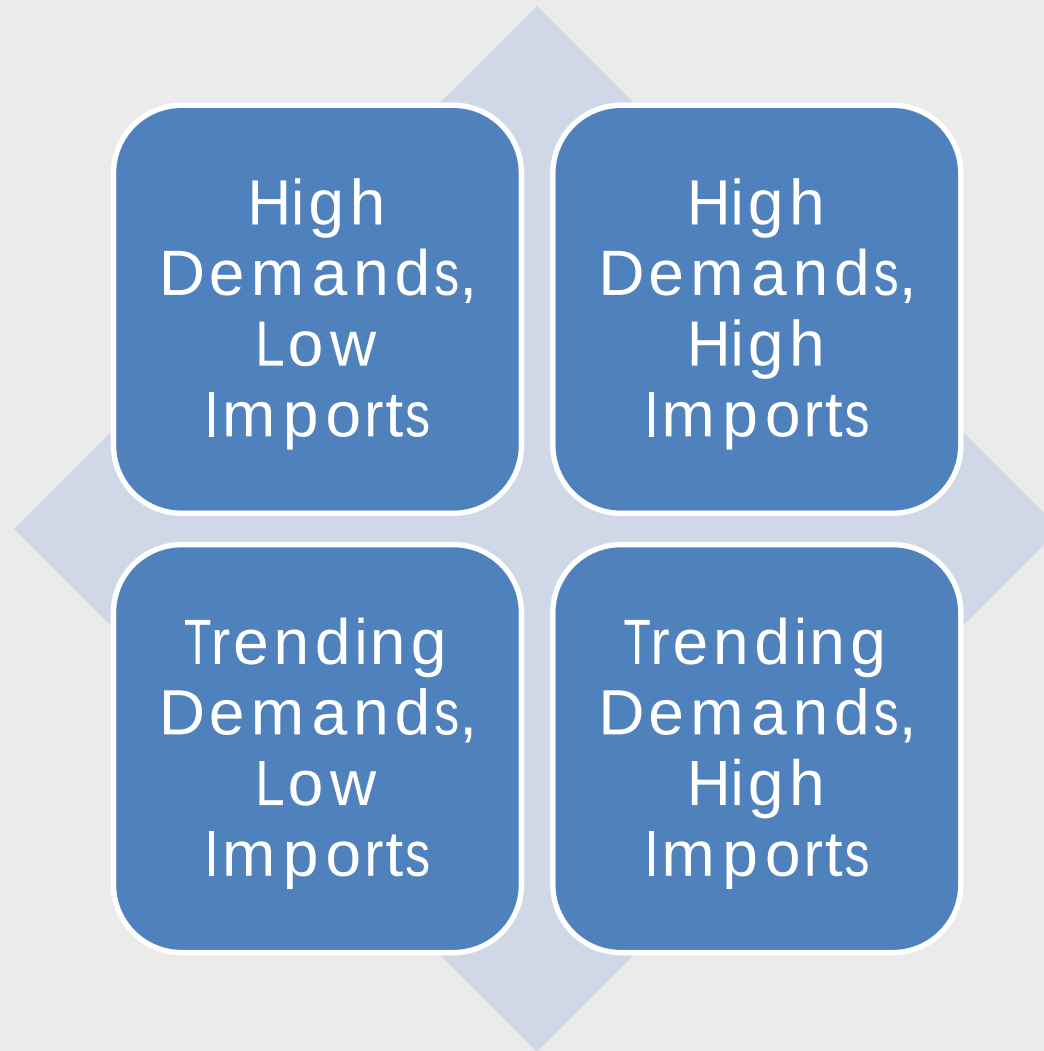
**All costs are subject to change pending additional planning and analysis

***Assumes Prop 1 Water Storage Investment Program funding

Different strategies achieve different objectives

Approved for Planning	Local Flexibility	Regional Flexibility	Local Storage	Regional Storage	Statewide Storage
•Secure existing supplies •Adapt to climate change •Protect groundwater quality	•Secure existing supplies •Adapt to climate change •Reduce reliance on Delta •Protect groundwater quality •Maximize District influence •Allow for phased implementation	•Secure existing supplies •Adapt to climate change •Reduce reliance on Delta •Protect groundwater quality •Meet drinking water regulations •Allow for phased implementation	•Secure existing supplies •Adapt to climate change •Meet drinking water regulations •Maximize District influence •Provide ecosystem benefits •Provide flood protection	•Secure existing supplies •Adapt to climate change •Meet drinking water regulations •Minimize costs •Allow for phased implementation •Provide ecosystem benefits	•Secure existing supplies •Adapt to climate change •Minimize costs •Provide ecosystem benefits

Sensitivity Analysis Approach



Sensitivity Analysis Results

- ▶ All strategies perform well under a variety of supply and demand scenarios
- ▶ Water shortage contingency plan implementation important
- ▶ Potable Reuse needs optimization

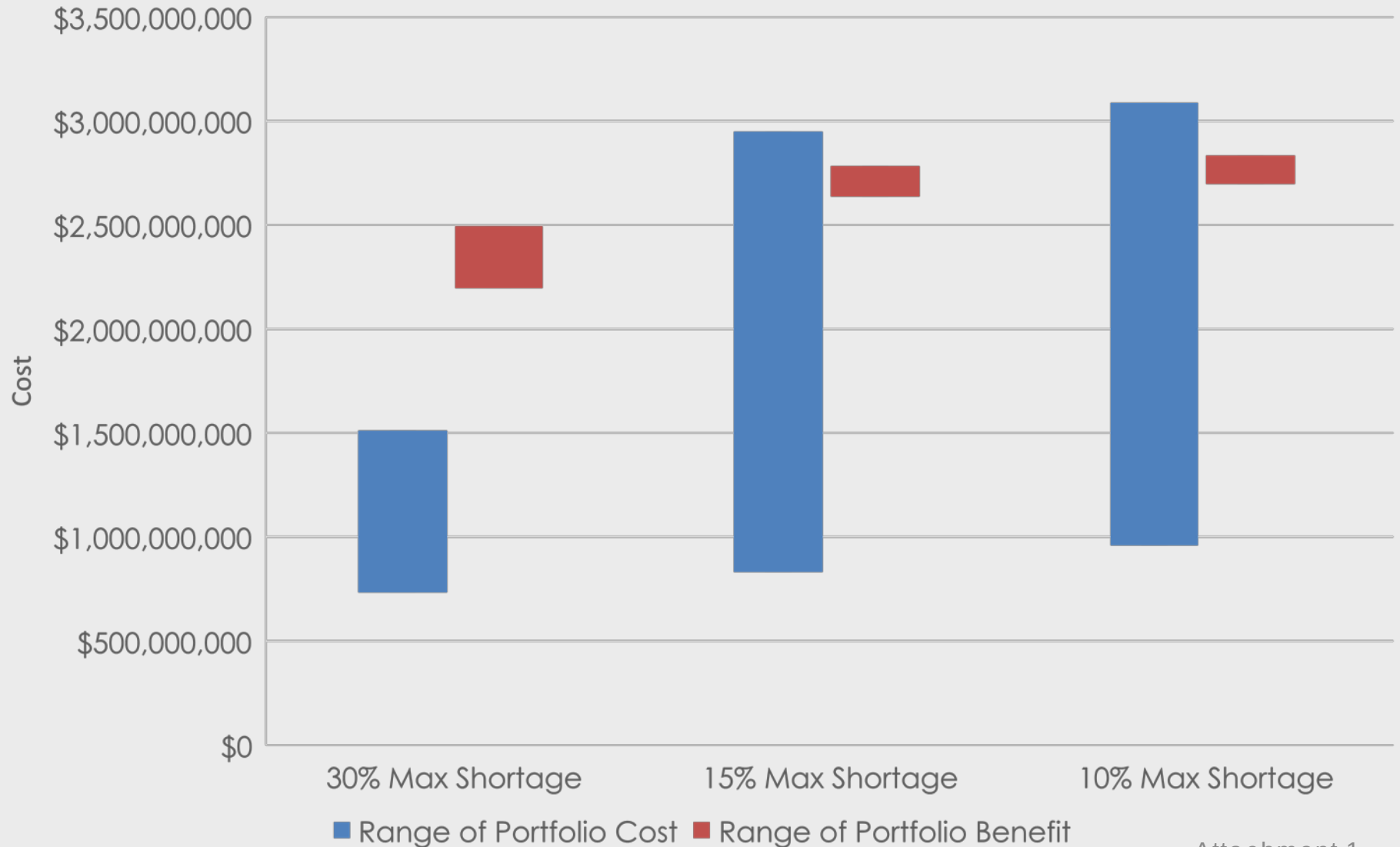
Late Century Climate Analysis

- ▶ Recycled and purified water are the most reliable supplies
- ▶ Variability of local surface water supplies will likely increase
- ▶ Delta-conveyed supplies most vulnerable

Stakeholders Input Summary

- ▶ Avoid overinvesting in projects that may not be needed if demands stay flat
- ▶ Water conservation, onsite reuse, recycled water, and potable reuse are broadly supported
- ▶ Look at alternatives to California WaterFix
- ▶ Pacheco Reservoir benefits seem low compared to cost
- ▶ Need to evaluate different levels of service
- ▶ Need to be cautious about rate impacts and affordability

Most strategies have benefits that exceed costs



Potential Level of Service Goal Considerations

- ▶ Stakeholder input
- ▶ Consistency with State and regional policy
- ▶ Frequency of shortage
- ▶ Preferred water supply strategies
- ▶ Feasibility

Next steps for Water Supply Master Plan

