



**WATER
AGENCY**

2022 Water Supply Evaluation (WSE) Update

March 2023

2022 WSE Update Approach

Incorporate
latest
information
since 2019 WSE
Update



Upgrade Water
Supply Risk Model



Evaluate
portfolios at 2045

- 90% Reliability Goal:
10% chance of
shortage greater
than 0%*
- 99% Reliability Goal:
1% chance of
shortage greater
than 15%**

* Or 90% chance of shortage up to 0%

** Or 99% chance of shortage up to 15%

Summary of Projects

Project	Average New Supply	New Storage	New Conveyance	Online Date
Sites	8,000 AFY	62,340 AF	-	2030
Desal	5,600 AFY	-	None, but can be paired with LVE and/or EBMUD Reliability Intertie for conveyance	2030
Potable Reuse	8,800 - 9,600 AFY	-	-	2030 with expansion in 2040
Transfers	10,000 AFY	-	-	2023-2030
Los Vaqueros Reservoir Expansion (LVE)	-	10,000 AF	Transfer-Bethany Pipeline with total capacity of 300 cfs	2030
Delta Conveyance Project (DCP)	6,500 AFY of restored SWP supply	-	Single tunnel with total capacity of 6,000 cfs	2040

The 2022 WSE Update Does Not Model

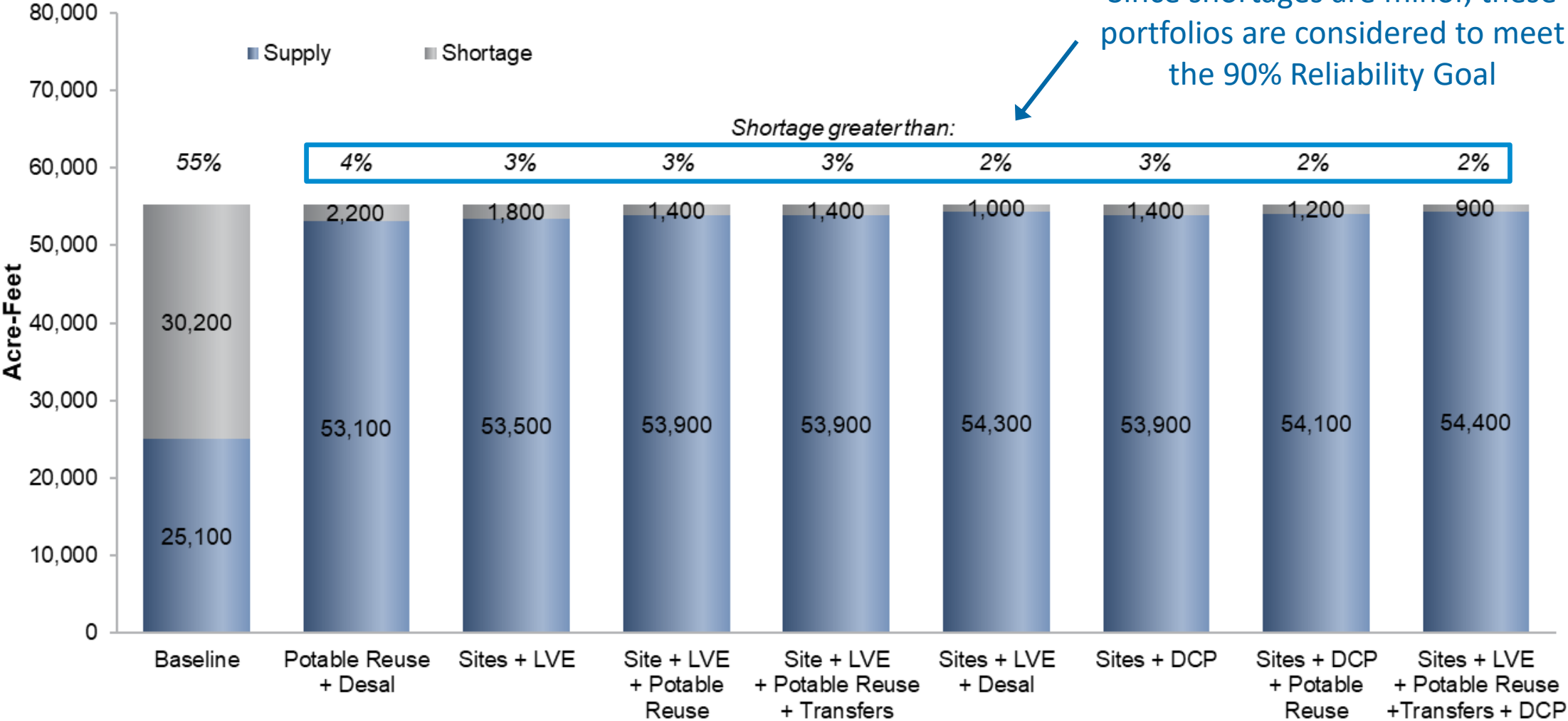
- Delta outage scenario where Zone 7 cannot access imported water
- Alternative conveyance from:
 - DCP – Pump water from North Delta when South Delta water is too saline
 - LVE's Transfer-Bethany Pipeline – Deliver previously stored water from Los Vaqueros Reservoir during Delta outage
 - EBMUD Reliability Intertie – Deliver treated water from EBMUD during Delta outage
- Chain of Lakes Pipeline – capture and store additional local water for later use

Key Findings

- All 8 multi-project portfolios meet the 90% Reliability Goal at 2045
- 99% Reliability Goal at 2045 is more difficult to meet - only 3 portfolios meet it
- Portfolios containing more projects generally perform better
 - No single project will meet reliability goals
- Annual 10 TAF transfers through 2030 reduce shortages past 2030

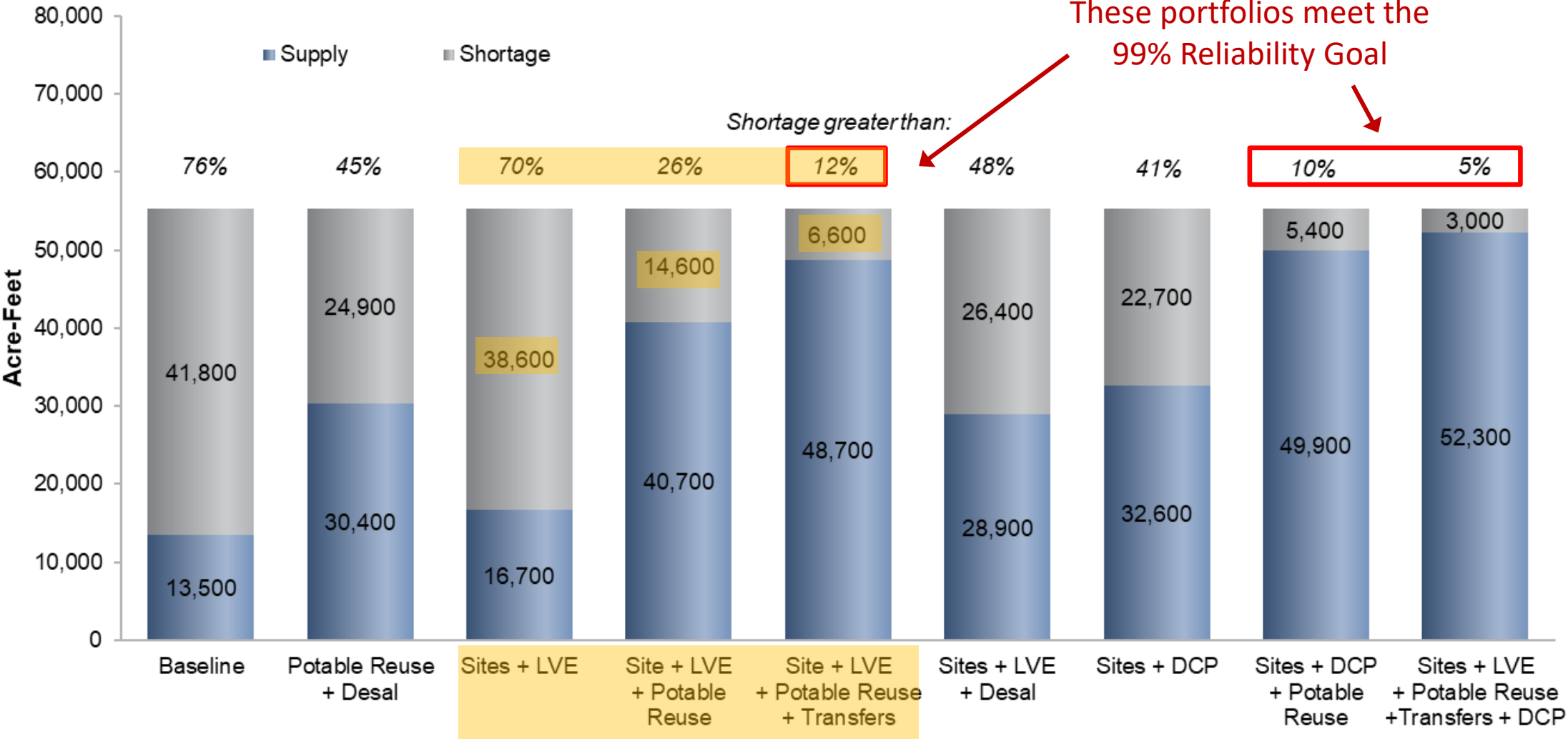
10% Chance of Shortage in 2045

Since shortages are minor, these portfolios are considered to meet the 90% Reliability Goal



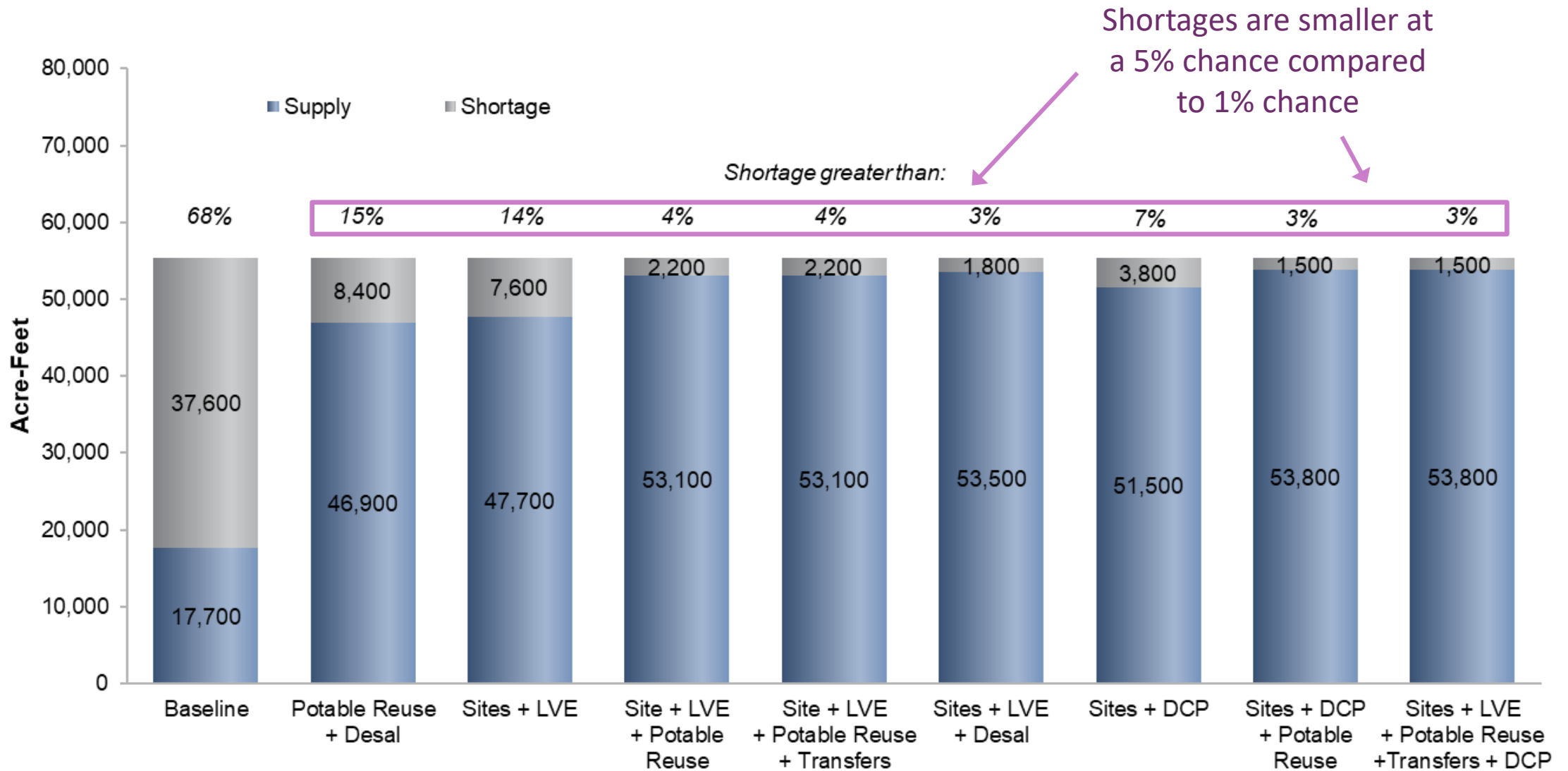
90% Reliability Goal: 10% chance of shortage greater than 0% or 90% chance of shortage up to 0%

1% Chance of Shortage in 2045



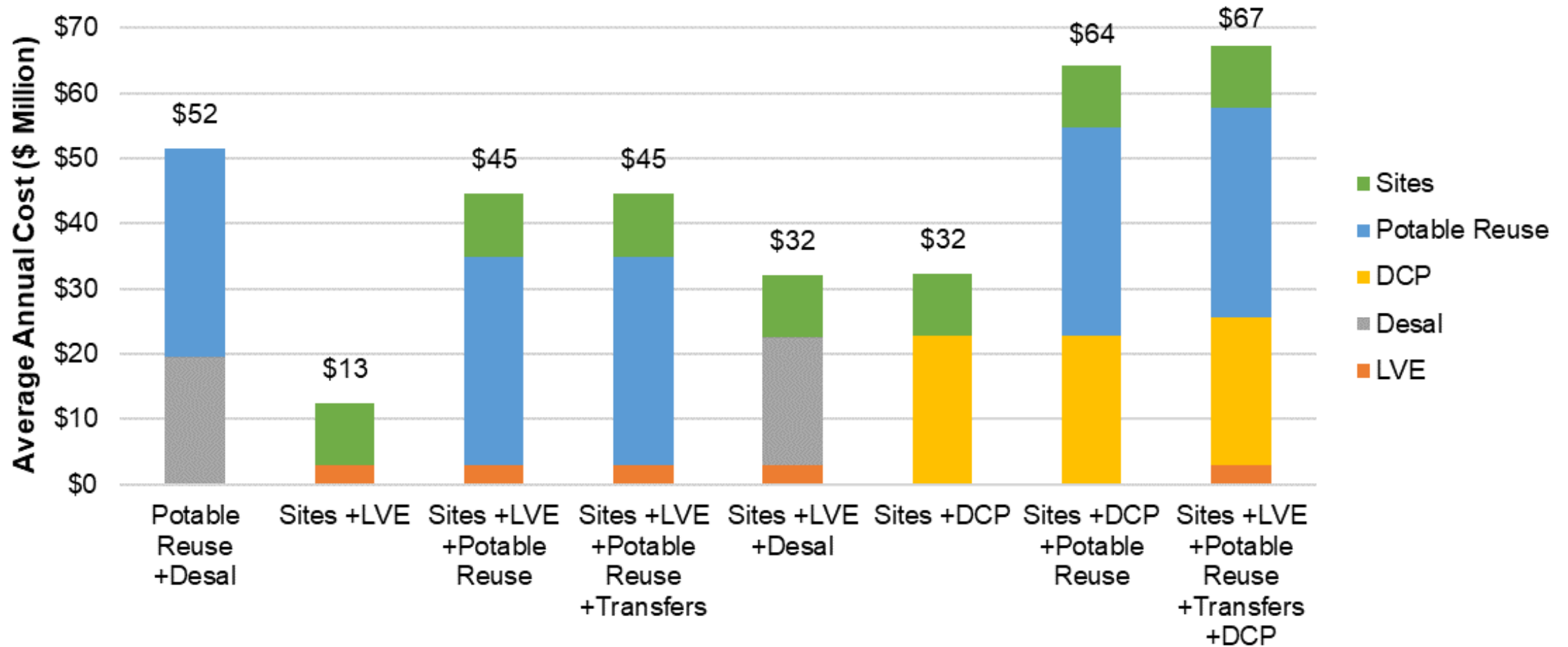
99% Reliability Goal: 1% chance of shortage greater than 15% or 99% chance of shortage up to 15%

5% Chance of Shortage in 2045



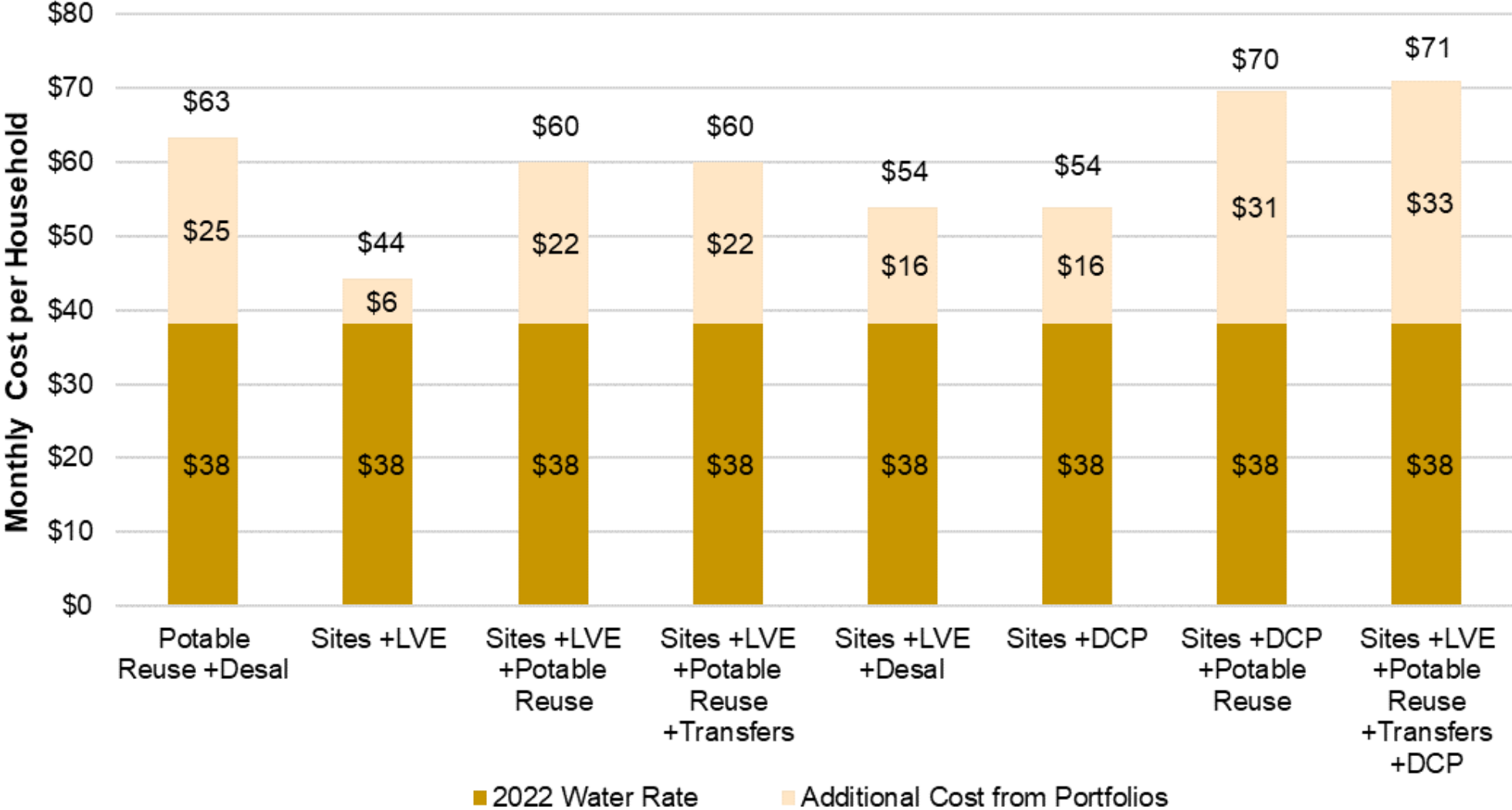
Consider a new 95% Reliability Goal: 5% chance of shortage greater than 15% or 95% chance of shortage up to 15%

Average Annual Cost at Buildout (2022\$)



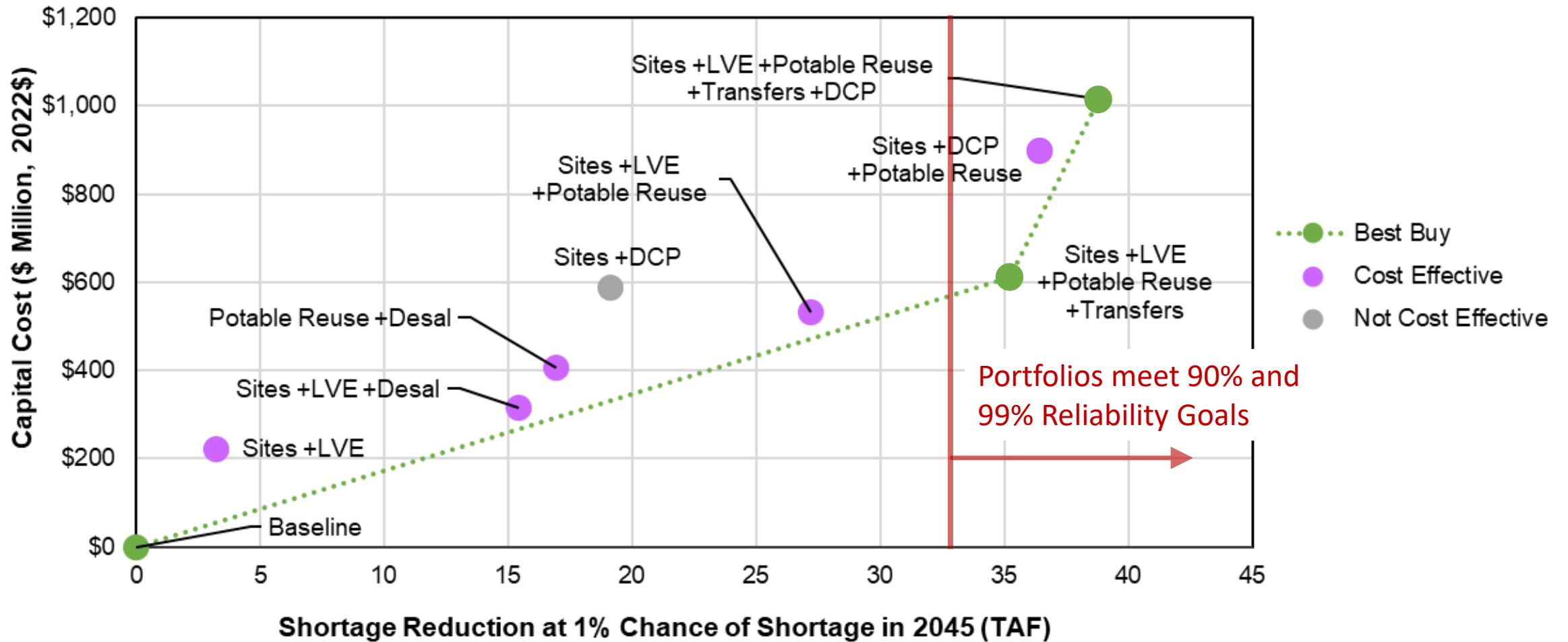
Note: Cost of transfers are excluded since annual transfers cease prior to buildout.

Monthly Household Cost at Buildout (2022\$)



Note: Cost of transfers are excluded since annual transfers cease prior to buildout.

Cost Effectiveness



Key Recommendations

- Maintain and update the New Risk Model to support Zone 7's water supply planning
- Continue to participate in and evaluate water supply reliability projects (i.e., potable reuse, desal, Sites, LVE, and DCP)
- Evaluate new opportunities to diversify water supply portfolio
- Consider revising the 99% Reliability Goal, which covers extreme conditions
- Pursue annual transfers averaging 10,000 AFY until additional long-term supply sources become available

Questions



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