

City of Santa Monica's One Water Approach to Achieve Water Self-Sufficiency

WaterReuse Los Angeles

April 9, 2019

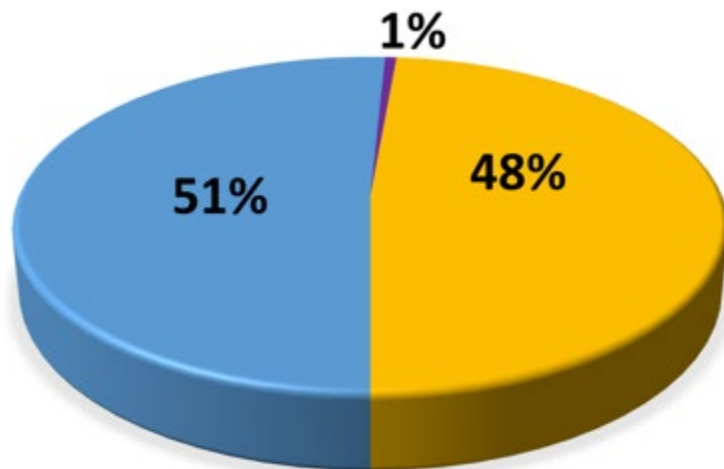


Why Water Self-Sufficiency?

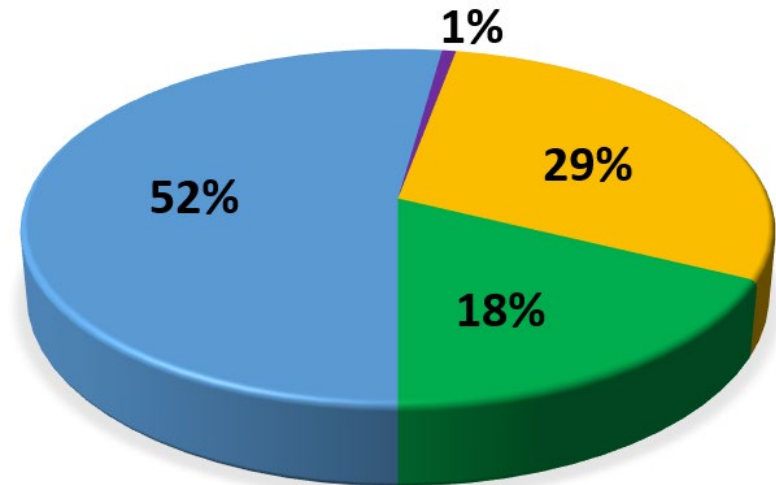
- Long term cost benefits for rate payers
- Diverse, sustainable, & drought resilient water supply
- Reduction of energy footprint

Marching Toward Water Self-Sufficiency

2011

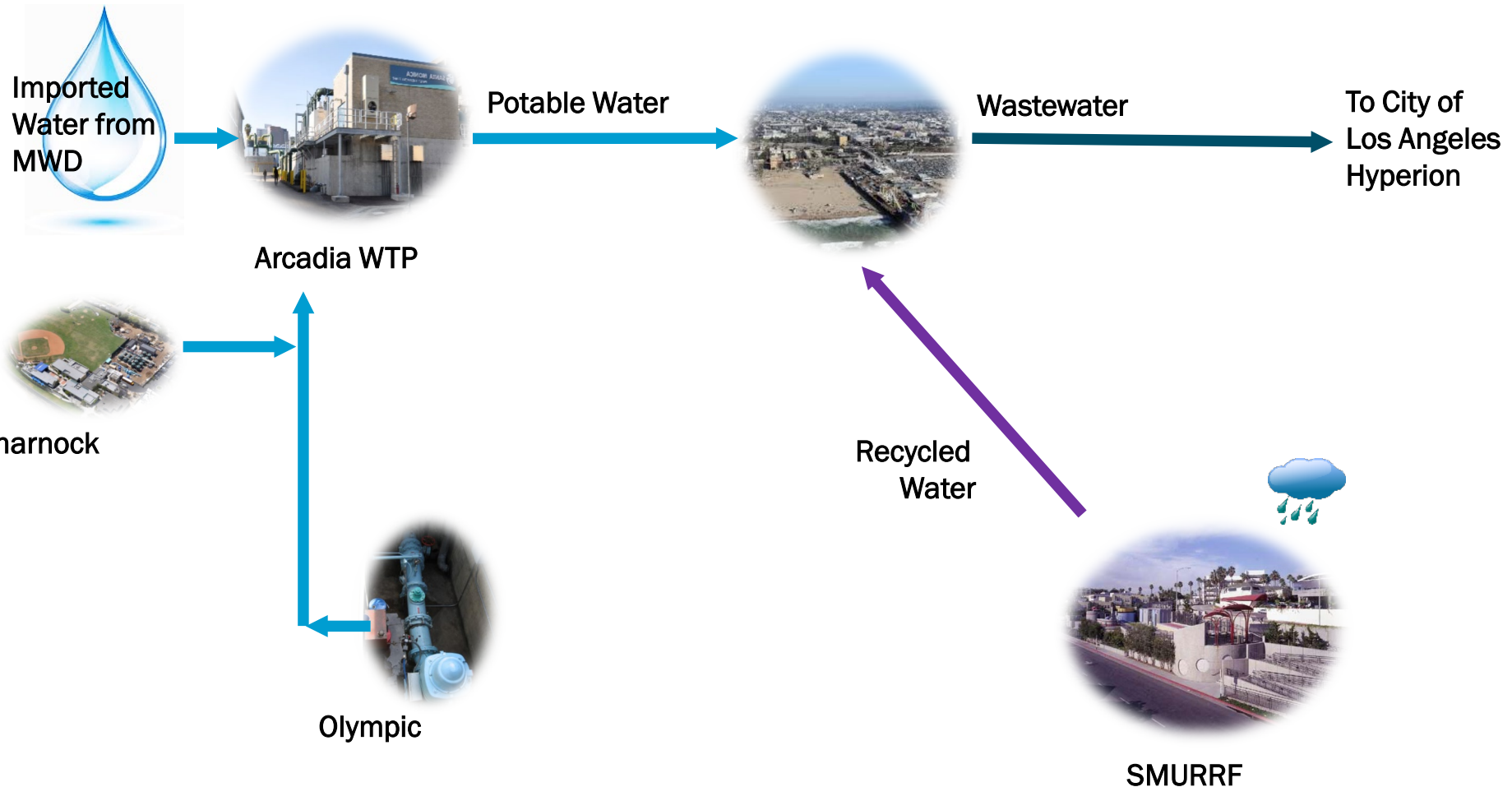


2017



- Local Groundwater
- Imported Water (MWD)
- Conservation
- Alternative Water Supply - Recycled Water

Integrated Approach to Achieve Water Self-Sufficiency



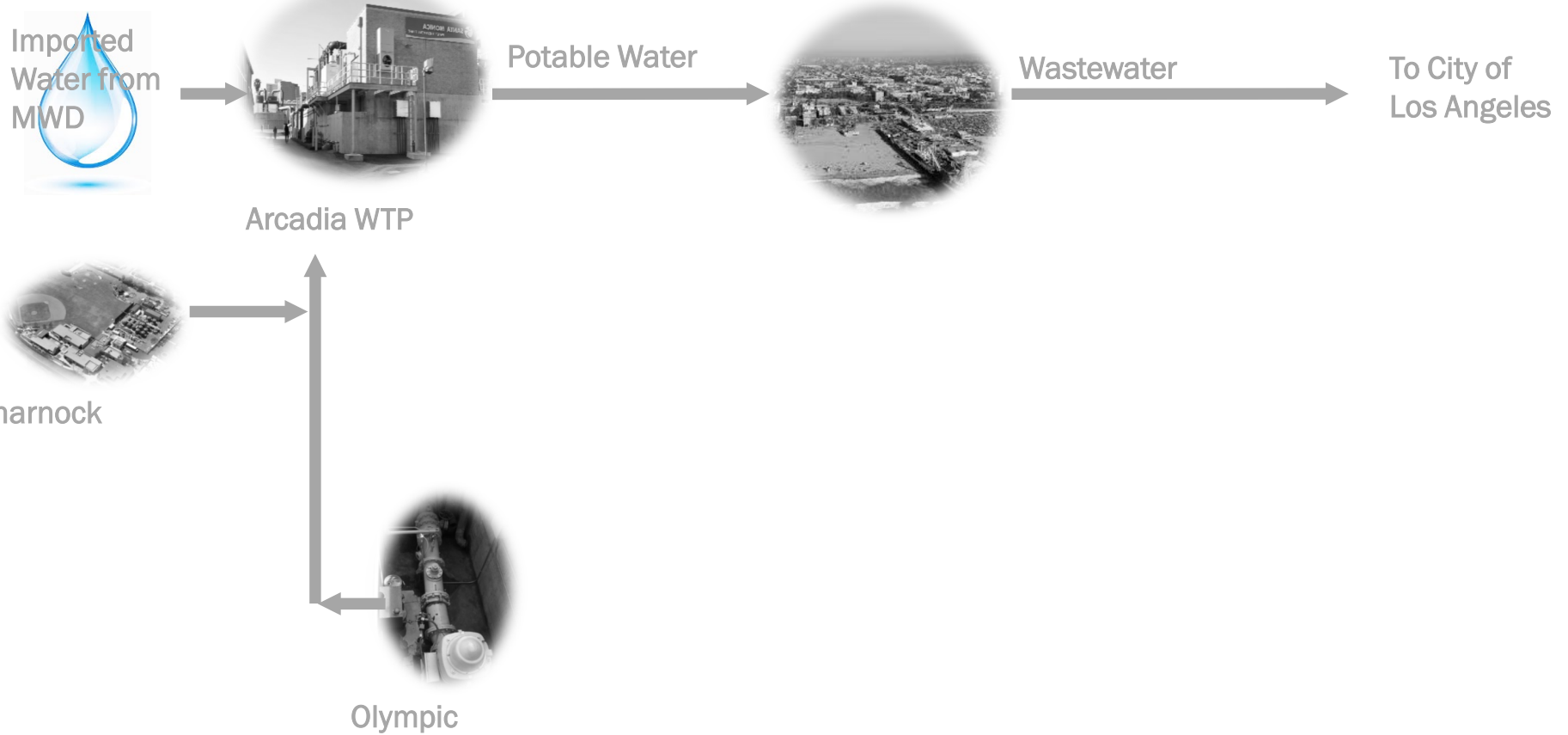


Sustainable Water Master Plan – Pathway to Water Self-Sufficiency

- Component 1 – Conservation
- Component 2 – Alternative Water Supplies
- Component 3 – Expanding Local Groundwater Supplies

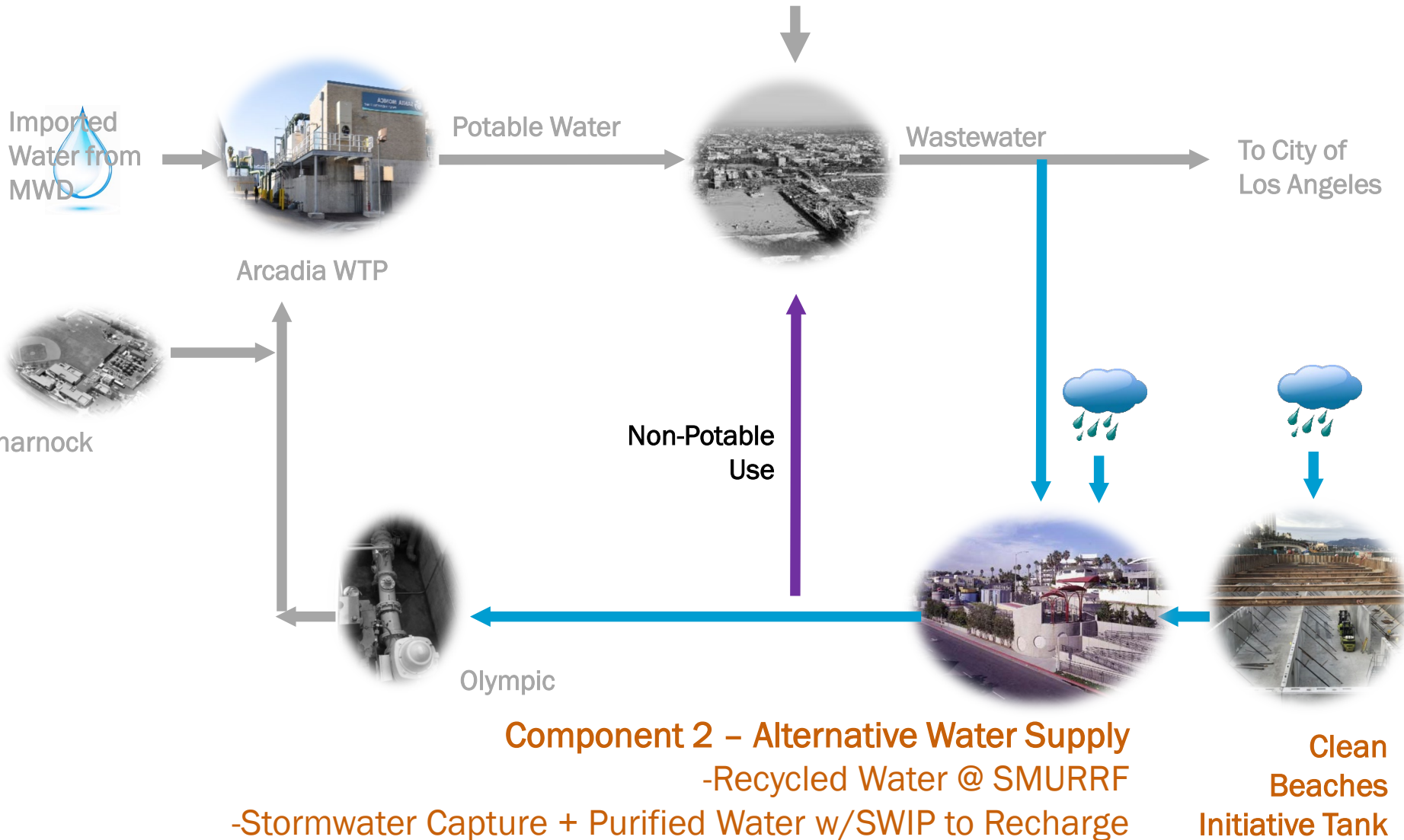


Component 1 – *Optimal* Conservation Plan



Component 2 – Alternative Water Supply Production Efficiency Upgrade at Arcadia

Component 1 – *Optimal* Conservation Plan
38% Reduction in Imported Water

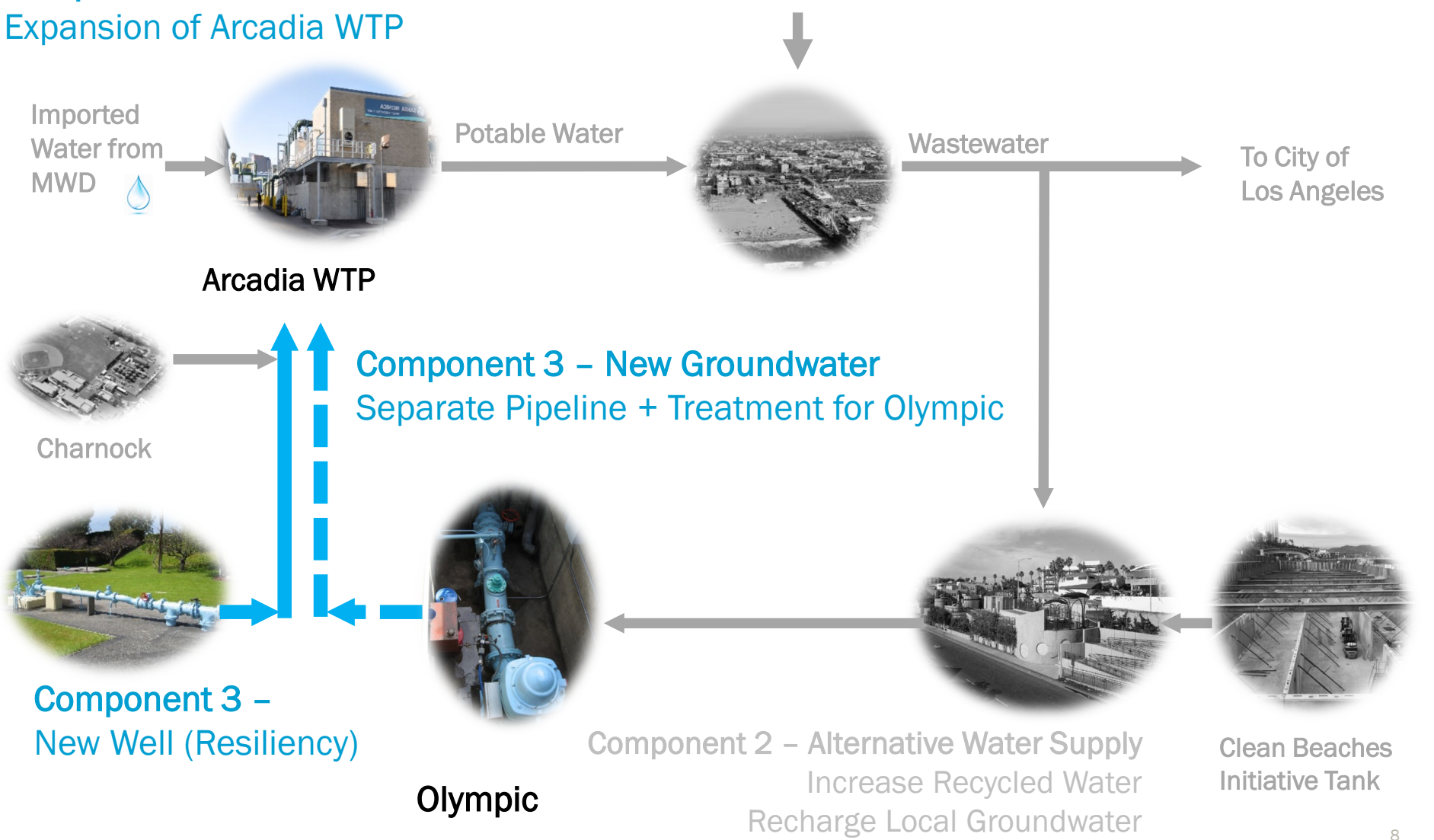




Component 2 – Alternative Water Supply
Production Efficiency Upgrade at Arcadia

Component 3 – New Local Groundwater
Expansion of Arcadia WTP

Component 1 – *Optimal* Conservation Plan



Component 1 – Conservation

Component 2 – Alternative Water Supply

Component 3 – New Local Groundwater

No
Imported
Water



Arcadia WTP

Potable Water



Wastewater



To City of
Los
Angeles



Charnock



Olympic

Recycled
Water



SMURRF
+ SWIP



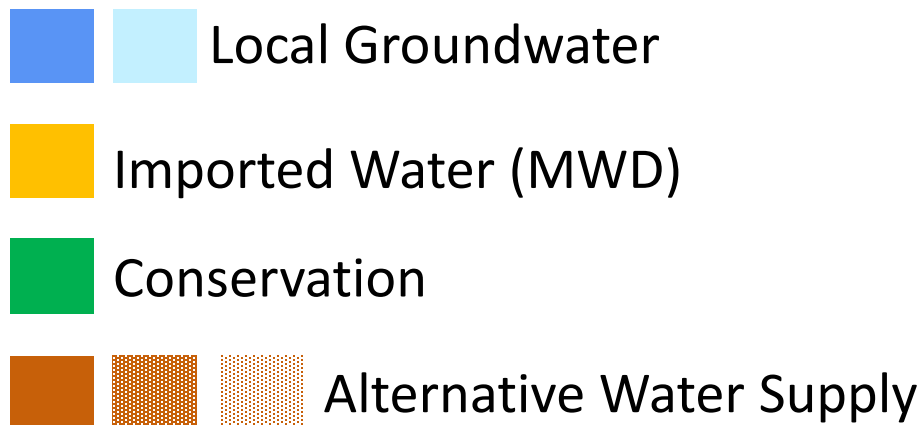
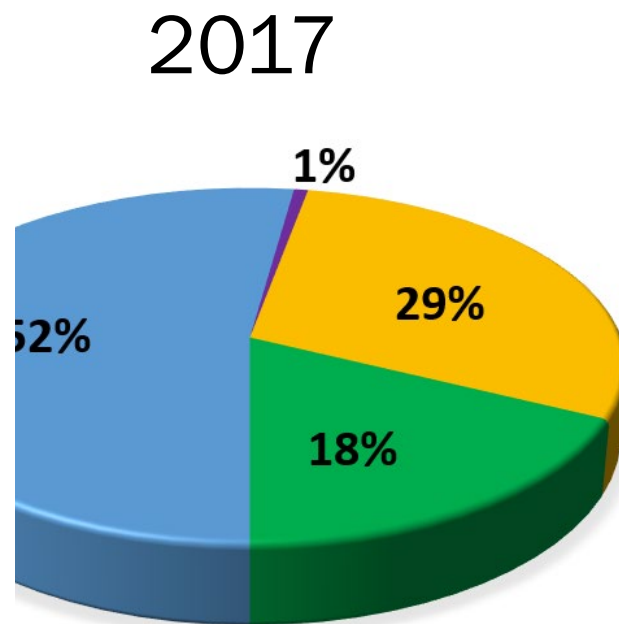
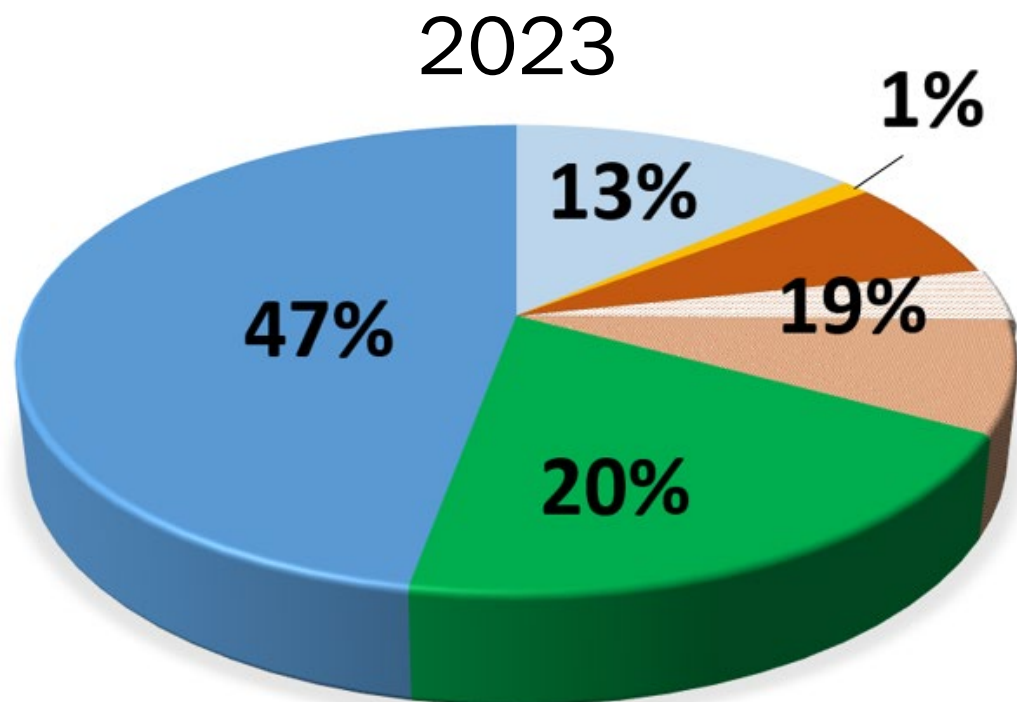
Clean Beaches
Initiative Tank



Water Self-Sufficient by 2023



Getting to Water Self-Sufficiency in 2023





Santa Monica's Treatment Portfolio

- Existing Treatment Facilities
 - Charnock WTP (5 mgd well head MTBE)
 - Arcadia WTP (8 mgd brackish desalter)
 - SMURRF (0.5 mgd non-potable reuse)
- New Additions for Water Self-Sufficiency
 - Arcadia WTP w/Concentrate Recovery (additional 1 mgd)
 - Upgraded SMURRF (diluent supply for GW recharge)
 - Olympic Well Field Advanced Water Treatment Facility (3 mgd of drinking water)
 - Advanced Water Purification Facility (1 mgd of purified water for groundwater recharge)
 - City Services Building (on-site rain water capture)



Thank you.
Questions?

