# Sustainable Water Master Plan Update
# The Path to Water Self Sufficiency

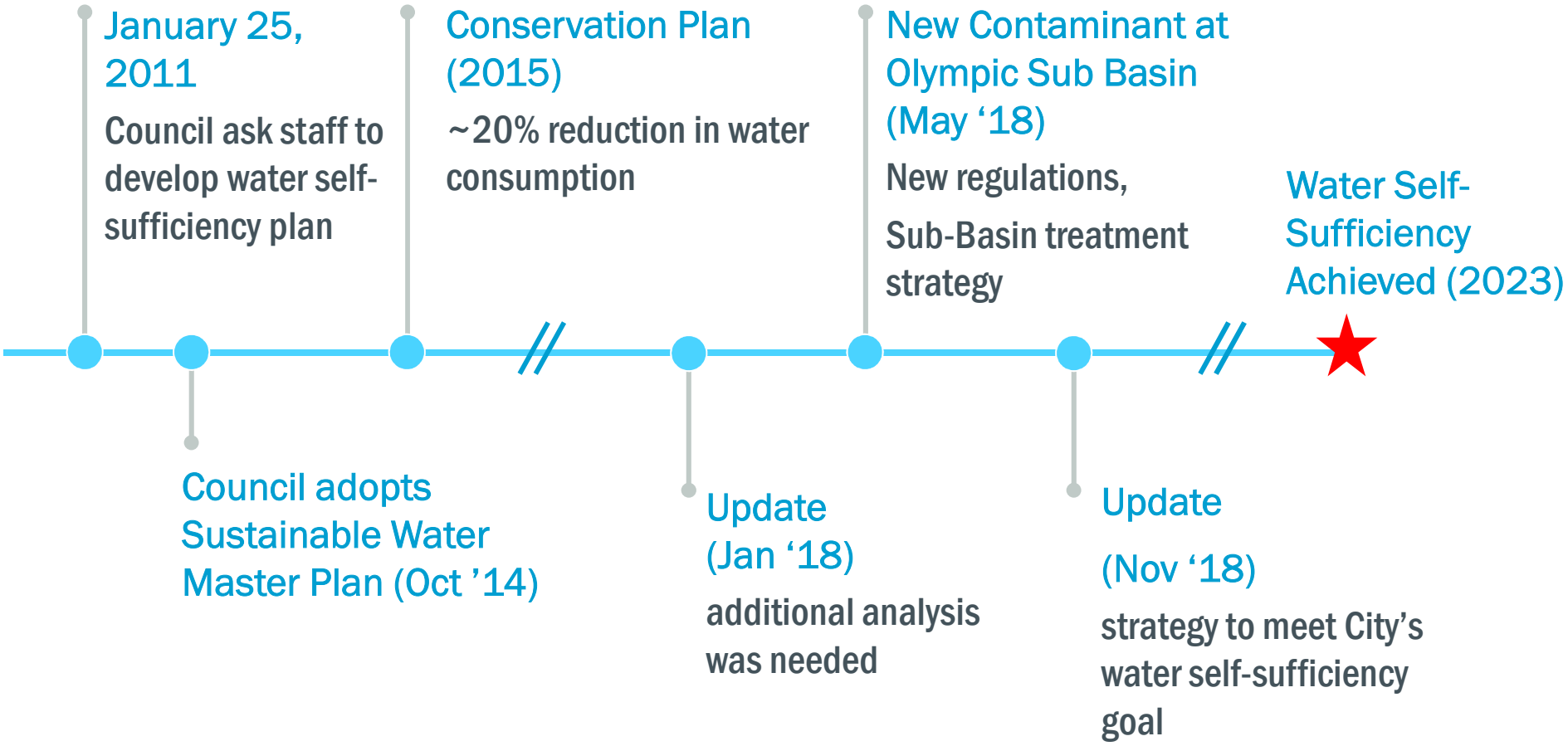
## City Council Meeting

November 27, 2018

# Why Water Self-Sufficiency?

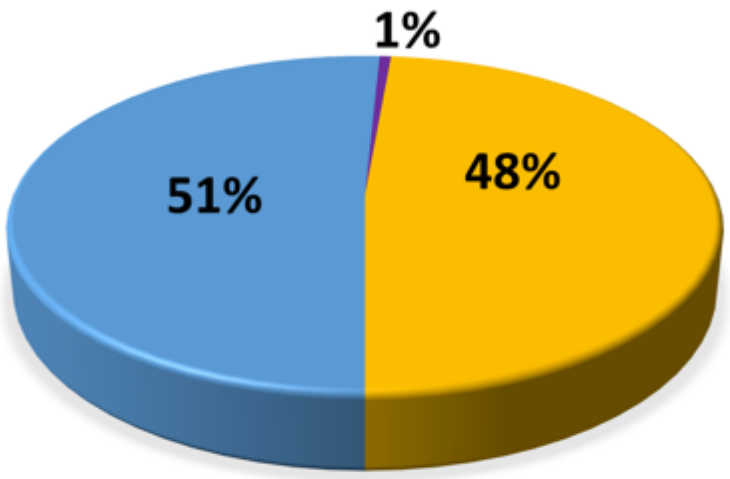
- Long term cost benefits for rate payers
- Diverse, sustainable, & drought resilient
- Reduction of energy footprint
- Feasible and achievable in 2023

# Water Self-Sufficiency Development Timeline

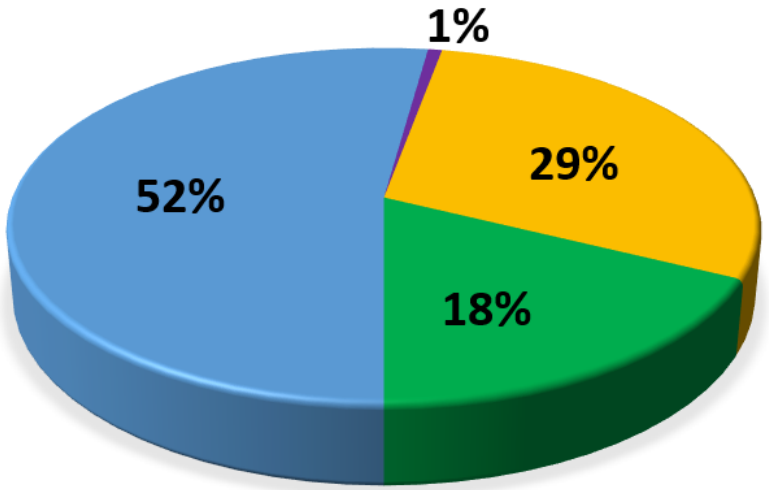


# Marching Toward Water Self-Sufficiency

2011




2017




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

# Marching Toward Water Self-Sufficiency

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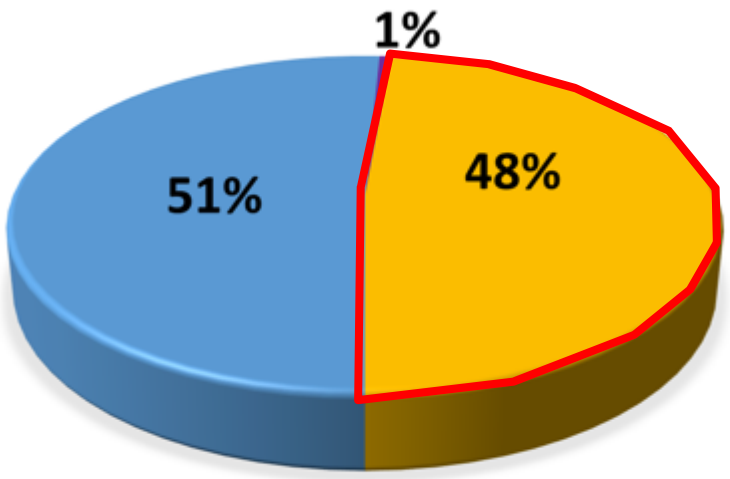


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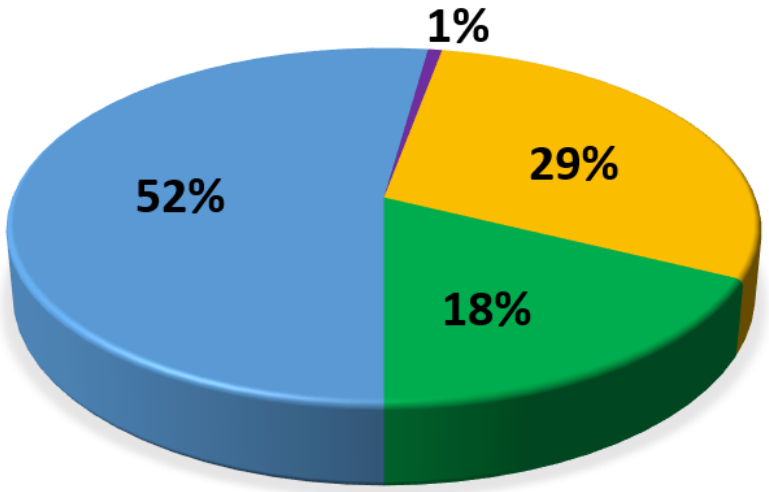


- Local Groundwater
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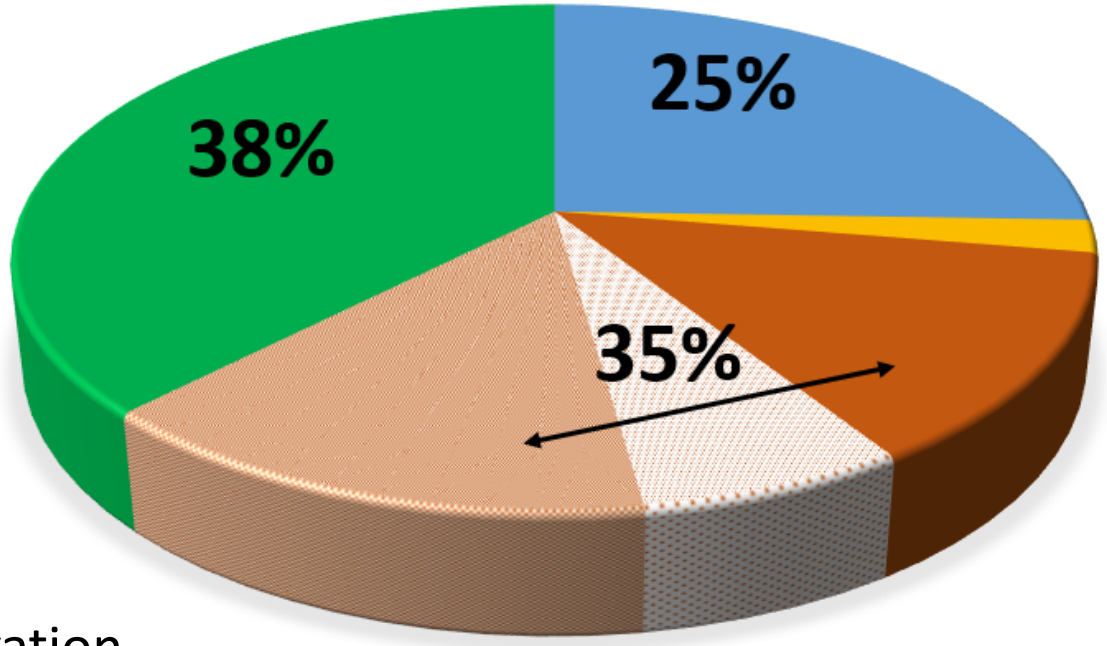
# Refined Pathway to Eliminate Reliance on Imported Water by 2023



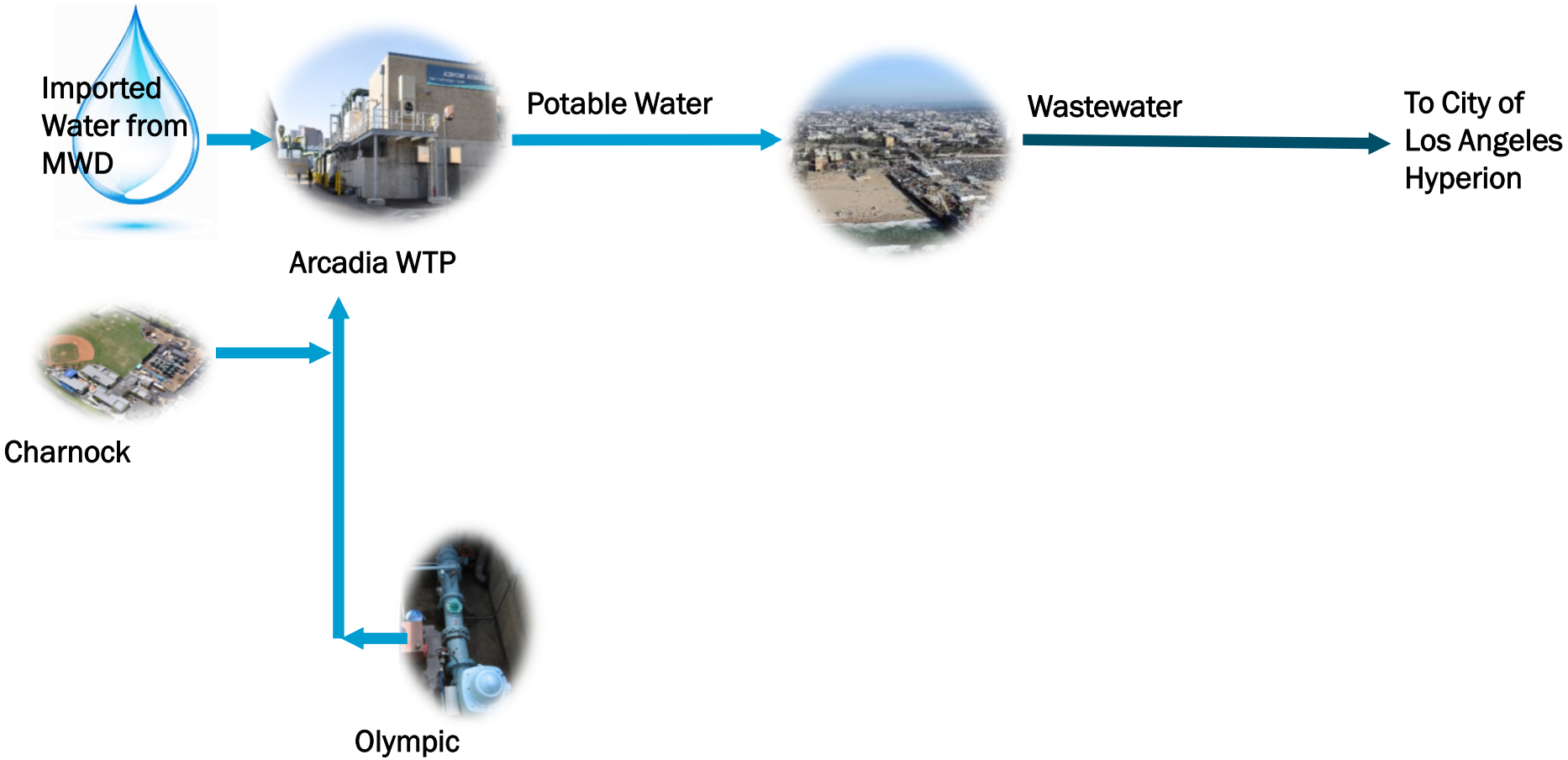

Conservation

Alternative Water Supply

New Local Groundwater

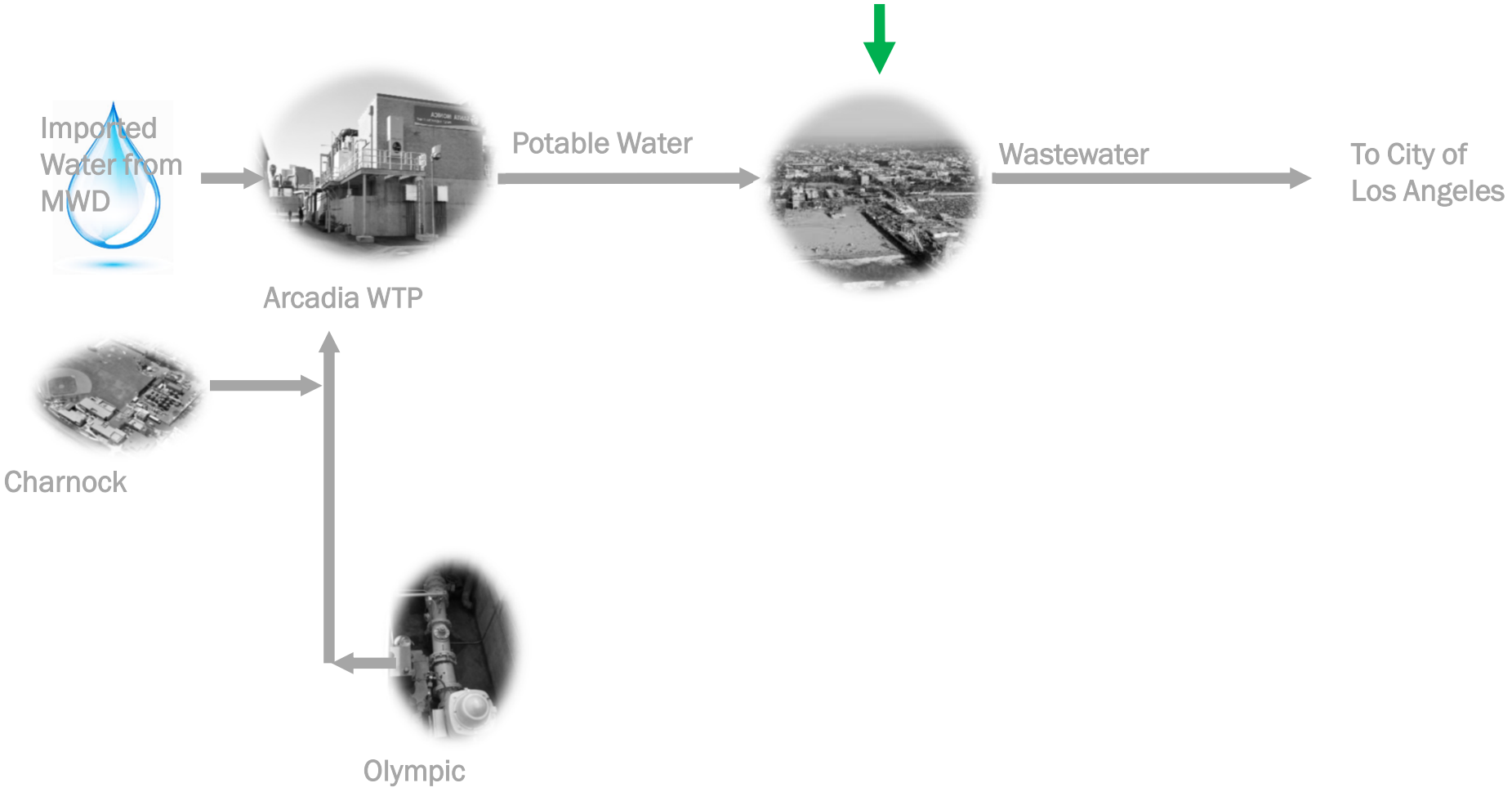
Imported Water (MWD)

# Integrated Approach to Achieve Water Self-Sufficiency



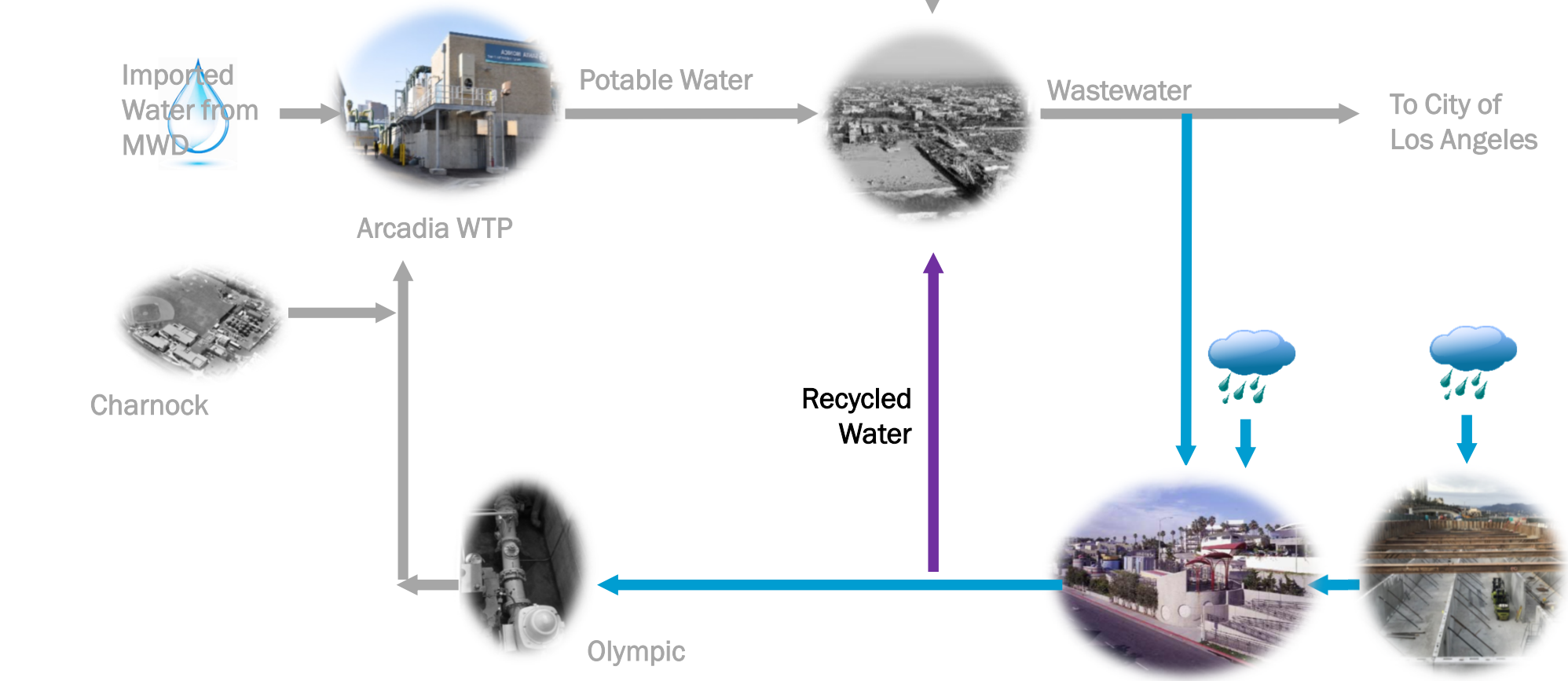

Current Ground Water Supplies

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



## Component 2 – Alternative Water Supply
Production Efficiency Upgrade at Arcadia
(15% Reduction in Imported Water

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




## Component 2 – Alternative Water Supply
-Recycled Water @ SMURRF (7% Reduction)
-Purified Water w/SWIP to Recharge
(13% Reduction)

**Clean Beaches Initiative Tank**

Component 2 – Alternative Water Supply
Production Efficiency Upgrade at Arcadia
(15% Reduction in Imported Water)

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

## Component 3 – New Local Groundwater
Expansion of Arcadia WTP

Imported Water from MWD

Potable Water

Wastewater

To City of Los Angeles

Arcadia WTP

Charnock

## Component 3 – New Groundwater
Separate Pipeline + Treatment for Olymic
(25% Reduction in Imported Water)

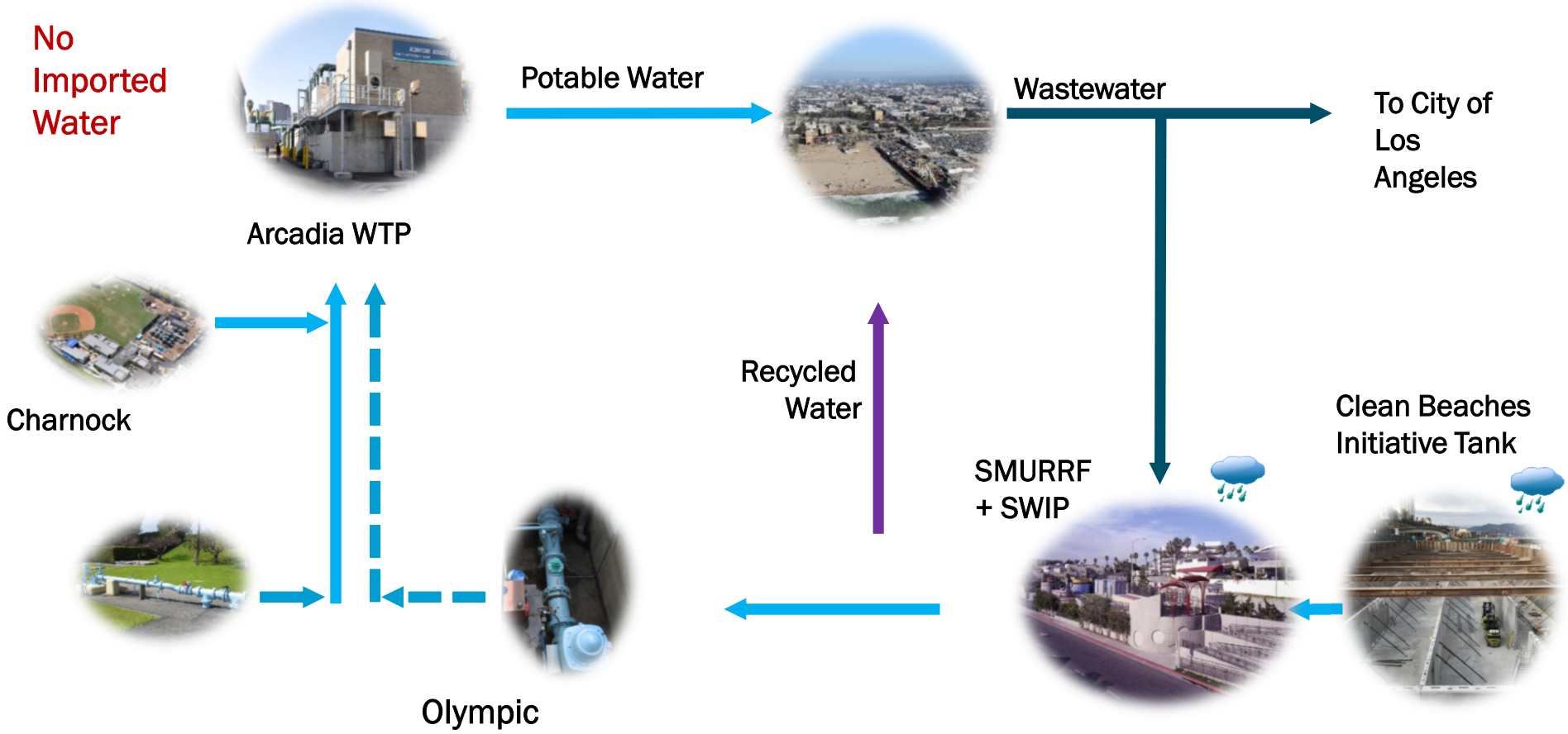
Clean Beaches Initiative Tank

Component 2 – Alternative Water Supply
Increase Recycled Water
Recharge Local Groundwater

## Component 3 – New Well

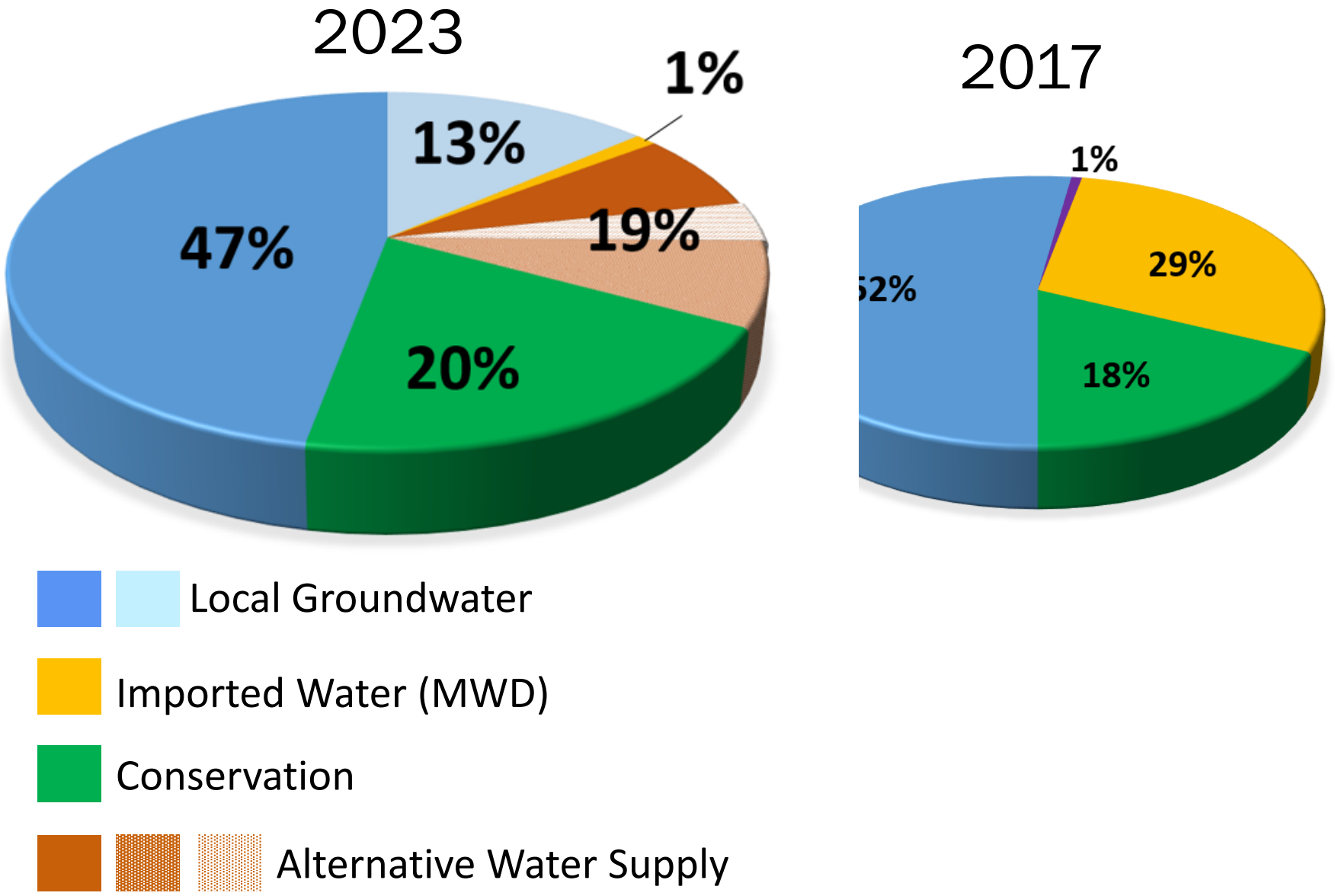
Olympic

Component 1 – Conservation (38% Reduction in Imported Water)
Component 2 – Alternative Water Supply (35% Reduction in Imported Water)
Component 3 – New Local Groundwater (25% Reduction in Imported Water)




# Water Self-Sufficient by 2023

# Getting to Water Self-Sufficiency in 2023

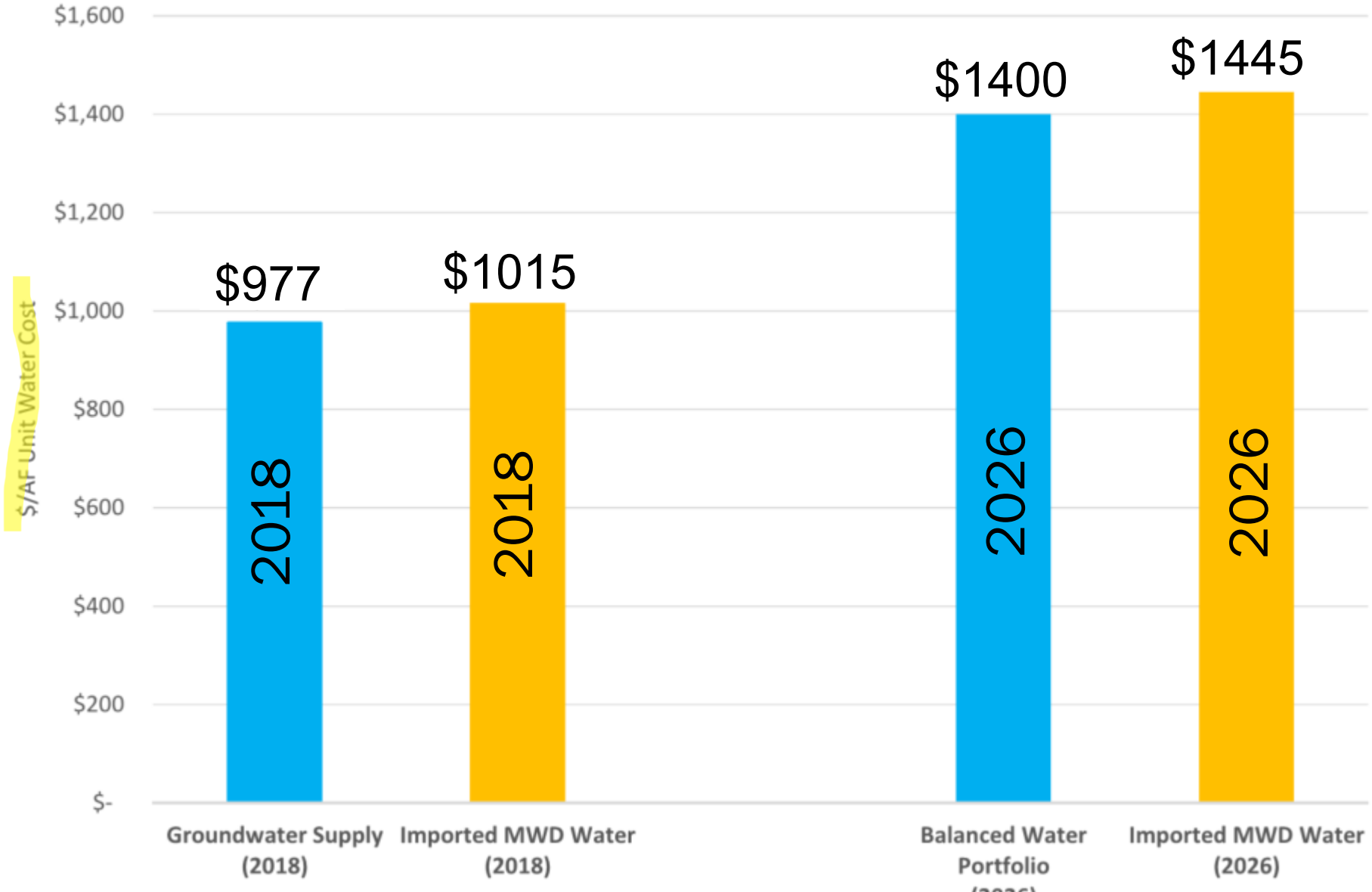


# Investment for the Future

# Cost Summary to Achieve Water Self-Sufficiency

| Projects | Estimated Cost |
|---|---|
| Arcadia WTP: Expand Capacity and Production Efficiency | $30M |
| Additional Well and Improvements: Increase Resiliency and Groundwater Production | $8M |
| Olympic Sub-Basin Restoration, Capital Improvements and 30 Years of Operation and Maintenance | $40M |
| TOTAL | $78M |

# Comparing Local and Imported Water Costs




- Olympic Sub-basin restoration is not included here as it will be paid for through settlement funds

# 2019 Rate Adjustment

- 9% rate increase adopted by Council - February 2015
- Staff to return for a public hearing - January 8, 2019
- Begin funding water self-sufficiency projects
  - Design
  - New Well
- Water main replacement cost escalation – 100 yr plan
- Future Five-Year Rate Study Underway (2020-2024)

# Pursue Outside Funding

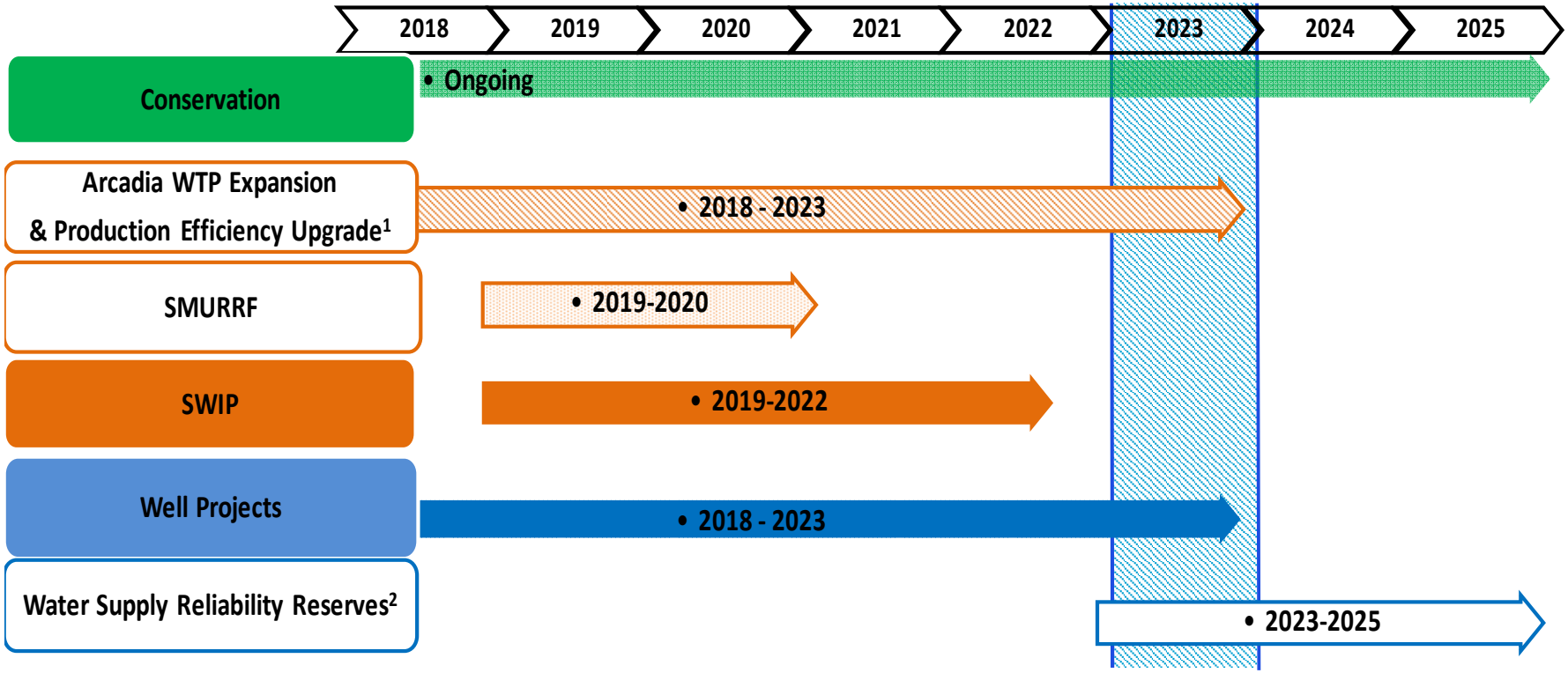
Past Successes:

- $3.7M – State WR Control Board: Clean Beaches Project
- $57M – State Revolving Loan Fund: SWIP projects

Future Resources:

- MWD – Local Resources Program
- CA Dept. of Water Resources: Water Quality, Supply, and Infrastructure Improvement Act, 2014 - Prop 1
- U.S. Bureau of Reclamation
- Los Angeles County: Measure W

# Implementation Schedule




*[1]Assumes approval from Council to proceed with design/build by 11/28/18.*
*[2]Addtional wells as contingency to address future unknowns (e.g., climate change, sustainable yield, water quality, and/or increase resiliency)*

# Project Delivery


# Thank you.

## Questions?