

# AN INTEGRATED APPROACH TO WATER RESOURCE, FACILITY, AND FUNDING PLANS

*EFC Webinar  
May 25, 2021*



# FACTS & FIGURES

## Population Served

- Retail – 427,000 (approx. 130,000 active connections)
- Wholesale – 20,000 (6,000 active connections)

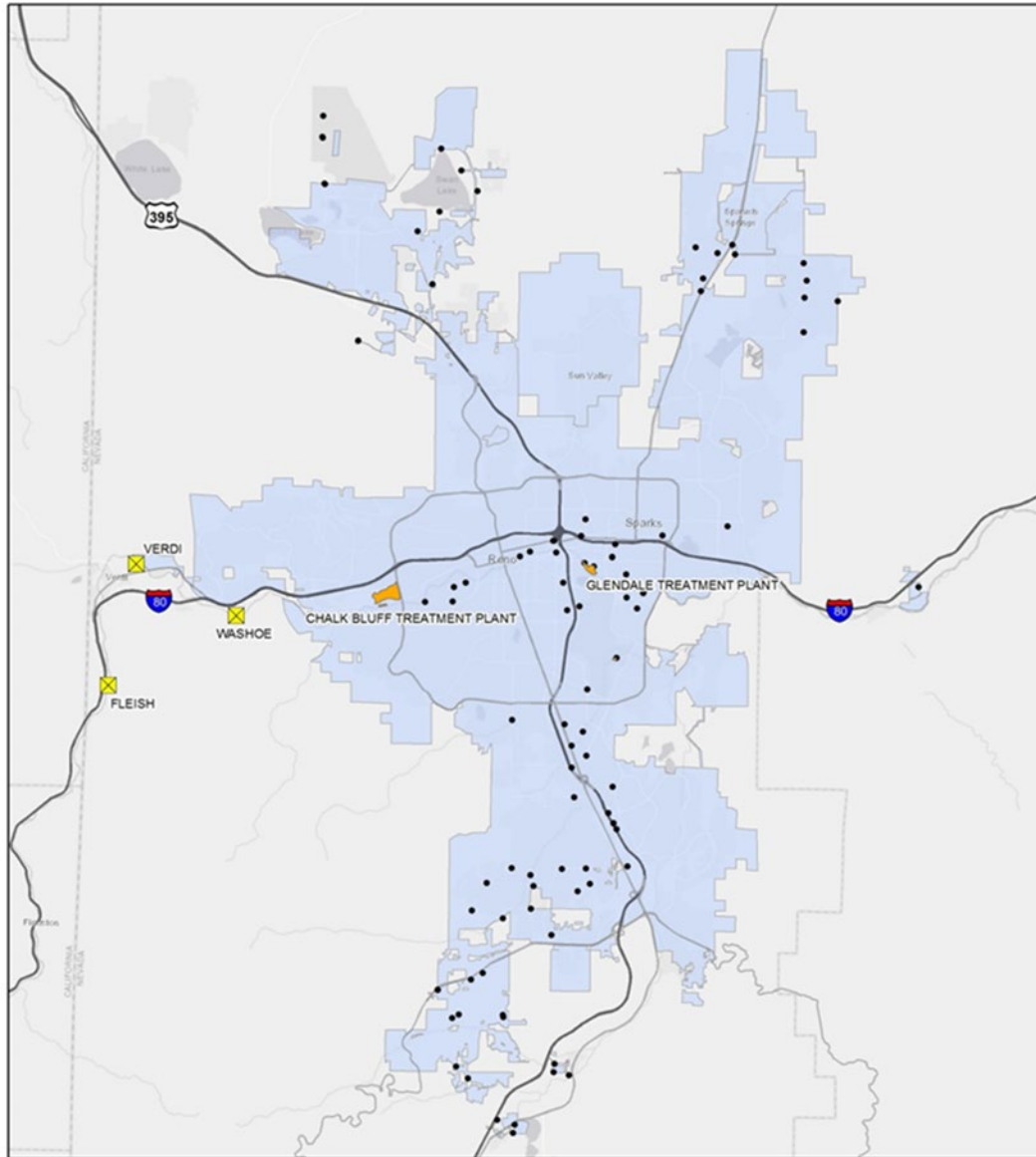
## Water Supply Sources

- Surface Water (Truckee River) – 2 water treatment plants (80-85% of total supply)
- Groundwater – 89 production wells (15-20% of total supply)
- Aquifer Storage & Recovery (ASR)
- Fish Springs Ranch – additional 8,000 AF groundwater supply (importation)
- Mt. Rose WTP (2021) – creek rights
- Reclaimed Water

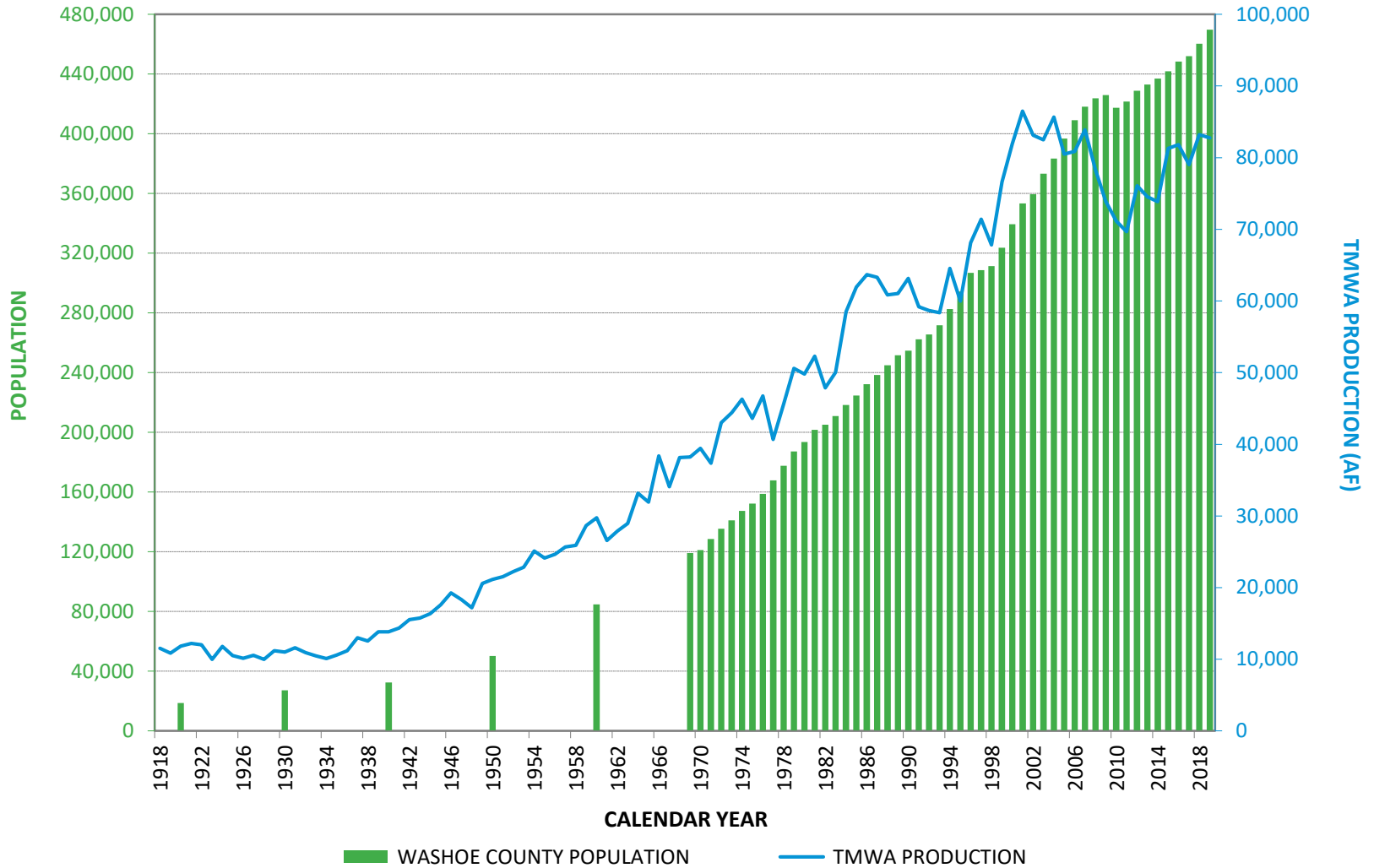
**Renewable Energy** – 3 hydroelectric plants

**Fiscal Year 2020 Annual Revenue** – \$102.5M water sales, \$3.3M hydro, \$2.3M other operating revenue

# TMWA SERVICE AREA

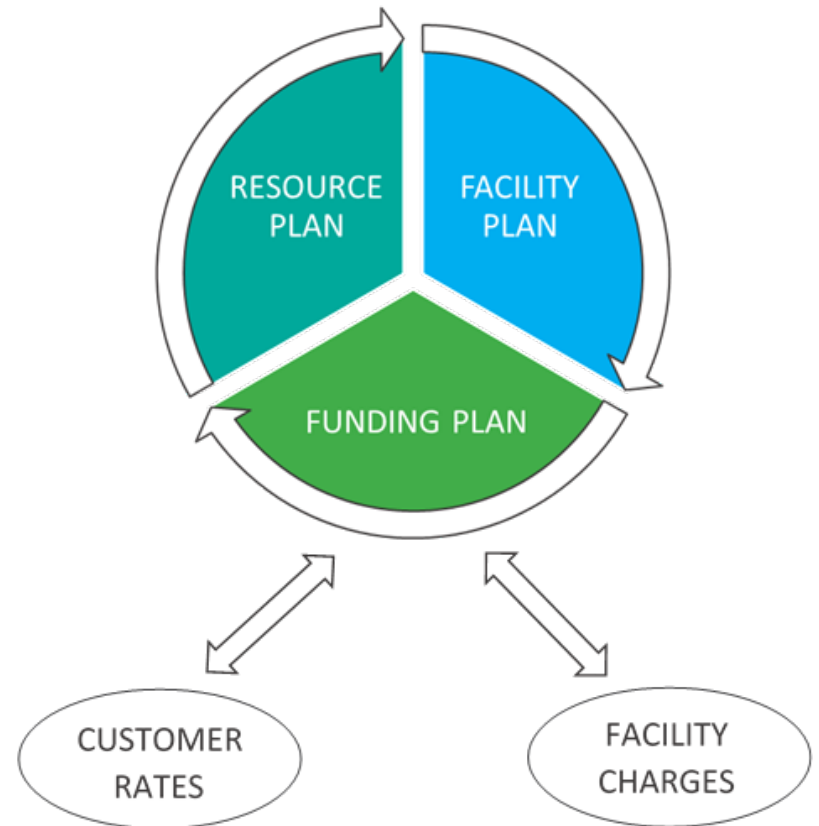


# WASHOE COUNTY POPULATION & TMWA WATER PRODUCTION



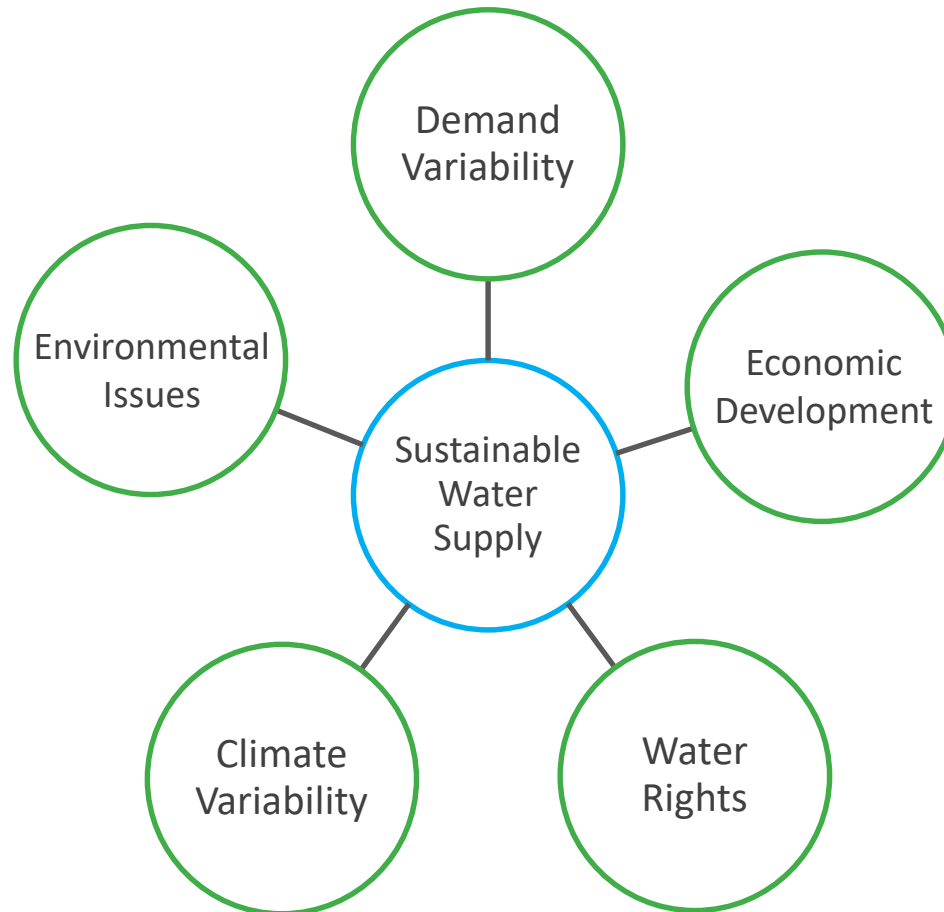
# TMWA'S THREE PLANS

- TMWA uses an integrated approach to ensure a secure water future for the community with three plans:
  - **Water Resource Plan:** provides a present-day status update and outlook regarding TMWA's water resources for the next 20 years
  - **Water Facility Plan:** analysis of TMWA's infrastructure, with recommendations to ensure reliable high-quality water distribution for the next 20 years
  - **Funding Plan:** determination of funding needed for utility operations and projected capital improvements over the next 5 years



# WATER RESOURCE PLANNING

TMWA's Water Resource Plan is an essential planning document that analyzes how the utility will maintain the balance between supply and demand over a 20-year period.



# 2020-2040 WATER RESOURCE PLAN (WRP)



- The 2020-2040 WRP is the 4th edition since TMWA's inception in 2001
- Focuses on scenario-based planning with an in-depth analysis of climate change and population growth impacts on water resources
- Provides an update about significant changes to the water system since the previous WRP
- Explains TMWA's conservation and drought response policies
- Analyzes possible future water resources for the community



# 2020-2040 WRP GOALS & OBJECTIVES



## GOALS

- ✓ Ensure TMWA has adequate water resources to meet the community's needs over the next 20 years and beyond.
- ✓ Create innovative solutions to best manage water resources in the region.
- ✓ Maintain community confidence in TMWA's planning process.
- ✓ Recommend management strategies and proposed polices to guide TMWA over the next five years.



## OBJECTIVES

- ✓ Provide an overview of TMWA's current water resources and available water rights.
- ✓ Analyze alternative supply and demand scenarios to determine the resiliency of TMWA's resources.
- ✓ Assess potential impacts from climate change on regional water resources.
- ✓ Describe TMWA's current water management and conservation strategies.
- ✓ Identify future water resource opportunities and water management strategies.
- ✓ Provide opportunities for input from the public and Board throughout the planning process.



# 2020-2040 WRP: FUTURE WATER RESOURCE PROJECTS

- Potential future water projects are described in the WRP
- The WRP does not include detailed cost estimates, facility layouts, or precise yield values
- TMWA’s WRP is a high-level plan that assesses possible future resources for the region to further increase water supply reliability and resiliency

TABLE 5-1: ESTIMATED YIELD OR CAPACITY OF FUTURE WATER RESOURCE PROJECTS

RESOURCE/PROJECT	RANGE OF YIELD OR CAPACITY
<b>Treatment of Existing Groundwater Resources</b>	
Sparks Groundwater Treatment Facility	11.9 MGD
Spanish Springs Valley Nitrate Treatment Plant	3-4 MGD
Longley Lane Groundwater Treatment Facility	4-6 MGD
South Truckee Meadows Groundwater Treatment Facility	4-6 MGD
<b>Additional Groundwater Capacity</b>	
New Well Development*	2 MGD (every 5 years)
ASR Expansion**	9,000 AFA
Additional Fish Springs Ranch Water	5,000 AFA
<b>Expansion of Water Conservation</b>	Varies
<b>Creek Water Resources</b>	
Mt. Rose Water Treatment Plant	4 MGD
<b>Marlette Lake Water System – Wholesale Service</b>	Varies
<b>Reclaimed Water</b>	
Expanded Irrigation	Varies
Advanced Purified Water	2,000 AFA
<b>Water Banking</b>	Varies

\*New well development does not increase the total amount available for withdrawal annually.

\*\*Targeting 9,000 acre-feet (AF) of recharge systemwide annually.

# 2015-2035 WATER FACILITY PLAN (WFP)



- WFP focuses on specific infrastructure projects that will be required to meet customer demand 20 years in the future
- Updated every five years to account for projected demand, supply, and system changes
- The WRP helps inform the next version of the WFP
- The 2015-2035 WFP focused on verifying or modifying recommended capacities and facility sizing, re-establishing priorities, and determining the revised timing of recommended improvements
- Identifies revised in-service dates and updated cost estimates for recommended water system facilities
  - This information provides the basis for updating TMWA's funding plan and developer facility charges

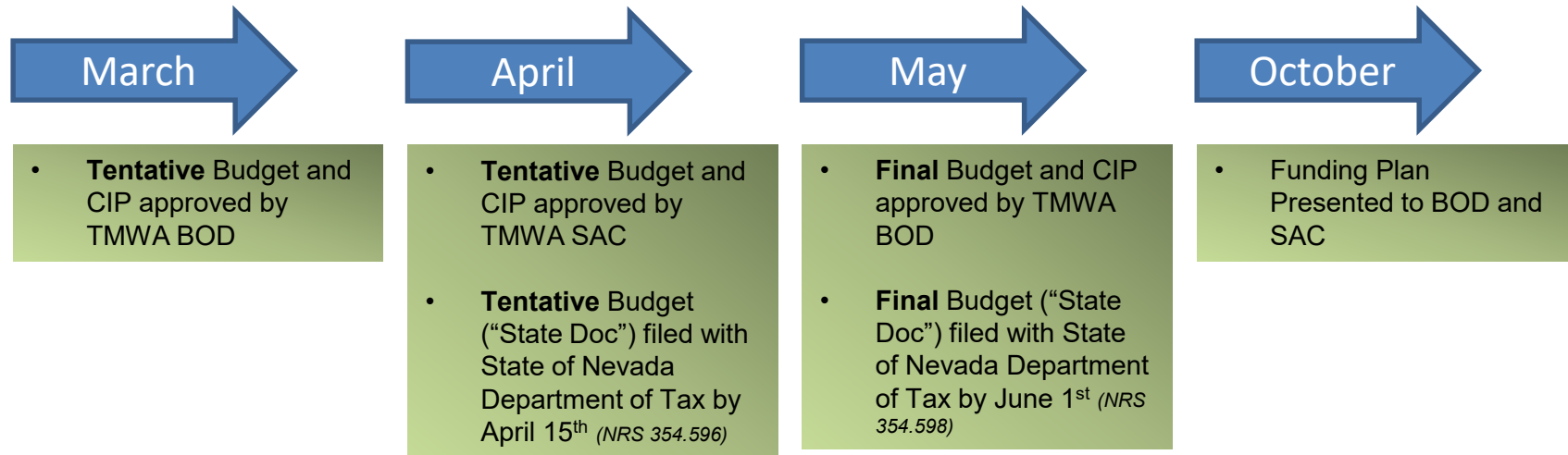
# 2015-2035 WATER FACILITY PLAN (WFP)

- Future water facility expenditures are estimated in the WFP
- New developments pay for growth in the region
- Some costs are not allocated to growth – these include fire flow deficiencies, off river reliability, replacement of existing wells, storage for existing customers, and major main replacements

**Water Facility Expenditures 2015-2035**

<b>Facility Category</b>	<b>Total Cost</b>	<b>Cost Allocated To Growth</b>
Supply	\$ 99,400,000	\$ 82,300,000
Storage	\$ 23,900,000	\$ 17,600,000
Distribution	\$103,800,000	\$ 89,400,000
<b>Totals</b>	<b>\$227,100,000</b>	<b>\$189,300,000</b>

# FISCAL PLANNING TIMELINE



# CAPITAL IMPROVEMENT PLAN

## Projects Funded By...

### Customer Rates

- Rehab, improvement to existing infrastructure

### Developer Fees

- Growth

### Other Cash Sources

- Sustainability Fee
- Cash Reserves

Five-Year Funding Plan  
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## Five Year Capital Improvement Plan (CIP)



Photo: Chalk Bluff Filter Underdrain System  
Photo By: Jason Phinney, TMWA Sr. Construction Engineer

### Five Year Capital Improvement Plan

Fiscal Year 2022 - 2026

Truckee Meadows Water Authority is a not-for-profit, community-owned water utility, overseen by elected officials and citizens from Reno, Sparks and Washoe County.



# FIVE-YEAR FUNDING PLAN

$$\begin{array}{r} \text{Operating Expenses} \quad + \\ \text{Debt Service}^* \quad + \\ \text{Capex (existing infrastructure)} \quad + \\ \hline \text{Total Cost of Service} \quad = \end{array}$$

*\*Customer related debt*

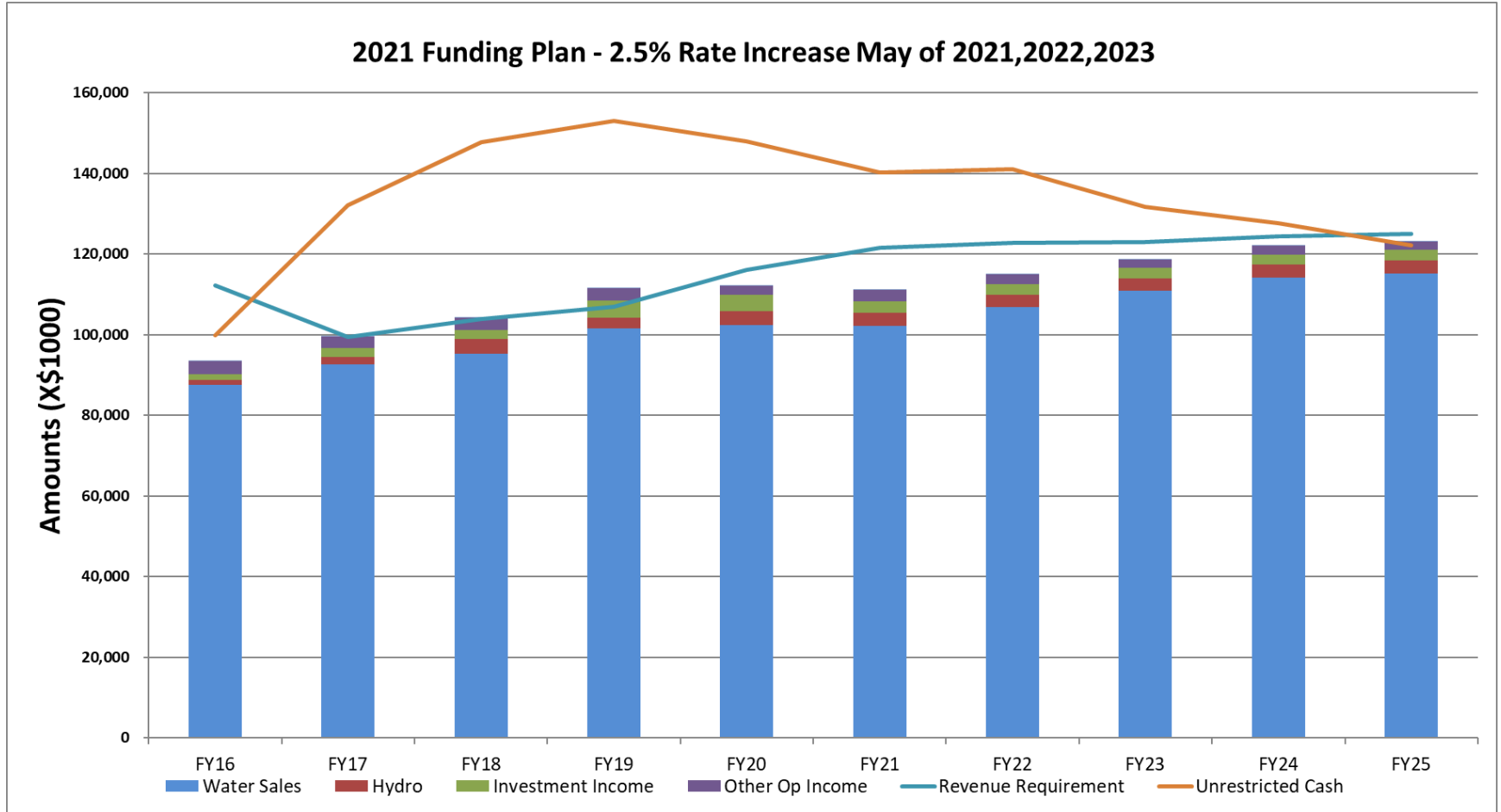


## Objectives of TMWA's Funding Plan

- Maintain recurring revenues sufficient to cover the cost to serve customers.
- Maintain a senior lien coverage (DSC) ratio that not only meets bond covenants (1.25x) but also meets the board designated goal of 1.5x.
- Maintain sufficient cash balances to facilitate the payment for rehabilitative capital projects on a pay-go basis.
- Maintain high investment grade credit ratings to effectively access credit markets.

# FIVE-YEAR FUNDING PLAN

*PAST, PRESENT, FUTURE*





# SUMMARY

- TMWA uses three plans to manage its water resources, infrastructure, and funding
  - **Water Resource Plan:** provides a present-day status update and outlook regarding TMWA's water resources for the next 20 years
  - **Water Facility Plan:** analysis of TMWA's infrastructure, with recommendations to ensure reliable water distribution for the next 20 years
  - **Funding Plan:** determination of funding needed for utility operations and projected capital improvements over the next 5 years
- Each plan informs the other plans to ensure that TMWA provides high-quality water for its customers now and into the future
- Ultimately, TMWA strives to provide water to customers at affordable rates while mitigating risk through responsible capital planning, maintenance and flexibility to handle unplanned needs.

# Thank you!

## Questions?

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For more information, please visit:

<https://tmwa.com/your-water/resources/>