

# Baca Grande

## Water and Sanitation District

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### Water and Wastewater Utility Financial Plan and Rate Study

March 27, 2020

Presented by Andrew Rheem, Senior Manager



# Agenda

- Project Overview
- Financial Plan Overview and Projection Assumptions
  - › Enterprise Fund Status and Capital Funding
- Water Fund Financial Plan and Results
- Wastewater Fund Financial Plan and Results
- Scenario Summary Results
- Combined Typical Residential Monthly Bills and Survey Comparison
- Recommendations
- Discussion and Next Steps





# RAFTELIS

- Who we are:
  - › Leading wet utility consultants in the country and in Colorado
  - › Provide a range of financial, rate and tap fee services to the water, wastewater and stormwater utility industry
  - › Recent studies completed for Pueblo, Cañon City, Idaho Springs, Platteville, Mead, Fort Morgan, Steamboat Springs, Mt. Werner Water & Sanitation, Mt. Crested Butte Water & Sanitation, Woodmoor Water & Sanitation District
- Registered municipal advisors





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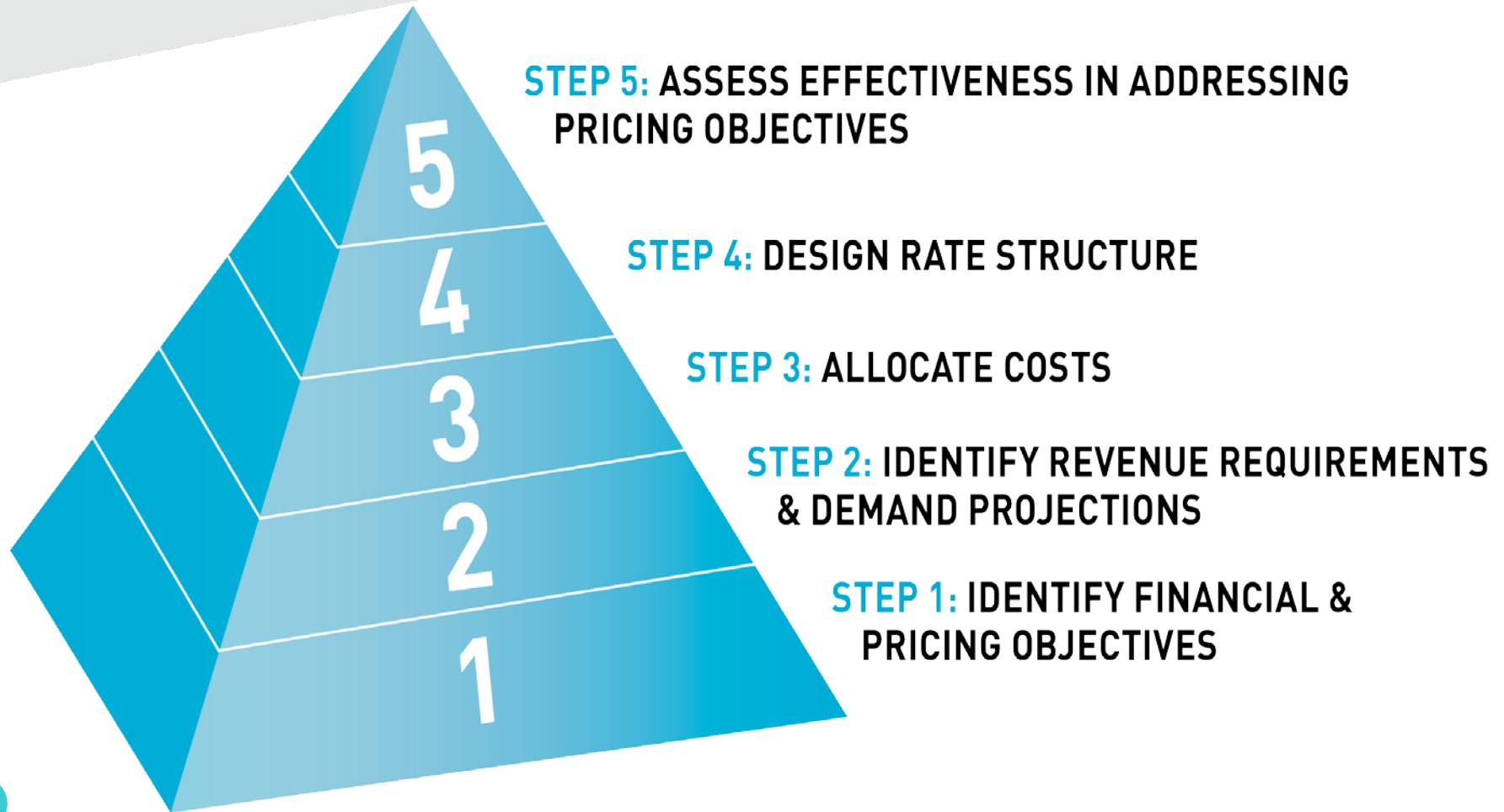
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# Ground Rules for Today

1. Stay mentally present
2. Listen with an open mind
3. Stay focused on this topic
4. Attack the problem, not the person
5. One person talking at a time



# Rate Setting Process



# Financial Planning Overview

- Separate water and wastewater funds for rate setting
  - › 50%/ 50% shared expenses
  - › 100% for others (e.g., treatment plant, raw water)
  - › Debt service by debt issue
- Project the 2019 – 2028 revenues and expenses
  - › Operations and maintenance (O&M) expenses
  - › Capital expenses and external capital funding
    - Existing annual debt service
    - Resulting annual debt service
  - › Availability of service fees and miscellaneous non-rate revenues
  - › Property and specific ownership taxes and transfers from the General Fund



# Prudent Utility Financial Planning

- Revenue sufficient to maintain the financial stability of the water and wastewater enterprises and:
  - › Fund annual O&M expenses, debt service payments and capital improvements
  - › Exceed annual debt service coverage ratio targets with adequate revenues
  - › Exceed annual operating and capital reserve targets with adequate reserves



# DSC Ratio

- DSC ratio is a legal requirement of most loans:

$$\frac{(\text{Annual Revenue}^* - \text{Annual O\&M Costs})}{\text{Annual Debt Service}^*}$$

- Existing tax-backed debt does not require a DSC ratio and not part of this calculation
- State Revolving Fund (SRF) loans require a minimum of 110%
- U.S. Department of Agriculture Rural Development (USDA-RD) loans do not require DSC, so 100% is the minimum
- **Rate setting recommendation target DSC ratio of 125% for new debt**

\* Excludes Property taxes revenue transfers and amounts for debt service as well as existing General Obligation debt service.

# Cash Reserves Targets

- Working capital reserve
  - › Water: 90-days or 25% of annual O&M
  - › Wastewater: 60-days or 17% of annual O&M
- No capital reserve today
- USDA-RD requires a “short lived asset reserve” that varies for each entity
  - › The capital reserve could meet this purpose
- Debt service reserves equal to one annual debt service payment may also required
  - › USDA-RD: reserve may be funded over 10 years
  - › SRF: requires it to be funded fully right away
- **Recommend a capital reserve be phased-in**
  - › **2021: \$50,000 for water and \$50,000 for wastewater**
  - › **2028: \$250,000 for water and \$250,000 for wastewater**



# Common Utility Cash Reserves

- Operating Reserve
  - › 15% to 25% of O&M
- Debt service reserve
  - › Requirement of debt issue
- Rate stabilization fund
  - › Defined in bond resolution
- Capital reserve
  - › Fixed Amount or
  - › Tied to Capital projects
- Revenue reserve
  - › Percent of revenues
- Emergency reserve
  - › Fixed Amount or
  - › Tied to specific asset

**May be represented as days cash on hand**

# Forecast Assumptions Revenues

- Growth Rate of 2% annually
- Property and specific ownership taxes 2% annually
- Availability of service fees 2% decrease annually
  - › As properties develop, they stop paying this
- Misc. revenues of 1% annually
- Interest income of 1% annually
- Town of Crestone wastewater rate increase
  - › 2% in 2020 and 2021
  - › Increases like other customers starting in 2022



# Forecast Assumptions Expenses

- Purchased water decreasing effective June 2020
- Inflation factors O&M and capital of 3%
- General Fund transfer decreasing
  - › Totaled \$567,000 in 2019
  - › Totals \$465,514 in 2020
  - › Totals \$200,000 in 2021 and beyond
- Property and ownership taxes and ASF are also transferred for voter approved general obligation debt service
- 30% of water revenues in 2021 from local taxes
  - › Down from 62% in 2020
- 48% of wastewater revenues in 2021 from local taxes
  - › Down from 80% in 2020

# Enterprise Status

- District Enterprise Fund do not currently meet Tax Payers Bill of Rights (TABOR) limitation
  - › Limits 10% of revenues from **Colorado and/or local taxes**
  - › 2020 budget reduced to \$200,000 for capital
- Voter approval required to issue future debt without Enterprise Fund
- Enterprise based on previous year
  - › Without transfers, rates are higher
  - › SRF grants largely from Colorado taxes
- **Revenue-backed debt approved by voters is likely the approach which mitigates future rate increases**

# Capital Funding Considerations

- Low-interest rate loans through the USDA-RD and/or the Colorado SRF to minimize borrowing costs of future debt
- SRF loans are the “default” external debt
  - › 3% interest rate
  - › 30 year repayment term
- Grants to maximize external funding of the CIP
  - › Colorado Water Conservation Board for meter replacement and/or water loss reduction
  - › Department of Local Affairs (DOLA) grants and/or USDA-RD for system improvements
  - › Others?



# Current Rates

Tap or Meter Size	Sewer Base Rate	Water Base Rate	Minimum / Unbilled	Tier 1	Tier 2
Volume Rate	N/A	N/A	\$0.00 / kgal	\$1.50 / kgal	\$3.00 / kgal
¾-inch	\$28	\$28	<4,000	>4,000	>10,000
1-inch	\$56	\$56	<8,000	>8,000	>20,000
1 ½-inch	\$140	\$140	<20,000	>20,000	>50,000
2-inch	\$224	\$224	<32,000	>32,000	>80,000
3-inch	\$448	\$448	<64,000	>64,000	>160,000
4-inch	\$1008	\$1008	<144,000	>144,000	>360,000

- Availability of Service Annual Fee = \$150
  - › Charged on unimproved property if the property has infrastructure for water and sewer service within 100 feet of the property line
  - › Used to repay debt incurred for capital infrastructure





# Water Fund Financial Plan

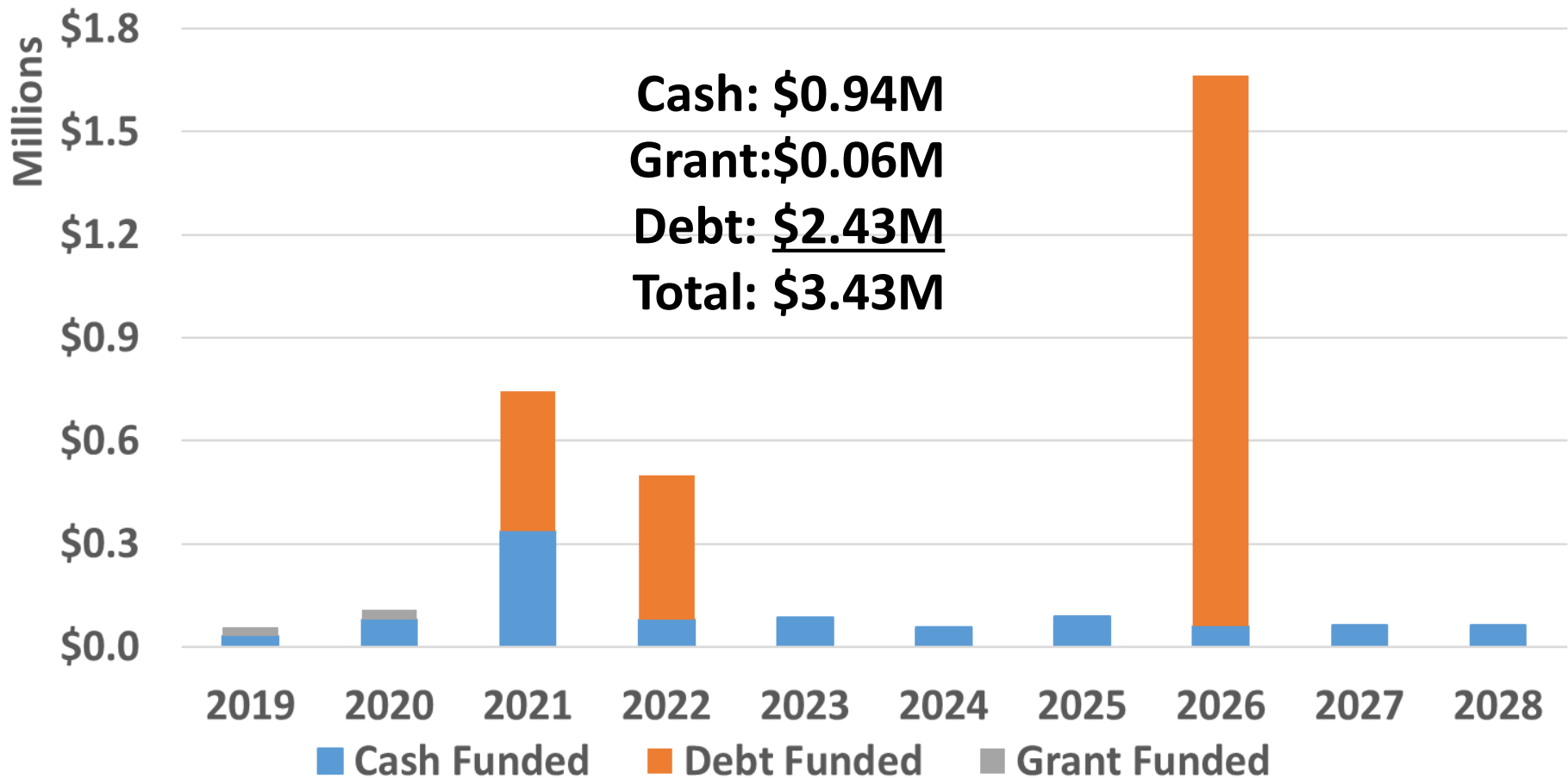


# Water CIP – Major Projects 2020- 2028

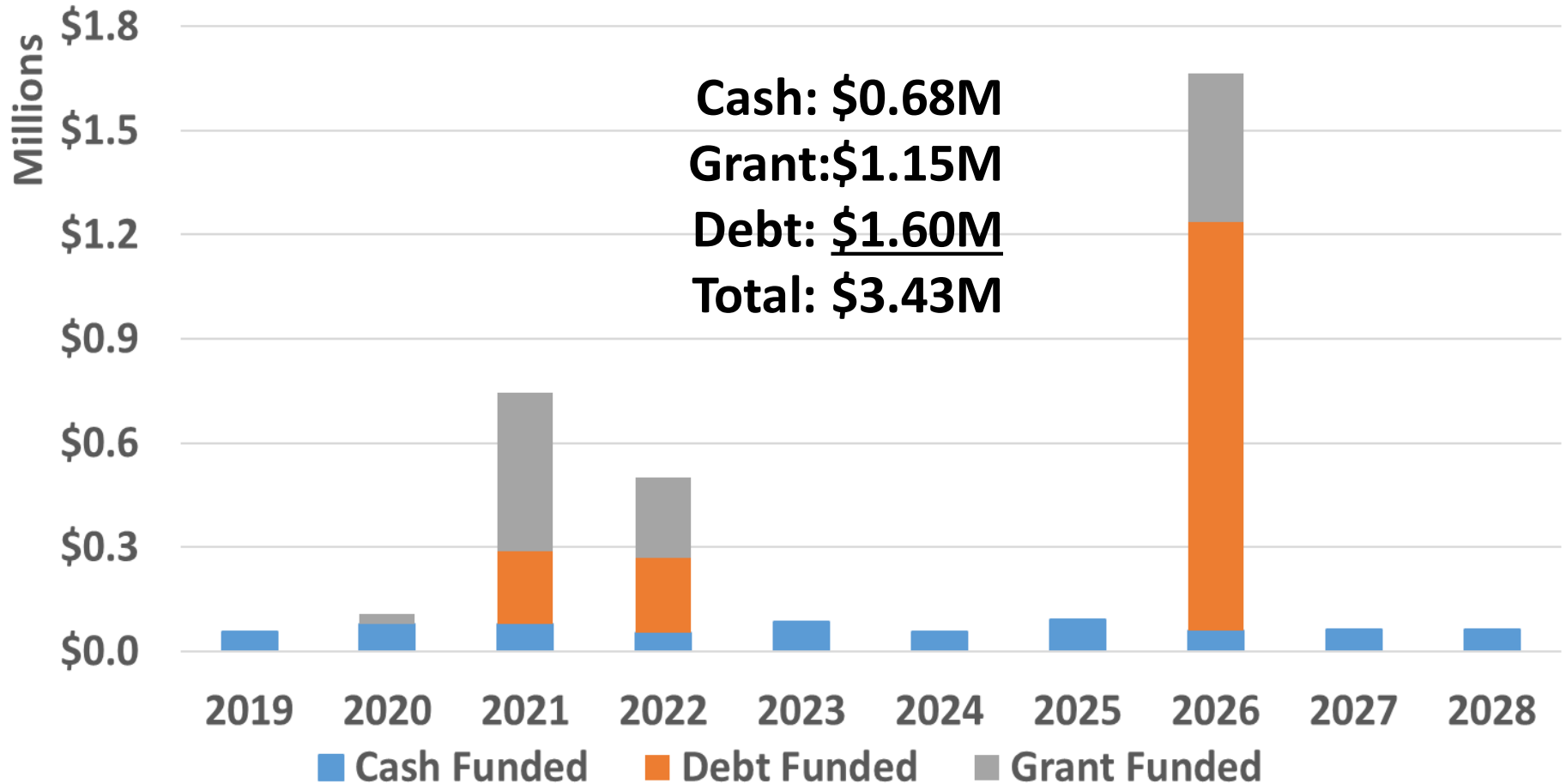
- Water conservations / meter replacement: **\$0.30M**
- WTF improvements: **\$0.40M**
- Booster station improvements: **\$0.40M**
- Distribution system improvements: **\$1.15M**



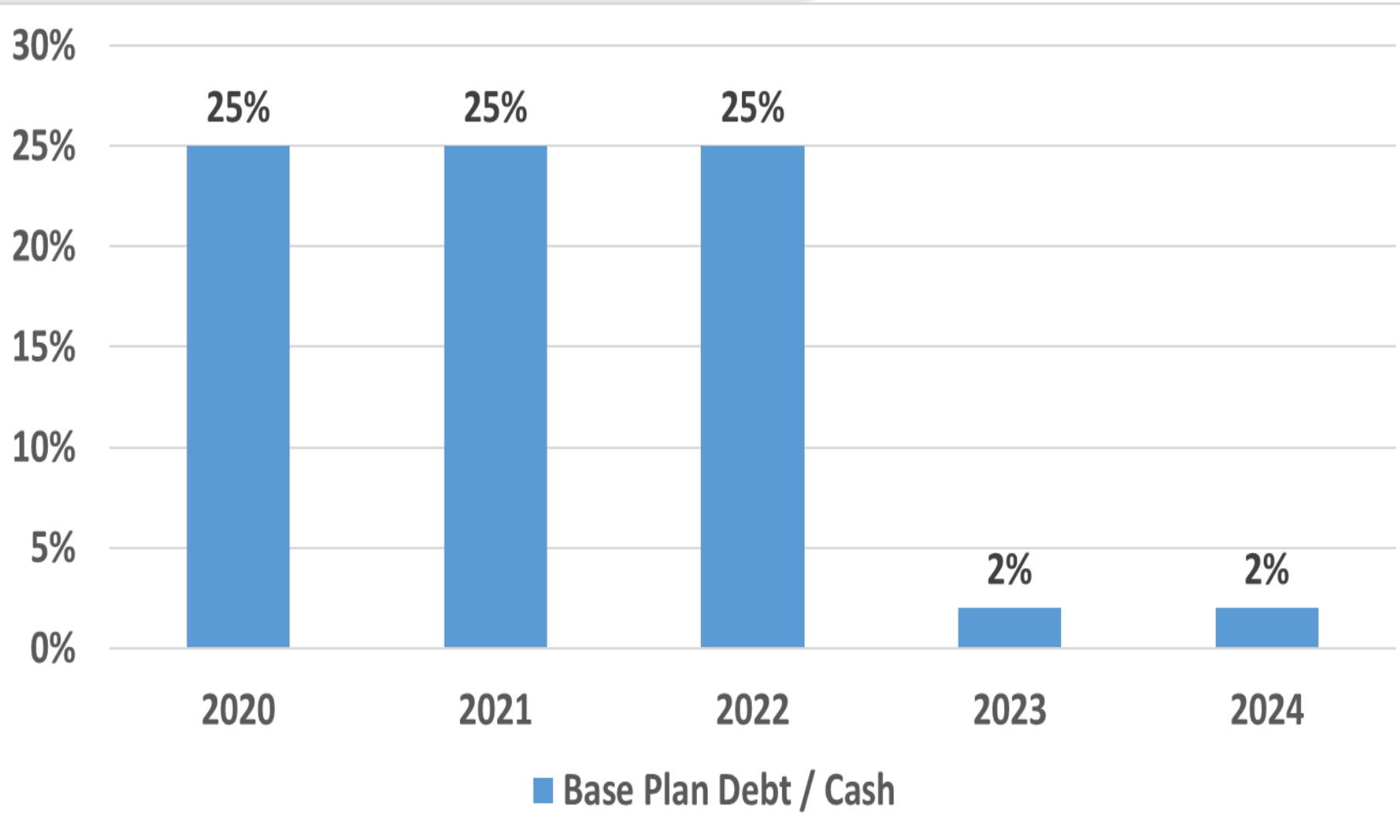
# Water Fund Capital Projects 2019 through 2028 (Inflated \$'S) Base Case No Grants



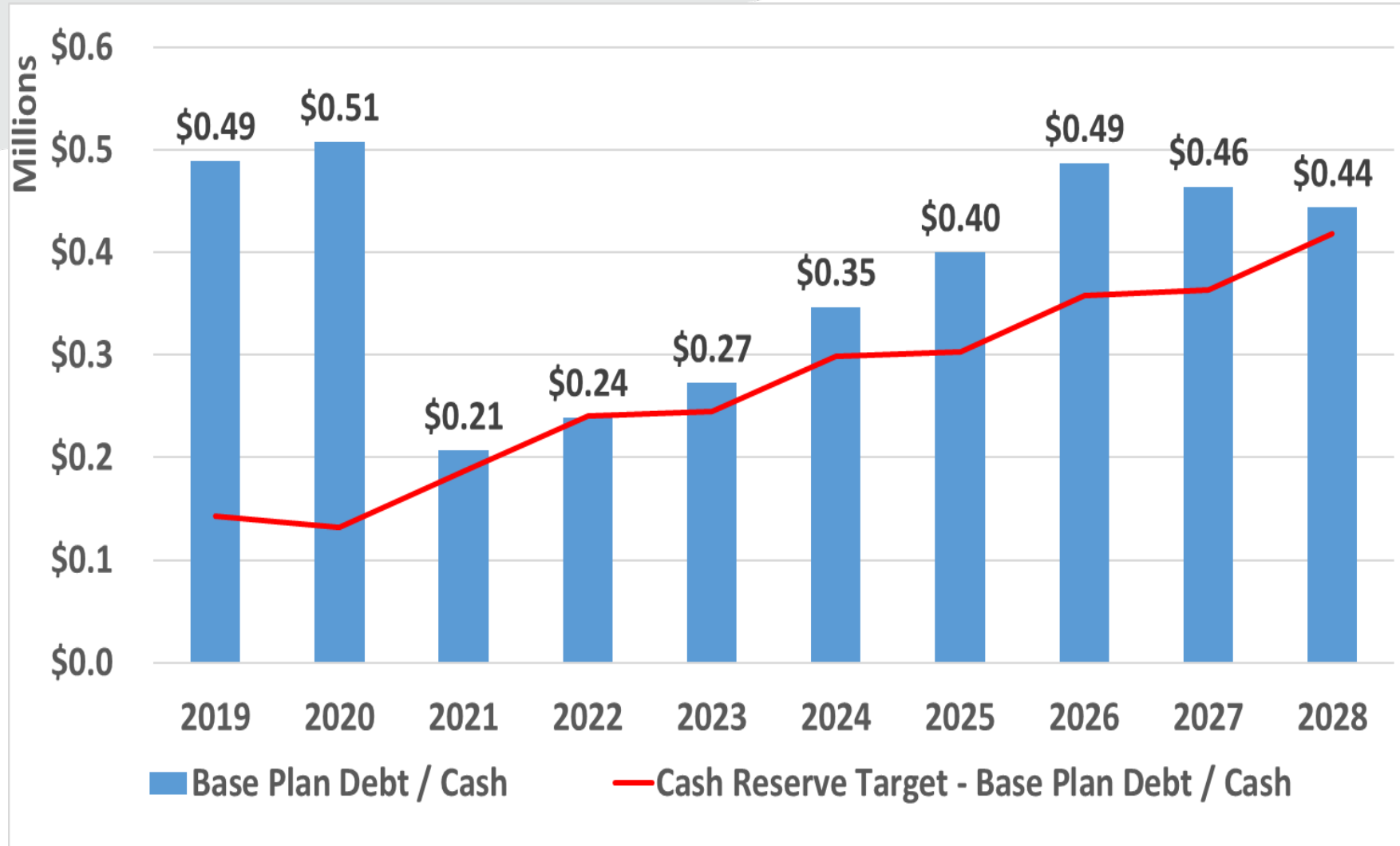
# Water Fund Capital Projects 2019 through 2028 (Inflated \$'S) Base With Grants Scenario



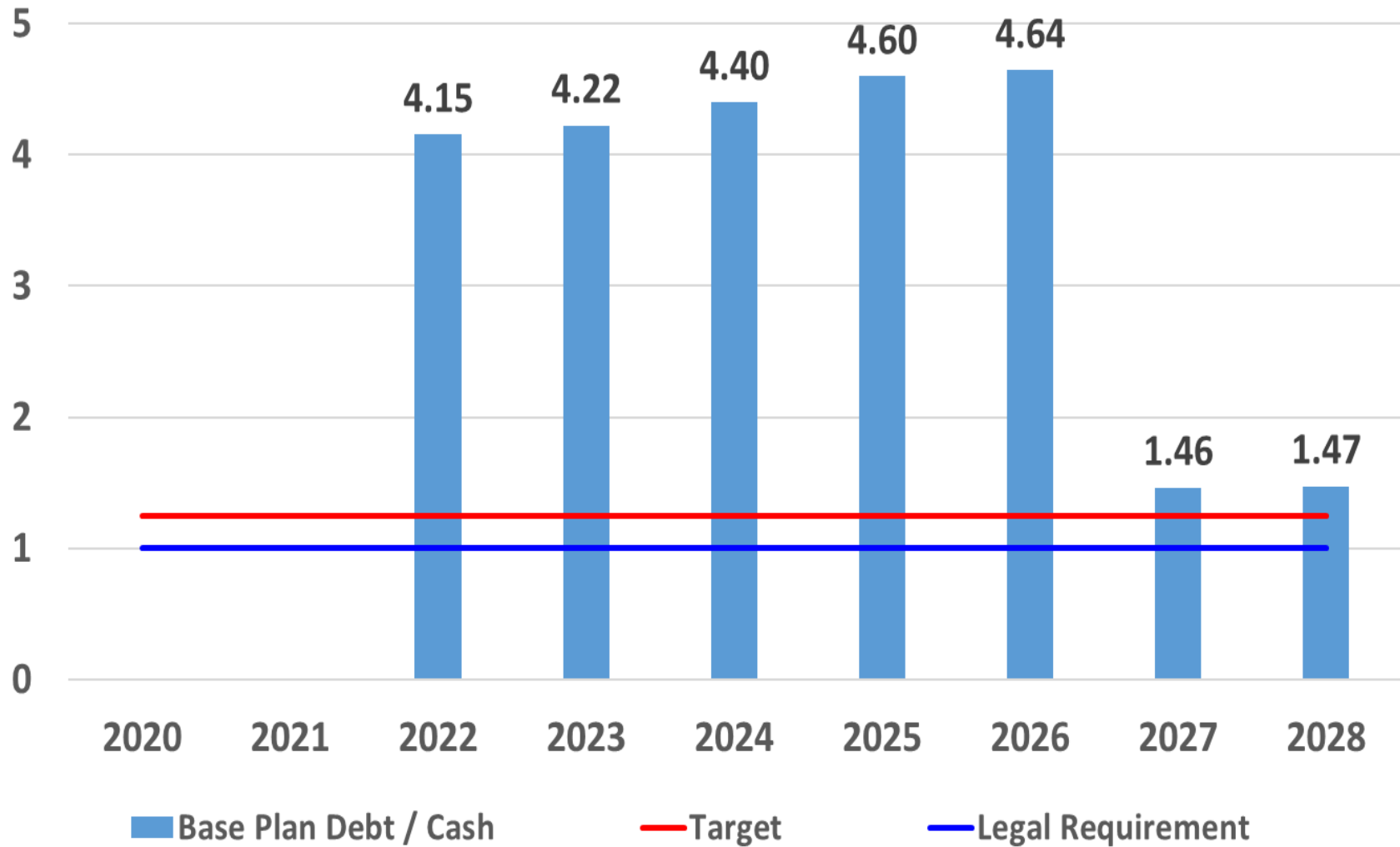
# Projected Rate Increases: Base Case Scenario



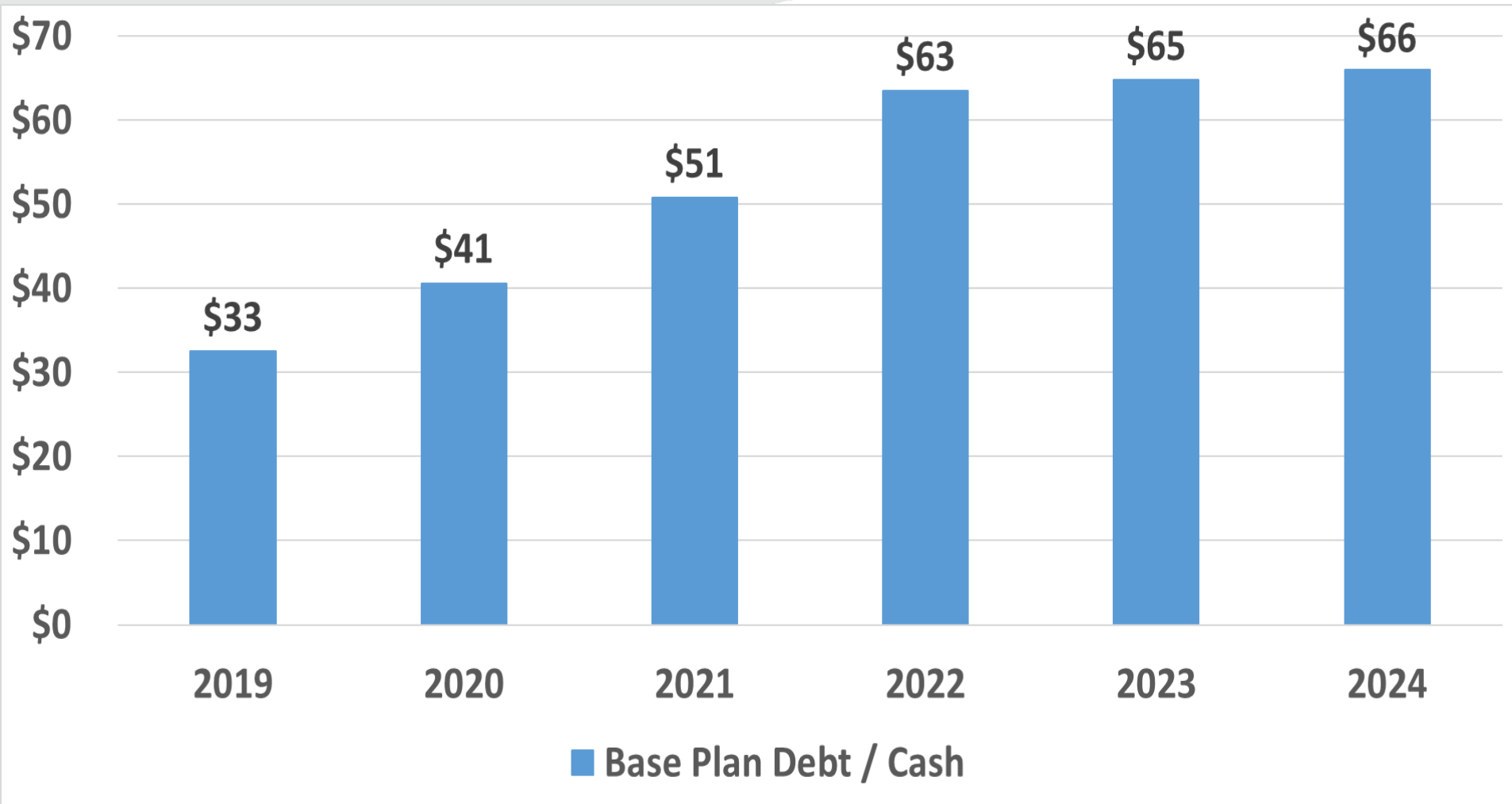
# End-of-Year Cash Balances: Base Case Scenario



# DSC: Base Case Scenario



# Typical Monthly Residential Water Bill (1) Base Case Scenario



(1) 7,000 gallons water use per month.



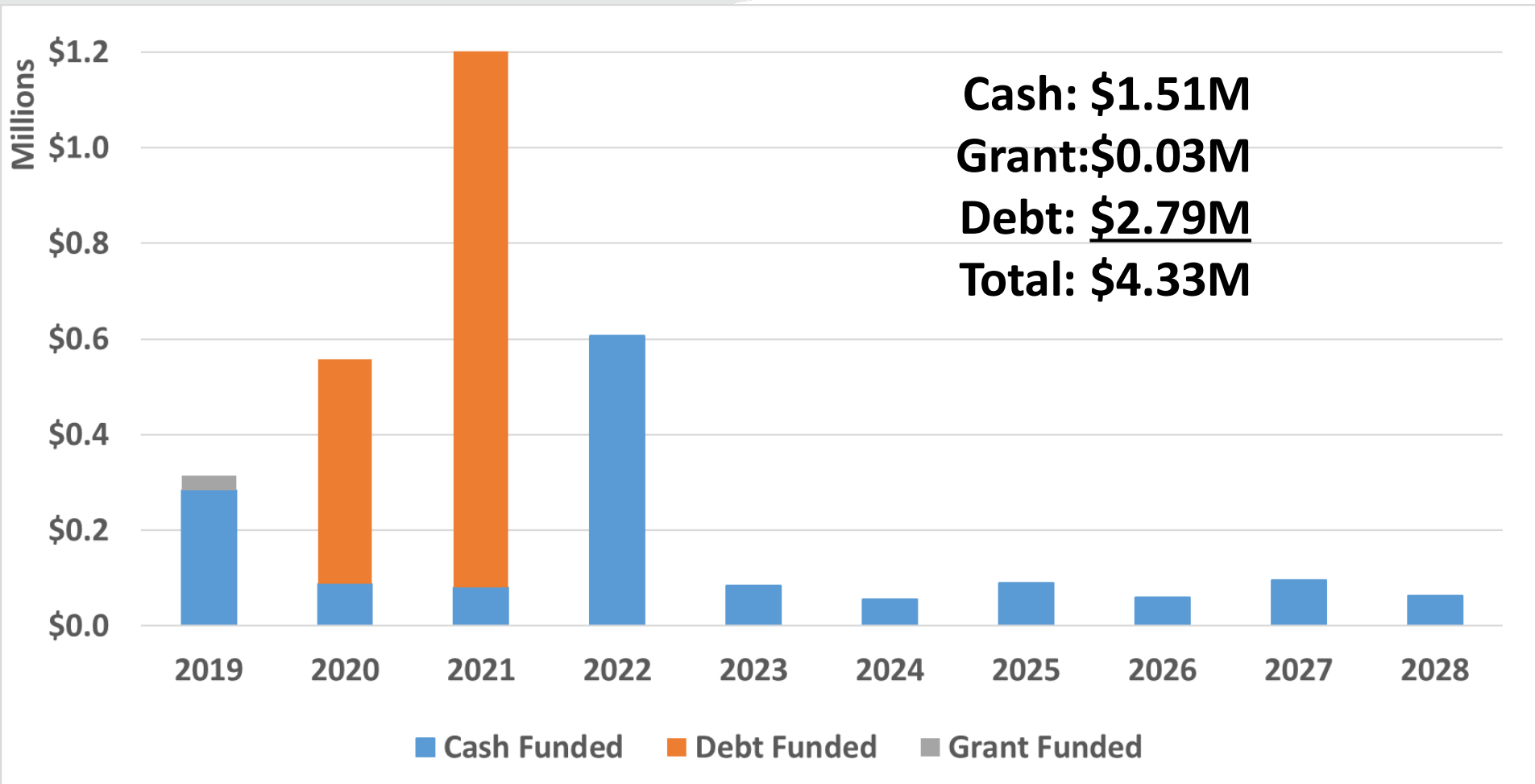
# Wastewater Fund Financial Plan



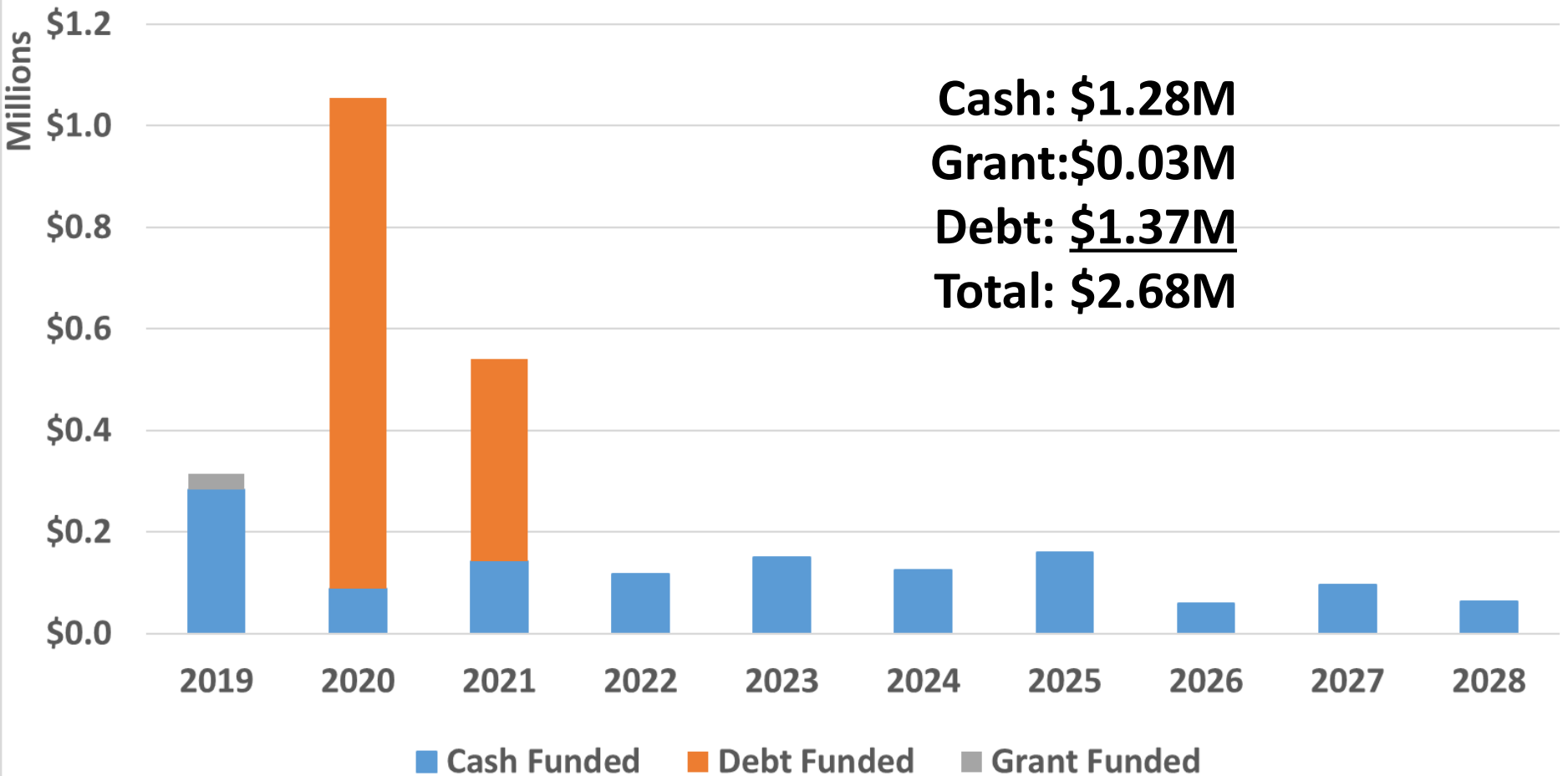
# Wastewater CIP – Major Projects 2020- 2028

- WWTF rerating or expansion **\$3.2M**  
**OR**
- WWTF rehabilitation projects **\$1.6M**
  - › Piping from EQ Basin to SBR: **\$46,350**
  - › New aeration system: **\$573,710**
  - › Automated WAS pumping: **\$347,110**
  - › Electrical/ I&C upgrades: **\$330,292**
  - › Replacing/ improving the decanting process: **\$268,408**

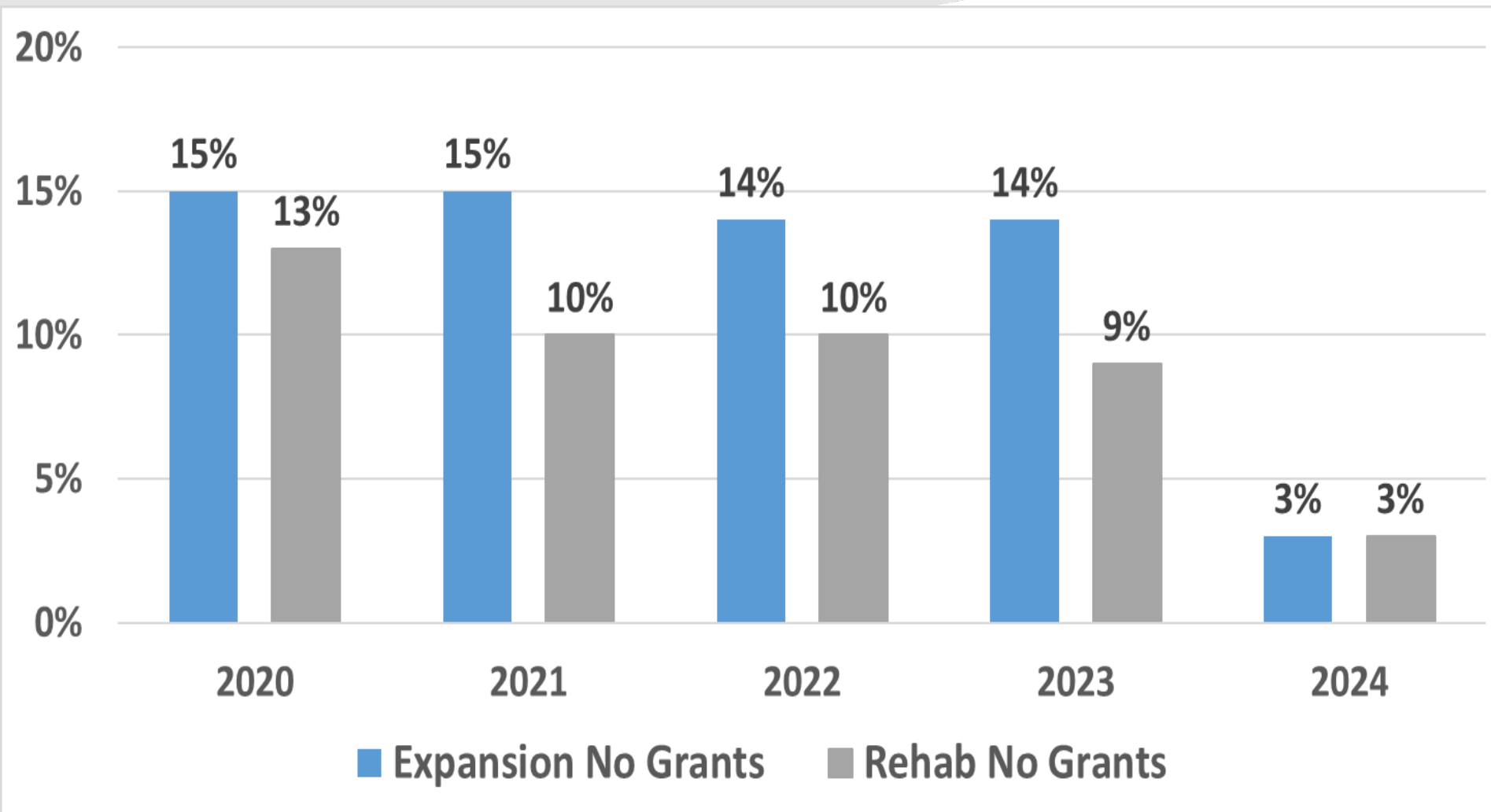
# WW Fund Capital Projects 2019-2028 (Inflated \$'S) Expansion No Grants



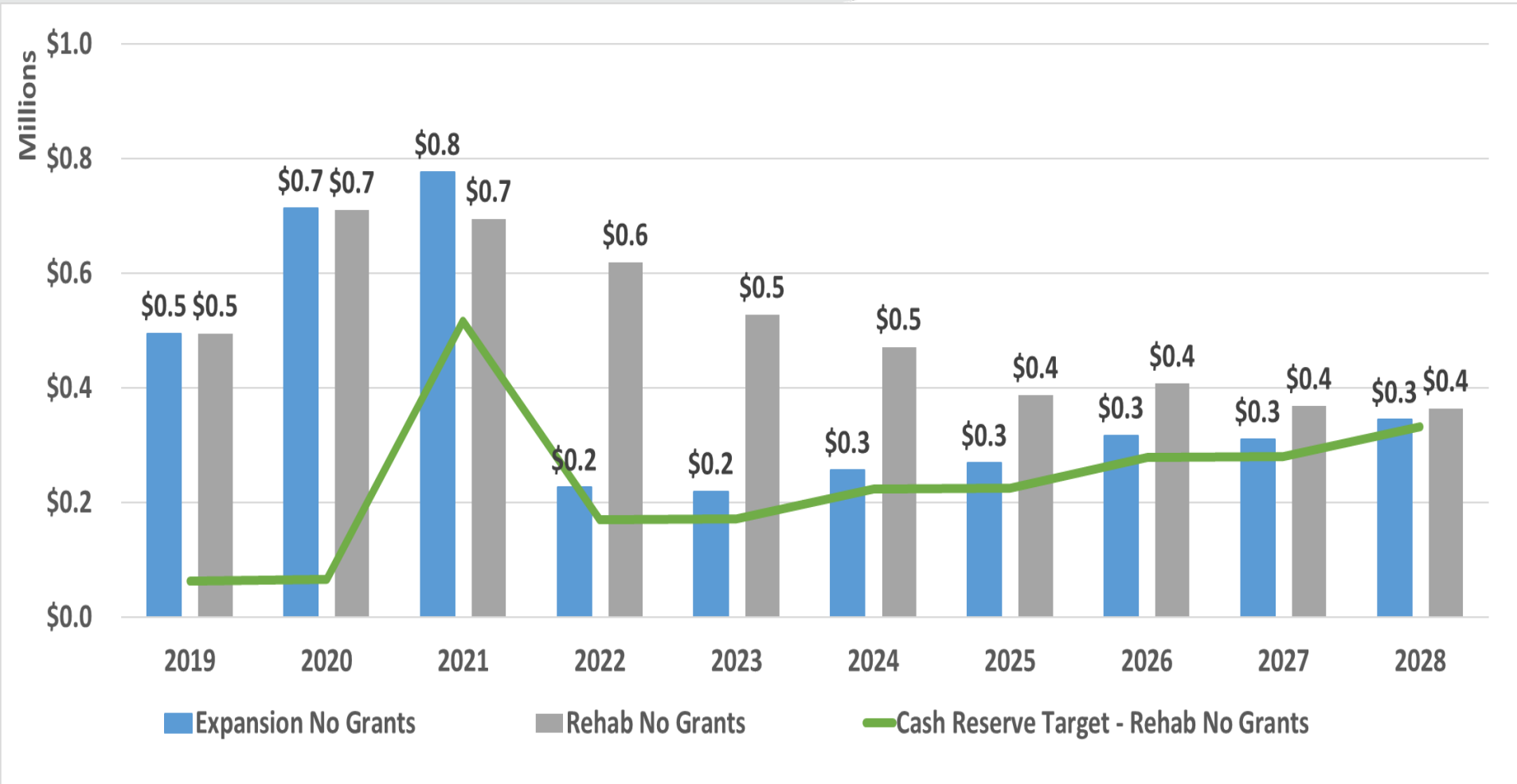
# WW Fund Capital Projects 2019-2028 (Inflated \$'S) Rehab No Grants



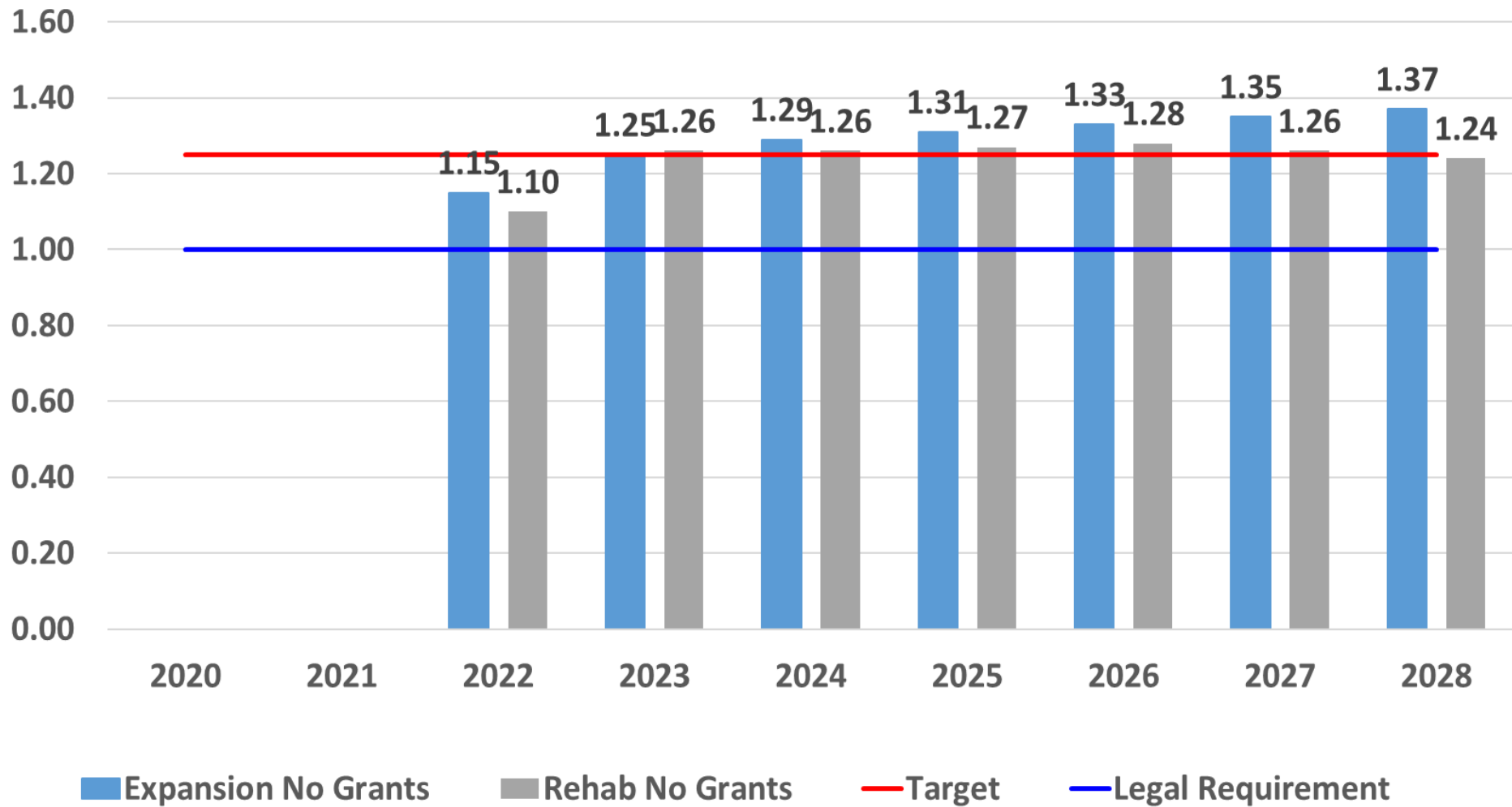
# Projected Rate Increases: Base Case Scenarios



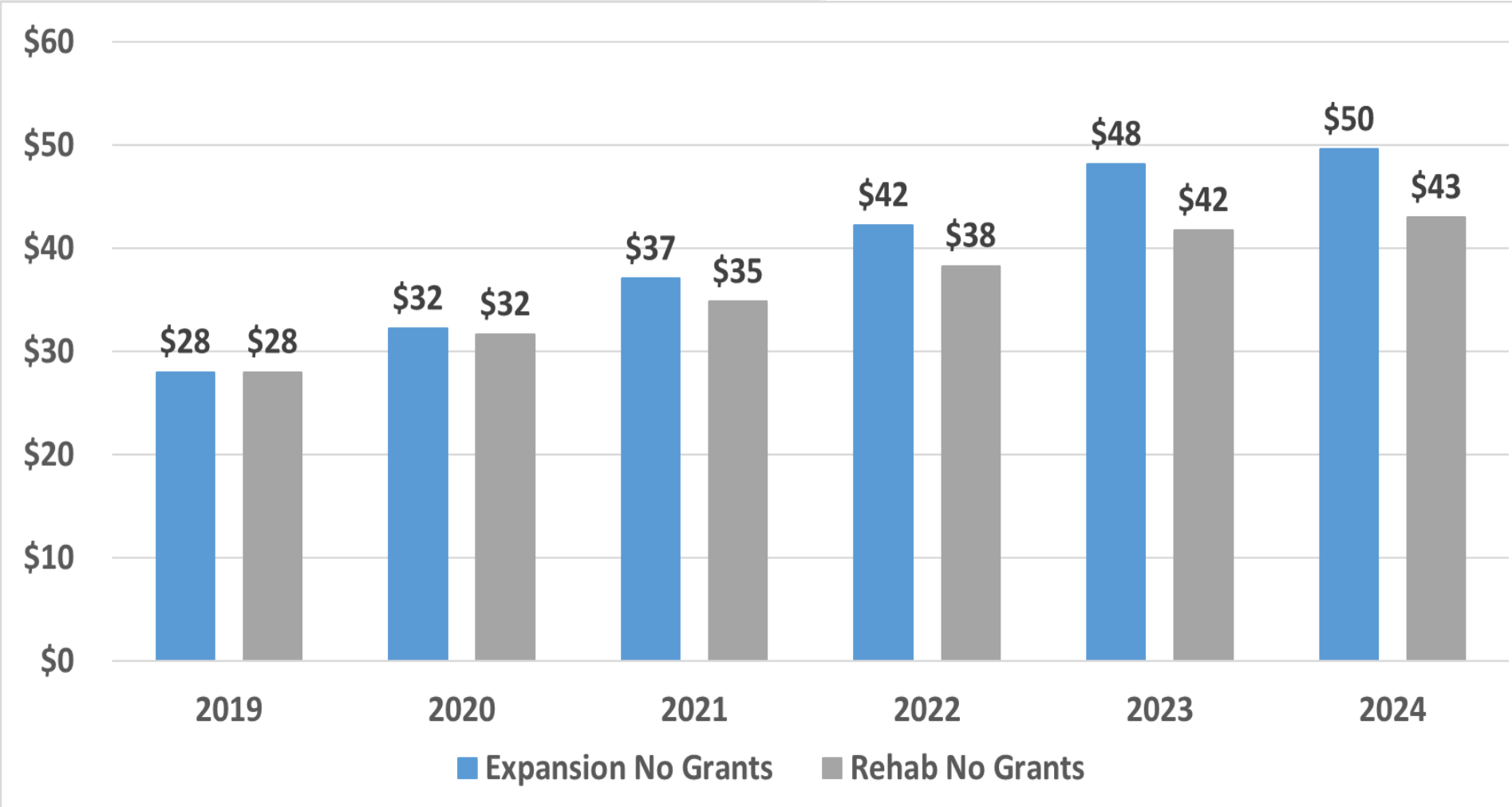
# End-of-Year Cash Balances: Base Case Scenarios



# DSC: Base Case Scenarios



# Projected Monthly WW Residential Bills: Base Case Scenarios (1)



(1) Monthly base rate, no volume charge.



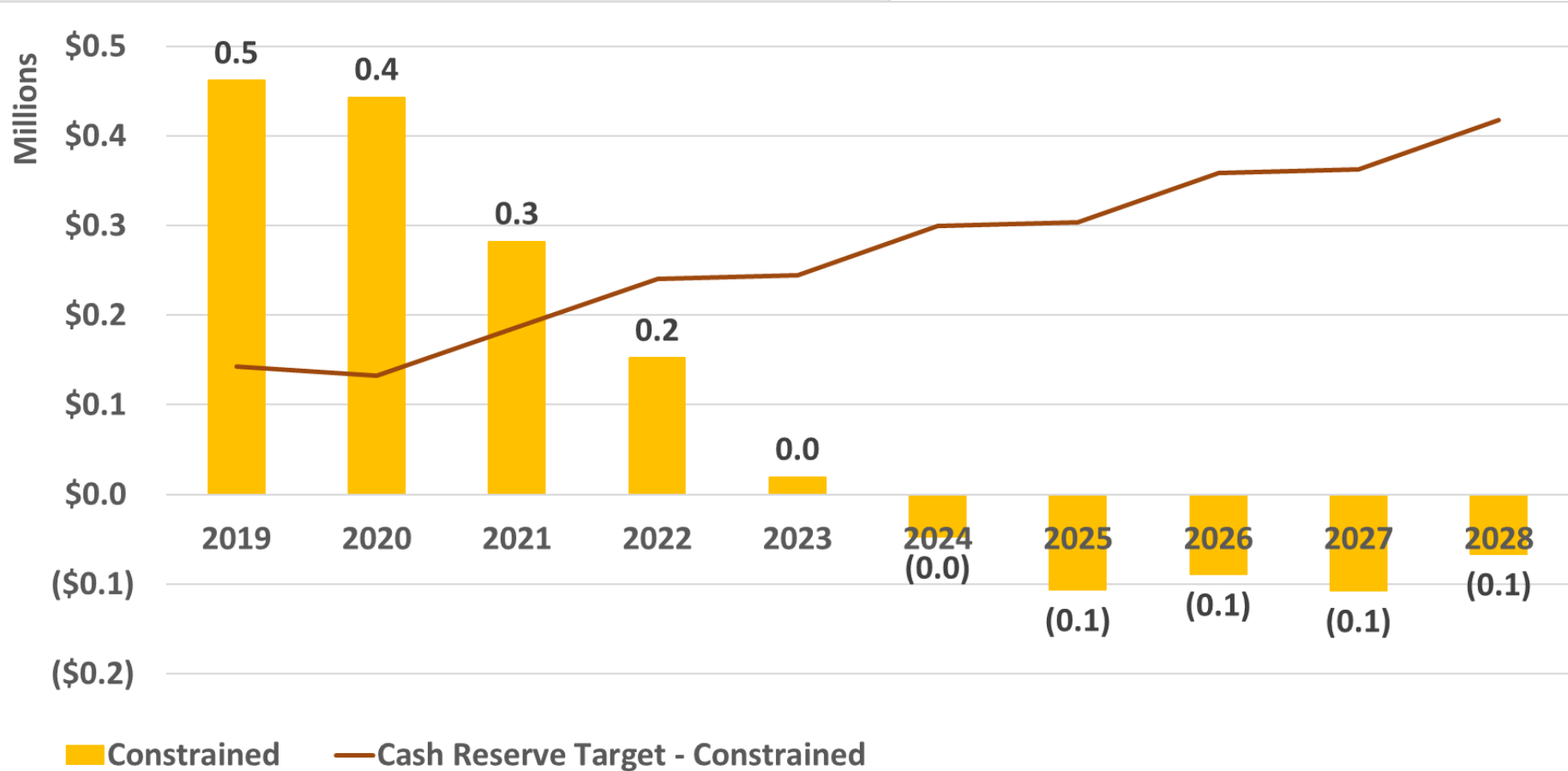
# Capital Funding Scenarios



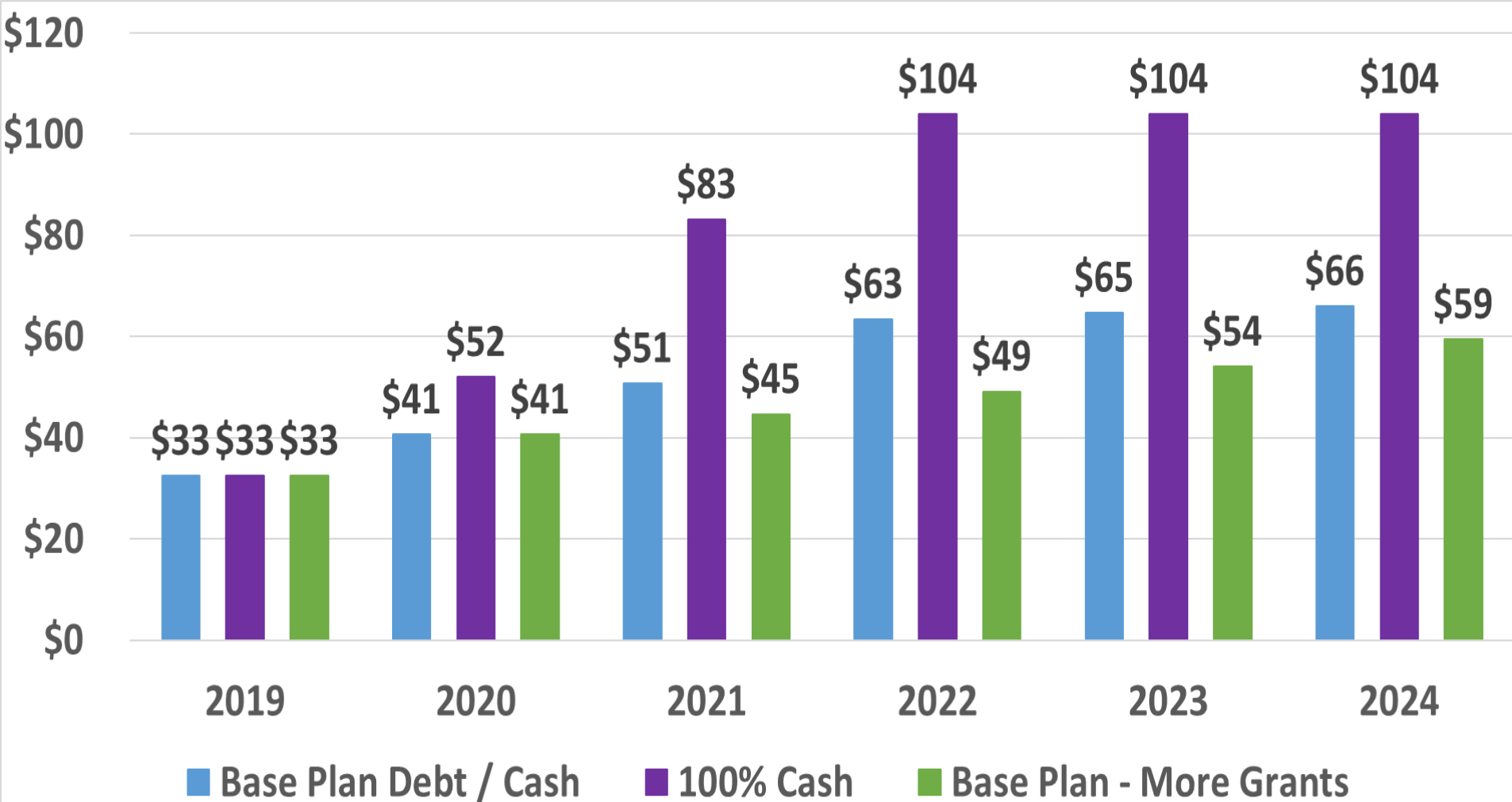
# Water Financial Planning Scenarios

1. Base case CIP with future debt and no future grants.
2. Base case CIP with future debt and future grants.
3. Constrained CIP under constrained rate revenue adjustments with future debt and no future grants.
4. Base case CIP with no future debt or future grants.

# End-of-Year Cash Balances: Constrained

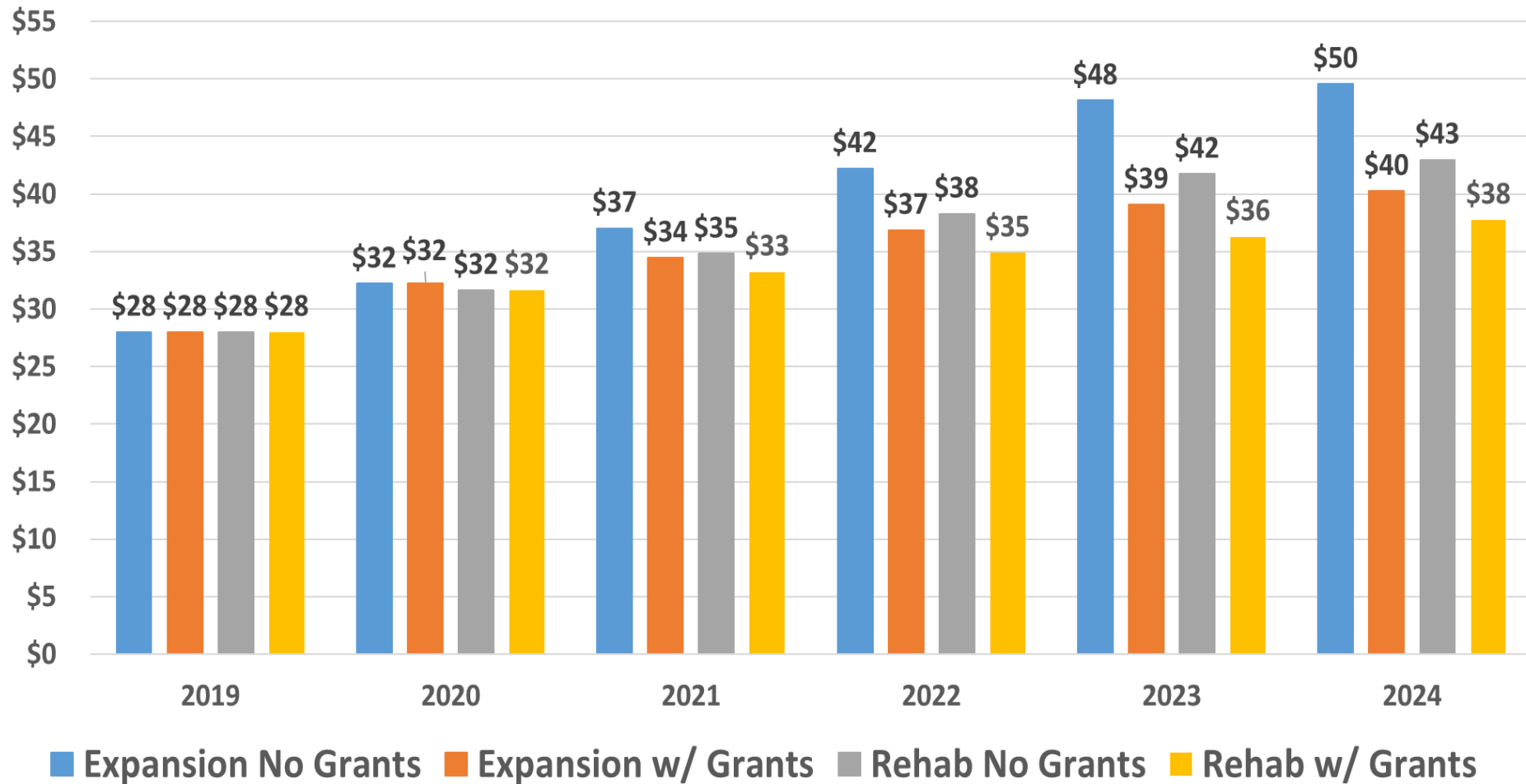


# Scenario Analysis Findings – Monthly Residential Water Bills in 2020 to 2024 (1)

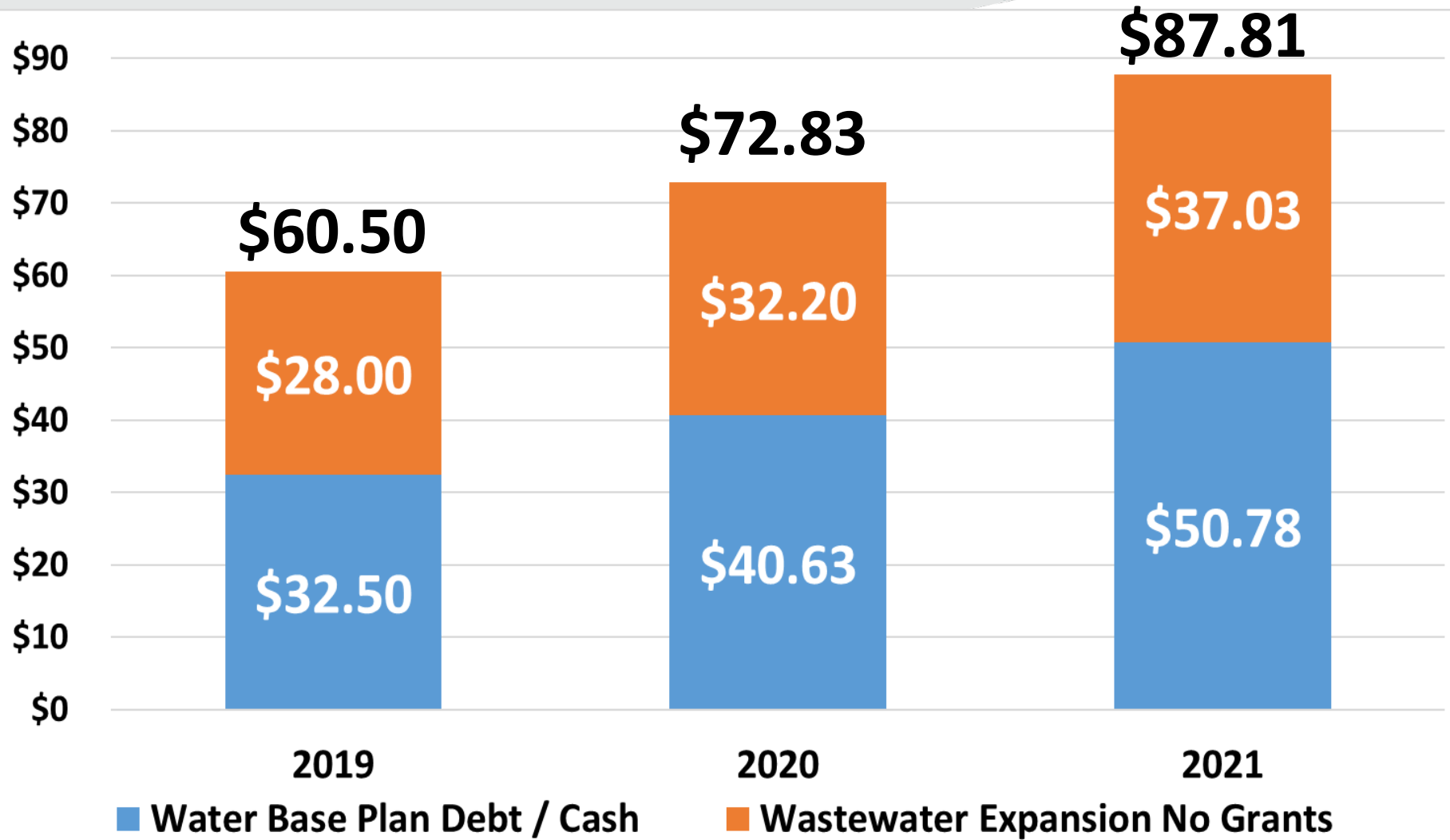


(1) 7,000 gallons of metered use per month.

# Scenario Analysis Findings – Monthly Residential Wastewater Bills in 2020 - 2024

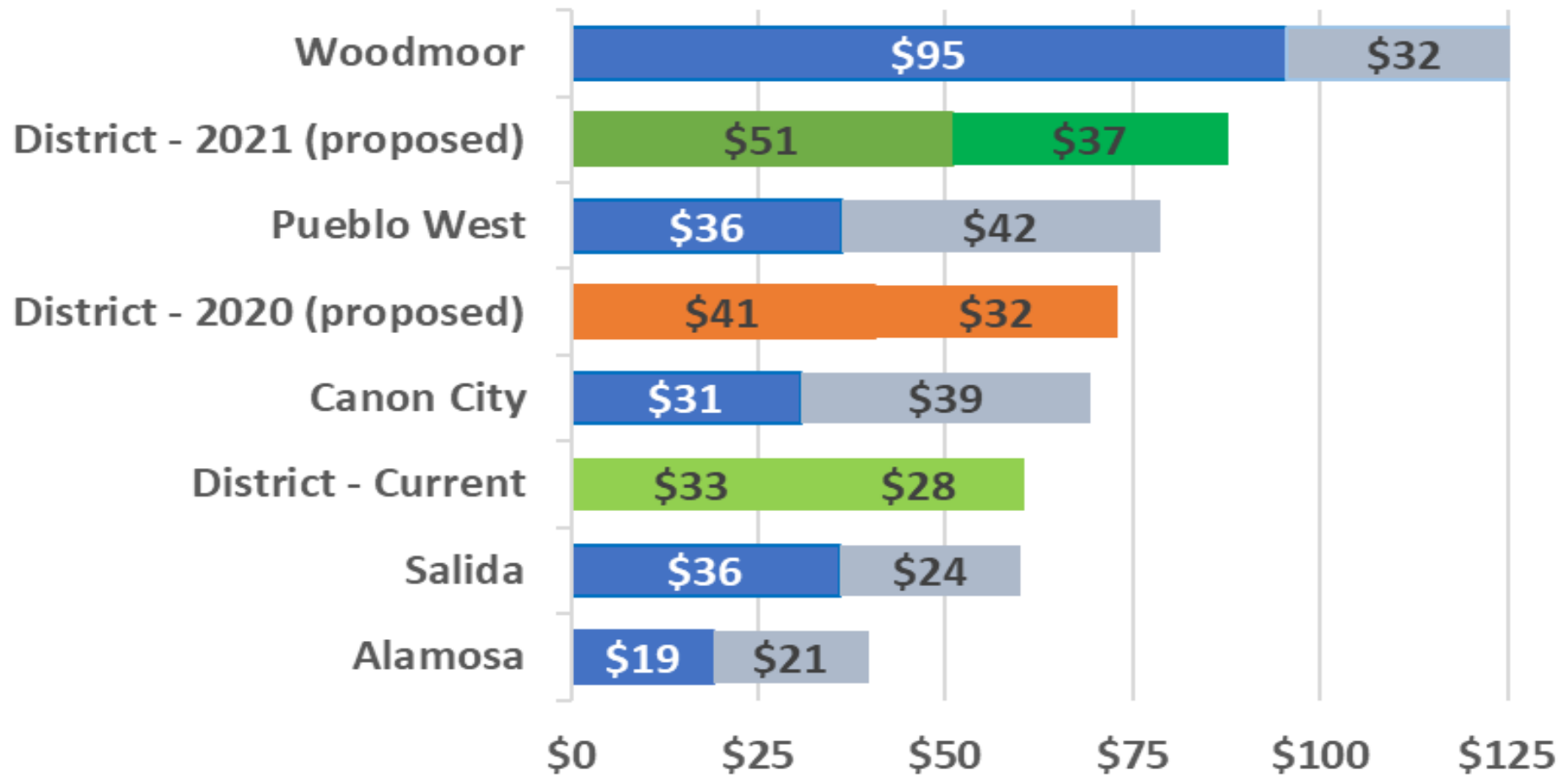


# Combined Residential Monthly Bill (1)



(1) 7,000 gallons of metered use per month.

# Typical Residential Monthly Water and Wastewater Monthly Bills Compared



(1) 7,000 gallons water, 4,000 gallons wastewater.  
Water = left, Wastewater = right

# Recommendations

1. Implement 2020 and 2021 rate adjustments under Base Case capital funding
2. Pursue low-interest loan and grant opportunities
  - A. Maintain General Fund Transfers of \$200,000 per year
3. Continue to refine capital requirements prioritizing
  - A. Health and safety
  - B. Those that regulators will require
  - C. Those which reduce O&M and maintenance costs
  - D. Grant funded improvements
4. Renegotiate Crestone contract and service arrangement
  - A. Evaluate full cost recovery in lieu of inflation based increases
  - B. WWTF expansion may be delayed without Town but CIP still required to rehabilitate many facilities
  - C. Consider expanding District boundaries combining two wastewater systems
5. Complete cost of service analysis and potential rate structure changes
  1. Large users, Crestone, and irrigation-only customers
  2. Evaluate fixed and volume-based revenue recovery for both water and wastewater (e.g., volume based sewer recovery)



# Discussion



# Ongoing Steps

- Refine capital projects and prioritization
- Pursue operational efficiency and O&M cost reductions
- Aggressively pursue low-interest loan and grants
- Renegotiate cost recovery with Crestone
- Phase 2 cost-of-service, rate design and tap fee study planned for 2021

# Thank you!

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