# Water & Wastewater Rates

Public Works Commission Meeting

June 9, 2022

Slides prepared by HF&H Consultants

# Presentation Outline

- Introduction
- Rate Study Timeline
- Wastewater Enterprise
  - Five-year Financial Model
  - Rate Structure Alternatives
- Water Enterprise
  - Five-year Financial Model
    - Capital spending alternatives

# Introduction

- Wastewater rates and rate structure were last studied more than 10 years ago
  - Wastewater rate study will explore alternative rate structures
- Water rates were last increased 1/1/2022
  - Avg. Single Family bill impact: $9.36 per bi-monthly bill
  - Avg. Multi Family bill impact: $1.72 per dwelling unit per bi-monthly bill
  - Avg. Commercial bill impact: $30.58 per bi-monthly bill
- Water rate structure (i.e., customer classes, number of tiers) was studied and revised during 2018 water rate study
  - Alternative rate structures will most likely not be necessary during this rate study

# Rate Study Timeline

| Dates | Action | Notes |
|---|---|---|
| 1/1/2022 | Last approved rate adjustment | |
| January-September 2022 | Rate Study Analysis | Meet with PW Liaison/PW Commission/ Ad-Hoc as-needed |
| Summer | City Council approval of noticing | |
| Summer | Mail Prop 218 Notice | |
| Summer-Fall | Community Outreach | Town Halls, Commission Tour, Special Interest Group Presentations, newspaper ads, backbone, website & bill calculator, social media, etc. |
| Fall | Public Hearing- Introduce Ordinance 1st reading | |
| Fall | Ordinance Adoption 2nd reading | Rates must be implemented at least 31 days after cc adoption |
| 1/1/2023 | New rate adjustment effective | |
| | | |

# Wastewater Enterprise

# Current Wastewater Rates

- Single Family & Multi Family
  - $87.38 per dwelling unit per bi-monthly billing period
- Non-Residential (Domestic Strength)
  - $34.20 per account per bi-monthly billing period
  - Plus: $4.74 per hcf (748 gallons) of actual water use
  - Average bill ~$631.00 per bi-monthly billing period
- Non-Residential (Excess Strength)
  - $34.20 per account per bi-monthly billing period
  - Plus: $7.08 per hcf (748 gallons) of actual water use
  - Average bill ~$926.00 per bi-monthly billing period

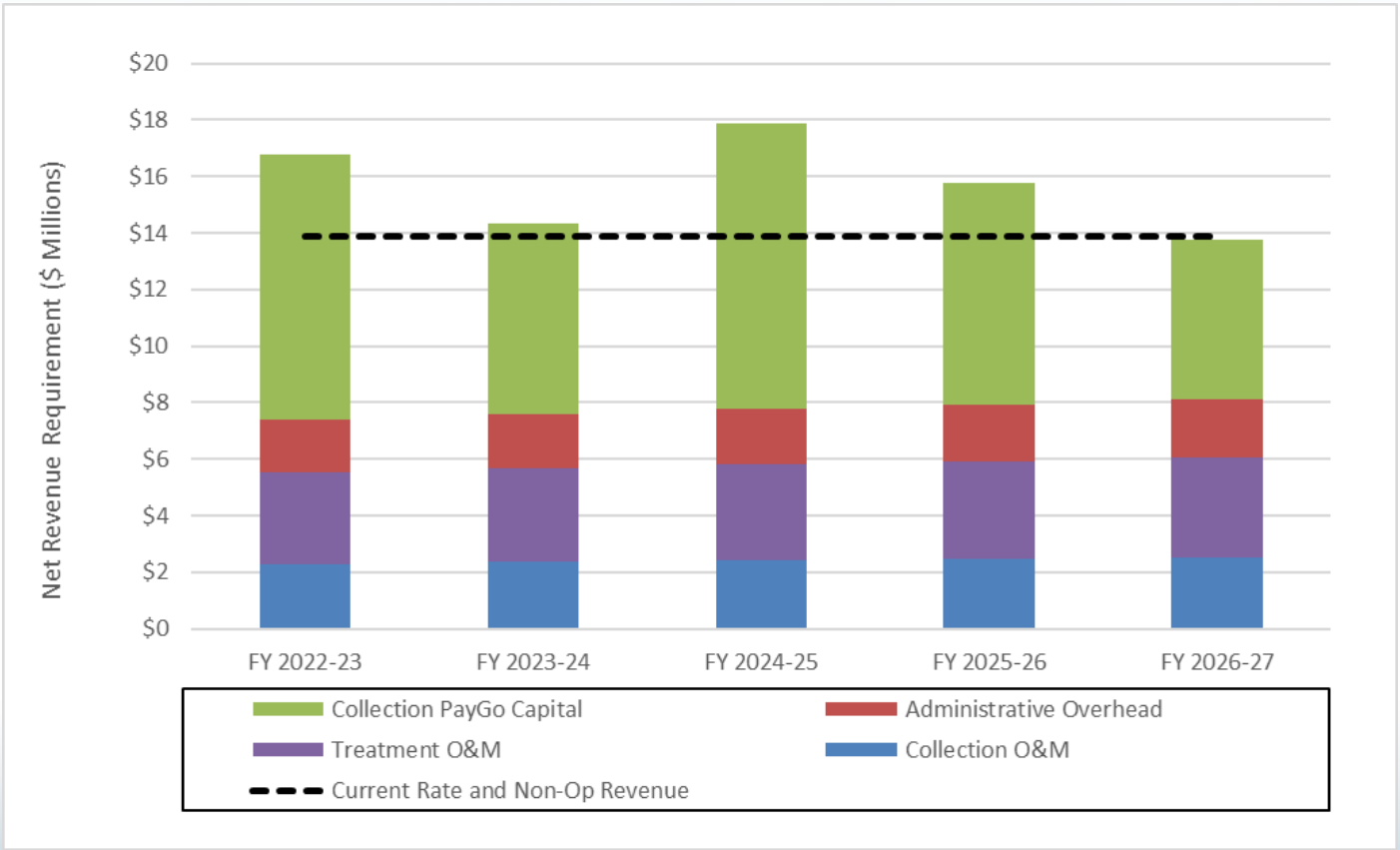
# Financial Projection Assumptions

| | Assumptions | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 |
|---|---|---|---|---|---|---|
| 1 | Personnel Services | Per Budget | 2.75% | 2.75% | 2.75% | 2.75% |
| 2 | Materials and Supplies | Per Budget | 3.00% | 2.00% | 2.00% | 2.00% |
| 3 | Contractual Services - BH Operations | Per Budget | 3.00% | 2.00% | 2.00% | 2.00% |
| 4 | Contractual Services - Treatment | Per Budget | 3.00% | 2.00% | 2.00% | 2.00% |
| 5 | Internal Service Charges | Per Budget | Per Budget | Per Budget | Per Budget | Per Budget |
| 6 | Other Expenses | Per Budget | 1.00% | 1.00% | 1.00% | 1.00% |
| 7 | Project Admin. and CIP Mgmt. Charges | Per Budget | 2.75% | 2.75% | 2.75% | 2.75% |
| 8 | % Increase in Revenue due to Growth | Per Budget | 0.00% | 0.00% | 0.00% | 0.00% |
| 9 | Construction Cost Inflation | 2.48% | 2.48% | 2.48% | 2.48% | 2.48% |
| 10 | Interest on Fund Balance | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| 11 | CIP Completion Factor | 100% | 100% | 100% | 100% | 100% |

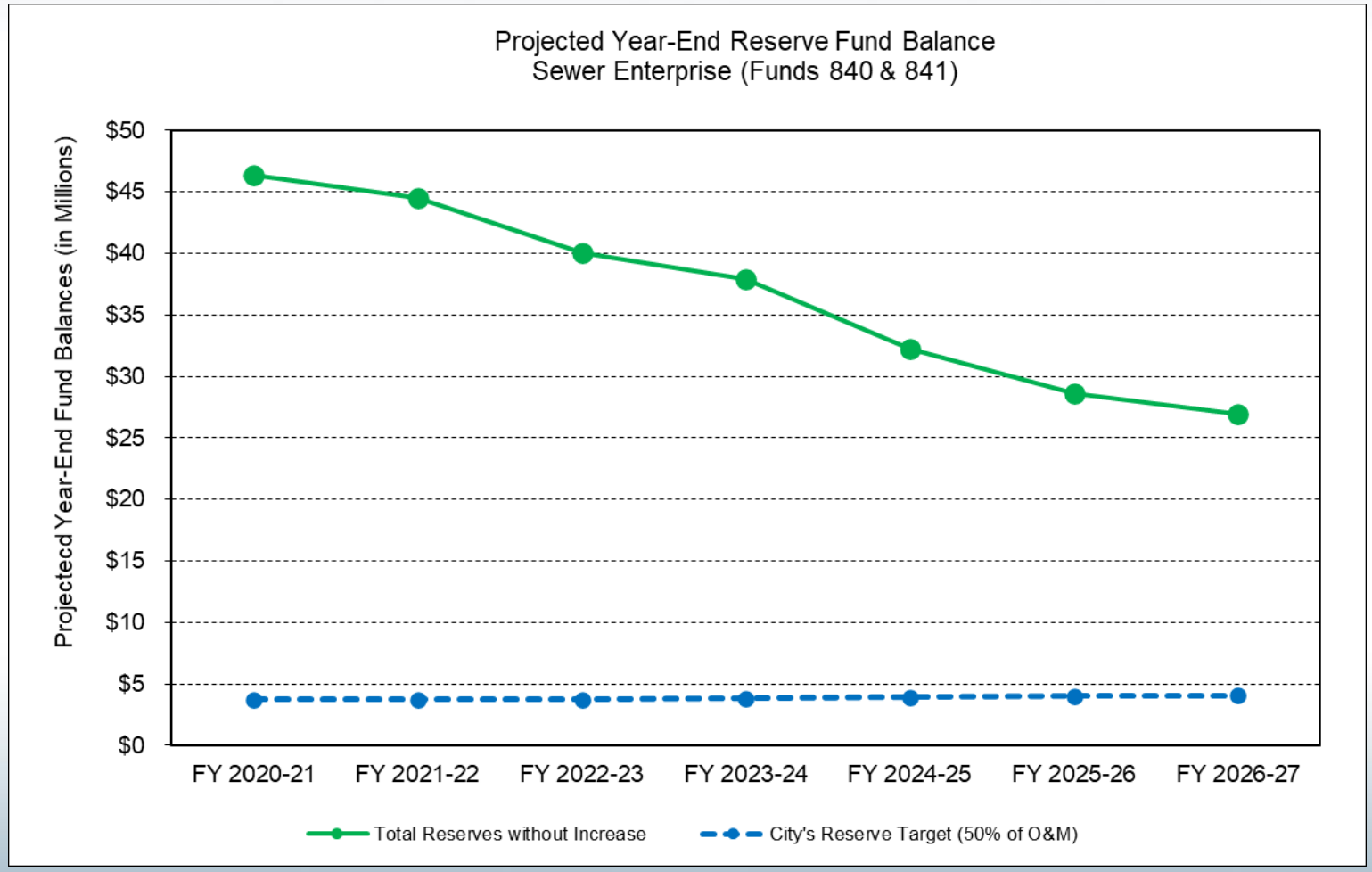
# Wastewater Capital Projects

| | | Projected | | | | | 5-Year |
|---|---|---|---|---|---|---|---|
| | | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 | SUBTOTAL |
| 3 | Capital Projects | | | | | | |
| 4 | Sewer System Repairs | $1,807,900 | $1,807,900 | $1,865,000 | $1,500,000 | $2,500,000 | $9,480,800 |
| 5 | Hyperion Plant - Capital Component | $2,048,700 | $1,383,200 | $1,795,100 | $2,383,000 | $2,502,200 | $10,112,200 |
| 6 | Public Works Asset Management System | $50,000 | $12,500 | $10,000 | $10,000 | $10,000 | $92,500 |
| 7 | CIP Carryover | $5,236,574 | $3,236,574 | $5,236,574 | $3,236,574 | $0 | $16,946,296 |
| 8 | Total CIP | $9,143,174 | $6,440,174 | $8,906,674 | $7,129,574 | $5,012,200 | $36,631,796 |
| 9 | Construction Cost Index | 1.025 | 1.050 | 1.076 | 1.103 | 1.130 | |
| 10 | Total Inflated CIP | $9,369,807 | $6,763,398 | $9,585,539 | $7,863,180 | $5,664,958 | $39,246,883 |
| 11 | CIP Rate Setting Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| 12 | **CIP for Rate Setting Purposes** | **$9,369,807** | **$6,763,398** | **$9,585,539** | **$7,863,180** | **$5,664,958** | **$39,246,883** |
| 13 | | | | | ***5-year Average CIP*** | | ***$7,849,377*** |

# Cost and Revenue Projections



# Projected Fund Balance



# Restructure Wastewater Rates?

- Objectives
  - Rate Payer Equity
  - Revenue Stability
  - Encourage Conservation
  - Ease Implementation/Administration
- Currently, all Residential customers pay the same $87.38 per bi-monthly bill regardless of water use
  - Winter water use (a proxy for indoor, sewered water use) is typically lower for multi family dwelling units and varies widely among single family customers
  - A household of one pays the same as a household of six
- Current Residential rate structure does not reward conservation
  - When customers use less water, their bill remains the same

# Restructure Wastewater Rates?

| Option 1<br>Existing<br>Structure | Option 2<br>Fixed and<br>Volumetric | Option 3<br>Volumetric<br>All |
|---|---|---|
| **Fixed Charge Per Dwelling Unit** | | |
| Residential<br><br>Single Family and Multi Family | Single Family | |
| | Multi Family | |
| Commercial | Commercial | |
| **Volumetric Rates For Individual Customers** | | |
| Commercial | Single Family [a]<br>(w/o irrigation meter) | Single Family [a]<br>(w/o irrigation meter) |
| | Single Family [b]<br>(w/ irrigation meter) | Single Family [b]<br>(w/ irrigation meter) |
| | Multi Family | Multi Family |
| | Commercial | Commercial |

[a] Flow based on estimated annual sewered flow.

[b] Flow based on metered indoor water use.

Caps for maximum flow may apply.

# Restructure Wastewater Rates?

| Rate-Making Objectives | Option 1 Existing Structure | Option 2 Fixed and Volumetric | Option 3 Volumetric All |
|---|---|---|---|
| **Ability to Achieve Rate-Making Objectives** | | | |
| **Revenue stability** | | | |
| Single Family | ★★★★ | ★★★ | ★★ |
| Multi Family | ★★★★ | ★★★ | ★★ |
| Commercial | ★★★ | ★★★ | ★★ |
| **Rate payer equity** | | | |
| Single Family | ★ | ★★★★ | ★★★ |
| Multi Family | ★ | ★★★★ | ★★★ |
| Commercial | ★★★★ | ★★★★ | ★★★ |
| **Encourages Conservation** | | | |
| Single Family | ★ | ★★★ ½ | ★★★★ |
| Multi Family | ★ | ★★★ ½ | ★★★★ |
| Commercial | ★★★★ | ★★★ ½ | ★★★★ |
| **Implementation/Administration** | | | |
| Single Family | ★★★ | ★ ½ | ★ ½ |
| Multi Family | ★★★ | ★★ | ★★ |
| Commercial | ★★ | ★★ | ★★ |

# Water Enterprise

# Current Water Rates

| Service Size | Current Charge |
|---|---|
| **Fixed Service Charges** | |
| 1" | $53.51 |
| 1-1/2" | $93.84 |
| 2" | $142.24 |
| 3" | $271.30 |
| 4" | $416.50 |
| 6" | $819.82 |
| 8" | $1,311.71 |
| 10" | $1,967.57 |
| **Fire Service Charges** | |
| <= 2" | $ 29.73 |
| 2 1/2" | $ 44.32 |
| 3" | $ 64.56 |
| 4" | $ 124.69 |
| 6" | $ 340.52 |
| 8" | $ 712.74 |
| 10" | $ 1,272.63 |
| 12" | $ 1,654.42 |

| Current Quantity Charge Rates | | |
|---|---|---|
| | Tier Size | $/HCF |
| **Inside City** | | |
| Single-Family/Duplex | | |
| Tier 1 | 0-26 HCF | $3.54 |
| Tier 2 | 27-48 HCF | $6.91 |
| Tier 3 | 49-86 HCF | $10.17 |
| Tier 4 | 86+ HCF | $14.44 |
| Multi-Family | | |
| Tier 1 | 0-8 HCF | $4.52 |
| Tier 2 | 9+ HCF | $12.92 |
| Commercial | | $7.03 |
| **Outside City** | | |
| Single-Family/Duplex | | |
| Tier 1 | 0-26 HCF | $4.41 |
| Tier 2 | 27-48 HCF | $7.78 |
| Tier 3 | 49-86 HCF | $11.03 |
| Tier 4 | 86+ HCF | $15.31 |
| Multi-Family | | |
| Tier 1 | 0-8 HCF | $5.39 |
| Tier 2 | 9+ HCF | $13.78 |
| Commercial | | $7.90 |

**Average Bi-Monthly Bills** at Current Rates (Inside City)

- Single-Family/Duplex: $263.02
- Multi-Family (3+ dwelling units): $415.11 (10 dwelling units)
- Commercial/Municipal $840.87

# Financial Projection Assumptions

| | Assumptions | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 |
|---|---|---|---|---|---|---|
| 1 | Salaries and Benefits | City Budget | 2.8% | 2.8% | 2.8% | 2.8% |
| 2 | Materials and Supplies | City Budget | 5.0% | 5.0% | 5.0% | 5.0% |
| 3 | Contractual Services | City Budget | 3.0% | 2.0% | 2.0% | 2.0% |
| 4 | Internal Service Charges | City Budget | City Budget | City Budget | City Budget | City Budget |
| 5 | Purchased Water - from MWD | City Budget | -5.8% | 3.2% | 3.2% | 3.2% |
| 6 | Miscellaneous Expenses | City Budget | 1.0% | 1.0% | 1.0% | 1.0% |
| 7 | Project Admin. and CIP Mgmt. Charges | City Budget | 2.8% | 2.8% | 2.8% | 2.8% |
| 8 | Capital Outlay | City Budget | 1.0% | 1.0% | 1.0% | 1.0% |
| 9 | Non-Operating Revenues | City Budget | 1.0% | 1.0% | 1.0% | 1.0% |
| 10 | Construction Cost Inflation | 2.48% | 2.48% | 2.48% | 2.48% | 2.48% |
| 11 | Interest on Fund Balance | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| 12 | CIP Completion Factor | 80% | 80% | 80% | 80% | 80% |

# Water Purchase/Sales Assumptions

| | | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 |
|---|---|---|---|---|---|---|---|
| 1 | Total Water Demand (AF) | 9,641 | 9,641 | 9,641 | 9,641 | 9,641 | 9,641 |
| 2 | Growth in Demand | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Change in Demand due to Drought | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | (Less) Local Supply from Groundwater (AF) | 0 | (1,446) | (2,410) | (2,410) | (2,410) | (2,410) |
| 5 | Subtotal MWD Purchased Water (AF) | 9,641 | 8,195 | 7,231 | 7,231 | 7,231 | 7,231 |
| 6 | MWD Tier 1 Rate[1] | $1,124 | $1,176 | $1,233 | $1,271 | $1,311 | $1,353 |
| 7 | MWD Tier 2 Rate[1] (Vol > Tier 1 Allocation) | $1,185 | $1,302 | $1,437 | $1,464 | $1,492 | $1,520 |
| 8 | MWD Tier 1[1] Allocation | 13,380 | 13,380 | 13,380 | 13,380 | 13,380 | 13,380 |
| 9 | MWD Total[1] Cost Readiness-To-Serve Charge | $135,000,000 | $147,000,000 | $160,500,000 | $163,000,000 | $165,500,000 | $168,000,000 |
| 10 | BH RTS share of usage[1] | 0.72% | 0.73% | 0.73% | 0.73% | 0.73% | 0.73% |
| 11 | MWD Capacity Charge/CFS[1] | $11,450 | $11,400 | $10,900 | $11,996 | $13,203 | $14,531 |
| 12 | Peak Day Demand (estimated) (CFS) | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 |
| 13 | MWD Purchased Water Losses[2] | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| 14 | Local Supply from Groundwater (% of Total) | 0.0% | 15.0% | 25.0% | 25.0% | 25.0% | 25.0% |

Note: All rates listed for each fiscal year are the average of the calendar year rates published by MWD.

[1]MWD calendar year rates available through CY 2024.

[2]Losses provided in the Beverly Hills 2020 Urban Water Management Plan.

Tier 1 rates, Tier 2 rates, MWD Capacity Charges beyond FY 2023-24 were estimated using the average annual increase between CY 2018 and CY 2022 rates.

Readiness-To-Serve Charge assumed to increased by $2.5 million per fiscal year.

# Water CIP Options

| Water Capital Project Schedule Options | | Revenue Increases Recommended | | | | |
|---|---|---|---|---|---|---|
| | | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 |
| Option 1 | Cabrillo Forebay and 3 RMS | $357,105 | $1,078,457 | $1,814,235 | $2,564,730 | $3,330,234 |
| Option 2 | Cabrillo 4 MG and 3 RMS | $1,071,315 | $2,174,768 | $3,311,326 | $4,286,871 | $5,286,805 |
| Option 3 | Cabrillo Forebay, 3 RMS, 4C Options | $892,762 | $1,624,827 | $2,371,533 | $3,133,174 | $3,910,047 |

| Water Capital Project Schedule Options | | Total | Variance to Option 1 |
|---|---|---|---|
| Option 1 | Cabrillo Forebay and 3 RMS | $9,144,761 | $0 |
| Option 2 | Cabrillo 4 MG and 3 RMS | $16,131,085 | $6,986,325 |
| Option 3 | Cabrillo Forebay, 3 RMS, 4C Options | $11,932,342 | $2,787,582 |

# Water Capital Projects – Option 1

| | Capital Improvement Projects | Projected FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 | FY 2026-27 | 5 -Year SUBTOTAL |
|---|---|---|---|---|---|---|---|
| 1 | Street And Sidewalk Improvements | $275,000 | $400,000 | $400,000 | $400,000 | $400,000 | $1,875,000 |
| 2 | Well Rehab And Groundwater Development | $500,000 | $750,000 | $775,000 | $775,000 | $875,000 | $3,675,000 |
| 3 | Water Conservation Program | $10,000 | $10,000 | $10,500 | $0 | $10,500 | $41,000 |
| 4 | Water Main And Hydrant Replacement | $3,000,000 | $3,000,000 | $3,500,000 | $3,500,000 | $4,000,000 | $17,000,000 |
| 5 | Water Master Plan | $0 | $0 | $0 | $1,000,000 | $0 | $1,000,000 |
| 6 | Water Meter Replacement | $3,232,605 | $3,232,605 | $3,232,605 | $500,000 | $500,000 | $10,697,815 |
| 7 | Water Treatment Replacement And Repair | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 | $1,250,000 |
| 8 | Reservoir Replacement & Pump Station Rehab | $675,000 | $675,000 | $695,250 | $700,000 | $700,000 | $3,445,250 |
| 9 | Public Works Asset Management System | $0 | $12,500 | $10,000 | $10,000 | $10,000 | $42,500 |
| 10 | System-Wide Water Capacity Upgrades | $1,750,000 | $1,750,000 | $750,000 | $500,000 | $500,000 | $5,250,000 |
| 11 | La Brea Basin Well Development (WEP) | $0 | $0 | $0 | $6,500,000 | $5,000,000 | $11,500,000 |
| 12 | Cabrillo Reservoir Project | $2,000,000 | $2,000,000 | $1,000,000 | $0 | $0 | $5,000,000 |
| 13 | Subtotal | $11,692,605 | $12,080,105 | $10,623,355 | $14,135,000 | $12,245,500 | $60,776,565 |
| 14 | Construction Cost Index | 1.025 | 1.050 | 1.076 | 1.103 | 1.130 | |
| 15 | % of Adjusted CIP Expenditures | 80% | 80% | 80% | 80% | 80% | 80% |
| 16 | **Modeled Inflated Total CIP Expenditures** | **$9,585,945** | **$10,149,112** | **$9,146,452** | **$12,471,551** | **$11,072,223** | **$52,425,283** |
| 17 | | | | | ***5-year average CIP*** | | ***$10,485,057*** |

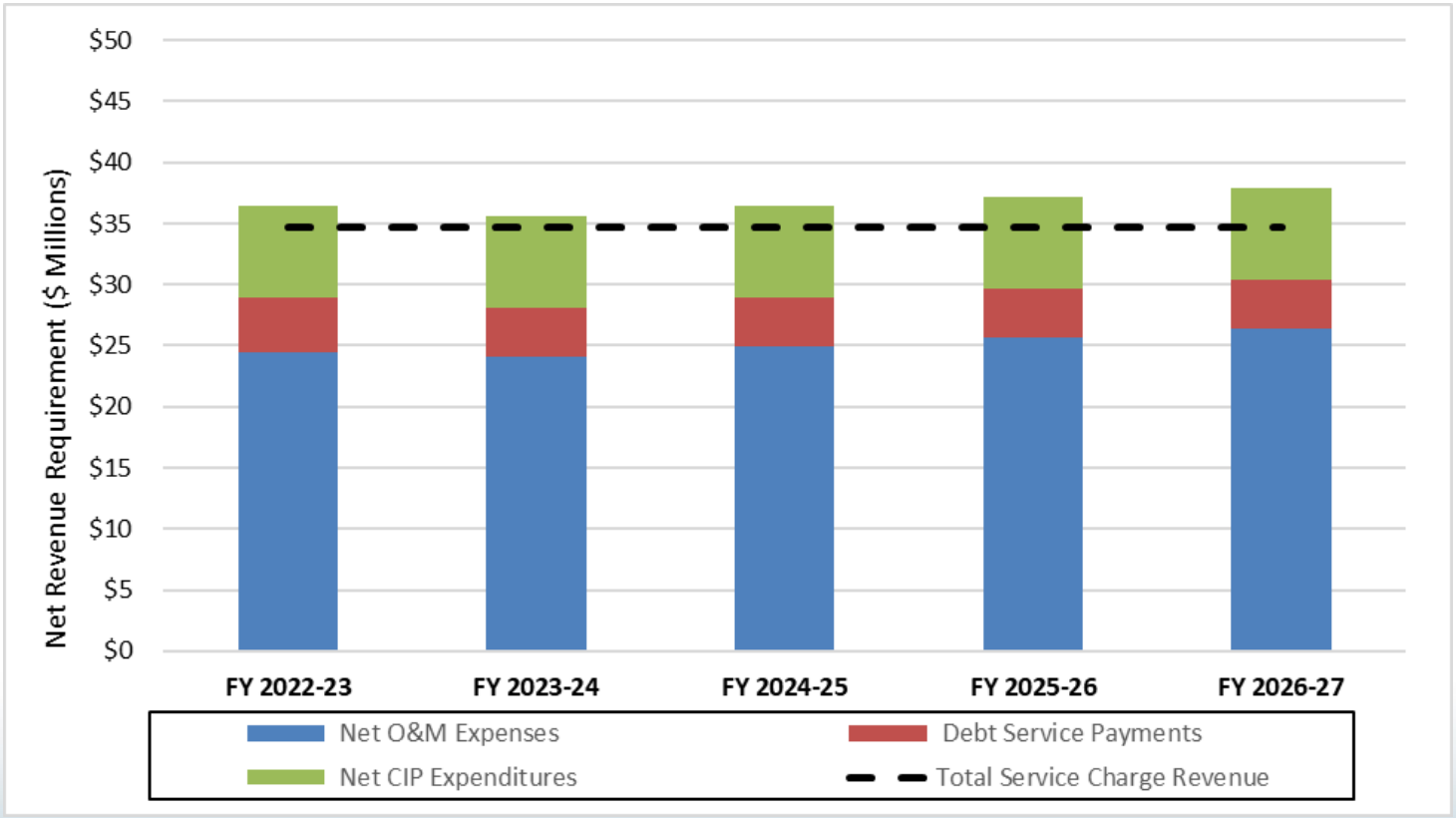
# Water CIP Options

| | Water Capital Project Schedule Options | Option 1 | Option 2 | Option 3 |
|---|---|---|---|---|
| 1 | Cabrillo Reservoir Project[1] | $4,180,937 | **$21,270,460** | $4,180,937 |
| 2 | Reservoir Repl. & Pump Station Rehab Project[1] | $2,969,633 | $2,969,633 | **$9,508,941** |
| 3 | All Other Capital Projects[1] | $45,274,713 | $45,274,713 | $45,274,713 |
| 4 | **Total 5-Year CIP Spending[1]** | **$52,425,283** | **$69,514,806** | **$58,964,591** |
| 5 | | | | |
| 6 | Average Increase to Bi-Monthly Bill Received each Year | | | |
| 7 | Single-Family/Duplex | $5.64 | $15.19 | $11.35 |
| 8 | Multi-Family[2] | $44.98 | $66.37 | $58.00 |
| 9 | Commercial/Municipal | $36.35 | $70.53 | $57.19 |

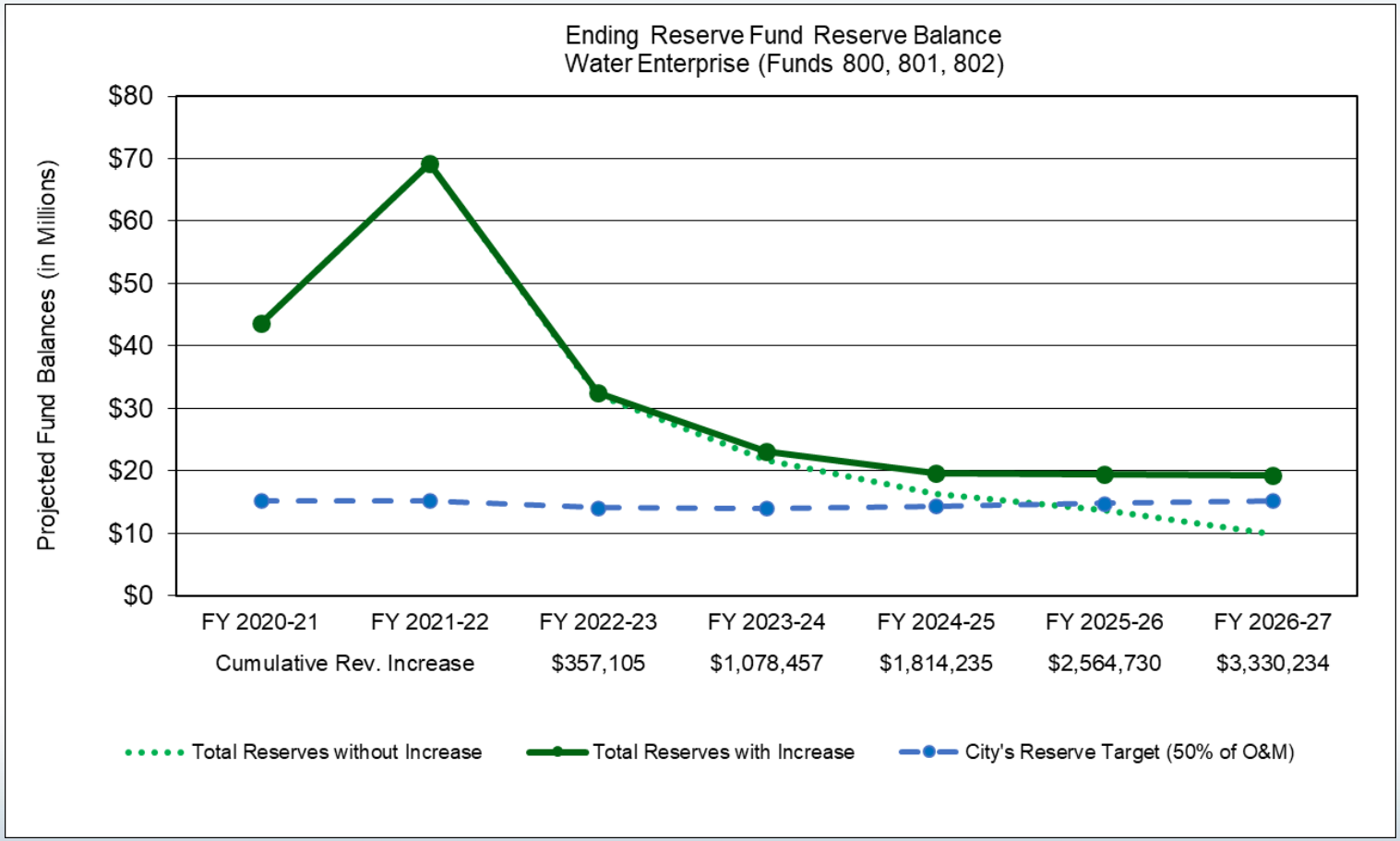
[1]All CIP Figures are escalated and assume CIP Completion Factor of 80% due to project timing.

[2]Multi-Family bill impact assume a 10-unit complex.

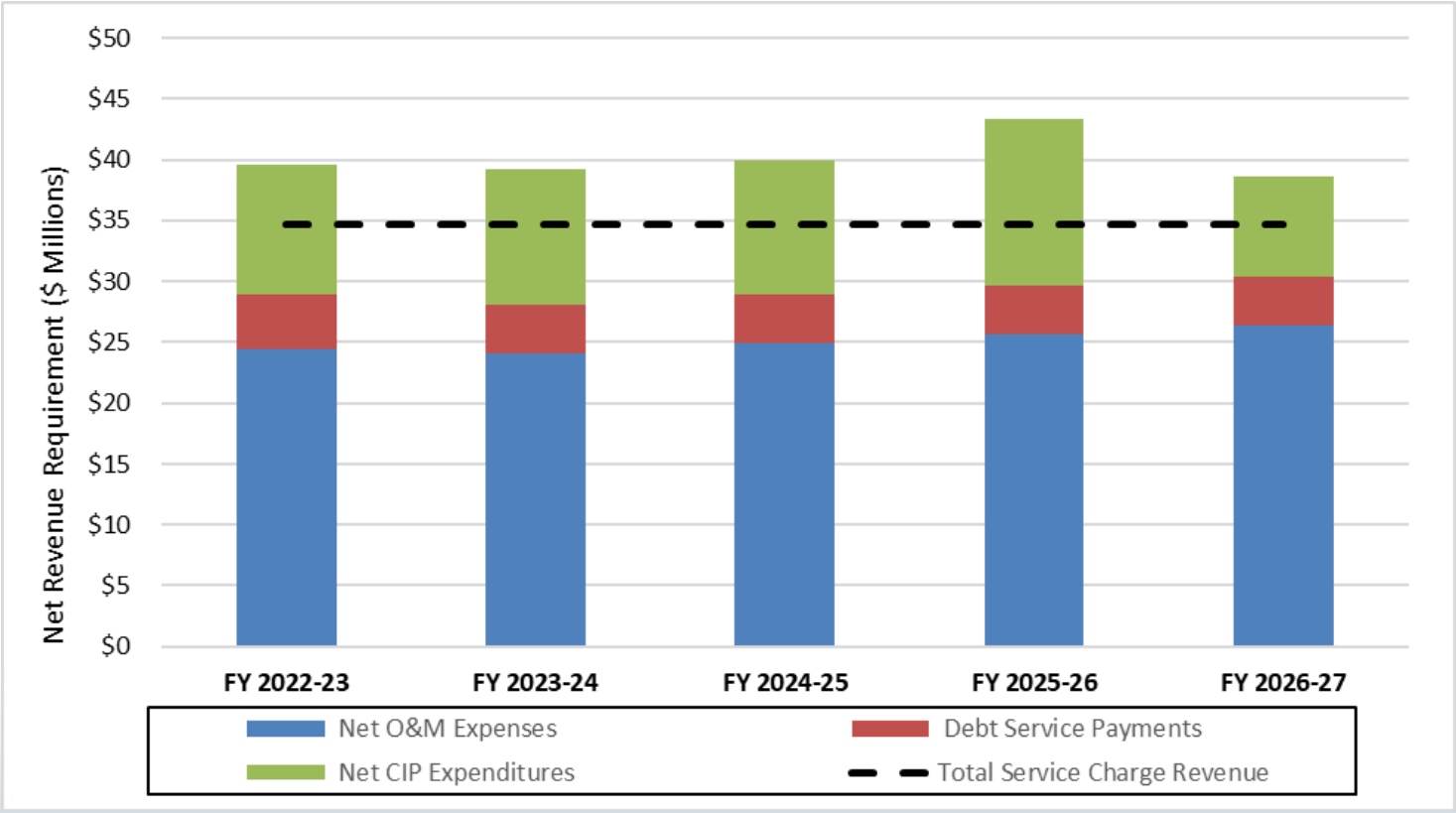
# Revenue Requirement – CIP #1



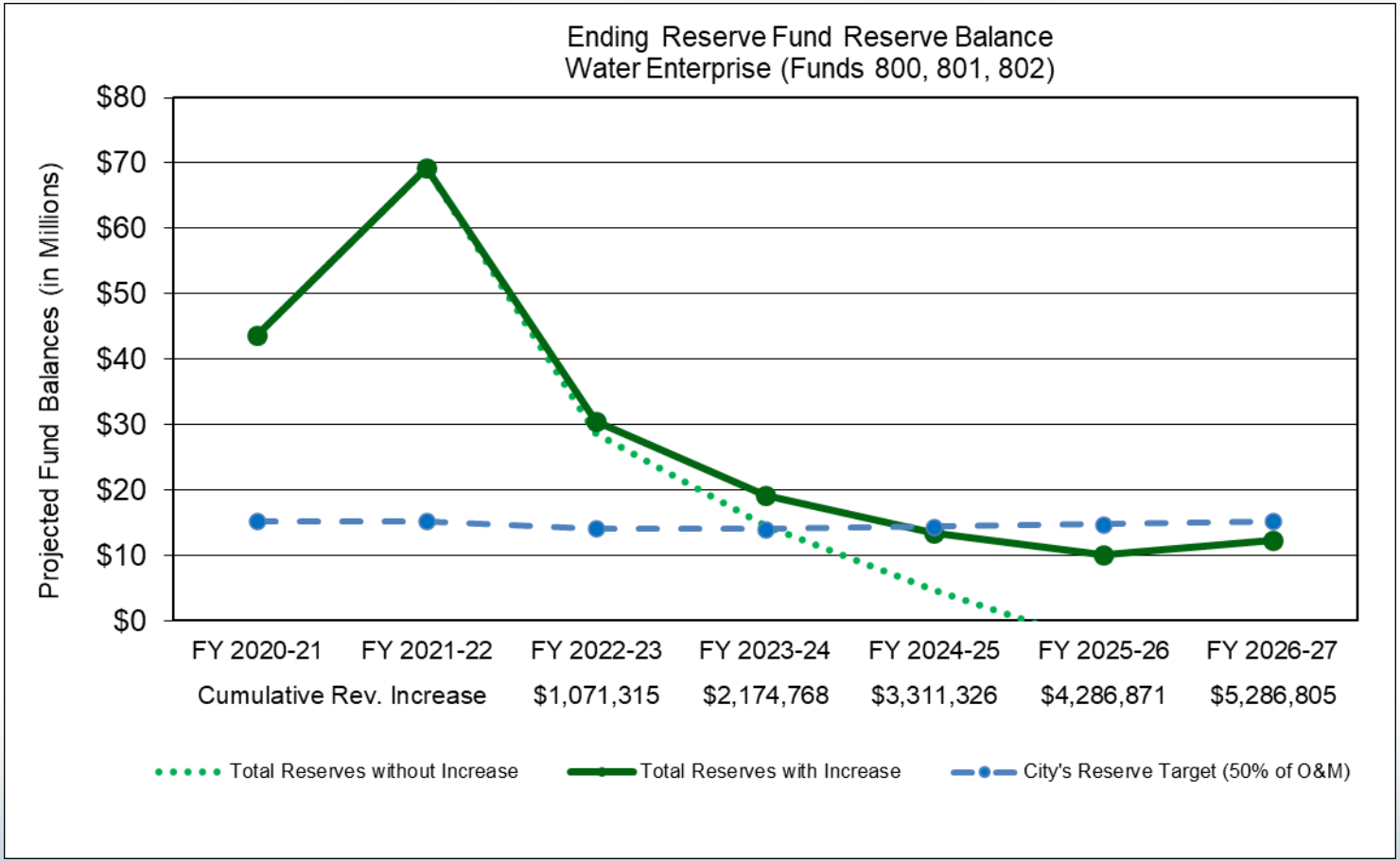
# Projected Fund Balance – CIP #1



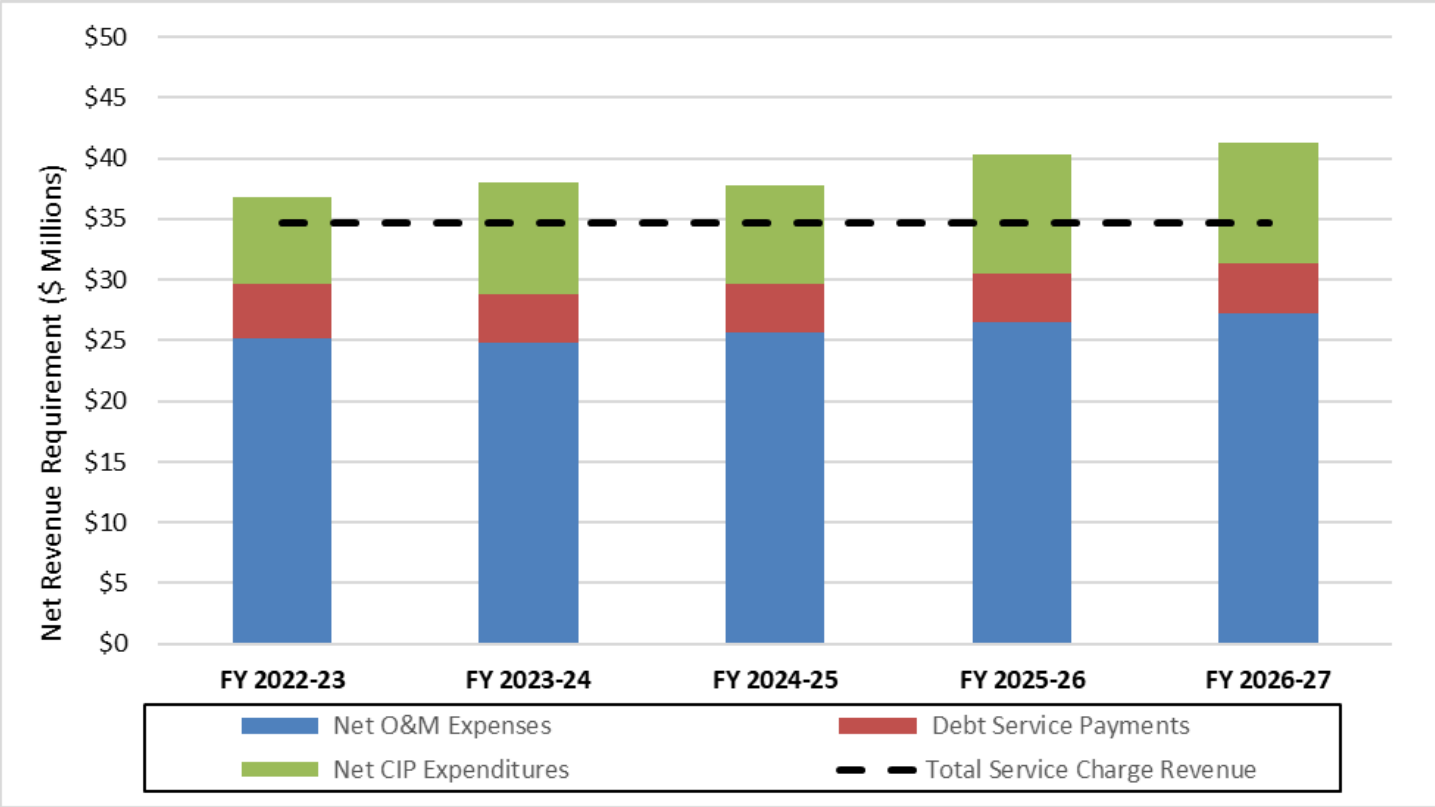
# Revenue Requirement – CIP #2



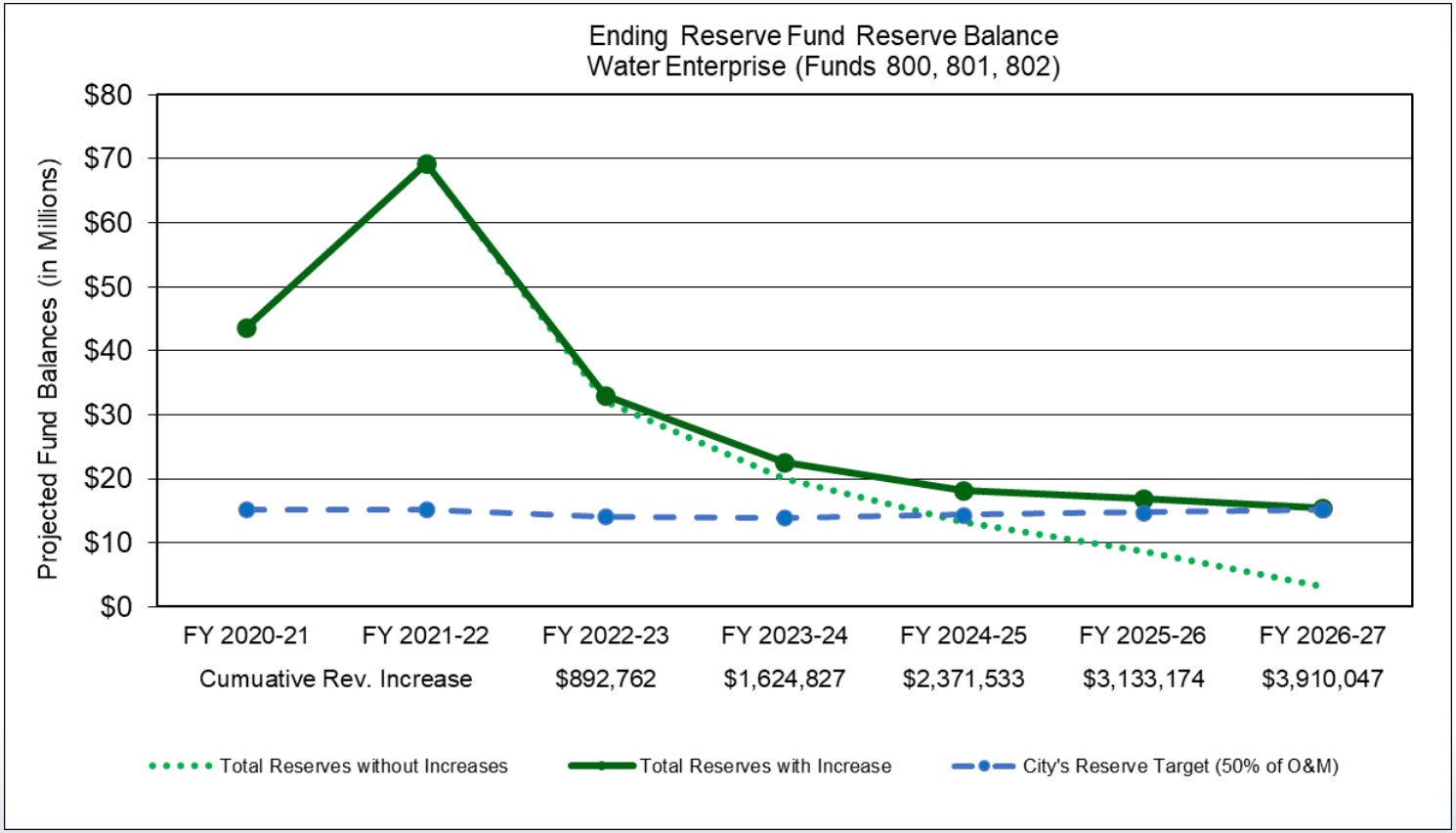
# Projected Fund Balance – CIP #2



# Revenue Requirement – CIP #3



# Projected Fund Balance – CIP #3



# Service Charge Policies

| | Revenue from service charges |
|---|---|
| Options | - Maintain current balance (16% from fixed service plus fire service charges and 84% from variable quantity charges)<br>- Increase or decrease portion of revenue from fixed service charges |
| Recommendation | - Maintain current balance |
| Rationale | - Revenue from fixed service charges plus revenue from non-seasonal quantity charges comes close to matching fixed costs, which provides reasonable revenue stability<br>- Increasing the revenue from fixed charges will weaken the incentive to conserve or deterrent to wastewater<br>- Increasing the fixed charges worsens affordability for low-use customers<br>- There are other tools to improve revenue stability |
| Outcomes | - Customer bills will be responsive to changes in demand |

# Questions

- Which wastewater rate structure seems to meet our goals the best?
- Regarding the CIP scenarios for Water, is there another scenario you would like us to consider instead of the scenarios presented?
- Regarding the water fixed charge and ratio to variable, should we maintain the current balance?

# END OF PRESENTATION