Muskegon County Regional Water System

Water Policy Board

Water Rate Analysis

Summary Presentation

October 1, 2025

Project Team

- Municipal Analytics *(Lead Consultant)*
  - Michigan-based consultants focused on municipal financial analysis
  - Over 30 years of municipal consulting experience, including rate setting
- Muniworth *(software & support)*
  - Financial forecasting
  - Capital funding analysis
  - Rate calculations
- Spicer Group *(Engineering support)*
  - Michigan-based professional engineers
  - Asset & capital replacement analysis & costing

Muniworth

- Continuous Utility Rate Management and Forecasting
- Financial model
  - Historical and forecasted revenues and operating expenses
  - Capital improvement plan
  - Long-term asset replacement estimates
  - Debt financing paid from rates
  - Cash reserve targets
  - Required annual increases in revenues from rates
- Rate scenarios
  - Tested multiple capital investment and debt funding strategies

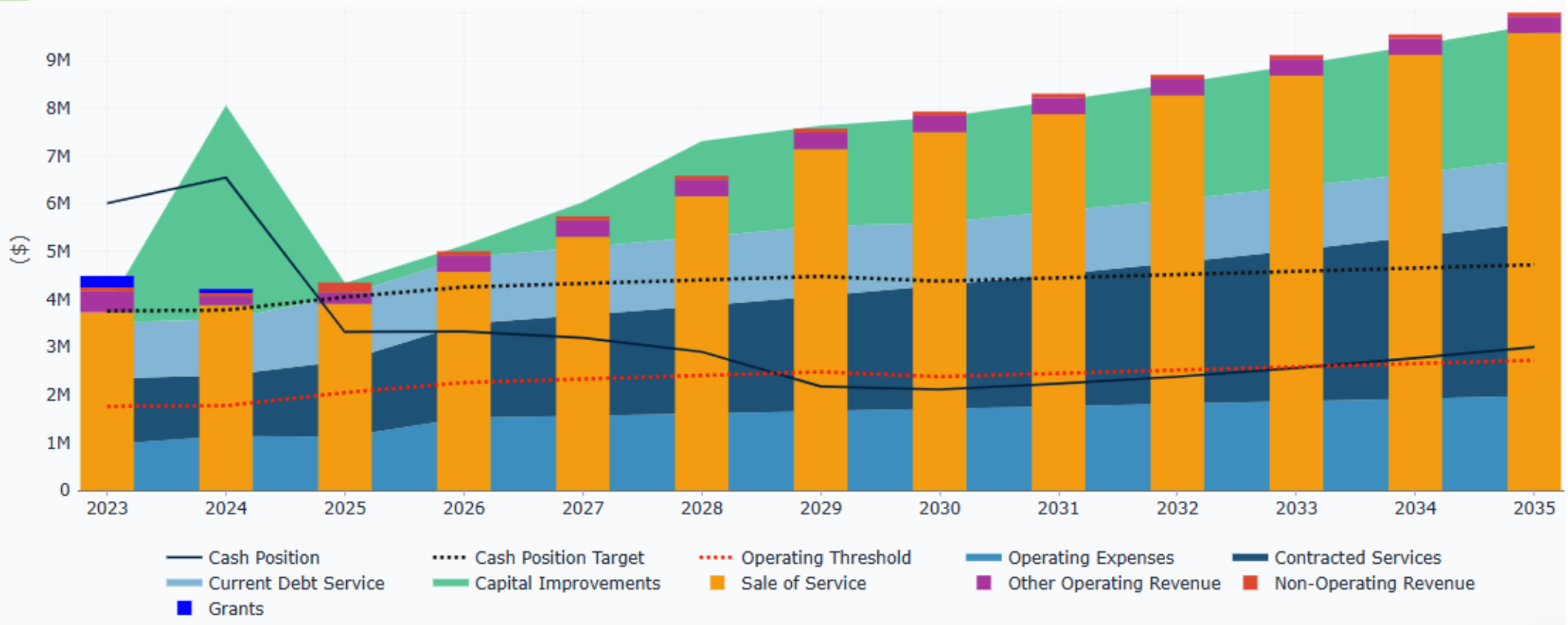
Project Goals & Objectives

- Develop a financial model to forecast expenses and revenues required from rates
  - Inflationary operating cost increases (7% wholesale; 3% other expenses)
  - Debt service (current actual and forecasted)
  - Capital investments required to maintain systems in safe working condition
    - Focus on replacing 6” cast iron mains; other capital investments as needs arise
- Estimate rates required to fund all operations, maintenance, capital and debt service needs of the water fund
  - Tested multiple scenarios
- Develop new connection charge strategy based on meter size equivalents
- Ordinance review and recommended changes

Capital Plan Scenarios

- Evaluated 10-year capital investment strategies ranging from $18M to $51M
  - Primary focus assumed to be replacement of about 17.65 miles of 6” cast iron mains
  - Other projects include Giles pump station improvements, Quarterline tank upgrades, some water meter replacement, PLC upgrades
  - Current CIP through 2027; different funding levels beginning 2028
- Explored all cash, all debt, and combinations of cash and debt funding
- Seven scenarios illustrate the range of options available
  - Initial rate increases range from 10% to 25%
  - Only one scenario would achieve full replacement of all 6” cast iron in 10 yrs

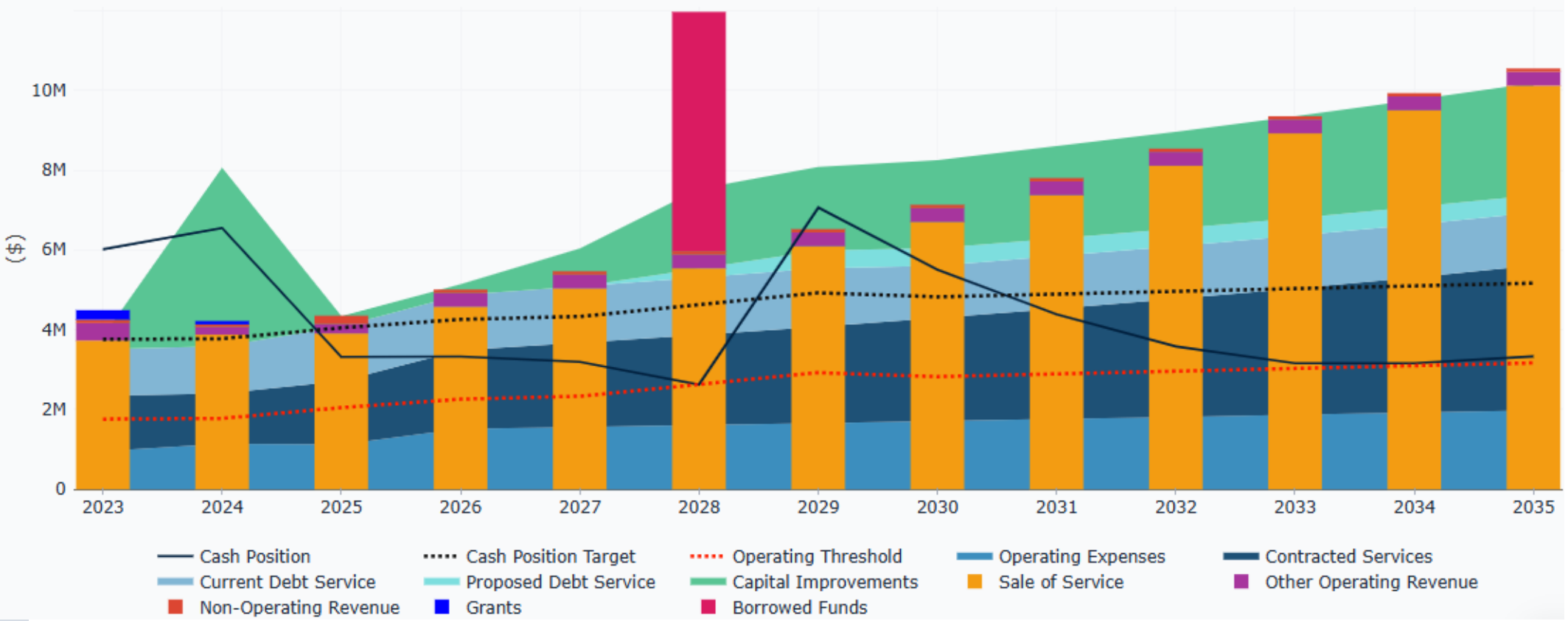
Scenario 1a:
$2.0M per year capital investment; all cash



FY:	Increase
2025-26	16.0%
2026-27	16.0%
2027-28	16.0%
2028-29	16.0%
2029-30	5.0%
2030-31	5.0%
2031-32	5.0%
2032-33	5.0%
2033-34	5.0%
2034-35	5.0%
Cummu-lative	143%

- $20.3M total capital investment; 8 miles of 6” main replaced
- No new debt

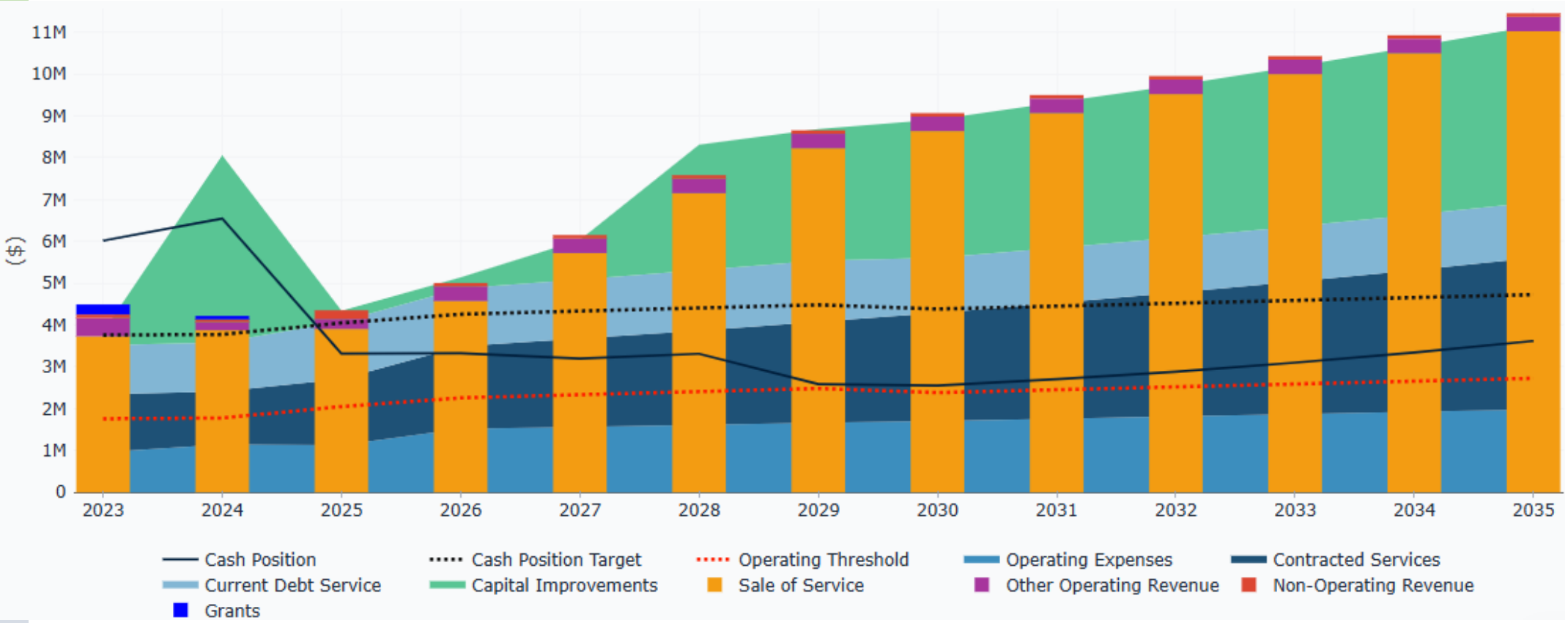
Scenario 1b:
$2.0M per year capital investment; $6M debt



FY:	Increase
2025-26	10.0%
2026-27	10.0%
2027-28	10.0%
2028-29	10.0%
2029-30	10.0%
2030-31	10.0%
2031-32	10.0%
2032-33	10.0%
2033-34	6.5%
2034-35	6.5%
Cummu-lative	143%

- $20.3M total capital investment; 8 miles of 6” main replaced
- 3 years of capital debt financed to reduce impact on rate requirements

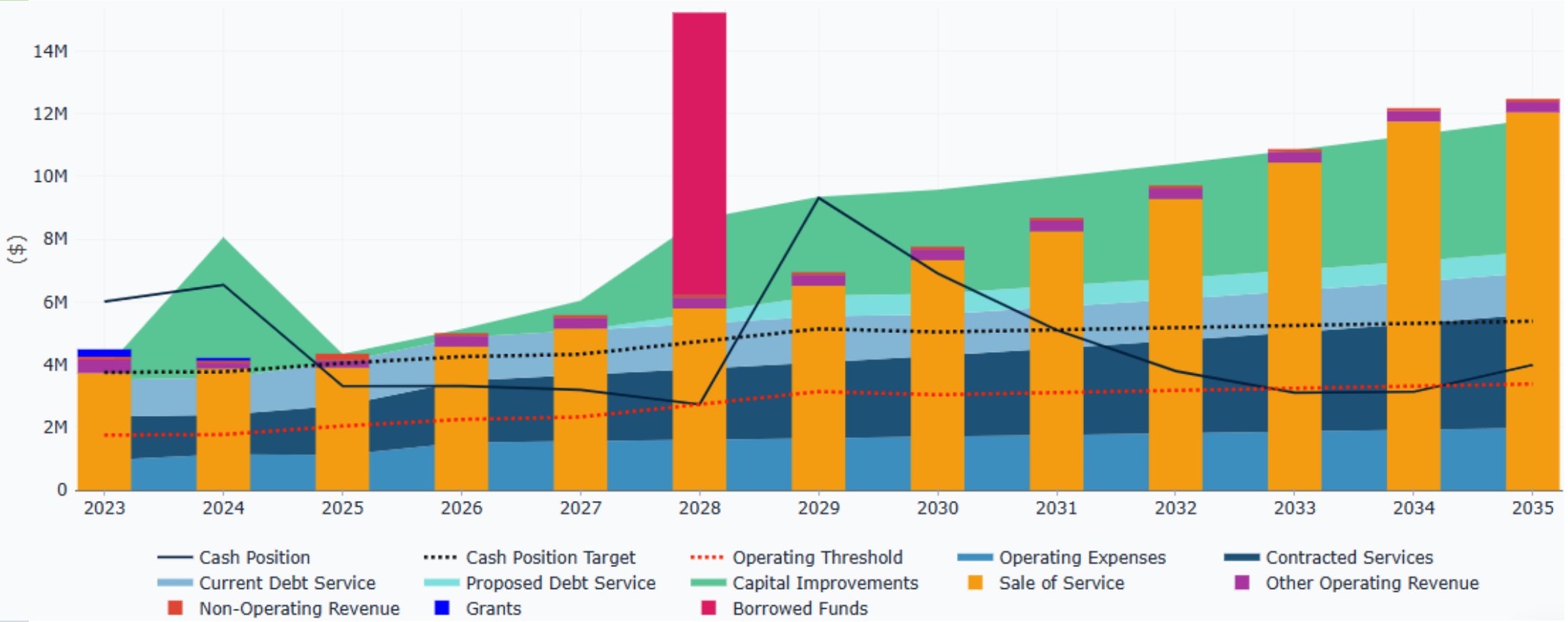
Scenario 2a:
$3.0M per year capital investment; all cash



FY:	Increase
2025-26	25.0%
2026-27	25.0%
2027-28	25.0%
2028-29	15.0%
2029-30	5.0%
2030-31	5.0%
2031-32	5.0%
2032-33	5.0%
2033-34	5.0%
2034-35	5.0%
Cummu-lative	201%

- $29.8M total capital investment; 12 miles of 6” main replaced
- No new debt

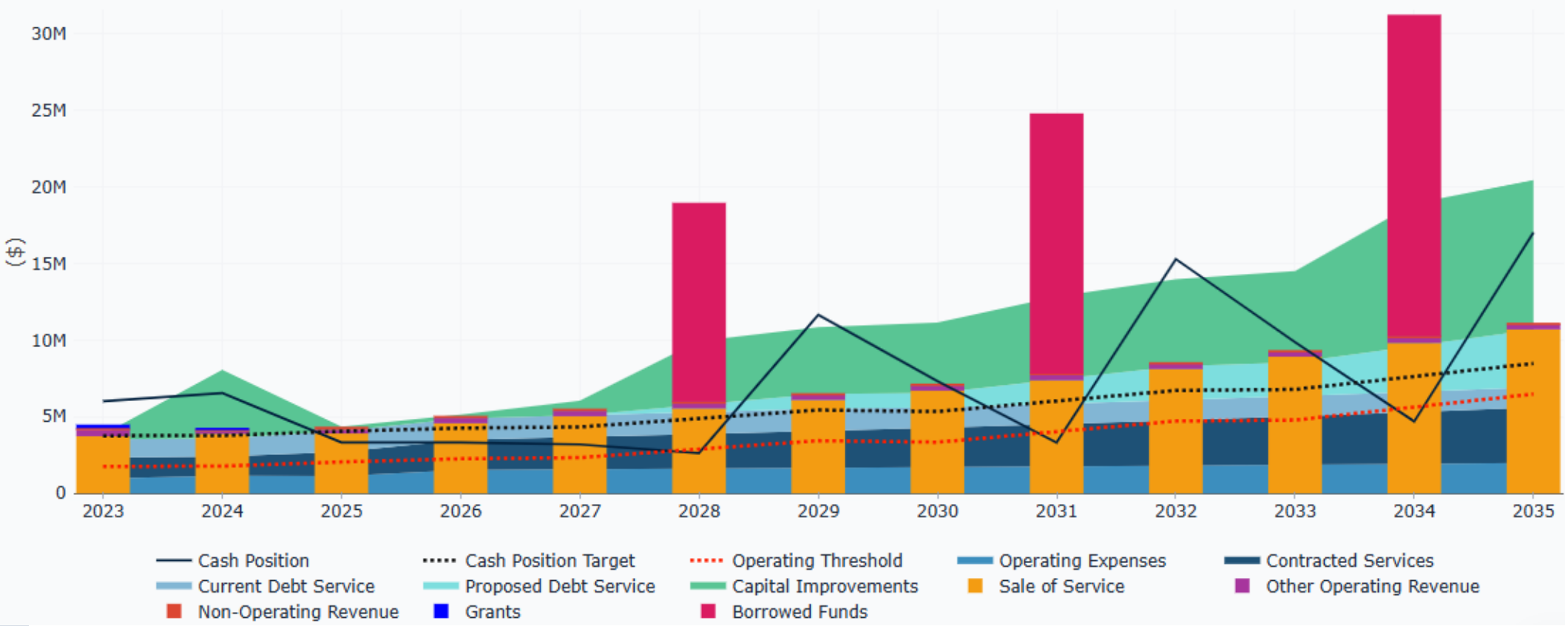
Scenario 2b:
$3.0M per year capital investment; $9M debt



FY:	Increase
2025-26	12.5%
2026-27	12.5%
2027-28	12.5%
2028-29	12.5%
2029-30	12.5%
2030-31	12.5%
2031-32	12.5%
2032-33	12.5%
2033-34	12.5%
2034-35	2.5%
Cummu-lative	196%

- $29.8M total capital investment; 12 miles of 6” main replaced
- $9M new debt to fund 3 years of capital and reduce impact on rates

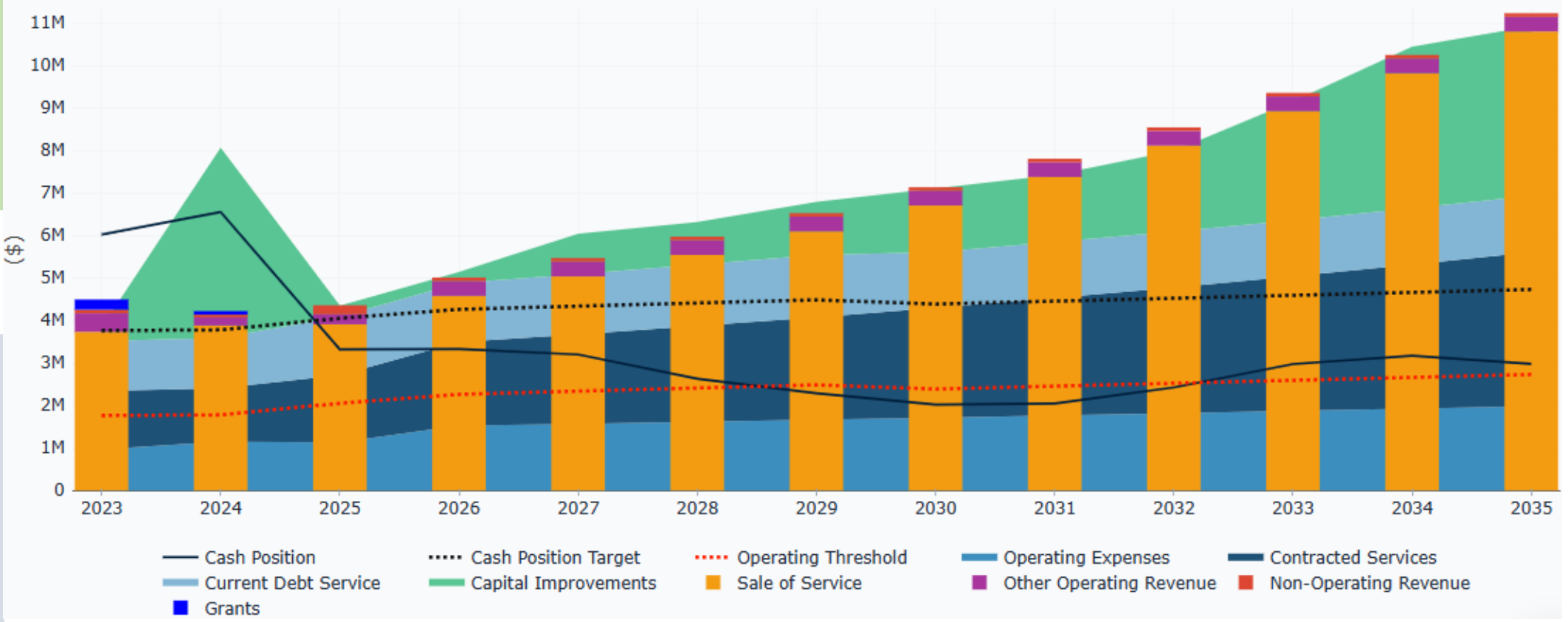
Scenario 3:
$50M, 10-year capital investment; all debt



FY:	Increase
2025-26	10.0%
2026-27	10.0%
2027-28	10.0%
2028-29	10.0%
2029-30	10.0%
2030-31	10.0%
2031-32	10.0%
2032-33	10.0%
2033-34	10.0%
2034-35	9.0%
Cummu-lative	157%

- $50.4M total capital investment; all 6” main replaced; $6M other capital needs
- $51M new debt over 8 years; debt service costs close to annual operating costs

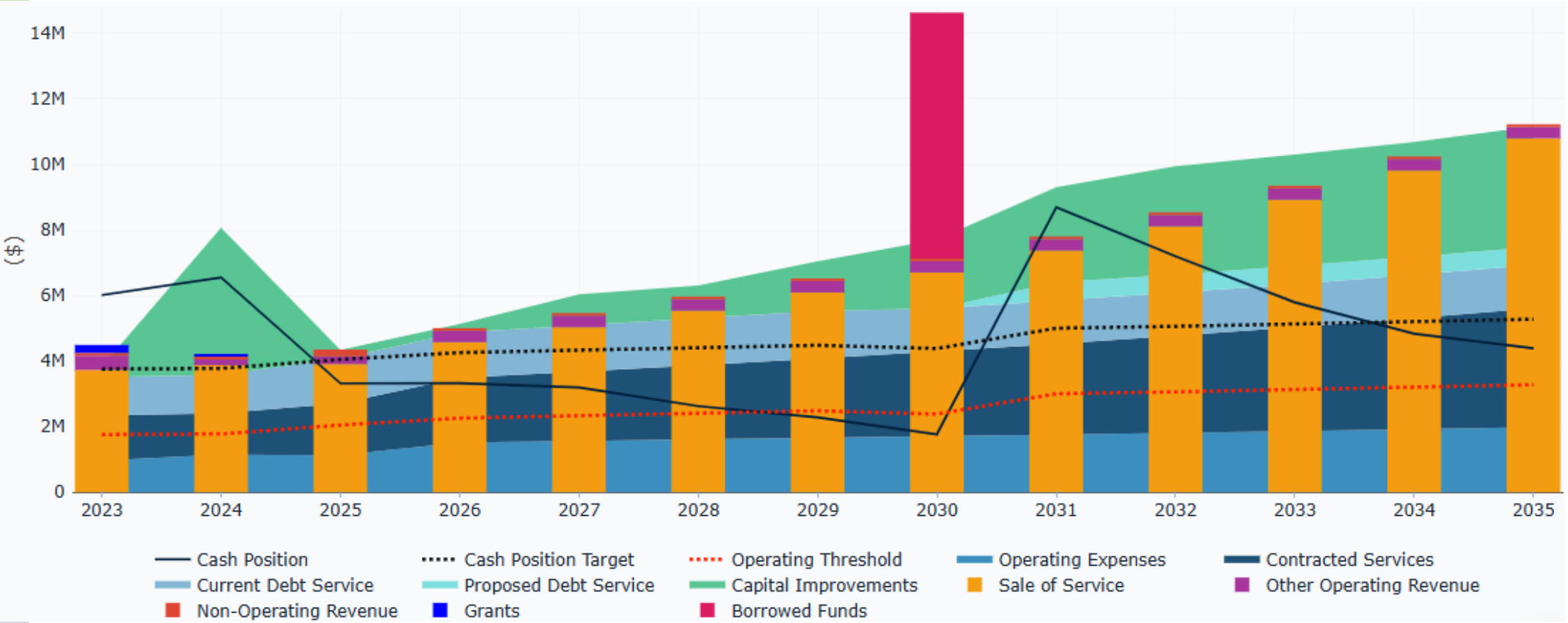
Scenario 4a:
10% annual rate increase; no new debt



FY:	Increase
2025-26	10.0%
2026-27	10.0%
2027-28	10.0%
2028-29	10.0%
2029-30	10.0%
2030-31	10.0%
2031-32	10.0%
2032-33	10.0%
2033-34	10.0%
2034-35	10.0%
Cummu-lative	159%

- $19.0M total capital investment; 7.5 miles of 6” main replaced
- No new debt

Scenario 4b:
10% annual rate increase; $7.5M new debt



FY:	Increase
2025-26	10.0%
2026-27	10.0%
2027-28	10.0%
2028-29	10.0%
2029-30	10.0%
2030-31	10.0%
2031-32	10.0%
2032-33	10.0%
2033-34	10.0%
2034-35	10.0%
Cummu-lative	159%

- $22.6M total capital investment; 9 miles of 6” main replaced
- $7.5M new debt allows greater capital investment while keeping 10% increases

Rate Analysis

- Current rates include
  - Base monthly charge, which varies by meter size
  - Usage charge based on actual metered water volumes
- This rate design aligns with industry standards and best practices
- About 43% of revenue from fixed base charge
- 27% of budget is debt service; majority of operating costs are fixed
- Base charge revenues have increased substantially more than commodity rates in recent years
- Continuing large base charge increases would add substantial burden to smaller customers
- Going forward, increases should apply equally to base and variable rates

Rate Strategy

- Based on the capital funding analysis, the County should plan on a 10% increase per year for at least the next 5 years
- 10% annual increases would support capital funding using all cash, all debt, or a combination of cash and debt
- There are operational and practical needs that need to be considered when preparing a capital improvement plan
- Base the plan on the estimated revenues derived from 10% annual increases, plus the level of debt that optimizes the CIP
- **Grant funds could allow for increased capital investments or lower rates - talk with state & federal representatives**

Connection ("Capacity") Charges

- County wants to move away from REU-based charges
  - Complex to administer
  - Weak relationship between REUs and water demand
- Meter-based capacity charges are based on the physical capacity of the meter size selected for the property
- Utilized a "buy-in" approach to calculate new capacity charges
  - Each new customer's capacity charge is based on the meter equivalent of the water system's value in today's dollars
    - Original value and depreciation are adjusted based on inflation index
    - Residual value of system still in use after "useful life" is added to current system value
    - Net value is divided by the number of 5/8" meter equivalents in service
    - Larger meter size charges based on AWWA meter equivalency ratios

Proposed New Capacity Charges

- New connections with existing taps:

Meter Size	Capacity Charge	Stub Fee (Existing Tap)	Meter Charge	Total Charges
3/4" or 5/8"	$ 7,300	$ 1,600	$ 550	$ 9,450
1"	$ 18,250	$ 1,600	Mkt rate	$ 19,850
1.5"	$ 36,500	$ 3,700	Mkt rate	$ 40,200
2"	$ 58,400	$ 3,700	Mkt rate	$ 62,100

- All other new connections:

Meter Size	Capacity Charge	Tap Fee	Meter Charge	Total Charges
3/4" or 5/8"	$ 7,300	contractor cost	$ 550	$ 7,850
1"	$ 18,250	contractor cost	Mkt rate	$ 18,250
1.5"	$ 36,500	contractor cost	Mkt rate	$ 36,500
2"	$ 58,400	contractor cost	Mkt rate	$ 58,400
3"	$ 109,500	contractor cost	Mkt rate	$109,500
4"	$ 182,500	contractor cost	Mkt rate	$182,500
6"	$ 365,000	contractor cost	Mkt rate	$365,000
8"	$ 584,000	contractor cost	Mkt rate	$584,000

- Additional notes:
  - Customers wishing to increase the size of meter would pay the difference between new meter and existing meter size capacity charges
  - Reducing the meter size would not result in a refund
  - Meter charges all based on market rate

Uniform Water Ordinance Changes

- Once new capacity charge methodology and numbers are agreed upon, ordinance will be updated to reflect changes to the sections related to connection charges
- Maintain 5 cents per 1,000 gallons to Local Water Fund
  - Eliminate REU-based allocation
- A number of minor edits have been identified and corrected
- Draft ordinance language will be submitted for review and approval of the Board
- Ordinance changes should be finalized before implementing new capacity charges

Next Steps & Moving Forward

- Board decides preferred direction regarding rate strategy and capital plans
  - Minimum 10% rate increase is strongly recommended for the next 5-10 years
- County should prepare a CIP that aligns with anticipated revenues
  - The use of debt should be considered for at least a portion of capital needs
- Draft ordinance language will be submitted for review, edits and adoption
- New capacity charges should be adopted and implemented
- Annually update rates based on long-range financial plans
  - Smooths rates year-to-year
  - Best chance of keeping rates as low as possible

Discussion and Questions