City of Northfield

Utility Rate Study

September 11, 2025

Contents

bakertilly

Introduction

Background

Baker Tilly was retained by the City of Northfield to review the recent performance of the City's Water Fund, Wastewater Fund, Stormwater Fund and Garbage Fund to determine the appropriate user rates needed for operations and the financing of capital improvements.

The revenues in each enterprise fund should provide resources sufficient to cover each fund's anticipated operating and ongoing maintenance expenses, debt service payments, capital improvements and replacements, and to maintain adequate cash reserves. The total revenue collected should reflect recent trends in demand and expenses, and should also reflect anticipated future needs related to capital outlays and expected changes in operating costs.

This report includes an analysis of each fund's historical revenues and expenses, current budgets, and projected costs and revenues for the next ten years. It also includes our recommended rate adjustments necessary to provide the needed resources for each fund's operations and capital outlays. For some of the City's funds, our analysis includes more than one scenario, in order to illustrate the impacts of different decisions regarding the timing and funding of significant capital projects.

In addition to our analysis and recommendations, we provide an overview of how the proposed rate adjustments will affect monthly utility bills for a variety of customer types.

Assumptions Used in Projections

To project the future financial performance of the City's utility funds, we used the following assumptions relating to anticipated revenues and expenditures:

- Customer base and demand is expected to remain level
- Personnel costs are projected to rise by 3.5% annually
    - Insurance benefits are expected to rise 5.0% annually
- Professional services and repair/maintenance costs are expected to grow 6.0% annually
- Costs for chemicals are expected to rise 5.0% annually
- Utility costs are projected to grow 4.5% annually
- Costs for supplies and materials grow 3.5% annually
- Other operating costs rise 3.0% annually
- Invested reserves generate a 2% annual return

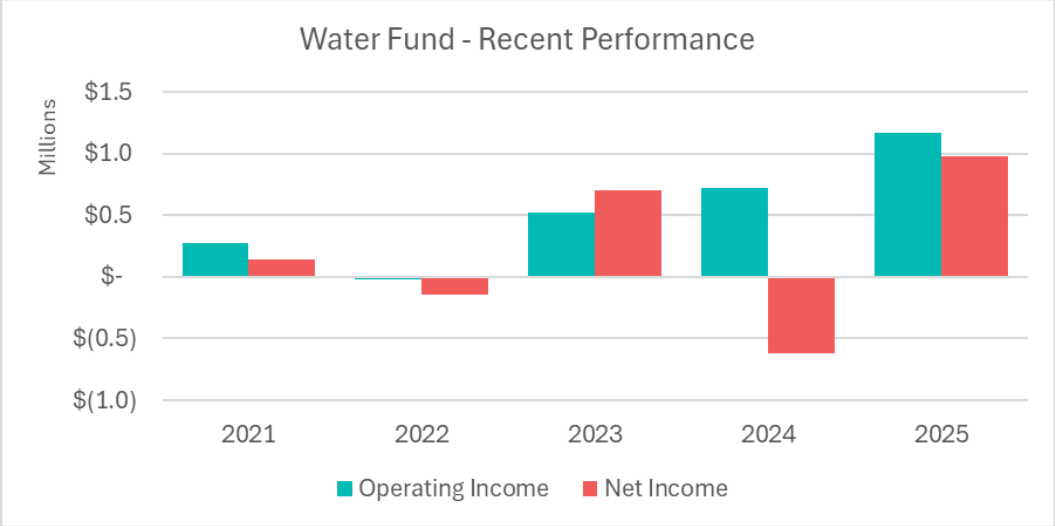
These assumptions are consistent with those used in last year's analysis of the Water Fund.

Water Fund

Recent Performance

Looking at the City's annual reports since 2021, it appears that the Water Fund has seen an uneven performance, but trends appear positive going into the future. Operating and net income were essentially zero in 2021 and 2022, with improvements shown in 2023. Operating income grew to over $700,000 in 2024, though net income was negative due to a $1.3 million fund transfer for maintenance charges. In the 2025 budget, operating income is expected to grow to $1.2 million, with net income of nearly $1.0 million. Water Fund income from recent years is shown in the chart below.

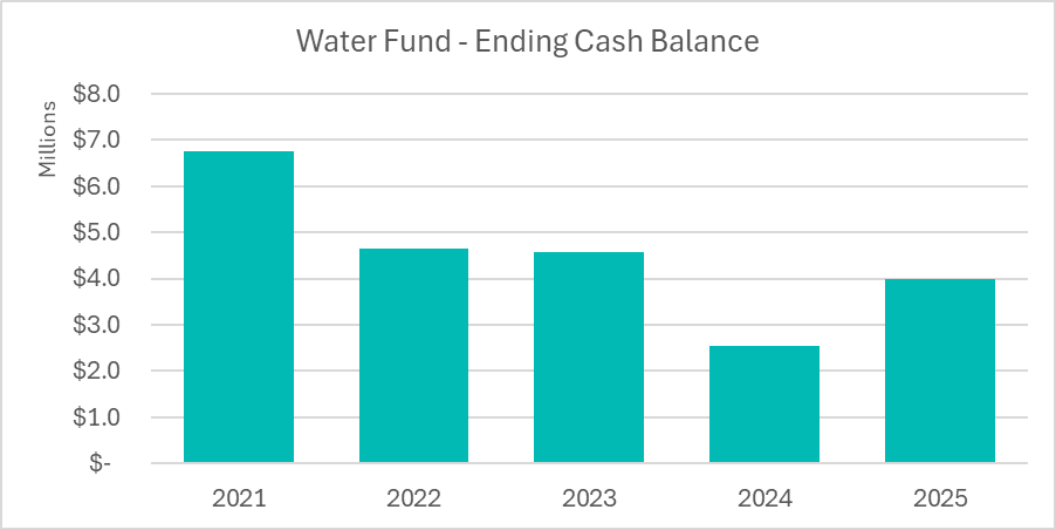
Figure 1: Recent financial performance



Looking at the Water Fund's cash reserves, the year-end cash balance fell from $6.8 million in 2021 to $4.6 million in 2022 and 2023, as a result of making a $2.1 million advance to the 5th Street Redevelopment Fund. The fund balance is expected to improve once the 5th Street Fund begins repayment of the cash advance. Ending cash fell to $2.5 million in 2024 as a result of capital outlays, but recovered back to $4.0 million in the 2025 budget. Recommended minimum cash levels based on Water operations and debt service is $1.2 million, so the current balance of $4.0 million represents a healthy cushion of reserves. Given the Water Fund's capital needs in the coming years, accumulation of cash reserves is appropriate.

Recent cash reserves for the Water Fund are shown visually in Figure 2.

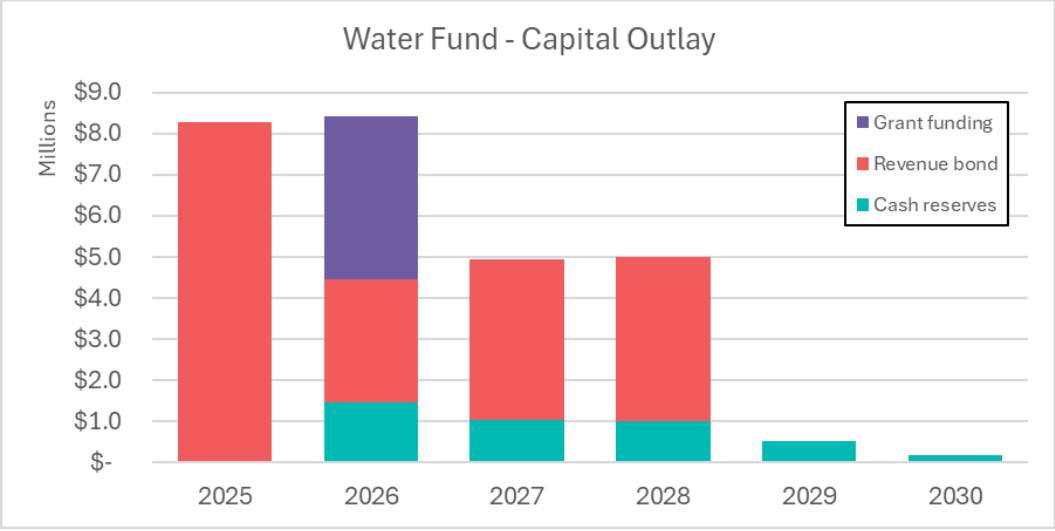
Figure 2: Cash reserves



Baseline Scenario – Capital Outlay

In the baseline scenario, capital outlays are expected to be relatively modest over the next six years. In the current year, the fund will pay for approximately $8.3 million for the Jefferson Parkway Extension, which is expected to be financed through long-term debt. In 2026, the City plans to invest nearly $7.0 million on the NW Area Water Tower; $3 million would come from debt, with the remainder expected to be paid with grant funding. In 2027, outlays of $3.9 million for meter replacements will be financed through debt, and in 2028, $4 million in debt will be issued to finance storage tank painting and the Highway 3 water main repair. Total outlays are summarized below.

Figure 3: Anticipated capital outlay



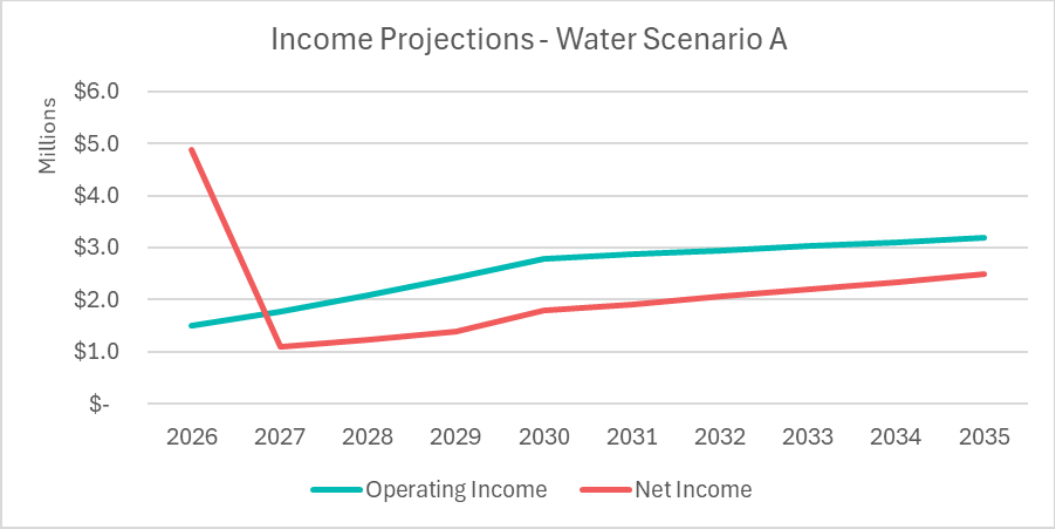
Baseline Scenario – Projections

Based on the City's 2025 and 2026 budgets and the assumptions listed earlier in this report, we generated a ten-year projection of anticipated revenues and expenditures for the Water Fund. Anticipating that the Water Fund would have significant capital outlays in the future as it addresses its treatment needs, we included rate increases intended to grow the fund's cash reserves to help pay for future capital investments.

Based on these assumptions, we project rate increases of 9% in each of the next 5 years, followed by 3% increases in later years.

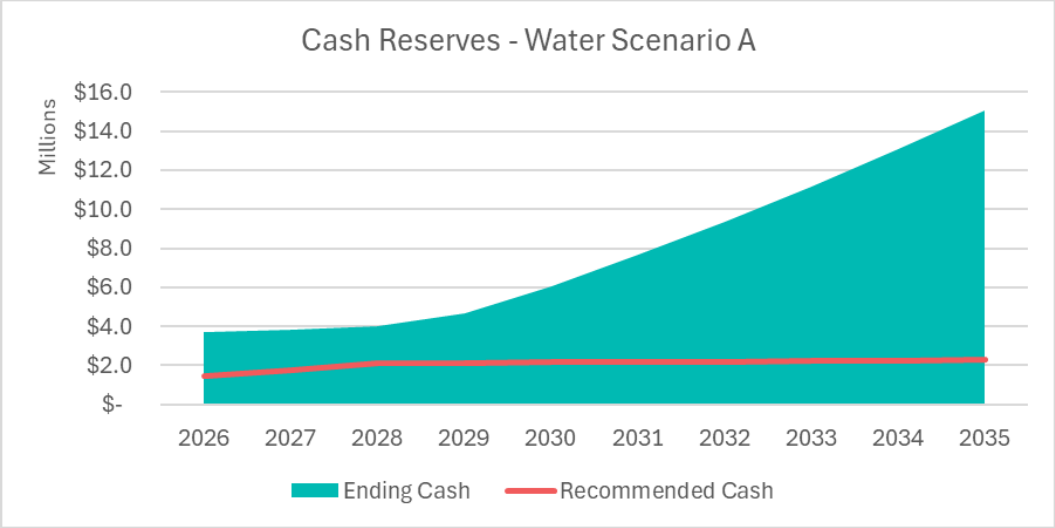
Looking at the impacts of these rate adjustments, the fund sees operating income grow from $1.5 million in 2026 up to $2.8 million in 2030. Operating income grows more slowly in later years, reaching $3.2 million by 2035. Net income shows a spike in 2026 due to the receipt of grant funding for the water tower project. In 2027, net income drops to $1.1 million, growing slowly to reach $2.5 million by 2035. Income projections are shown in Figure 4 below.

Figure 4: Operating and net income projections



Focusing next on cash reserves, our projections show the balance in the Water Fund beginning at $3.7 million in 2026. Ending balances remain fairly steady through 2029, and begin growing more quickly in 2030 and beyond. By 2035, the Water Fund shows ending cash reserves of $15 million. These projections are shown in Figure 5.

Figure 5: Projected cash reserves

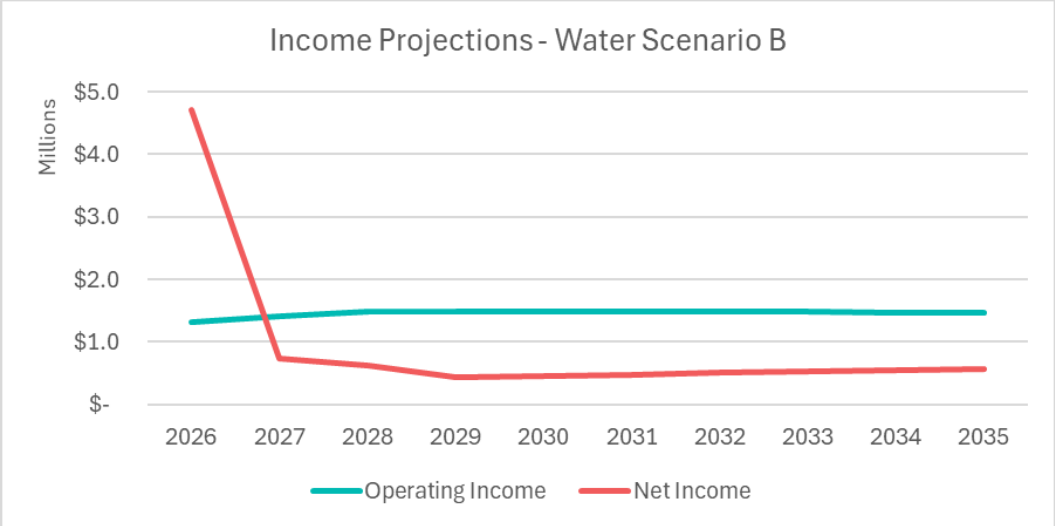


Water – Alternative Scenario B

The first alternative scenario for the Water Fund is targeted at minimizing rate increases, under the assumption that a new treatment facility will not be budgeted for as a capital expense, or that outside funding sources become available to offset construction costs of such a facility. Based on these assumptions, we calculate that a 4% annual rate increase in each of the next 3 years, followed by 2% increases in later years, should be sufficient to provide the fund with positive annual income and to maintain cash reserves.

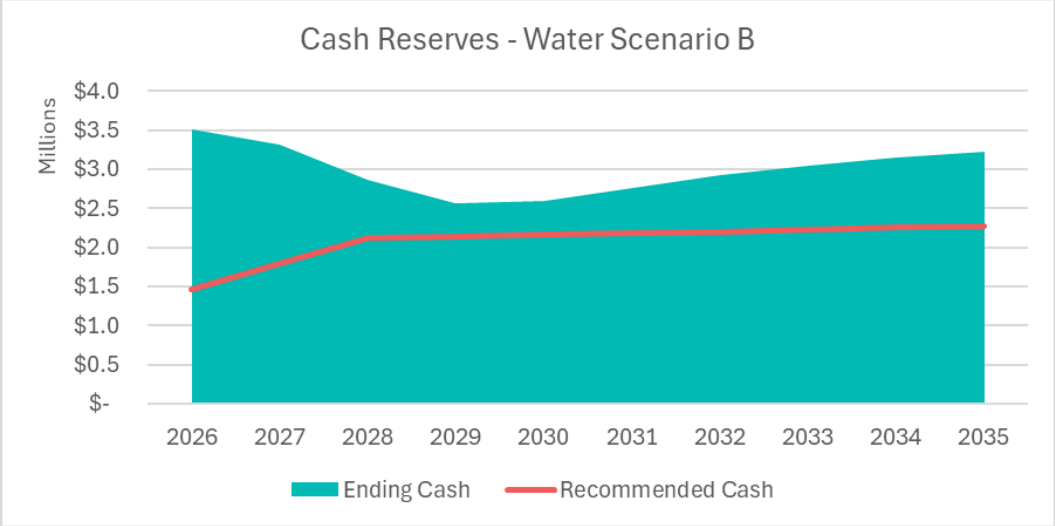
Looking at operating income, the fund sees positive income remaining steady at approximately $1.4 million to $1.5 million per year. Net income shows a spike in 2026 due to the receipt of grant funding for the water tower project. Thereafter, net income levels out at around $500,000 per year. Income projections are shown in Figure 6.

Figure 6: Operating and net income projections



Focusing next on cash reserves, our projections show the balance in the Water Fund decreasing from $3.5 million in 2026 to $2.5 million in 2029, then slowly recovering over the rest of the planning period. These projections are shown in Figure 7.

Figure 7: Projected cash reserves



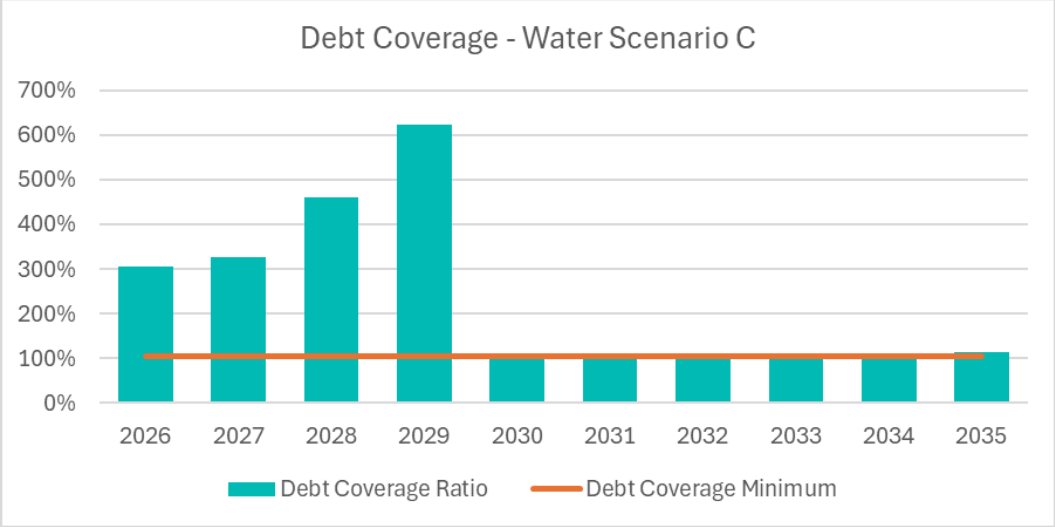
Water – Alternative Scenario C

The second alternative scenario for the Water Fund uses the same starting point as the earlier scenarios, with the addition of a gravity filtration & reverse osmosis treatment plant to be constructed in 2030. The cost for this project is estimated at $82.7 million in 2030 dollars.

Given the significant costs involved to construct the treatment facility, additional rate increases are needed to generate revenues sufficient to cover the expected debt service requirements, which are projected at approximately $6.6 million annually. We project that rate increases of 28% each year from 2026 through 2029 will be needed, with 3% annual increases in 2030 and thereafter.

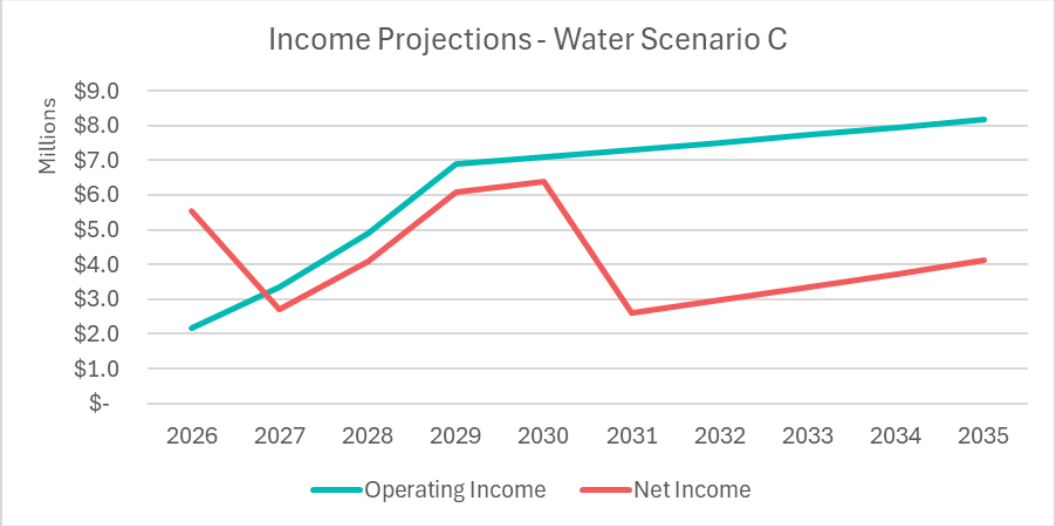
These increases are projected to give the Water Fund revenues sufficient to cover 105% of its expected debt service payments after 2030, which is a typical requirement for utility debt of this kind. Debt service coverage projections are shown in Figure 8.

Figure 8: Debt service coverage – scenario C



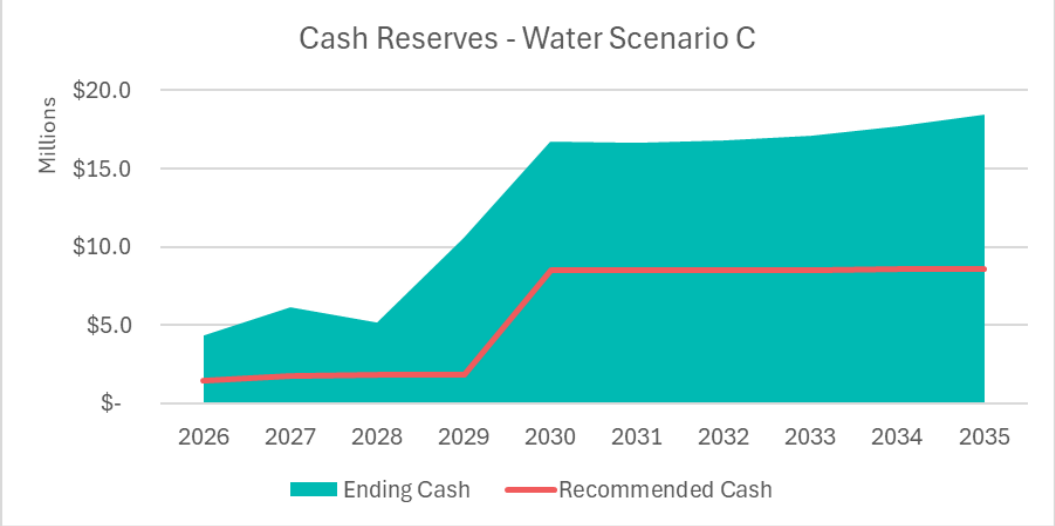
The increases needed for debt service coverage are expected to provide the Water Fund with positive operating and net income over the duration of the planning period, as shown in Figure 9. Operating income is expected to grow to $7 million by 2029, while net income follows a similar trajectory until 2031, when payments on the $82.7 million revenue debt reduce net income to around $2.6 million.

Figure 9: Income projections – scenario C



Cash reserves grow quickly as a result of the rate increases in the early years, reaching approximately $17 million in 2030. Given the uncertainty in construction costs for a project of the size and complexity as the treatment plant, we believe that having the additional resources to cover potential contingencies is warranted. If the Water Fund continues to hold excess cash into the 2030s, it will provide a reasonable means of funding future capital improvements without the need for additional long-term debt. A projection of anticipated cash balances is shown in the chart below.

Figure 10: Projected cash reserves – scenario C



Water – Alternative Scenario D

The second alternative scenario for the Water Fund looks at the impact of building a gravity filtration plant without the reverse osmosis component. In this scenario, the treatment plant is still constructed in 2030, but the cost is decreased to $75.6 million.

For this project, debt service requirements are estimated at approximately $6.0 million annually. As a result of the lower debt service requirements, we anticipate that rate increases over the next four years would be 25% instead of 28%, again with 3% annual increases in 2030 and thereafter.

Projections for debt coverage, income, and cash reserves are nearly identical to those shown in Scenario C. In each case, the extent of changes in reduced only slightly. The projections are shown in the figures which follow.

Figure 11: Debt service coverage – scenario D

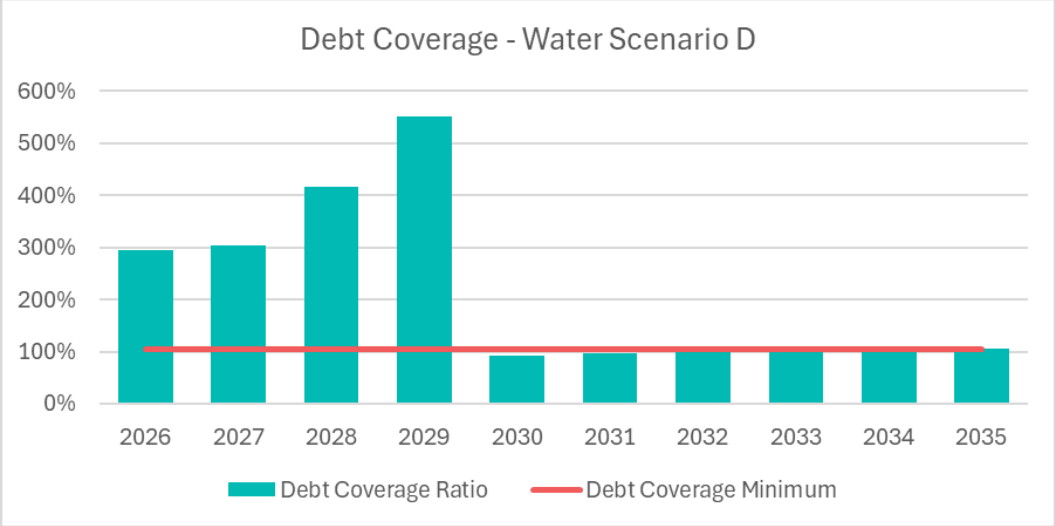


Figure 12: Income projections – scenario D

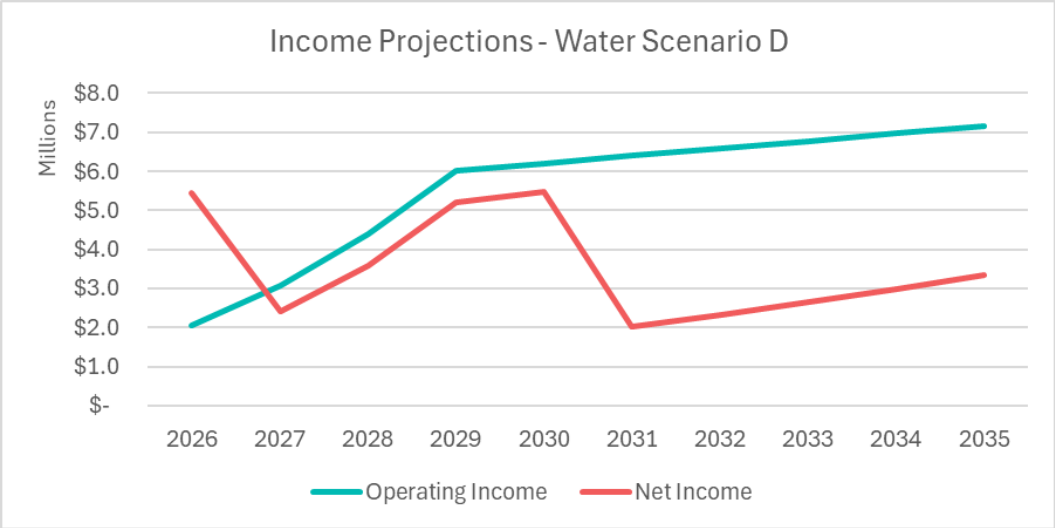
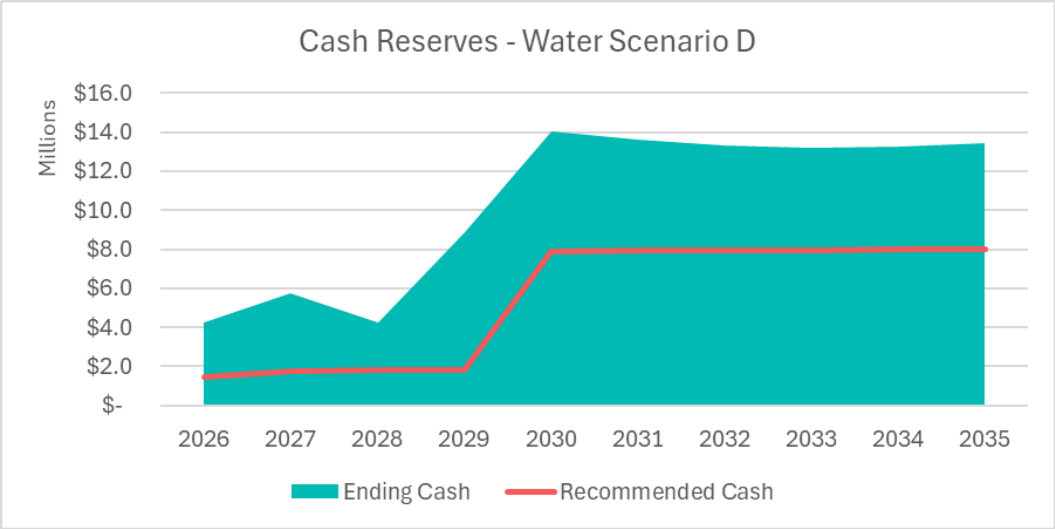


Figure 13: Projected cash reserves – scenario D



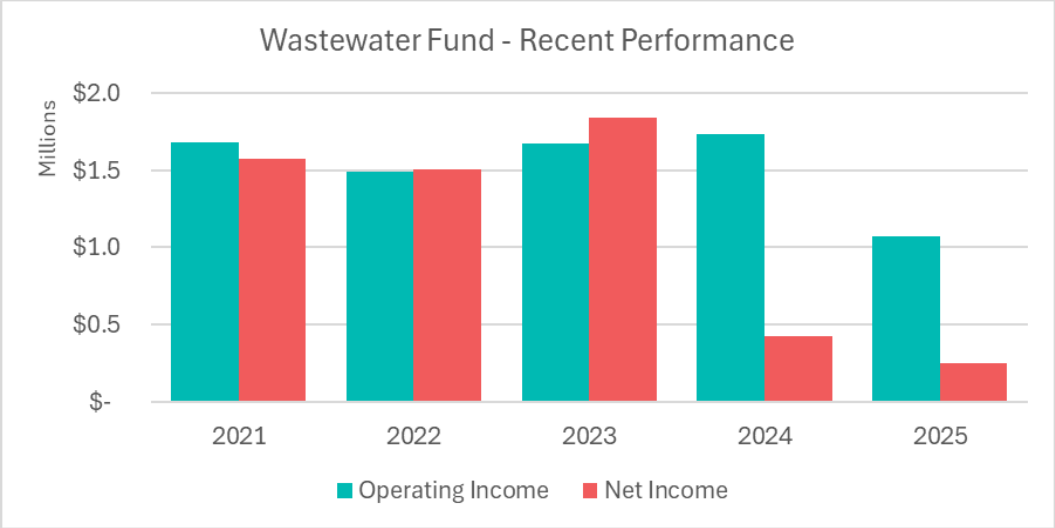
Wastewater Fund

Recent Performance

Looking at financial reports since 2021, it is clear that the Wastewater Fund is in a strong financial position. Operating income has been $1.5 million to $1.7 million each year since 2021. In the 2025 budget, operating income is expected to decline to $1.1 million, but this is due almost entirely to increased depreciation expenses related to recent capital improvements.

Net income followed a similar pattern in 2021 through 2023, then moderated in 2024 due to increased debt service payments related to a $14.4 million bond issued in 2023 to finance capital improvements. In addition, the fund made a $1.0 million transfer to the Maintenance Fund in 2024. These changes brought the Wastewater Fund's net income down from $1.8 million in 2023 to $0.4 million in 2024. In 2025, net income is expected to decline further, due to lower expected returns from the fund's investments.

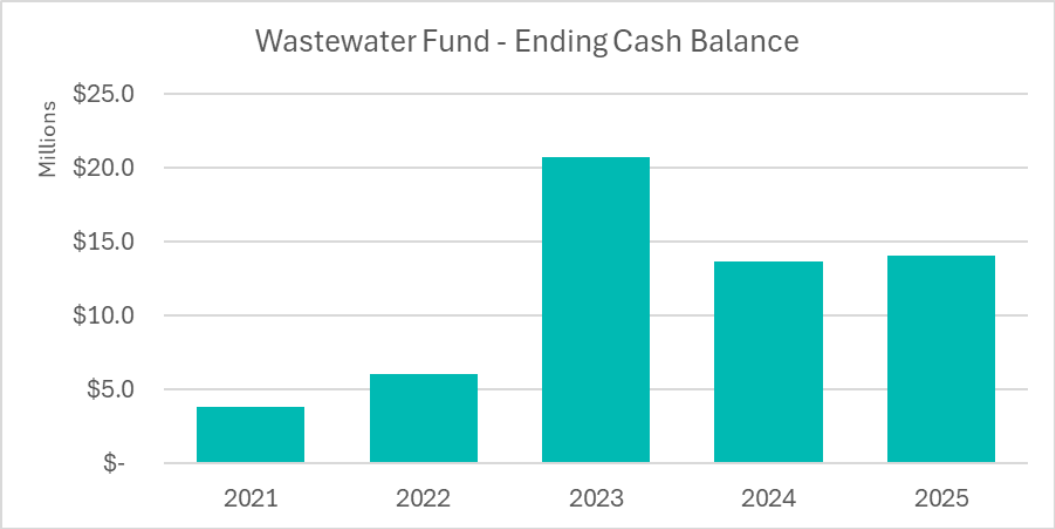
Figure 14: Recent financial performance



Looking at the Wastewater Fund's cash reserves, the year-end cash balance grew from $3.8 million in 2021 to just over $20 million in 2023, when the Sewer Fund issued its bond. Approximately $8.4 million of this cash was spent on capital outlays in 2024, resulting in an ending cash balance of $13.7 million. Cash reserves at the end of 2025 are projected to be $14.0 million.

Recent cash reserves for the Wastewater Fund are shown in Figure 15.

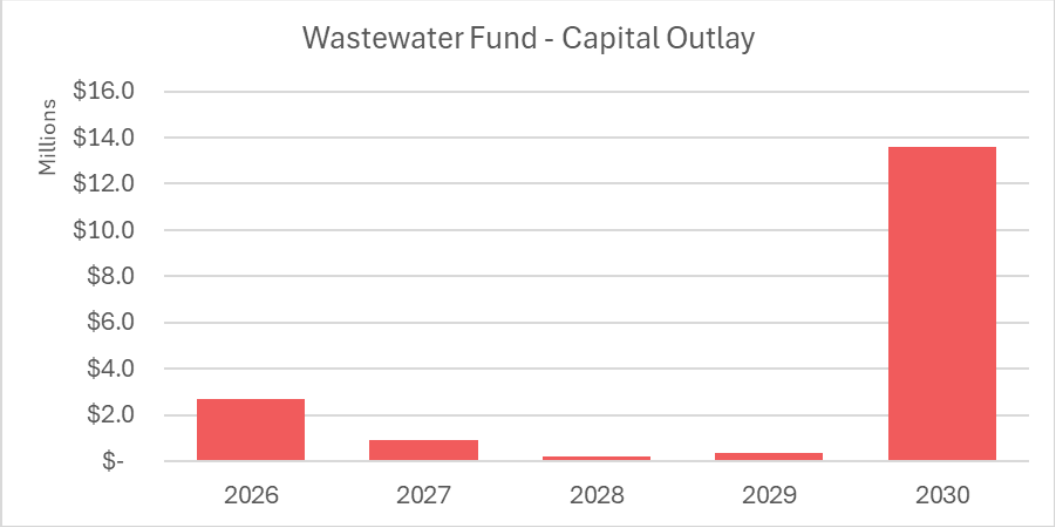
Figure 15: Cash reserves



Baseline Scenario – Capital Outlay

Capital outlays are expected to be modest over the next four years. In 2030, the fund is expected to pay for approximately $13.4 in capital improvements related to biosolids cake storage and a water supply system. Total outlays are summarized below.

Figure 16: Anticipated capital outlay

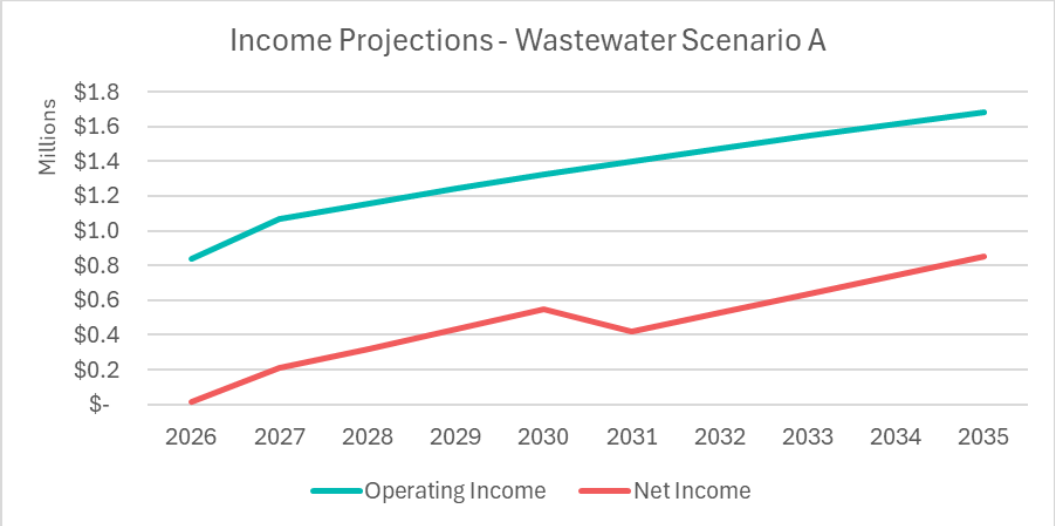


Baseline Scenario – Projections

Based on our projections for the future performance of the Wastewater Fund, we believe a 3% annual rate increase should be sufficient to provide the fund with positive annual income and to accumulate cash reserves sufficient to pay for the capital improvements scheduled for 2030.

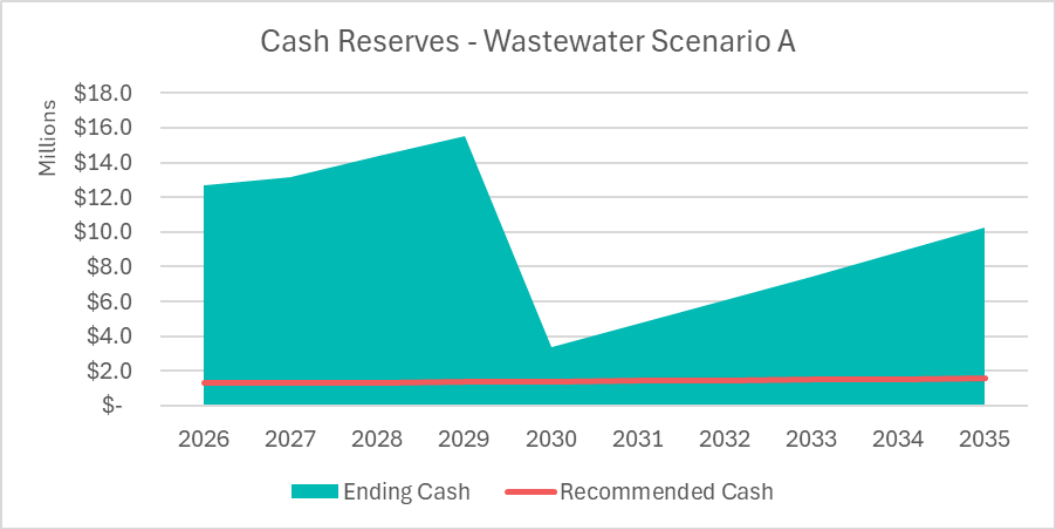
Looking at operating income, the fund sees positive income of $0.8 million in 2026, growing gradually to a level of $1.7 million by 2035. Net income is expected to be under $100,000 in 2026, consistent with the analysis of income trends covered earlier. Net income is expected to rise to $545,000 by 2030, before falling to $415,000 the following year. This decrease is due to the expected drawdown of cash reserves to pay for the 2030 capital improvements, which results in lower revenues from investment income. The income projections are shown in Figure 17 below.

Figure 17: Operating and net income projections



Focusing next on cash reserves, the projections show the balance in the Sewer Fund growing from $12.7 million in 2026 to $15.5 million in 2029, then falling to $3.4 million as major capital outlays are made in 2030. Reserves are expected to grow steadily after 2030, reaching $10.3 million by 2035. These projections are shown in Figure 18.

Figure 18: Projected cash reserves



Wastewater – Alternative Scenario B

The alternative scenario uses the same starting point and assumptions as the baseline scenario, with the addition of a potential trunk extension to the City's NW Industrial Area. The cost for this project was estimated at $20.4 million.

Given the significant costs involved, construction of the extension in the current year is impractical. For planning purposes, we looked at likely impacts if the project is undertaken in 2028. To keep from understating future impacts, we inflated the project cost by 3.82% annually, which is the ten-year average of the Municipal Construction Cost Index as tracked by *American City & County*. Using this inflator, the projected 2028 cost for the project is approximately $22.8 million.

Paying up-front for the project is not possible at this time; the Wastewater Fund simply does not have the resources to make such an outlay, and the rate adjustments required to raise the required funds would be on the order of 28% each year through 2028. Rates would then need to be cut by half around 2031 when major capital outlays were completed, as the excess revenues would cause reserves to accumulate by more than $5 million each year.

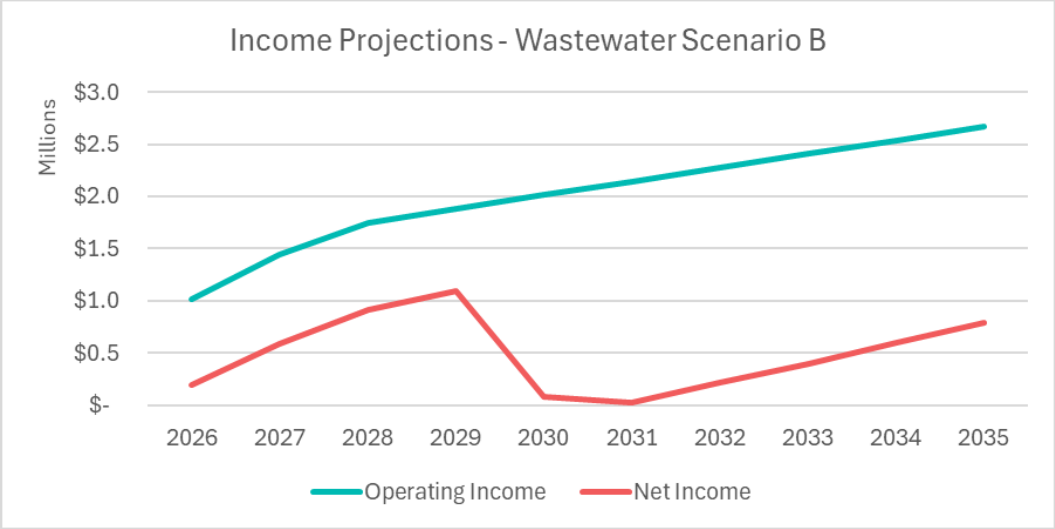
To avoid the need for massive short-term rate increases followed by later rate cuts, the alternative scenario assumes that the trunk extension is financed through long-term debt. For the projections, we assumed that the City would finance the project over 20 years at an interest rate of 5%.

Debt service payments on the $23.7 million would come to approximately $1.9 million per year, beginning in 2029. To make the necessary resources available to pay these costs, we calculate that sewer rates would need to be raised by 6.5% in 2026, 2027, and 2028.

Thereafter, annual increases of 3.5% should be sufficient to keep the Wastewater Fund on a sustainable path.

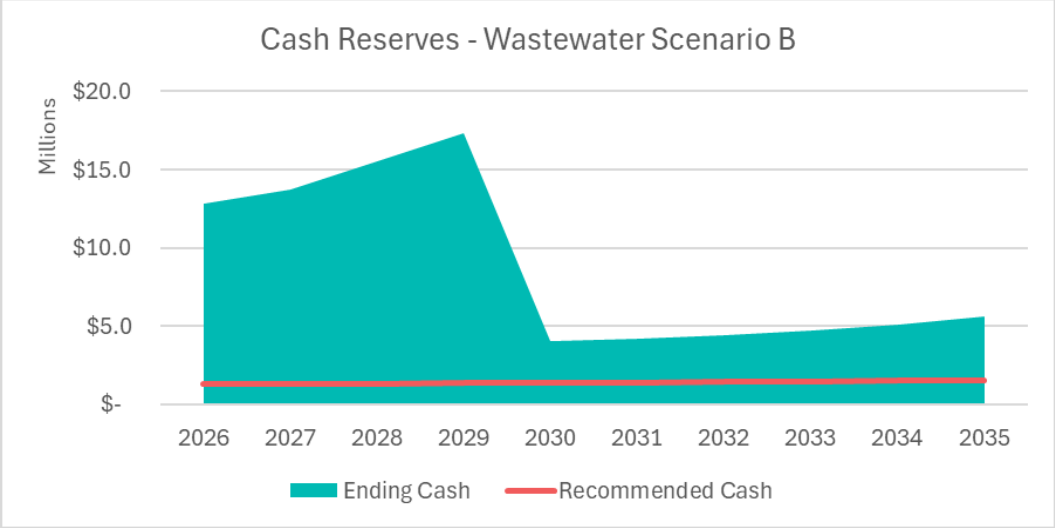
The additional rate increases are expected to allow the fund to maintain positive operating and net income over the duration of the planning period. Operating income grows from $1.0 million in 2026 to $2.7 million in 2035. Net income remains below $1.0 million each year throughout the ten-year planning period as a result of debt service obligations. Income projections are shown in the Figure 19 below.

Figure 19: Income projections – alternative scenario



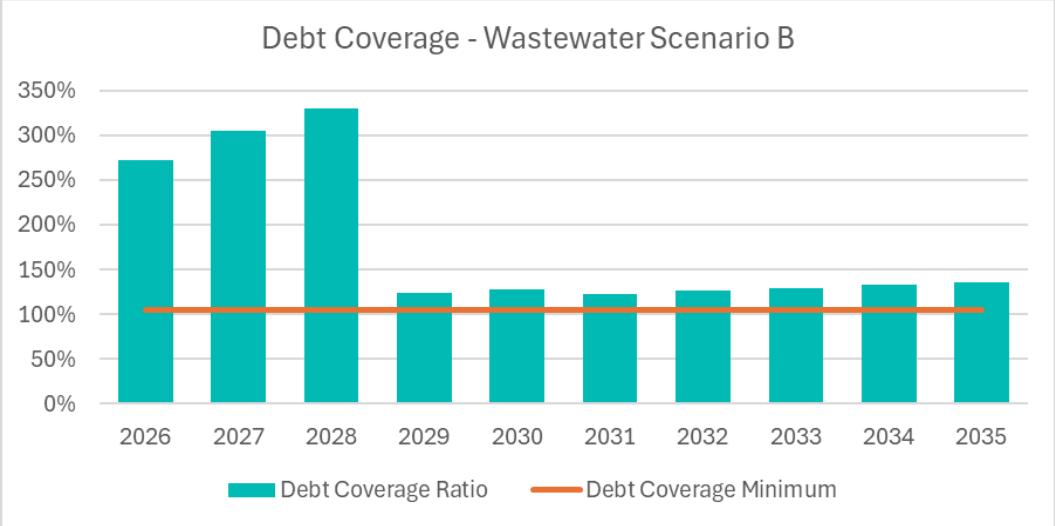
Cash reserves are drawn down significantly in 2030 to pay for the scheduled biosolids storage and water supply system projects. As a result, the cash balance is expected to fall from $17.3 million to $4.0 million in 2030. Cash accumulates slowly thereafter, reaching $5.6 million by 2035. A projection of anticipated cash balances is shown in Figure 20.

Figure 20: Projected cash reserves – alternative scenario



The issuance of additional long-term debt in 2028 would have an impact on the Wastewater Fund's debt service coverage ratio. The recommended rate increases should allow the fund to maintain a coverage ratio above 105%, as shown below.

Figure 21: Projected debt service coverage – alternative scenario



Stormwater Fund

Recent Performance

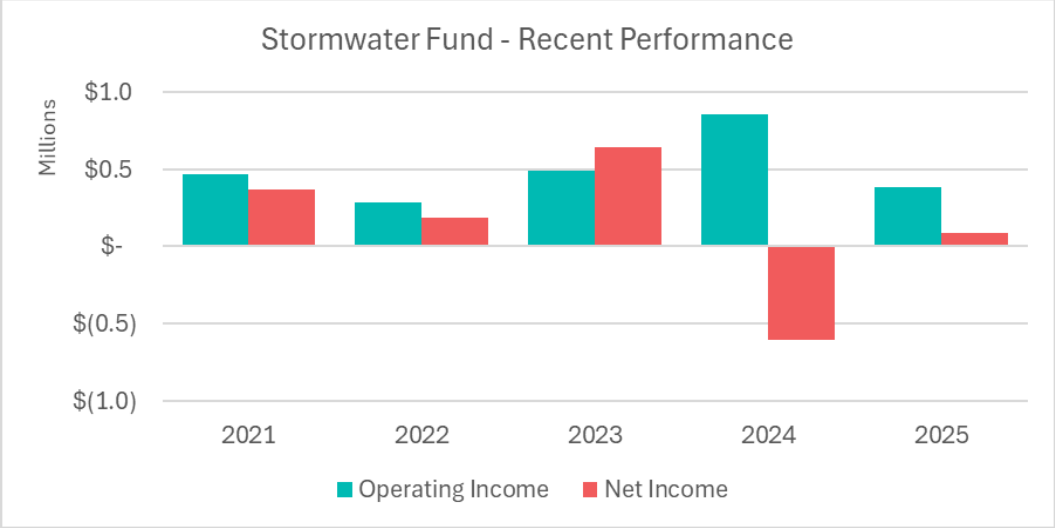
Turning to the Stormwater Fund, we note that revenues, expenditures and fund balances are considerably smaller in this fund as compared to the activity levels seen in Water and Wastewater.

The Stormwater Fund has seen generally positive results, with one exception in 2024. Operating income was nearly $500,000 in 2021, falling to $280,000 in 2022 before rising up to $850,000 in 2024. For 2025, operating income is expected to be $380,000.

Net income followed a similar pattern in 2021 through 2023, before showing negative net income of $600,000 in 2024. This trough was due almost entirely to a $1.5 million transfer made to the Maintenance Fund. In 2025, net income is expected to be approximately $80,000.

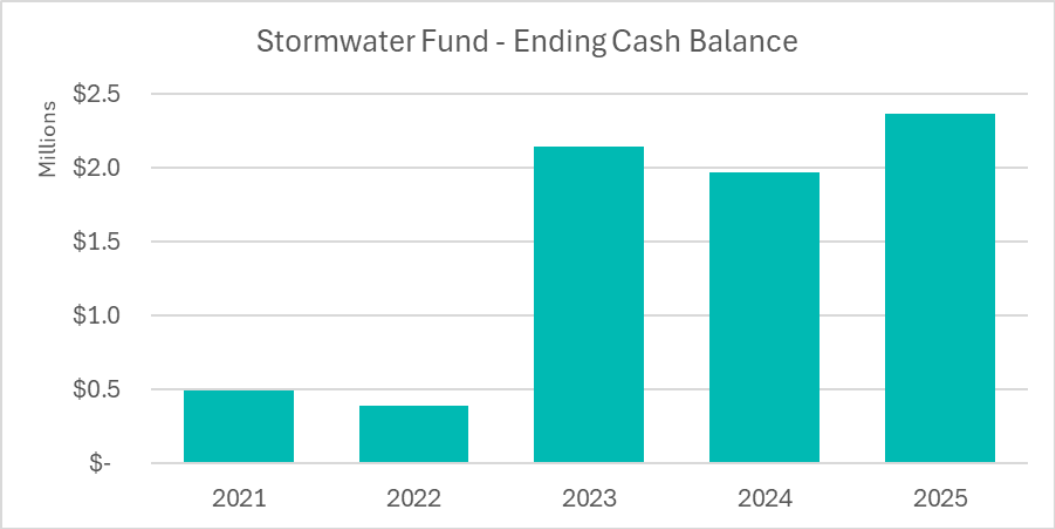
Recent trends in Stormwater income are shown in Figure 22 below.

Figure 22: Recent financial performance



Looking at cash reserves, we see ending cash of approximately $500,000 in 2021 and $400,000 in 2022. Cash reserves rose to $2.1 million in 2023 as a result of funds received from long-term debt issued that year. Cash remained close to $2.0 million in 2024, and is expected to total $2.4 million at the end of 2025. These figures are shown visually in Figure 23.

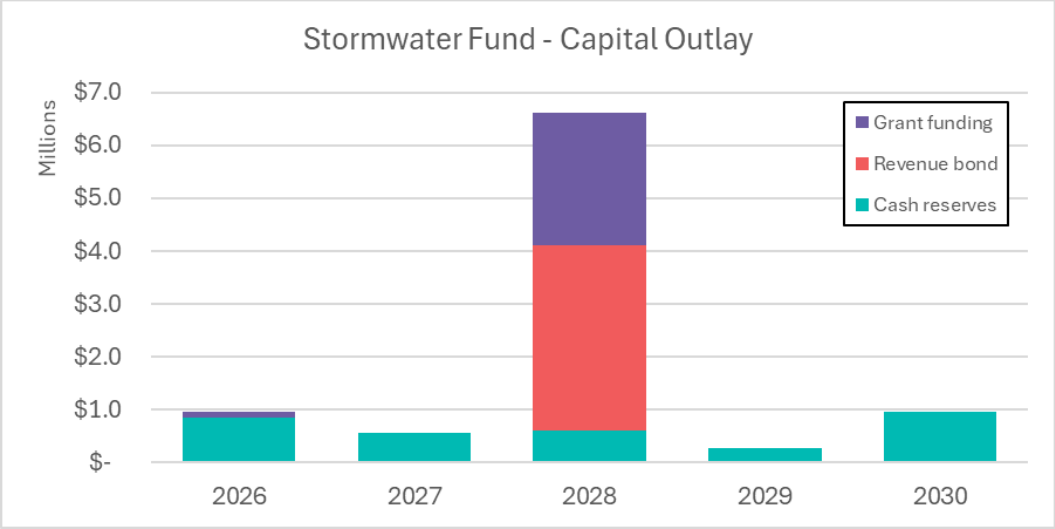
Figure 23: Cash reserves



Baseline Scenario – Capital Outlay

The major capital outlay for the Stormwater Fund is a pair of flood protection projects totaling $6.0 million. Our projections show the projects happening in 2028, funded through a combination of grants and long-term debt. Additional cash outlays for smaller projects are expected each year. Total outlays are summarized below.

Figure 24: Anticipated capital outlay

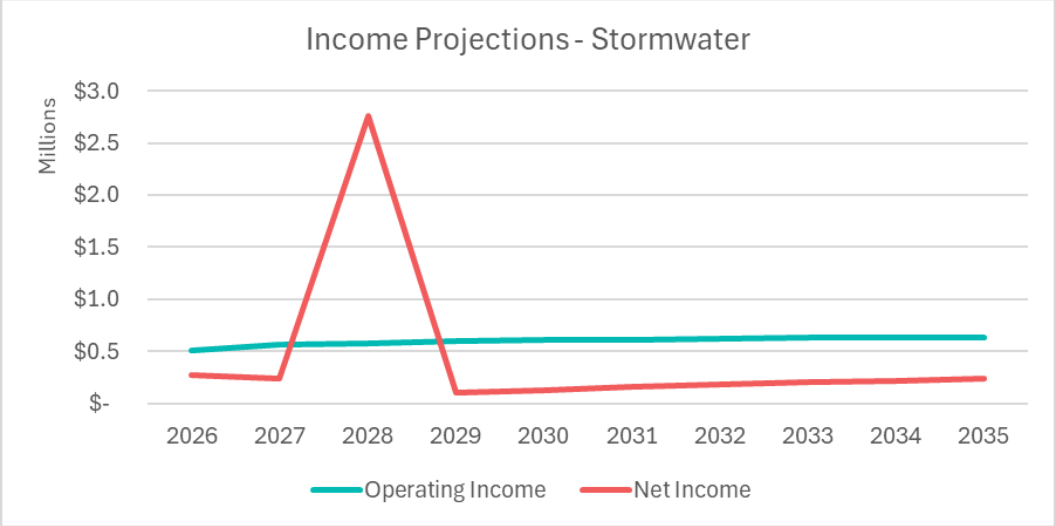


Baseline Scenario – Projections

Based on our projections of the Stormwater Fund's expected performance over the next ten years, we believe that a 5% rate increase in 2026 and 2027 will provide the fund with the resources it needs. Rate increases in later years are anticipated to be 2%.

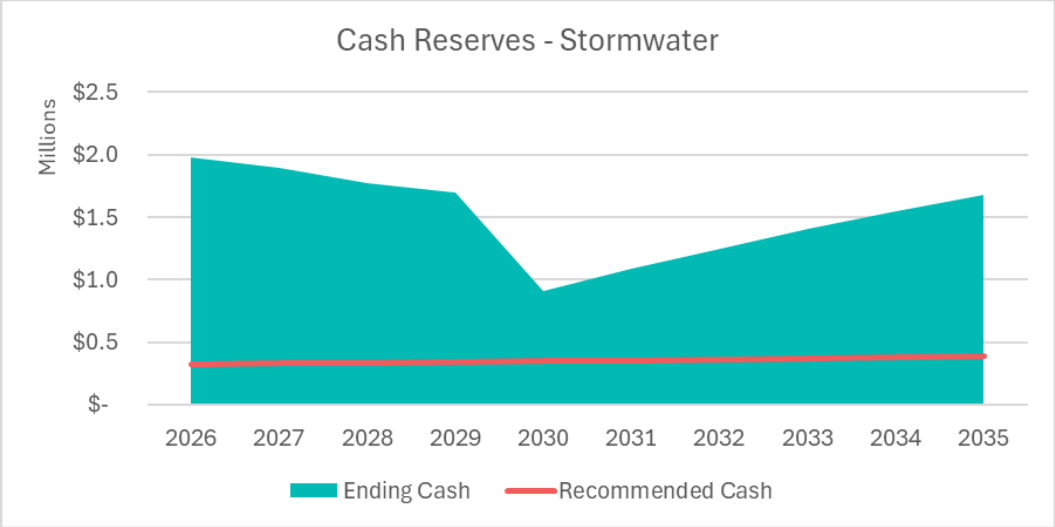
Looking at operating income, the fund sees positive income starting at $500,000 in 2026 and growing slowly to $630,000 by 2035. Net income stays close to $250,000 in 2026 and 2027 before spiking to $2.8 million as a result of grant funding received in 2028. Net income resets at just over $100,000 in 2029 as a result of debt service payments, and is expected to grow slowly thereafter. Income projections are shown in Figure 25 below.

Figure 25: Operating and net income projections



Cash in the Stormwater Fund starts at $2.0 million in 2026 and gradually falls to $1.7 million by 2029 as a result of capital outlays. Cash reserves fall to $900,000 in 2030 to pay for pond dredging and two road projects, and then grow steadily in the years after. These projections are shown in Figure 26.

Figure 26: Projected cash reserves



Garbage Fund

Recent Performance

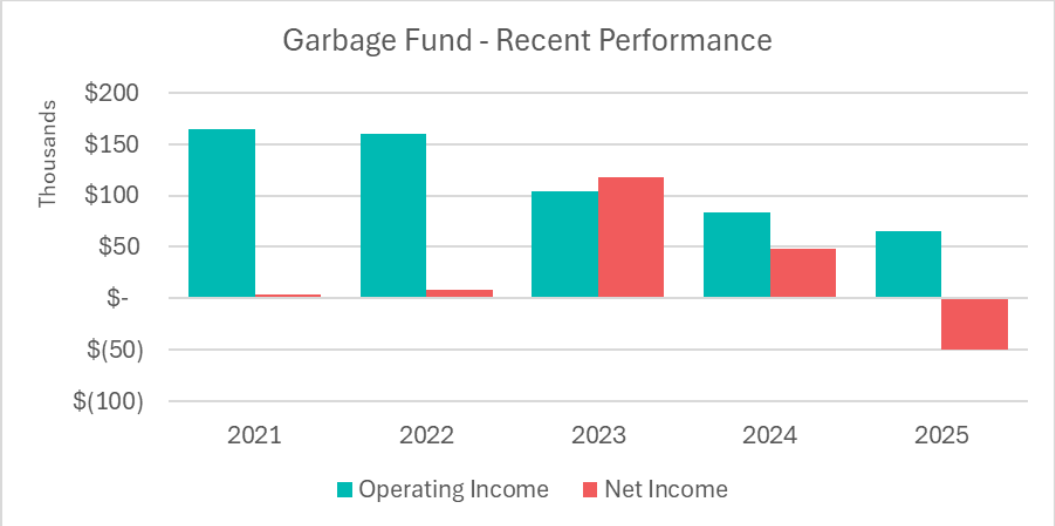
Similar to our observation about the Stormwater Fund, we note that revenues, expenses and cash reserves in the Garbage Fund are considerably smaller than the levels seen in the other enterprise funds reviewed in this report.

Operating income for the Garbage Fund started at $165,000 in 2021, though the trend since then has shown operating income fall to an expected $65,000 for the current year. This trend is unsustainable, and will require rate adjustments to keep from going negative in the future.

Net income was essentially zero in 2021 and 2022, as administration and maintenance charges almost exactly offset its operating revenues. Investment returns helped lift net income to $100,000 in 2023 and nearly $50,000 in 2024. In 2025, the fund is expected to show a net loss of ($50,000), though this may be mitigated if investment income is higher than the $0 currently budgeted.

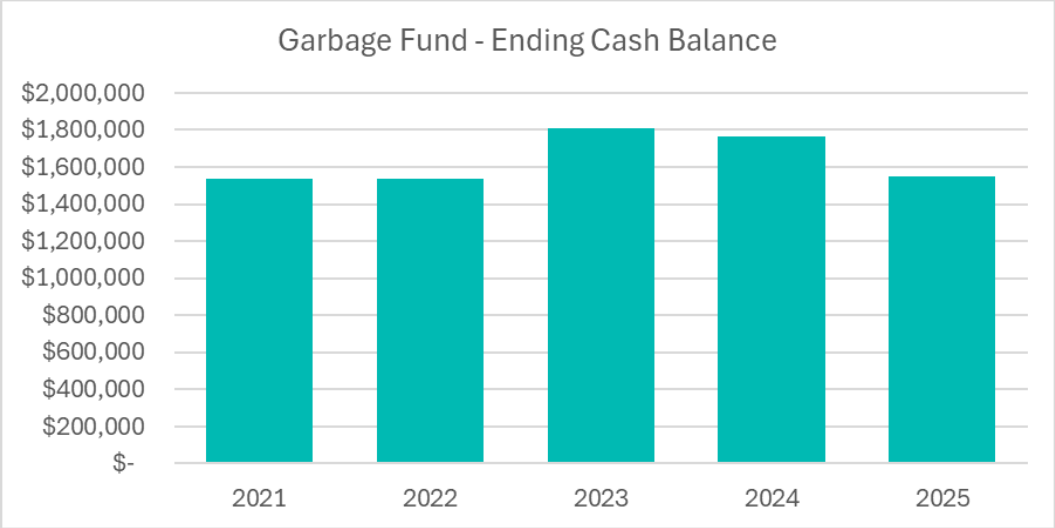
Recent trends in income are shown in Figure 27.

Figure 27: Recent financial performance



Looking at cash reserves, we see ending cash of approximately $1.5 million in 2021 and 2022. Cash reserves rose to $1.8 million in 2023 and 2024 as a result of regular operations. Ending cash is expected to total $1.5 million at the end of 2025, reflecting a $200,000 outlay for capital improvements. Cash reserves are shown in Figure 28.

Figure 28: Cash reserves



Baseline Scenario – Capital Outlay

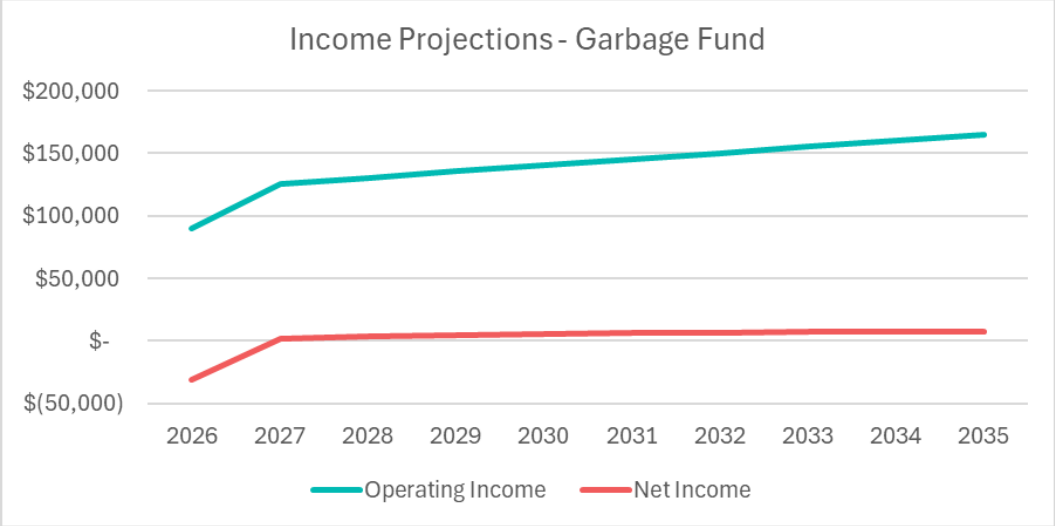
The only capital outlay shown for the Garbage Fund is an emergency exit at the compost site, scheduled for 2028 at a cost of $1 million.

Baseline Scenario – Projections

To reverse the decline in operating income and to pay for the 2028 capital project, we recommend a 6.5% increase to garbage rates in 2026 and 2027. Rate increases in later years are recommended at 3.5% annually. Additional adjustments may need to be made if the costs of contract hauling change significantly in the coming years.

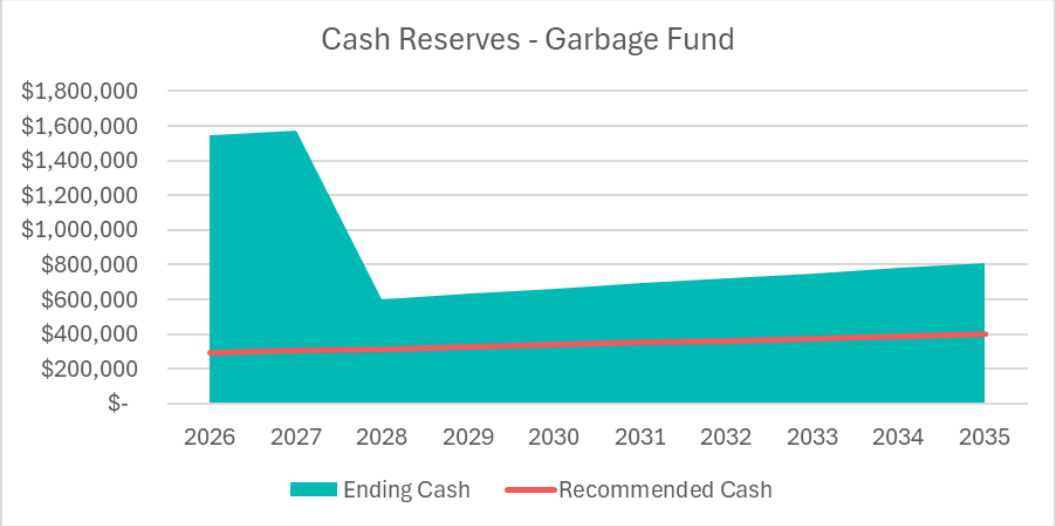
Based on these rates, operating income for the Garbage fund rises to $125,000 by 2027, and grows gradually thereafter, reaching $165,000 by 2035. Net income stays close to zero throughout the planning period, as fund transfers for administrative fees offset operating income. Income projections are shown in Figure 29.

Figure 29: Operating and net income projections



Cash in the Garbage Fund starts at $1.5 million in 2026 and 2027, falling to $600,000 in 2028 after paying for the capital improvements at the compost site. Cash reserves grow slowly thereafter, reaching $800,000 by 2035. These projections are shown in Figure 30.

Figure 30: Projected cash reserves



Projected Rates

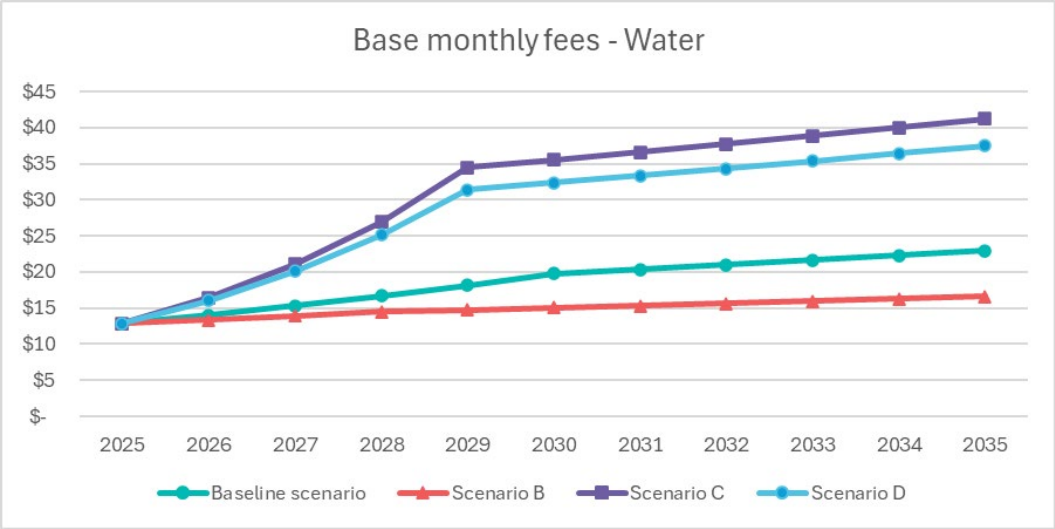
Water Rates

Projected water rates vary considerably depending on the scenario. In the baseline scenario, the monthly base rate for water service grows from its current value of $12.86 to an ending value of $22.94 in 2035. This represents a 78% increase over ten years. Scenario B sees the base rate grow to $16.62 per month, which is a ten-year increase of 29%.

Scenarios C and D involve much larger increases to pay for a new treatment facility. In scenario C, the 2035 monthly base fee is $41.23. In Scenario D, this amount is $37.50. These represent ten-year increases of 221% and 192% respectively.

The growth of monthly base rates in each scenario is seen in Figure 31 below.

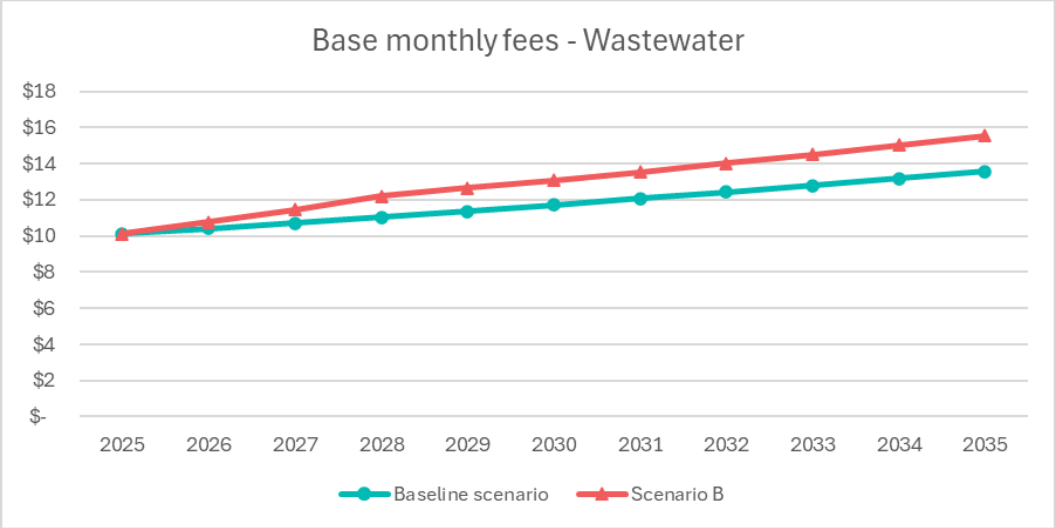
Figure 31: Projected water rates



Wastewater Rates

For wastewater, the monthly base rate in the baseline scenario grows from its current value of $10.11 to a value of $13.57 in 2035. This represents a 34% increase over ten years. For scenario B, the 2035 monthly base fee is $15.55, which is a ten-year increase of 54%. Projected wastewater rates are shown in Figure 32.

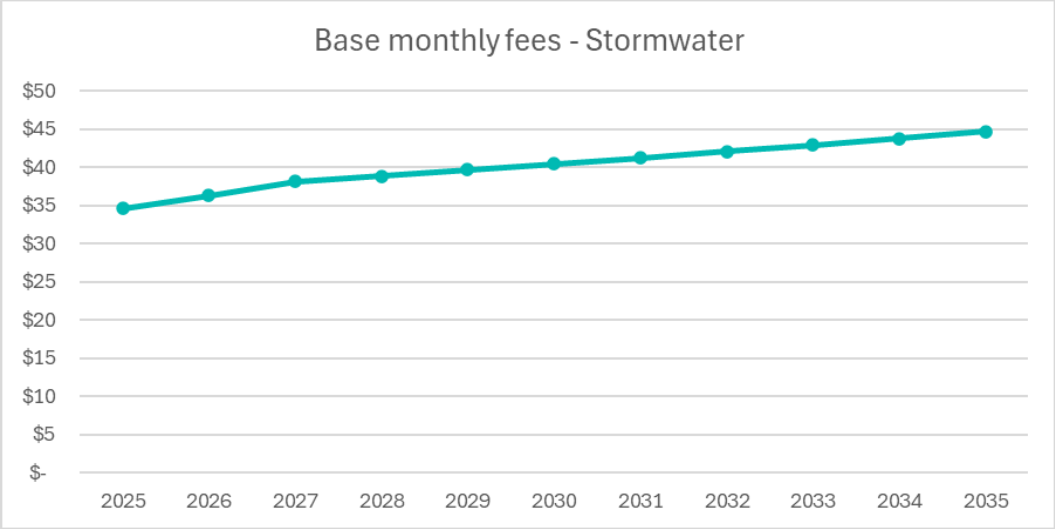
Figure 32: Projected wastewater rates



Stormwater Rates

For stormwater service, monthly service grows from a current cost of $34.59 to $44.69 in 2035. This represents a 29% increase over ten years.

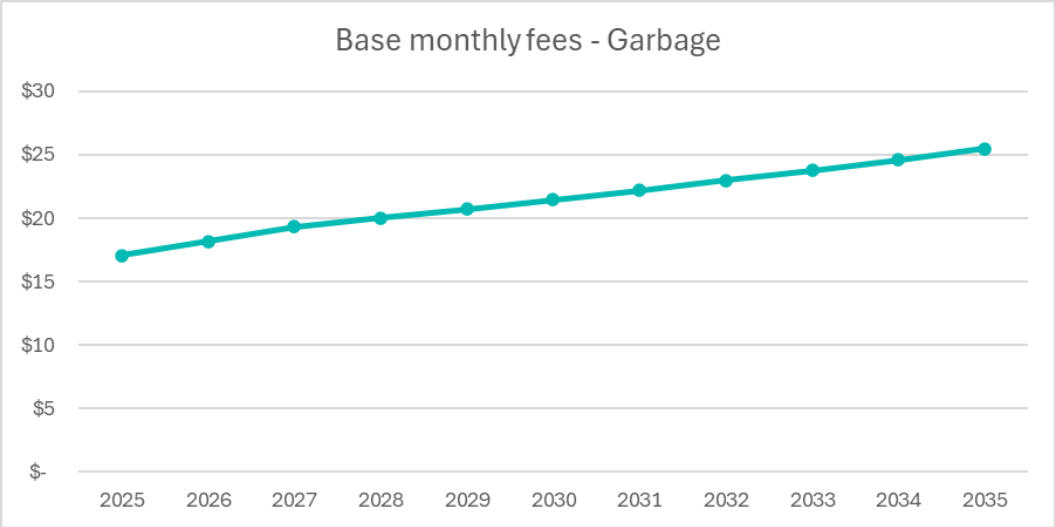
Figure 33: Projected stormwater rates



Garbage Rates

For trash collection, service for a 64-gallon container is currently $17.04 per month. This amount would grow to $25.45 in 2035, which is 49% over ten years.

Figure 34: Projected garbage rates



Projected Utility Bills

In this section, we will review the impacts of various utility rate scenarios on an average residential customer in the City. This customer uses 589 cubic feet of water per month, with a 35-gallon trash container and a 0.33 acre lot.

The baseline scenario uses the baseline recommended rates for water and wastewater. The lowest-rate scenario uses Scenario B for water and Scenario A for wastewater. The highest-rate scenario uses Scenario C for water (which include a treatment plant including the reverse osmosis component) and Scenario B for wastewater (which includes the trunk extension project).

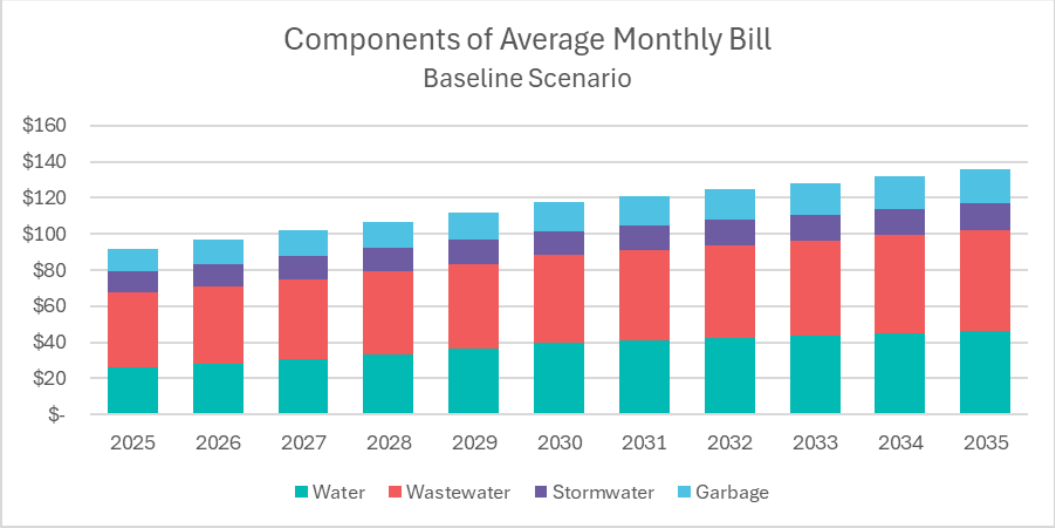
Stormwater and garbage have only one set of rate recommendations each, so these two components will remain constant.

Baseline Scenario

First, we look at the impacts of the baseline rate recommendations on an average ratepayer. In this scenario, the cost of water service starts at $25.97 in 2025, and grows to $46.25. Wastewater service grows from $41.74 to $56.10. Stormwater grows from $11.53 to $14.90, and Garbage collection increases from $12.55 to $18.74 per month.

The total monthly utility bill rises from $91.79 currently, to $135.99 in 2035. The cost of each utility service is shown in Figure 35 below.

Figure 35: Baseline utility costs for average residential customer

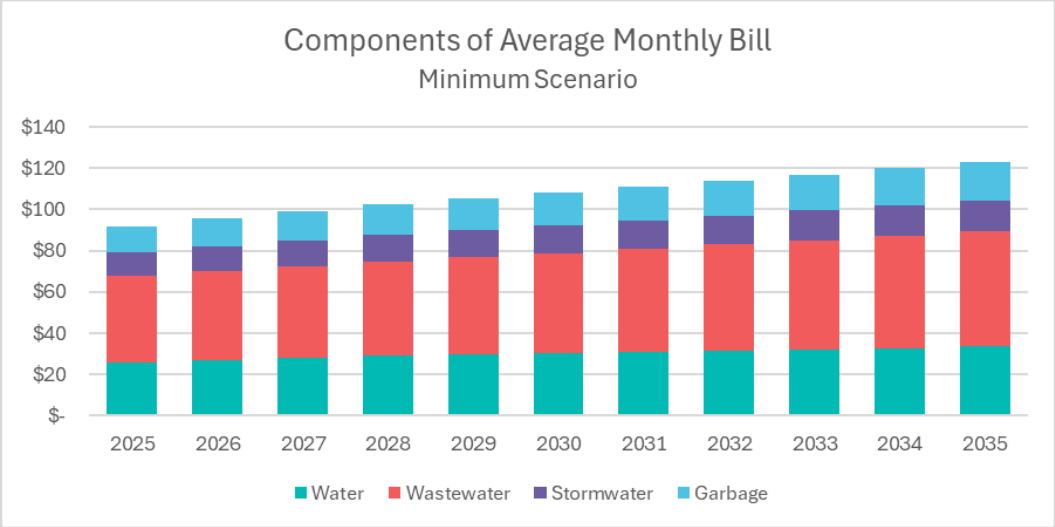


Minimum Scenario

If we look at the projections using the minimum water rates, we see that overall monthly bills are slightly lower. In this case, the cost of water service grows to $33.50 by 2035. Wastewater, stormwater and garbage remain unchanged from the previous scenario.

In this scenario, the total monthly bill goes from $91.79 to $123.24 over the next ten years. Costs are shown in Figure 36.

Figure 36: Average monthly utility bills – minimum rate scenario



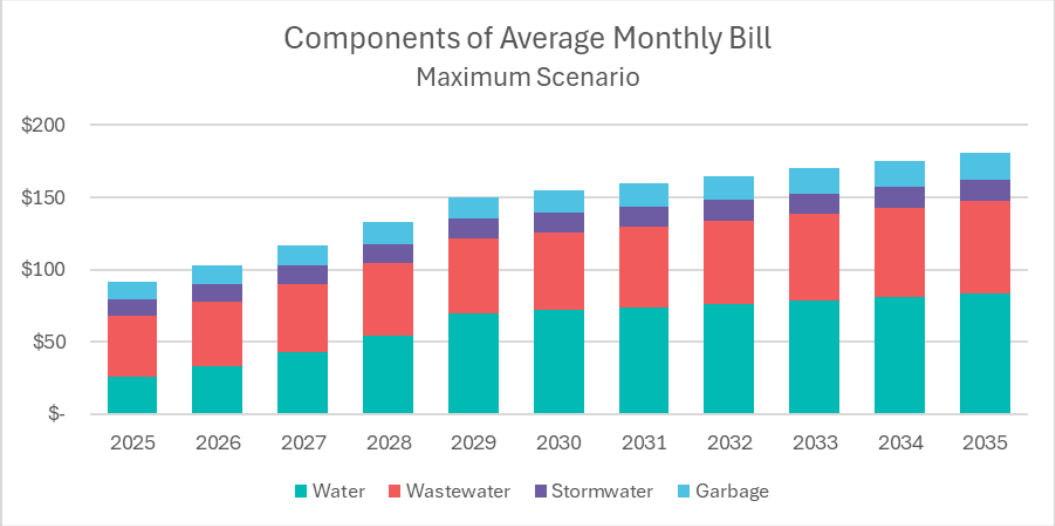
Maximum Scenario

The last scenario we review includes the maximum rate increases for water and sewer. This includes the more expensive water treatment plant and the sewer trunk extension to the NW Industrial Area.

In this scenario, the cost of water service starts at the current rate of $25.97 in 2025 and grows to $83.20. Wastewater service grows from $41.74 to $64.20. Stormwater and garbage grow to $14.90 and $18.74 as with the other scenarios.

In the maximum cost scenario, the total monthly bill for an average residential customer starts at the current rate of $91.79 and grows to $181.04 by 2035. This cost projection is shown in Figure 37.

Figure 37: Average monthly utility bills – maximum rate scenario



Comparison of Projected Bills

Looking at the total monthly bills under each scenario, we observe that the ten-year increase in total bills is 48% under the baseline scenario. For the minimum impact, growth is 34%, and for the maximum impact scenario, growth is 97%, essentially doubling total monthly bills over the course of ten years..

As can be seen in Figure 38 below, most of the growth in the maximum rate scenario occurs in the first four years, with increases becoming gentler after 2029.

Figure 38: Comparison of monthly bill scenarios