

To: Justin Wagner, Utilities Manager, City of Northfield  
 From: Matt Stark, Baker Tilly  
 Date: January 13, 2025  
 Subject: Updated Water Fund Analysis and Recommendations

Baker Tilly was recently asked by the City of Northfield to update its financial projections and rate recommendations for the City’s water utility. The updates are motivated by the City’s receipt of construction estimates for the new water treatment plant which are significantly higher than originally anticipated.

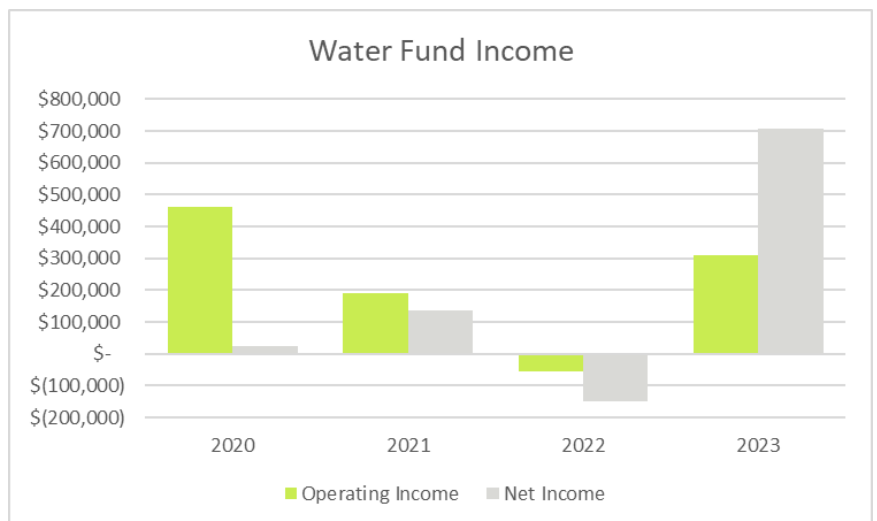
The water treatment plant was estimated to cost approximately \$55 million when the water rate study was last revised in July of 2024. Updated estimates put construction costs at approximately \$83.2 million.

This memo is intended to summarize the findings and recommendations of our analysis of the Water Fund using the updated construction cost estimate.

### Recent Performance

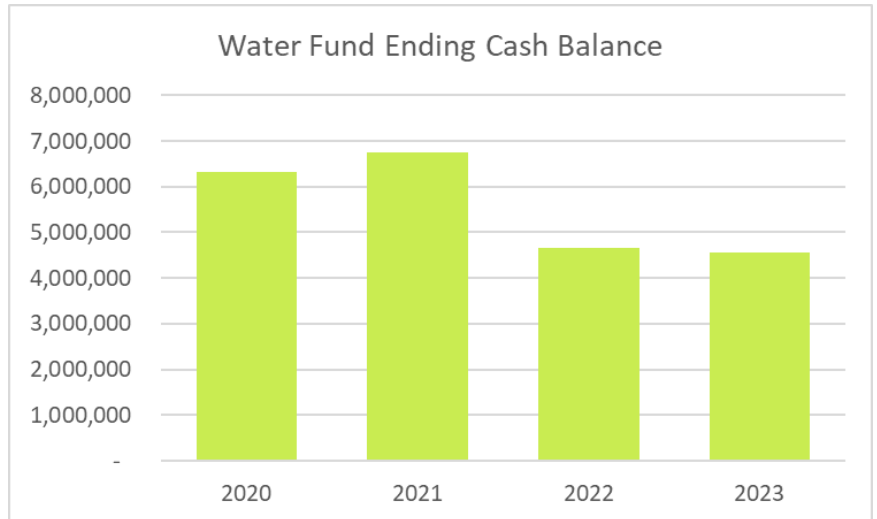
Looking at the Water Fund’s financial performance since 2020, we observe that operating income was on a steadily decreasing path through 2022. This decline reversed in 2023 when the fund showed operating income of just over \$300,000, due largely to an increase in operating revenues of nearly \$500,000.

Over the same period, net income tended to remain close to zero until 2023, when a combination of increased revenues and investment earnings created an annual surplus of approximately \$700,000.



Looking at the Water Fund’s cash position, the fund ended 2020 with \$6.3 million and ended 2022 and 2023 with \$4.6 million. The decline in 2022 was due to a \$2.1 million cash advance made to the 5<sup>th</sup> Street Redevelopment Fund. This money is expected to be repaid as development occurs, but no formal schedule has been set.

Under ordinary circumstances, a cash balance equal to 200% of operating expenses would be considered a healthy level. However, with over \$80 million in capital outlays to be funded, the Water Fund’s cash on hand represents a very limited pool of resources.

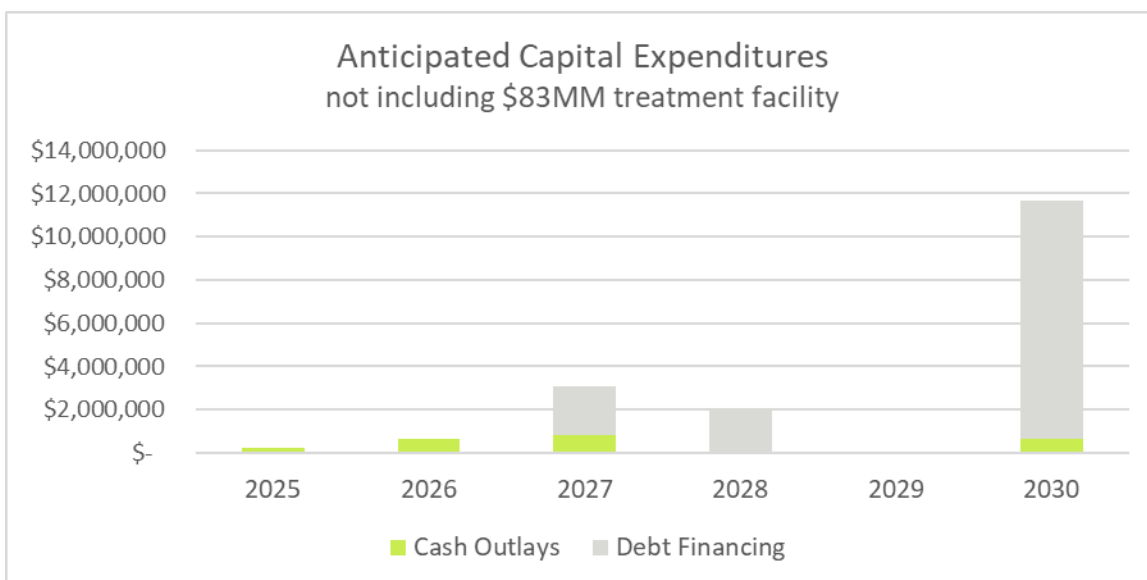


### Capital Outlays

In addition to the \$83.2 million treatment facility referenced above, the Water Utility anticipates \$17.7 million in other capital projects over the next five years, for a total investment of \$100.9 million. The most significant outlays apart from the new treatment plant are for maintenance and painting of storage tanks and for the construction of a water tower to serve the northwest area of the city.

The City’s existing capital plan includes construction of an \$8 million water tower in 2026 or 2027, along with \$5 million in meter replacement and storage tank painting starting in 2028. Completion of these projects on this timeline will add to the utility’s debt service costs at a point where revenues would be insufficient to meet requirements. To lessen the impact on water rates, we recommend that the projects be delayed until 2030.

A summary of annual spending is shown in the chart below. (The \$83.2 million treatment plant is not shown in the chart in order to make the scale of other outlays visible.) A detailed list of capital investments is included at the end of this report.



### Additional Assumptions Impacting Projections

While these financial projections are driven largely by the costs relating to the new treatment facility, our analysis of the water operation is also dependent on assumptions related to growth and inflation. The primary assumptions affecting the non-capital elements of the financial projections include:

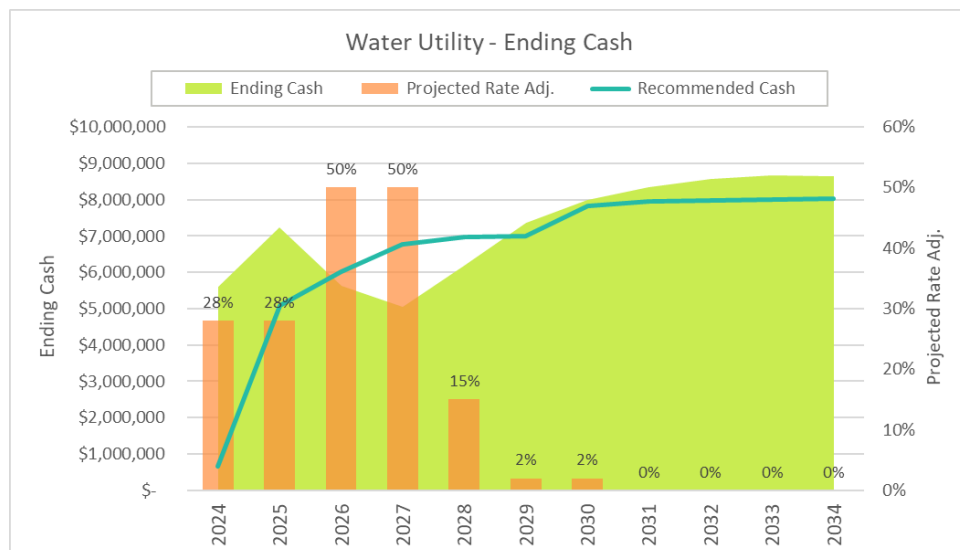
- No change in customer base.
- No additional staffing.
- Personnel expenditures increase 3.5% annually.
- Non-personnel expenditures increase by 3.0% to 6.0% annually.
- Operating costs related to the new treatment plant start at \$300,000 in 2026 and \$900,000 in 2027, and inflate 3% annually thereafter.
- Debt service payments for the new treatment plant begin in 2026. Total debt service for 2026 is approximately \$4.7 million for accumulated interest and principal, with regular payments of approximately \$5.4 million thereafter.
- Minimum cash balance recommendation is set at three months of operating expenses plus the subsequent year's debt service payment.

### Financial Projections and Rate Recommendations

For the purposes of making rate recommendations, our analysis focuses on four primary drivers: operating income, net income, cash reserves, and debt service coverage. For this study, maintenance of cash reserves and debt service coverage are the limiting factors; setting revenues sufficient to meet these requirements is more than sufficient to generate positive operating and net income. Charts showing projections for each of the four measures are included at the end of this report.

Looking at the projected revenues and expenditures for the Water Fund, we anticipate that significant additional rate increases will be required to provide the revenues required to finance the new treatment plant. Assuming that the 28% rate increase for 2025 is not changed, we recommend additional rate increases of 50% in 2026 and 2027. These rate increases are expected to be sufficient to cover most of the utility's debt service needs along with the operating expenses of the new facility. In 2028, we estimate that an additional rate increase of 15% will be needed to provide the remaining resources needed for sustainable operations. The 2028 rate adjustment will depend on the project's final construction costs and actual operating expenses at the new facility, though we do not believe the final adjustment will be more than a few percentage points higher or lower.

Looking first at the Water Fund's cash balance, we see that the 28% annual increase 2025 allows the fund to accumulate cash to a level of \$7 million. These reserves are quickly drawn down in 2026 and 2027 as debt service payments for the new treatment facility are made. The 50% rate increases in 2026 and 2027 serve to slow down the rate at which cash reserves are used, and the 15% increase in 2028 allows the Water



Fund to rebuild cash reserves to a minimum recommended level equivalent to 3 months of operating expenses plus one year of debt service. Our projections show the Water Fund reaching this minimum balance by 2029.

The rate increases required to maintain adequate cash reserves also serve to generate revenues equivalent to approximately 105% of annual debt service. If any of the City's long-term debt requires coverage in excess of 105%, then the 15% rate increase recommended for 2028 may need to be adjusted to provide the necessary resources.

The rate increases above generate positive operating and net income for the duration of the study period. Operating income grows to approximately \$4.8 million by 2030 before settling at a level of \$4 million in 2034. Net income shows more variability, reflecting the impact of interest payments on long-term debt. Net income grows to \$2.5 million in 2030, dropping to approximately \$1.7 million per year in 2031 as additional debt service payments are required to pay for the major maintenance projects scheduled for 2030.

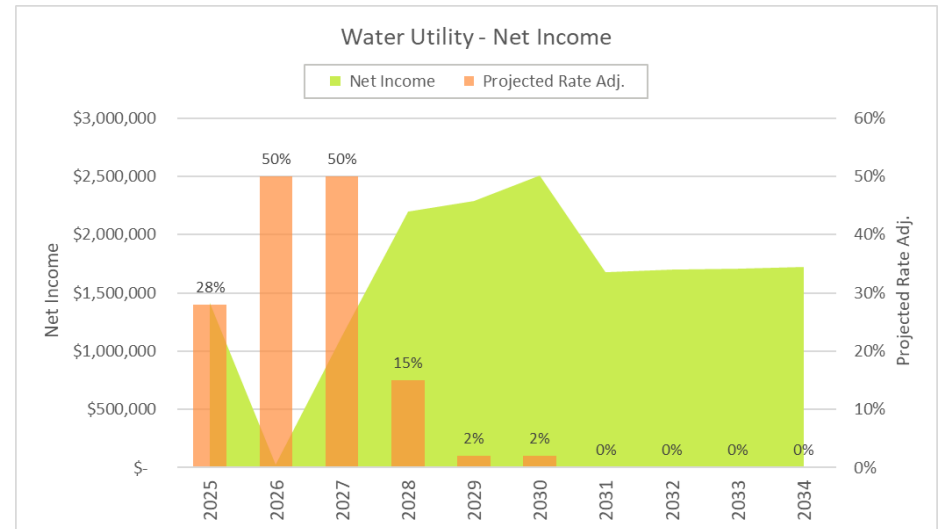
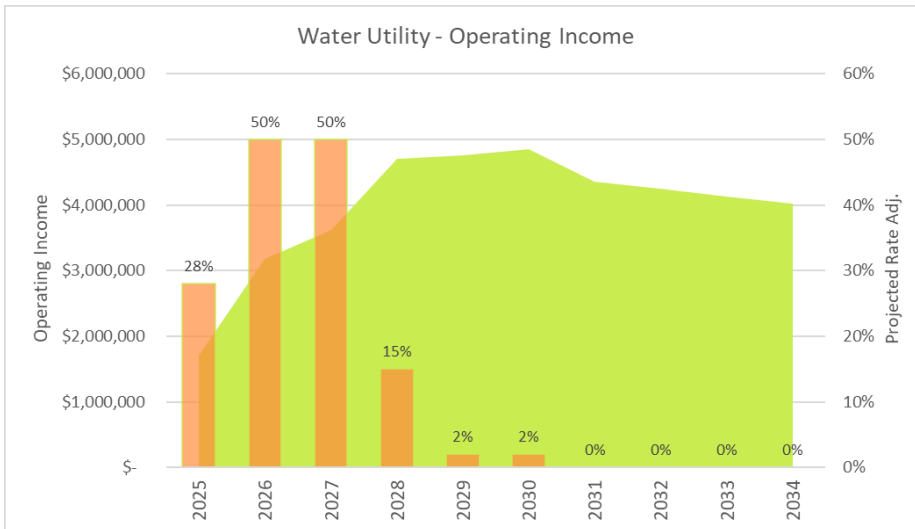
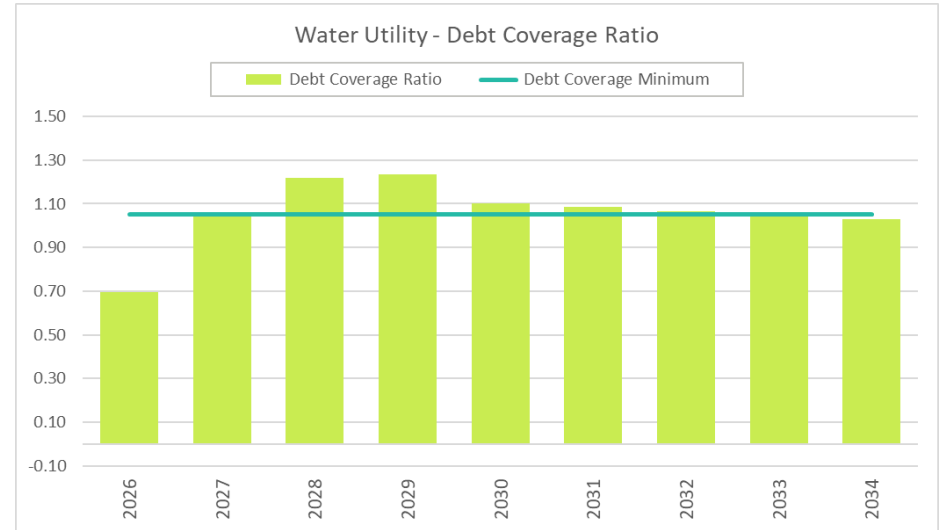
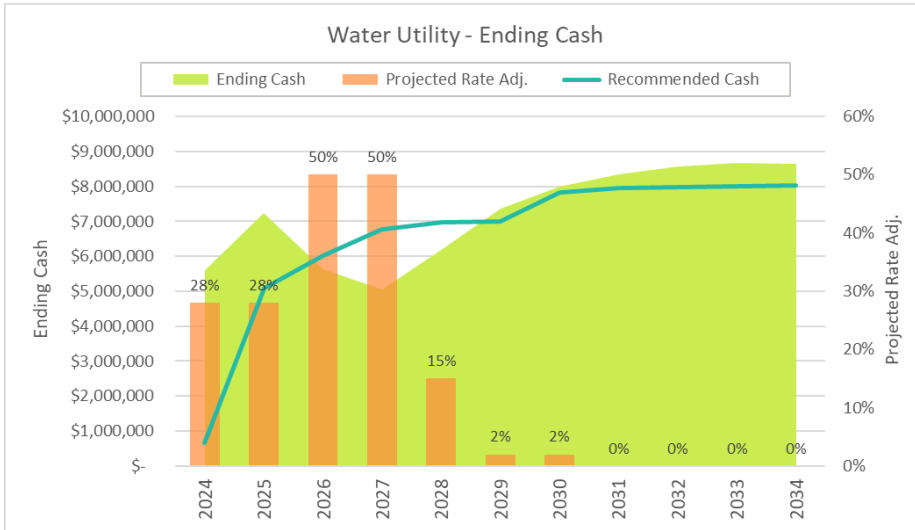
We recognize that the rate increases recommended for 2026 and 2027 are considerably higher than our earlier recommendations. The higher rates are needed primarily because debt service payments on the \$83 million project are expected to start in 2026, two years earlier than previously estimated. The shortened timeframe means that rate increases need to be more aggressive in order for the Water Fund to generate the revenues required to cover the new expenses.

We do not foresee any large adjustments being necessary after 2028. We recommend the City perform a new financial analysis when the final costs for the new treatment plant are known with more precision.

### Closing

We hope that this analysis proves useful to the City of Northfield as it contemplates financing for the new water plant and plans for the future operations of the Water Fund. If the City has questions about this report or would like to discuss its findings and recommendations in more detail, it would be our pleasure to provide any assistance required. We thank the City of Northfield for the opportunity to be of service.

Water Fund Operating Indicators



**Capital Expenditure Details**

<b>Capital Outlays</b>							
	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>Grand Total</b>
<b>Water</b>	<b>243,814</b>	<b>83,868,280</b>	<b>3,068,347</b>	<b>2,083,204</b>	-	<b>11,640,000</b>	<b>100,903,645</b>
<b>Enterprise Fund - cash</b>	<b>243,814</b>	<b>631,265</b>	<b>811,882</b>	<b>83,204</b>	-	<b>640,000</b>	<b>2,410,165</b>
2025 Mill and Overlay	17,870	-	-	-	-	-	17,870
2025 Street Reclamation	133,944	-	-	-	-	-	133,944
2026 Mill and Overlay	-	155,379	-	-	-	-	155,379
2027 Reclamation	-	-	190,544	-	-	-	190,544
2028 Reclamation	-	-	-	28,204	-	-	28,204
Ford Lightning	40,000	-	-	-	-	-	40,000
Jefferson Pkwy Mill and Overlay	-	20,438	-	-	-	-	20,438
John Deere Z930M Mower	12,000	-	-	-	-	-	12,000
MCC and generator replacement, Wells 3 and 4	-	-	-	-	-	640,000	640,000
Replace 2017 Ford F150	-	-	35,000	-	-	-	35,000
Replace 2018 Ford F250	-	-	-	40,000	-	-	40,000
Replace Valve Wrench	-	-	-	15,000	-	-	15,000
Skid Loader and attachments	40,000	-	-	-	-	-	40,000
Spring Creek Road Reconstruct	-	455,448	586,338	-	-	-	1,041,786
<b>Enterprise Fund - Revenue Bond</b>	-	<b>83,237,015</b>	<b>2,256,465</b>	<b>2,000,000</b>	-	<b>11,000,000</b>	<b>98,493,480</b>
Hall Ave Elevated Tank Painting	-	-	-	-	-	1,000,000	1,000,000
Hwy 19 Water Main	-	-	2,256,465	-	-	-	2,256,465
Meter Replacement	-	-	-	2,000,000	-	-	2,000,000
New Water Treatment Plant	-	83,237,015	-	-	-	-	83,237,015
NW Area Water Tower	-	-	-	-	-	8,000,000	8,000,000
St Olaf North Ground Storage Tank Painting	-	-	-	-	-	1,000,000	1,000,000
St Olaf South Ground Storage Tank Painting	-	-	-	-	-	1,000,000	1,000,000
<b>Grand Total</b>	<b>\$ 243,814</b>	<b>\$ 83,868,280</b>	<b>\$ 3,068,347</b>	<b>\$ 2,083,204</b>	<b>\$ -</b>	<b>\$ 11,640,000</b>	<b>\$ 100,903,645</b>