Town of Groveland, MA

Water Financial Plan & Rate Study

Final Report / January 2026

RAFTELIS

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1. Introduction

Raftelis Financial Consultants, Inc. (Raftelis) was engaged by the Apex Companies, Inc (Apex) on behalf of their client the Town of Groveland, Massachusetts (Town) to perform a Water Financial Planning and Rate Study (Study). This report details the process by which the Study was performed and documents its conclusions.

1.1. Scope of Services

The goal of the Study was to help the Town set water rates to ensure the current funding and long-term fiscal health of the Town's Water Enterprise Fund. The Study scope included the development of a comprehensive financial plan for the Water Enterprise Find, a review of current Town water utility budget, debt obligations, and an assessment the Town's current water rates given the Town's capital investment needs and financial objectives. Additionally, Raftelis was asked to develop recommendations for water rates and charges necessary to fund current and future operating and capital investment needs. Raftelis' specific tasks were to:

1. Evaluate the utility's current and historical operating budgets and fiscal performance;
2. Review the utility's capital improvements plans (CIP) and expected funding mechanisms;
3. Project both operations budgets, including debt service on existing loans, and future capital expenditures for a five to ten-year period;
4. Evaluate the Town's existing rate structure and its revenue generation characteristics against projections of future operating and CIP expenses;
5. Make recommendations for modifications to the existing rate structures to ensure the Water Enterprise Fund's long-term fiscal sustainability; and
6. Provide a user-friendly, non-proprietary, financial planning and rate model, designed for ongoing use by Town staff.

Raftelis held in-person and virtual meetings with Apex and Town staff to identify the Town's primary objectives and financial goals. During these meetings, we determined that the Town prioritized revenue sufficiency, revenue stability, and reflected the desire to ensure that all customers contributed equitably to the needed investments into the water utilities.

In collaboration with Town representatives, Raftelis constructed a financial planning and rate model to forecast annual revenue requirements (costs), customer demand, rates, and system revenues over a multi-year planning period. The model allowed for the analysis of the Town's current financial position and the future impacts of the recommended rate adjustments to the system and its customers.

1.2. Utility Background

1.2.1. Water Enterprise Fund

The Town of Groveland has a municipally-owned, potable water system which it operates as an Enterprise Fund, as allowed under G.L. Chapter 44, Section 53 F$^{1}/_{2}$. In practical terms, this means that the Town intends and attempts to ensure that the utility is a self-funding operation which maintains financial accounts separate from and independent of the Town's General Fund activities.

The system serves approximately 1,950 customers with the vast majority being residential connections. In addition to the Town's historical programs of reinvestment into the water system, new regulations have come into force which mandate the installation of new infrastructure, specifically a new water treatment plant to address PFAS present in the raw water supplies.

In the next five years, these investments, which are currently expected to cost a little over $45 million (2025 dollars), are expected to necessitate significant changes to the Town's water billing rates and/or practices. The rates included in this report include the assumption that these investments occur.

2. Financial Planning and Rate Study Process

This financial planning and rate setting study was conducted using a systematic approach developed by Raftelis, specifically tailored to the Town of Groveland's objectives and goals. The initial phase involved a comprehensive kick-off meeting with Town staff to define the Town's financial objectives. During this meeting, Raftelis also facilitated a discussion regarding the advantages and disadvantages of the Town's current rate structure, along with exploring potential modifications.

Based on these preliminary discussions, the rate study process was outlined and executed according to the following key phases:

A. Review of Financial and Billing Records: A thorough review of the Town's current and historical financial and utility billing records was undertaken to establish a foundational understanding of the utility's financial position.
B. Development of the Financial Plan: Utilizing the gathered documentation, a comprehensive Financial Plan was developed, as detailed in Section 3.1. This plan outlines future expectations for operational budget needs, debt service repayments, and necessary capital investments for the water utility.
C. Revenue Projection: Current and historical consumption data (billed as minimum charges and volumetric usage) were utilized to develop robust projections of future revenue generation under both the existing and prospective rate structures.
D. Evaluation of Rate Structure Changes: Potential changes to the existing rate structures were evaluated with a focus on minimizing the impact of planned capital investments on residential customers while ensuring financial sustainability.
E. Collaborative Review and Refinement: Preliminary findings were reviewed collaboratively with Town staff to fine-tune the financial model and ensure that the final recommendations considered the Town's ability to implement rate structure changes within its existing water billing systems.

Our analytical process commenced with a thorough examination of the Town's customer demand. This involved evaluating the total number of accounts, categorized by meter size, consumption level, and customer class. To accurately assess current demand and project future trends, we developed detailed projections of the Town's accounts and anticipated billable consumption. These projections were then applied to the existing rate structure to generate a comprehensive revenue forecast, which was subsequently compared against historical revenue recovery to identify trends and variances.

Following the demand analysis, an integrated financial plan was developed for the water utility. This plan provides a summary of the projected revenue requirements and anticipated revenues for the Town's water utility over a five-year planning horizon. With a particular focus on Fiscal Year 2026, the plan identifies potential revenue shortfalls under the existing rate structure and quantifies the additional revenue required to meet the projected operational and capital needs. These revenue requirements comprehensively account

for all operations and maintenance (O&M) costs, existing debt service obligations from prior projects, foreseeable capital investment costs (encompassing both projected future debt service and cash-funded capital), and other essential needs crucial for maintaining the utility's long-term financial viability.

Upon completion of the financial plan, the subsequent phase involved calculating potential rate structure adjustments designed to address the identified revenue shortfall. The proposed adjustments were developed to align with the Town's stated priorities, including:

- ensuring revenue sufficiency and stability,
- maintaining the same basic rate structure as has historically been in use in Groveland, and
- minimizing (to the extent possible in light of the needed CIP investments) the impact of rate changes on customers.

The various rate scenarios, including detailed discussions of their respective impacts, were then presented and reviewed collaboratively with Town staff and leadership during a series of in-person and video conference meetings and work sessions. These evaluations directly resulted in the recommendations included in this report.

3. Financial and Rate Plan

3.1. Utility Revenue Requirements

The term "revenue requirement" refers to the annual costs that must be recovered through each respective utility's billed revenues. Operating under Enterprise Fund guidelines, under which neither utility is subsidized by other Town funding, each utility's set of rates and charges are designed to provide these revenues.

The first major task in establishing a financial plan is to develop an understanding of the likely expenses which will be incurred by the utilities over the forecast period. This amount includes operations and maintenance (O&M) expenses, annual debt service payments for past system investments, projected debt service payments associated with anticipated investments, anticipated cash-funded capital, and any desired contributions to reserves. More complete descriptions of and the projections for these expenses are detailed in the following sections. As Groveland does not currently budget for contributions to reserves, this "expense" was not included in the model.

3.1.1. O & M Expense Costs

O&M expenses represent normal, recurring expenses necessary to sustainably operate and maintain the system during the Town's annual accounting cycle, which is a Fiscal Year ending June 30th. The 2021-2026 operating budgets, which were provided to Raftelis by Town staff, serve as the baseline for the projection of utility operating costs. O&M expenses include the labor costs of Town staff associated with running the Town-owned utility, as well as regular expenses like fuel, electricity, insurance, chemicals, and other routine costs.

To develop a five-year forecast of system operating costs that accounts for growing utility costs and inflation, Raftelis adjusts each major operating expense category by a corresponding escalation factor. These escalation factors resulted in an overall increase of 3.0% per year in operating expenses throughout the five-year forecast period. Some expenses (such as employee insurance and benefits costs) are forecasted to increase by greater than 3.0%, but on average O&M is forecasted to increase by approximately 3.0% annually.

The Town's 2026 budgeted operating expenses and forecasted operating expenses for water utilities through 2030 are presented in Table 1 & 2, below.

Table 1 – Water Operating Expenses Forecasted from 2025 to 2031

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	Budget	*Projection*	*Projection*	*Projection*	*Projection*	*Projection*
		$ -	$ -	$ -	$ -	$ -
Salaries:		-	-	-	-	-
Commissioners	1,377	1,419	1,461	1,505	1,550	1,597
Superintendent	75,477	77,741	80,073	82,476	84,950	87,498
Office Manger	49,380	50,861	52,387	53,959	55,578	57,245
Laborers Wages (3)	165,941	170,919	176,047	181,328	186,768	192,371
Admin Assistant	39,447	40,631	41,849	43,105	44,398	45,730
Overtime	48,546	50,003	51,503	53,048	54,639	56,279
Other Expenses:		-	-	-	-	-
Expenses	418,163	430,708	443,630	456,938	470,647	484,766
Health	72,736	74,918	77,166	79,481	81,865	84,321
Retirment	94,349	97,180	100,095	103,098	106,191	109,377
Emergency Finds		-	-	-	-	-
Engineering BAN	260,000	267,800			-	-
Medicare	5,512	5,678	5,848	6,024	6,204	6,390
Capital Expense	194,700	200,541	206,557	212,754	219,137	225,711
SCADA						
New Water Source						
Indirect Costs	12,953	13,342	13,742	14,154	14,579	15,016
Equipment	20,000	20,600	21,218	21,855	22,510	23,185
Total Expenses	$ 1,458,583	$ 1,502,341	$ 1,271,577	$ 1,309,724	$ 1,349,016	$ 1,389,487
Transfer to Enterprise Fund	$ 12,086	$ 12,449	$ 12,822	$ 13,207	$ 13,603	$ 14,011
Total Transfers	$ 12,086	$ 12,449	$ 12,822	$ 13,207	$ 13,603	$ 14,011
Total: Water Operating & Maintenance E	**$ 1,470,669**	**$ 1,514,790**	**$ 1,284,399**	**$ 1,322,931**	**$ 1,362,619**	**$ 1,403,498**

3.1.2. Existing Debt Service

The second major component of the utility's revenue requirement is their existing debt service, which is comprised of the scheduled payments on debts the Town is obligated to repay. These debts are attributable to either the water or sewer utility within the Town's budgets and are directly associated with past capital investment and construction projects undertaken by the Town. Based upon the existing debts of the Town, the Table below presents the schedule of debt repayment for the water utilities.

Table 3 – Existing Water Debt Service Schedules through 2031

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	Planned	*Planned*	*Planned*	*Planned*	*Planned*	*Planned*	*Planned*
Existing Water Loans							
Water Well	6,800	6,650	6,500	6,350	11,200	10,900	10,600
Storage Tank & Well Mains	63,050	61,550	60,050	63,550	61,900	60,250	63,600
Water 2	24,800	24,200	23,600	23,000	22,400	21,800	21,200
Storage Tank & Well Mains II	44,750	48,700	47,500	46,300	45,100	43,900	47,700
Water Mains Main St. Gardner St.	104,225	101,975	99,725	97,475	95,225	92,975	90,725
Placeholder							
Subtotal: Existing Water Debt Service	$ 243,625	$ 243,075	$ 237,375	$ 236,675	$ 235,825	$ 229,825	$ 233,825

The values shown reflect the projection of the aggregate principal and interest payments which will be due on currently outstanding debt. As each outstanding loan is accounted for separately, the portions of the existing debt which are projected to be fully repaid during the forecast period are shown with the overall annual costs decreasing as loans are repaid. Although not included on Table 3, Debt Service obligations on existing loans will drop to approximately $80,000 in FY2033 and these reductions have been included in the 10-year financial model.

3.1.3. Capital Improvement Plan

The third major portion of future revenue requirements is a projection of future cash flows associated with Groveland's anticipated capital investment plan (CIP). From a financial planning perspective, the inclusion on the expected future capital improvements ensures that the Town is planning it rates to account for the increased costs which these projects will incur as they are constructed and the bonded amounts begin to have debt service obligations attributable to the Enterprise Fund.

For the projects that are currently included in the capital improvements plan, the value of bonding anticipated as part of the rate study was based upon guidance from the Town and Apex. In the case of the water treatment plant construction bond, the current construction cost of $41.6 million was escalated to the year of construction and will likely represent approximately $53 million in actual bonding. For the purposes of estimating future debt service obligations, both of these projects were assumed to have 20-year repayment periods at a rate of 4-1/2% per year. This rate is slightly conservative in comparison to highly rated Massachusetts municipal bond debt in the current market. If Groveland is able to acquire financing via the state's Drinking Water State Revolving Fund (SRF) program, the repayment obligations could be reduced significantly (by 20% or more) from the levels carried in our financial planning guidance.

For the purposes of this rate study, there were two specific capital investment obligations included in the analysis:

1. PFAS Treatment Plant Design and Engineering Bond
   Amount: $4.317M
   Bonding FY: FY2027
   Discussion: This project is associated with the preparation for, design, and construction engineering work associated with constructing the new water treatment plant upgrades. This bonded amount is partially funded already via a bond anticipation note.

2. PFAS Construction Bonds
   Amount: $41.6M
   Bonding FY: FY2029
   Discussion: This project is associated with the actual construction cost for the water treatment plant. Depending on how the town elects to issue its bonding, this amount may be spread over several fiscal cycles.

Based upon the Town's engineering consultant's current estimates for construction costs and timing associated with the CIP, Raftelis developed a projection of cash flows (associated with future debt service obligations) which will result from these investments. Within the cash flow projections, the project values

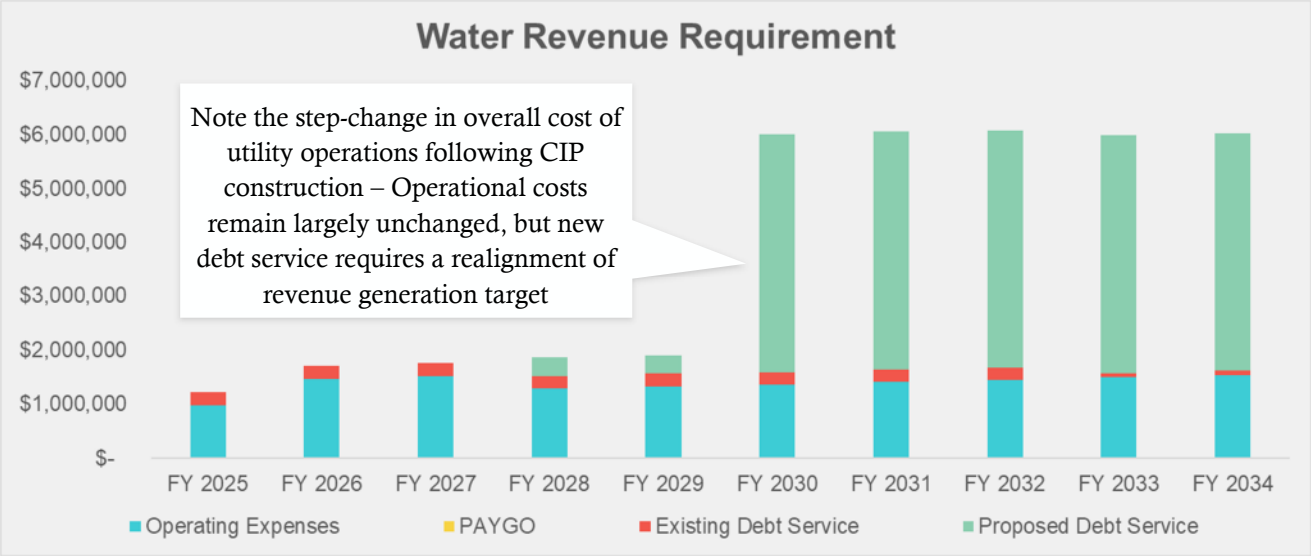
were adjusted to account for expected inflationary increases in construction costs between the current values and the expected date of construction. These implied debt service obligations were carried in the utilities full financial plan.

3.1.4. Projection of Future Revenue Requirements

Using the three components of future expenses discussed in the previous sections, which include O&M expenses, existing debt service, and future capital spending, Raftelis prepared a projection of the overall combined costs the Town should expect for its water utility operations.

The water utility's projected revenue requirements are graphically presented in stacked bar format on Figures 1. In short, the Town can expect the revenue requirement for the Enterprise Fund to grow significantly over the coming five years. The increase is driven primarily by expected capital investments but also incorporates modest growth in O&M expenses. As the Town's current water rate structures are projected to provide revenues fairly close to the FY2026 expenses, it is clear that significant changes to the rates will be needed to fully fund the utilities to account for the growth in capital expenses.

Figure 1 – Water Fund Revenue Requirement (projected) - FY 2026 through FY 2034



3.2. Assessment of Historical Demand Patterns

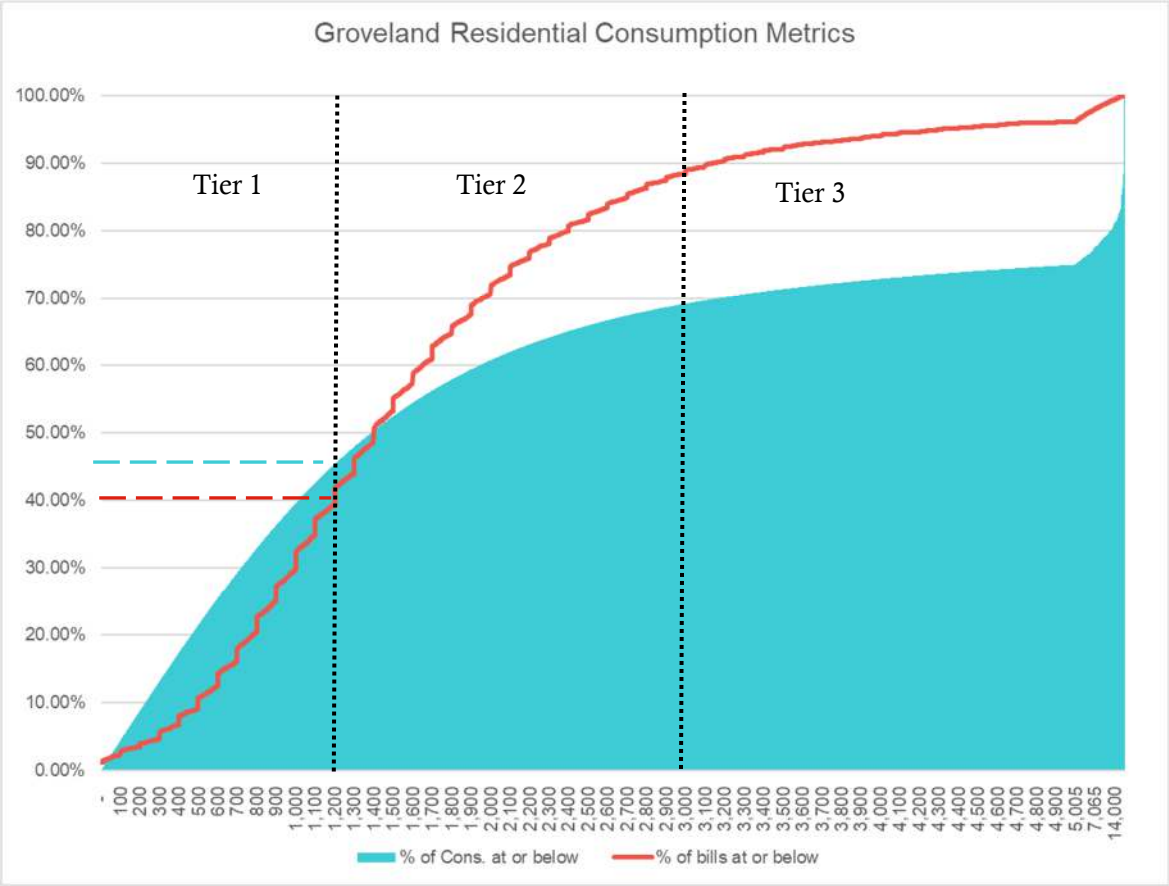
The Town's Water Enterprise revenues come principally from user fees/rates. Consequently, as part of this study, Raftelis completed an in-depth examination of historical water billing records. Since historical billing is highly correlated to expected demand in future years, projections for customer counts and water volumetric usage were used to project the expected amount of billings (both fixed and volumetric) in future years. As a result, the historical billing records result of this analysis was used in the generation of future revenues under various rate scenarios.

Depending upon the construction schedule for the capital programs, this projection may need revision in future years due to the potential for erosion of billed volumetric consumption due to higher utility rates. Both fixed charge and volumetric billing patterns should be monitored in the coming three to five years to evaluate possible changes in volumetric billings patterns as rate increases occur.

3.2.1. Historical Volumetric Billings

Three years of historical water billings were reviewed to prepare a projection of future billing patterns. Figure 2 on the following page graphically presents the data for FY2025 billing for water customers with the breakdown of billing by tier (both as a percentage of bills issued and the volume of water). The relative prevalence of bills issued at each usage level is indicated in bar format and the percentage of bill counts and water volume are presented as lines in red and yellow, respectively. Both are plotted against notations at the top for the consumption tiers used in Groveland.

Figure 2 – Historical Residential Water Billings



As shown in the chart, the issuance of bills in Groveland is concentrated at the lower end of the tier structure. Approximately 40% of the bills issued to residential customers (indicated by the dashed red line) are for billing period with usage below the Tier 2 thresh-hold. Similarly, the usage on these bills (indicated by the dashed cyan line) constitutes approximately 45% of overall volumetric usage. It is important to note that this means that the water utility currently receives no direct revenue for almost half of the water produced by the utility.

Although Figure 3 only presents data for residential customers (as they represent the vast majority of Groveland customers), the same analyses was also completed for non-residential customers and the results of those analyses were used in this study.

Table 4 – Historical Groveland Billing Metrics

	FY 2025	FY 2026
	Actual	*Projected*
WATER		
Water Accounts by Meter Size		
5/8"	767	767
3/4"	1,034	1,034
1"	150	150
2"	9	9
3"	3	3
4"	1	1
		-
	-	-
Total: Water Customer Accounts	**1,964**	**1,964**
% Change	1%	0%
Total: Senior Discount Accounts	544	544
Water Demand by Block (cubic feet)		
0-1200 cu. ft.	7,889,614	7,889,614
1201-3000 cu ft.	4,123,413	4,123,413
3001+ cu ft.	5,352,245	5,352,245

3.2.2. Projection of Demand Patterns

After consultation with the Town regarding future development and possible water conservation, Raftelis made a conservative assumption in our forecast that the number of accounts and consumption should remain constant over the projection period. As noted in the preceding section, this assumption, while conservative in the implied expectation that growth in customer base will increase future revenue generation, also presents a risk in the event that the foreseeable rate increases cause a reductions in volumetric consumption due to increasing utility bills.

Table 4 summarizes the customer count data used to calculate user fixed charge revenues through the model's projection period. In the event that future customer counts and demands outpace these assumptions, the Town may wish to revisit the recommendations contained later in this report.

3.3. Current Rate Structures and Performance

The Town's existing and historical water rates are shown in Table 5. The water utility employs a combination of fixed charges and volumetric rates, employing an inclining rate block rate structure. The fixed charge provides for active service connection to the Town water utility and includes all usage below 1,200 hundred cubic feet (ccf) in each quarterly billing period. The volumetric charge uses a three-tier structure, with the volumetric charges increasing incrementally as a customer uses more utility service. As noted above, all usage in the first tier is currently included in the fixed charge. While inclining block rate structures are common in Massachusetts and are promoted by MassDEP to encourage efficient water usage, the Town's current practice of not charging for usage in the first tier is less prevalent.

Table 5 - Existing (FY 2026) and prior Water Rates

		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
		Actual	*Actual*	*Actual*	*Actual*	*Actual*
Water Rates						
Volumetric Rate (per CCF)						
All Customers (Quarterly)	*min charge*	$ 76.13	$ 76.13	$ 76.13	$ 80.70	$ 96.84
	1201-3000 cu ft.	6.95	6.95	6.95	7.37	8.84
	3001+ cu ft.	12.98	12.98	12.98	13.76	16.51
Capital Charge (Quarterly)						
All Customers				$ 25.00	$ 25.00	$ 25.00

3.3.1. Discussion of Projected Performance – Current Rate Structure

Using the existing rate structure and the Town's historical demand patterns, and compared to the significant increase in overall utility costs due to expected capital investment, Raftelis expects that, without significant adjustment, the water utility will run significant revenue shortfalls in future years. These projected shortfalls with the current rates are almost entirely due to the future costs associated with CIP investments in water treatment. A noted in Section 3.1.4, the current rates roughly cover FY2026 operating costs. The expected shortfalls in the event of maintenance of current rates are projected to be represented by the growth on overall utility costs shown in Figures 3 & 4.

3.4. Recommended Financial Plan

To prevent the full expenditure of current Enterprise Fund reserves and ensure the long-term fiscal health of the Town's utility, Raftelis recommends the following financial plans. We developed the plans with the following principal goals:

1. Fund all proposed revenue requirements, including the Town's expected capital improvements plans, as detailed in this report;
2. Target revenue increases included in the recommended rates to reflect the projected increase in operational and capital investment-related costs; and
3. Build or maintain sufficient financial reserves to provide management flexibility and ensure the Water Enterprise Funds' ability to remain fully self-funding and separate from the Town General Fund.

The following sections present the details of our recommendations and present charts that illustrate the recommended overall revenue and the resulting reserve fund balance. We also provide a brief discussion of the recommendations alongside a table showing the proposed rates. In the following sections of this report, we present recommendations for modifications to the existing rate structures.

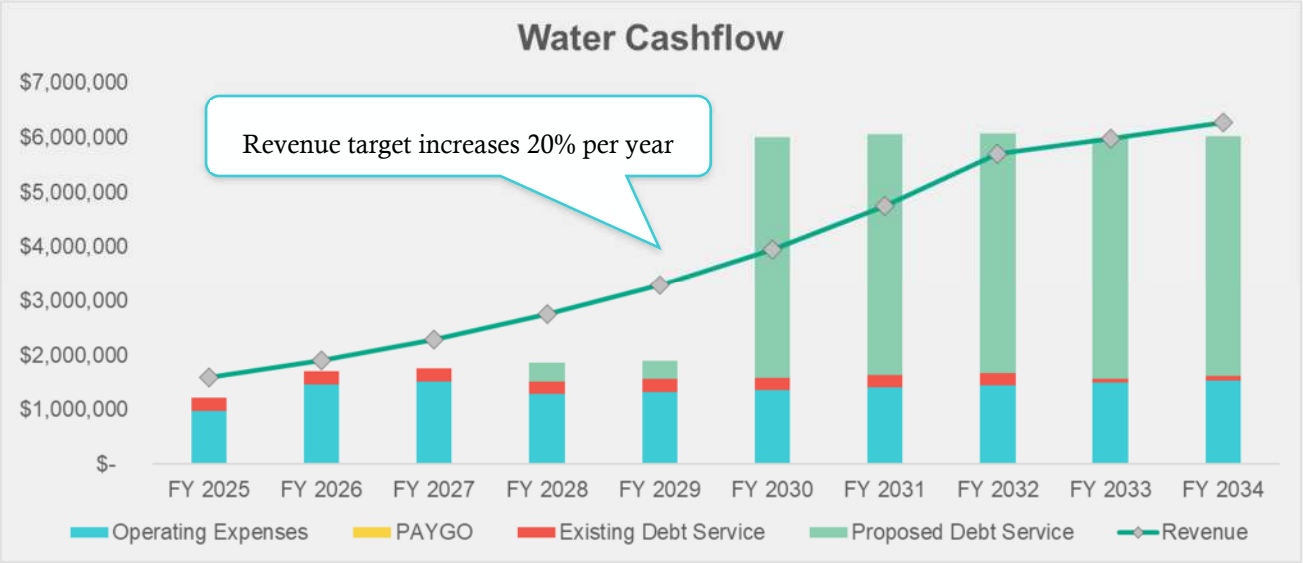
3.4.1. Water Utility Financial Plan

The figures on the next several pages present our recommended financial plan(s) for the Groveland Water Enterprise Funds. As outlined in the preceding sections, these recommendations are based upon the projected overall cost of providing these services within Groveland and have been developed to accommodate the expectations for needed capital investments to accommodate evolving regulations, system reinvestment, and in consideration of the need for expansion in service levels to meet the Town's growth-related utility needs. The projection period for these charts extends through FY2034 to provide a full understanding of the expected growth in debt service associated with capital investments through FY2031.

3.4.1.1. Recommended Financial Plan

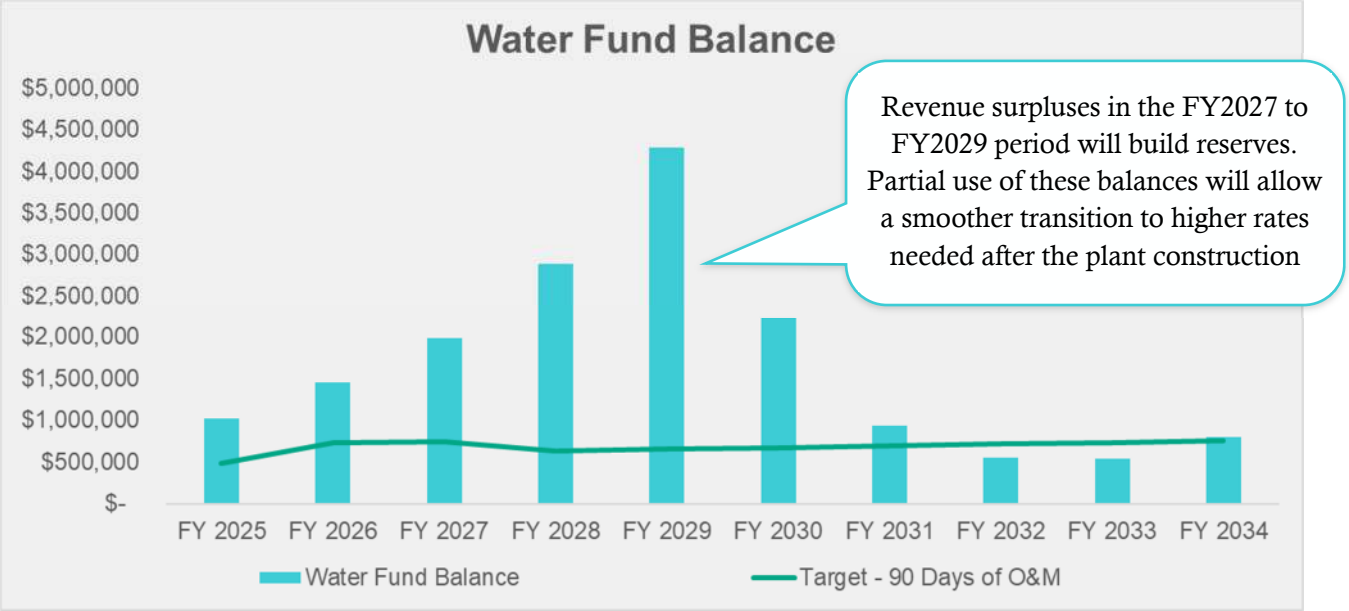
Figures 4 & 5 present the recommended financial plan for the Water Enterprise Fund under the capital investment scenario which includes the Town base CIP as well as PFAS investments. On Figure 4, projected expenses are presented in stacked bar formats and the recommended revenue level is shown as a solid line. On Figure 5, the projected fund balance of the Water Enterprise Fund at the close of each fiscal year is shown against a minimum fund balance target (solid line) target equivalent to 90 days of operational and maintenance expenses, a reasonable level for operational reserves for public utilities.

Figure 3 - Water Financial Plan – Target Revenues versus Expenses



As indicated on Figure 3, the overall annual cost of providing water service in Groveland is expected increase from slightly under $2 million to over $6 million. The vast majority of the increase is associated with the capital related debt service obligation (shown as the green bar) associated with the new water treatment plant.

Figure 4 - Water Financial Plan – Projected Fund Balance



3.4.1.2. Discussion – Water Enterprise Financial Plan

The recommended financial plan for Groveland's water utility is intended to help the Enterprise Fund build both reserves levels and overall revenue generation as it approaches a large capital investment cycle. The general approach to making these adjustments is to make even, annual incremental increases such that the utility can maintain adequate reserves and avoid a larger year-to-year increase in later years.

As presented in Figure 4, the recommended financial plan for the Water Enterprise Fund will require recurring, 20% annual increases in revenue generation to fund ongoing operations and cover capital investment costs.

This challenge will evolve over the coming five years as the utility makes planned investments in its water treatment infrastructure. Importantly, full implementation of the ten-year CIP suggest that continued, smaller increases will be required in the years after FY2032.

In addition to merely meeting the annual revenue requirement, Figure 5 presents the projected multi-year process of building additional reserves within the Enterprise Fund. This is included in our recommendation for several important reasons:

1. The nominal reserves target of 90 days of O&M expense (indicated by the dashed red line) does not include a reserve for debt service. As debt service is projected to become the largest component of the revenue requirement for the utility, the utility's reserves should grow to better reflect that reality.
2. Although the Water Utility is structured as an Enterprise Fund, most or all of the bonding projected for the CIP will be incurred as general obligations of the Town. Should the Enterprise Fund be unable to make these payments, repayment of these debts will fall to the Town's General Fund and a larger reserve makes this less likely to occur.

3.4.1.3. Recommended Water Rate-Revenue Adjustments

Table 6 below presents the annual increases in rate-based revenues that are included in the preceding financial plan. These increases assume that the Town will use a portion of its projected revenues to build more appropriate reserves fund balances as projected in Figure 12. The 20% adjustment included in FY2026 (current fiscal cycle) reflects the actual adjustment which occurred from FY2025 rates to the current rates.

Table 6 –Water Financial Plan – Annual Recommended Revenue Adjustment

FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
20.00%	20.00%	20.00%	20.00%	20.00%	20.00%

4. Recommended Rates

4.1. Approach to Recommended Rates

After working with the Town to determine its preferences for rate adjustments, Raftelis incorporated the following goals and criteria into its recommended water rates:

1. Target rates which will generate revenue adequate to finance each utility's revenue requirements while maintaining or building adequate reserve funds to ensure the long-term fiscal health of the Town's Water Enterprise Funds operations;
2. Maintain the basic inclining block rate structure in use in the Town for years with the following options:
    a. Calculate rates assuming no changes are made to the existing rate structure;
    b. Calculate rates assuming the Town's starts to apply reduced volumetric charges to the water which is currently included in the fixed charge associated with the current rate structure;
    c. Calculate rates similar to the second option but reducing the fixed charges to half od the level calculated when keeping the existing rate structure.

In these three options/rate scenarios, the rationales were to see what should be expected for rates should the Town elect to: (1) maintain its existing structure without modification, (2) to identify the impact on volumetric rates by billing a reduced rate for the non-revenue water in Tier 1, and (3) Provide a third option that represent a compromise between the two approaches.

The following sections present our recommendations for both volumetric and fixed charge rates for these scenarios. The following recommendations are projected to generate the target revenue reviewed in Section 3 of this report.

4.2. Discussion of Proposed Rate Structure Modification

Institution of Volumetric Charges for Metered Usage of Tier 1 Water

As reviewed in section 3.2 of this report, the Groveland water utility currently charges a blend of fixed quarterly fees along with volumetric rates on usage above the 1200 cubic feet per quarter level. In many communities that use both fixed charges and volumetric rates, the cost of volumetric usage accrues from the usage of the first gallon. It is recommended that Groveland consider billing on all usage due to the large percentage of water produced by the utility which is included in the unbuild Tier 1 usage. As noted earlier this currently accounts for over 45% of the water produced by the utility and metered through customer accounts.

The rationale for the inclusion of this water usage as a billed usage is two-fold. The first justification is that it will help improve equitability between full-time residents and customers who are seasonal in water usage patterns. The second rationale is that, due of the volume of water that would be now charged a

volumetric rate under this change, the percentage rate increases which will be required for all users will be significantly lower should Groveland make this modification to their rate structure

4.3. Rate Recommendations – Water

Raftelis has prepared three water rate recommendations for Groveland based upon the revenue generation needs outlined in the preceding sections of this report. The overall revenue generation of all three sets of rates (existing structure and new proposed structure) are designed to generate the identical targeted amount of revenue, as identified in the Water Utility Financial Plan. The paragraph below outlines the specifics associated with each of the rat scenarios.

Rate Scenario 1 – Maintain the existing rate structure without any modification other than the amount of the quarterly fixed charge and $/CCF volumetric rates. This implies the things: (a) the percentage of overall revenue derived from fixed charges versus volumetric charges will remain at the levels seen in the current rate structure, and (b) the volumetric charges for Tiers 2 and 3 will remain at the current differentials.

Rate Scenario 2 – Identical to Scenario 1 except the usage in Tier 1 (currently unbilled water) will be billed on a volumetric basis at a rate equivalent to 75% of the Tier 2 rate.

Rate Scenario 3 – Identical to Scenario 2 except the overall percentage of revenue derived from the fixed charge will be reduced 50% from levels in Scenarios 1 & 2. Volumetric revenues will be increased from Scenario 2 to account for the change in revenue generation.

Table 7 presents the recommended rates under these three rate scenarios.

Table 7 –Recommended Water Rate Alternatives

Scenario 1: Rate Increase no Rate Design Change	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Minimum Charge	$ 96.84	$ 116.21	$ 139.45	$ 167.34	$ 200.81	$ 240.97
Volumetric Charge						
Tier 1: 0 - 1,2000 cu.ft.	$ -	$ -	$ -	$ -	$ -	$ -
Tier 2: 1,200 -3,000 cu.ft.	$ 8.84	$ 10.61	$ 12.73	$ 15.28	$ 18.33	$ 22.00
Tier 3: 3,000 cu.ft. and above	$ 16.51	$ 19.81	$ 23.77	$ 28.53	$ 34.23	$ 41.08
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00

Scenario 2: Rate Increase and Tier 1 charged 75% of Tier 2 rate	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Minimum Charge	$ 96.84	$ 116.21	$ 139.45	$ 167.34	$ 200.81	$ 240.97
Volumetric Charge						
Tier 1: 0 - 1,2000 cu.ft.	$ -	$ 5.05	$ 6.06	$ 7.27	$ 8.72	$ 10.47
Tier 2: 1,200 -3,000 cu.ft.	$ 8.84	$ 6.73	$ 8.08	$ 9.69	$ 11.63	$ 13.95
Tier 3: 3,000 cu.ft. and above	$ 16.51	$ 12.56	$ 15.08	$ 18.09	$ 21.71	$ 26.05
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00

Scenario 3: Rate Increase and Tier 1 charged 75% of Tier 2 rate, Minimum Charge Decreased 50%	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Minimum Charge	$ 96.84	$ 58.10	$ 69.72	$ 83.67	$ 100.40	$ 120.48
Volumetric Charge						
Tier 1: 0 - 1,2000 cu.ft.	$ -	$ 7.32	$ 8.79	$ 10.55	$ 12.66	$ 15.19
Tier 2: 1,200 -3,000 cu.ft.	$ 8.84	$ 9.77	$ 11.72	$ 14.06	$ 16.88	$ 20.25
Tier 3: 3,000 cu.ft. and above	$ 16.51	$ 18.23	$ 21.88	$ 26.26	$ 31.51	$ 37.81
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00

Please note: The Town' current capital charge generates a dedicated revenue stream to replace water mains which are not included in the capital program evaluated as part of this rate study. The revenues from this charge were not included in the overall financial plan as these are separate funds from those which pay for operations and capital investment of the utility at large. The increase shown on the tables above reflects the Town's intention to roughly double the amount of water main which can be replaced by the existing capital charge.

4.4. Customer Impacts

Based upon the recommendations outlined in Section 4.4, Raftelis calculated the projected quarterly utility bills for a "typical" residential customer (5/8" connection and 14 units of service per quarter). The results of this analysis are presented on Table 8, which presents the expected quarterly charges for the "typical" residential customer for each rate scenario. Presentation of this information for all three rate scenarios allow for a better understanding of the practical impacts to customers under the three rate options available to Groveland.

Table 8 – Average Customer Water Bills

Bill Calculations		Usage in each tier		
		Tier 1	Tier 2	Tier 3
Quarterly Consumption (cu.ft.)	Eq. GPD	0-1,200	1,201-3,000	3,001+
1,400	115	1,200	200	-

Scenario 1:	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Min Charge	$ 96.84	$ 116.21	$ 139.45	$ 167.34	$ 200.81	$ 240.97
Volumetric Charge	$ 17.68	$ 21.22	$ 25.46	$ 30.56	$ 36.67	$ 44.00
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00
Total	$ 139.52	$ 167.43	$ 199.91	$ 237.90	$ 282.48	$ 334.97

Scenario 2:	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Min Charge	$ 96.84	$ 116.21	$ 139.45	$ 167.34	$ 200.81	$ 240.97
Volumetric Charge	$ 17.68	$ 74.02	$ 88.83	$ 106.59	$ 127.91	$ 153.49
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00
Total	$ 139.52	$ 220.23	$ 263.28	$ 313.93	$ 373.72	$ 444.46

Scenario 3:	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Min Charge	$ 96.84	$ 58.10	$ 69.72	$ 83.67	$ 100.40	$ 120.48
Volumetric Charge	$ 17.68	$ 107.43	$ 128.91	$ 154.69	$ 185.63	$ 222.76
Capital Charge	$ 25.00	$ 30.00	$ 35.00	$ 40.00	$ 45.00	$ 50.00
Total	$ 139.52	$ 195.53	$ 233.64	$ 278.36	$ 331.04	$ 393.24