



May 5, 2025






WATER AND SEWER RATE STUDY

RATE DESIGN ALTERNATIVES

VILLAGE OF OAK PARK BOARD OF TRUSTEES



AGENDA

-  Background and Scope of Work
-  Goals and Objectives
-  Rate Structure Alternatives
-  Sample Customer Bill Impacts
-  Next Steps

BACKGROUND AND SCOPE OF WORK

FY 2026 RATE RECOMMENDATION (FROM 9/9/2025)

	Current FY 2025	Recommended FY 2026
<u>Monthly Service Charge</u>		
1" or Under	\$6.00	\$12.00
1 ½" – 3"	\$12.00	\$24.00
4" or Larger	\$18.00	\$36.00
Water Rate (per Kgal)	\$11.37	\$11.94
Sewer Rate (per Kgal)	\$3.26	\$3.42

- **Average Residential:**
 - Less than 1" Meter, 14 kgal/qr.
- **Average Commercial:**
 - Less than 1" Meter, 72 kgal/qr.

Average Residential	FY 2025	FY 2026
Service Charge	\$18.00	\$36.00
Water Usage Charge	\$159.18	\$167.14
Sewer Usage Charge	\$45.64	\$47.92
Total Monthly Cost	\$222.82	\$251.06
\$ Change		\$28.24
% Change		12.7%
Average Commercial	FY 2025	FY 2026
Service Charge	\$18.00	\$36.00
Water Usage Charge	\$818.64	\$859.57
Sewer Usage Charge	\$234.72	\$246.46
Total Monthly Cost	\$1,071.36	\$1,142.03
\$ Change		\$70.67
% Change		6.6%

PHASE II SCOPE OF WORK (PRESENTATION TOPICS HIGHLIGHTED)

Task 3: Develop Rate Model Alternatives and Propose Water & Sewer Rates

- Develop rate model alternatives and calculate proposed water and sewer rates for the **five-year period beginning with fiscal year 2026.**
- Evaluate the impact of proposed rates on customer classes and compare proposed rates and fees to rate data for similar utilities in the region.
- Explore policy level strategies including but not limited to:
 - multi-year schedule of rate changes,
 - non-rate revenue enhancements,
 - deferring or accelerating capital, or
 - debt retirement and/or new debt
- Meet with Village staff to review rate model alternatives and proposed water & sewer rates.

Task 4: Prepare Final Report and Presentation

- Prepare report that outlines the proposed water & sewer rates and summarizes rate model alternatives, operational and policy level strategies, and potential impacts on customer classes.
- Work with Village staff to prepare and present a summary presentation to the Village Board.

Key Topics:

- Lead Service Line Replacement Plan funding
- Long-term water loss impact analysis
- Capital plan funding – is 100% PAYGO the right approach?
- Affordability / Rate Design

GOALS OF TODAY'S DISCUSSION

- Feedback on Rate Structure Alternatives
- Feedback on guardrails concerning customer impacts

Note that all rate alternatives contained in this presentation are samples for discussion only, and actual figures will only be available after the incorporation of up-to-date data and policy direction.

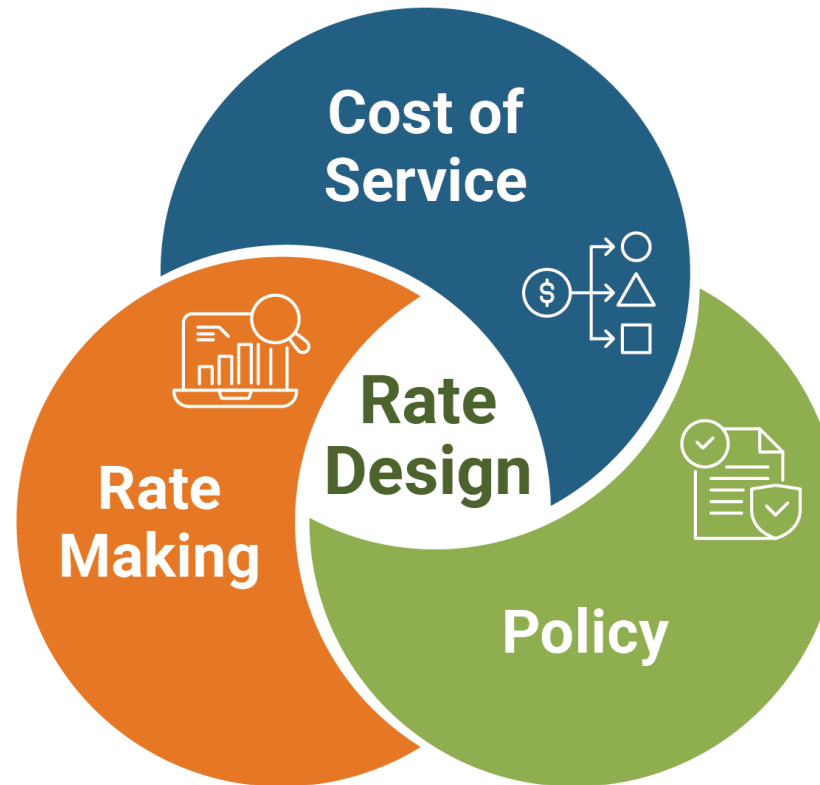
RATE STRUCTURE ALTERNATIVES

INITIAL FINDINGS BASED ON PHASE I EVALUATION

- We did not recommend the Village change its fixed rate structure in 2026, only that the Village increase fixed cost recovery.
- The Village indicated interest in alternative variable cost recovery methods.
- Village staff are evaluating transitioning to monthly billing for water and sewer service.

Considerations Regarding Monthly Billing	Advantages	Disadvantages
Financial	<ul style="list-style-type: none"> • More frequent revenue collection • Improved cash flow • Smaller bills reduce delinquency risk 	<ul style="list-style-type: none"> • Increased meter reading labor costs • Potential need for software upgrades
Administrative	<ul style="list-style-type: none"> • Earlier detection of non-payment • Faster intervention on arrearages 	<ul style="list-style-type: none"> • Bill processing costs increase proportionally • Higher customer service volume
Metering & Operations	<ul style="list-style-type: none"> • Earlier leak detection; • Increased conservation signaling 	<ul style="list-style-type: none"> • Increased IT/billing system demands • Potential increase in operations labor
Customer Experience	<ul style="list-style-type: none"> • Smaller bills reduce "bill shock"; • Aligns with typical household budgeting 	<ul style="list-style-type: none"> • More frequent bills may increase customer service calls






The Art of Rate Design



Rate design must:

-  Reflect **Cost of Service** accurately and fairly
-  Support broader **Policy** goals
-  Fit within practical **Rate Making** frameworks that regulators and stakeholders can implement

COMPETING OBJECTIVES AND POLICY GOALS

 IMPLEMENTATION	 EQUITY	 CUSTOMER	 CONSERVATION	 FINANCIAL
Administrative Burden	Interclass	Affordability	Average-Day Savings	Revenue Sufficiency
Public Understanding	Intraclass	Economic Development	Peak-Season Savings	Revenue Stability
Political Acceptance	Intergenerational	Rate Shock/Volatility	Peak-Day Savings	Rate Stability
Implementation Risk	Inside/Outside	Understandability of Rates/Bill	Sustainability	Rate Predictability
Legal Compliance	Perception of Equity	Engagement / Communication	Enforcement	Financial Risk

FIXED RATE DESIGN

1 Cost Basis

Fixed charges recover costs that do not vary with consumption — **customer costs** (meters, billing, service lines) and a share of **capacity costs** sized to meet peak demand.

2 Meter-Size Scaling

Differentiate charges by **meter size as a proxy for peak capacity demand**. Scale using AWWA capacity flow ratios (e.g., 1" meter = 2.5× the base 5/8" charge).

3 Revenue Stability

Recovering fixed costs through the fixed charge **shields utility revenue from declining consumption** caused by conservation or efficiency gains. This reduces exposure when volumetric sales fall — a growing concern explicitly addressed in M1's 7th edition.

4 Affordability & Policy Balance

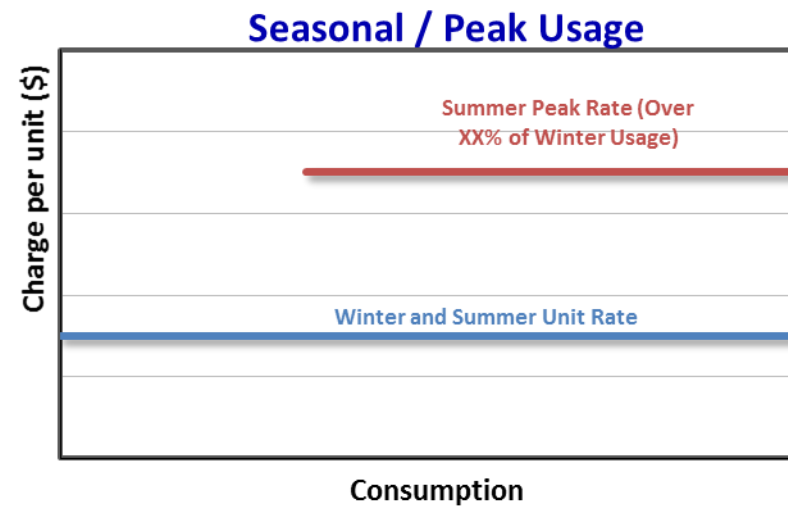
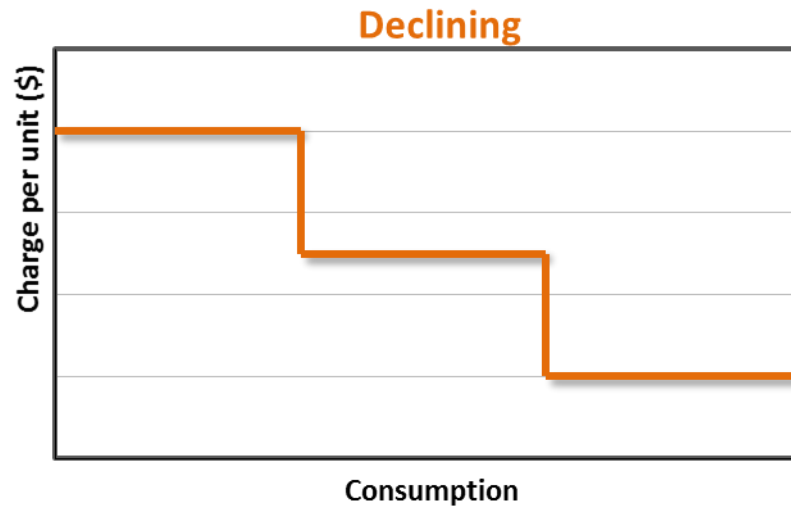
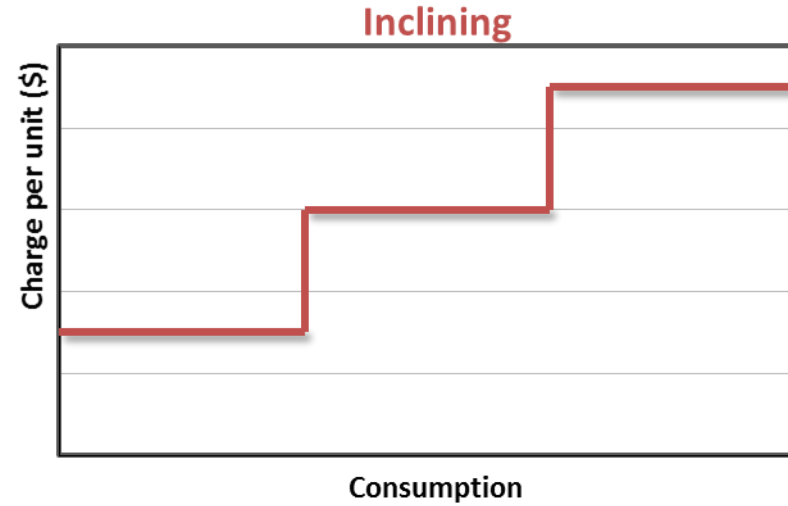
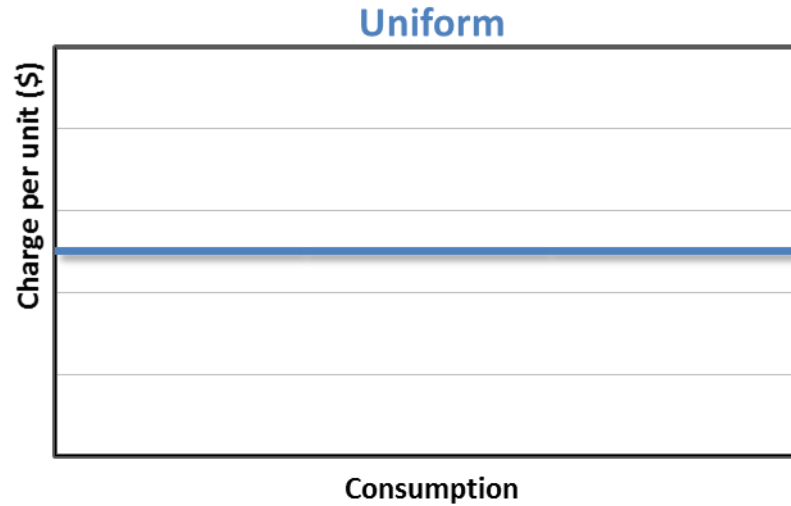
M1 treats the fixed-to-volumetric revenue split as a **policy judgment**. High fixed charges can burden low-volume and low-income customers; utilities must weigh revenue stability against conservation incentives and affordability goals.

Lower fixed charge

← conservation signal | revenue stability →

Higher fixed charge

VARIABLE USAGE RATE DESIGN



Rate Structure	Advantages	Disadvantages
Uniform Rate	<ul style="list-style-type: none"> • Simple to design, explain, and administer • Customers pay proportionally to usage, supporting fairness • Provides steady marginal price that encourages conservation at all levels • Aligns reasonably well with cost-of-service principles 	<ul style="list-style-type: none"> • Conservation incentives are weaker than inclining block rates • Provides no stronger signal to curb discretionary or peak usage • May not fully recover capacity-related costs from high-volume users
Inclining Block Rate	<ul style="list-style-type: none"> • Strong conservation signal by raising marginal price at higher usage levels • Protects affordability by keeping basic usage at lower cost • Helps recover costs from high users who drive peak demand • Aligns with policy objectives in water-scarce regions 	<ul style="list-style-type: none"> • More complex to design and administer • May unintentionally penalize large households • Revenue can be volatile if customers conserve more than expected • Cost-of-service justification must be stronger to demonstrate equity
Declining Block Rate	<ul style="list-style-type: none"> • Encourages and retains large-volume customers, supporting economic development • Provides stable and predictable revenues from industrial/commercial/ag customers • Simple to administer once established 	<ul style="list-style-type: none"> • Sends a negative conservation signal by making additional use cheaper • Small or low-income customers pay higher per-unit costs • Misaligned with cost causation since large users often drive infrastructure needs • Increasingly disfavored by regulators and industry best practices
Seasonal Rate	<ul style="list-style-type: none"> • Targets peak demand, encouraging conservation during high-stress periods • Aligns with capacity cost recovery by charging more when infrastructure is most strained • Improves long-term sustainability and can defer capital investment • Viewed favorably by regulators as a proactive management tool 	<ul style="list-style-type: none"> • Customers may not understand or accept seasonal surcharges • Can create equity issues for households or businesses with unavoidable high seasonal use • Billing and communication more complex • Revenue risk from atypical weather (wet summers or drought conditions)
Minimum Charge with Included Usage	<ul style="list-style-type: none"> • Provides stable baseline revenue to cover fixed costs (meters, billing, infrastructure) • Offers predictable bills for customers • Reduces administrative costs of very small accounts with negligible charges • Ensures all customers contribute a minimum payment to the system 	<ul style="list-style-type: none"> • Weakens conservation incentives since “included” water feels free to customers • Disproportionately impacts low-use or low-income customers, who pay more per unit • Creates equity and fairness concerns • Misaligned with industry best practices, which recommend fixed charges cover only customer costs without bundled usage • Hard to justify under cost-of-service principles

SAMPLE INCLINING BLOCK WATER RATES (AGGRESSIVE)

Quarterly Tiers	FY 2026 Rates	Total Usage	FY 2026 Revenue	Alternative Rates	Alternative Revenue
From 0 – 9k	\$11.94	98,233	\$1,172,902	\$5.00	\$491,165
From 9k – 18k	\$11.94	282,842	\$3,377,133	\$7.00	\$1,979,894
From 18k – 36k	\$11.94	231,371	\$2,762,570	\$11.00	\$2,545,081
Over 36k	\$11.94	735,591	\$8,782,957	\$15.00	\$11,033,865
Totals		1,348,037	\$16,095,562		\$16,050,005

Customer Impact	Average Residential		Average Commercial	
	FY 2026	Alternative	FY 2026	Alternative
Service Charge	\$36.00	\$36.00	\$36.00	\$36.00
Water Usage Charge	\$167.14	\$80.00	\$859.57	\$1,107.00
Sewer Usage Charge	\$47.92	\$47.92	\$246.46	\$246.46
Total Bill	\$251.06	\$163.92	\$1,142.03	\$1,389.46
\$ Change		(\$87.14)		\$247.43
% Change		(34.7%)		21.7%

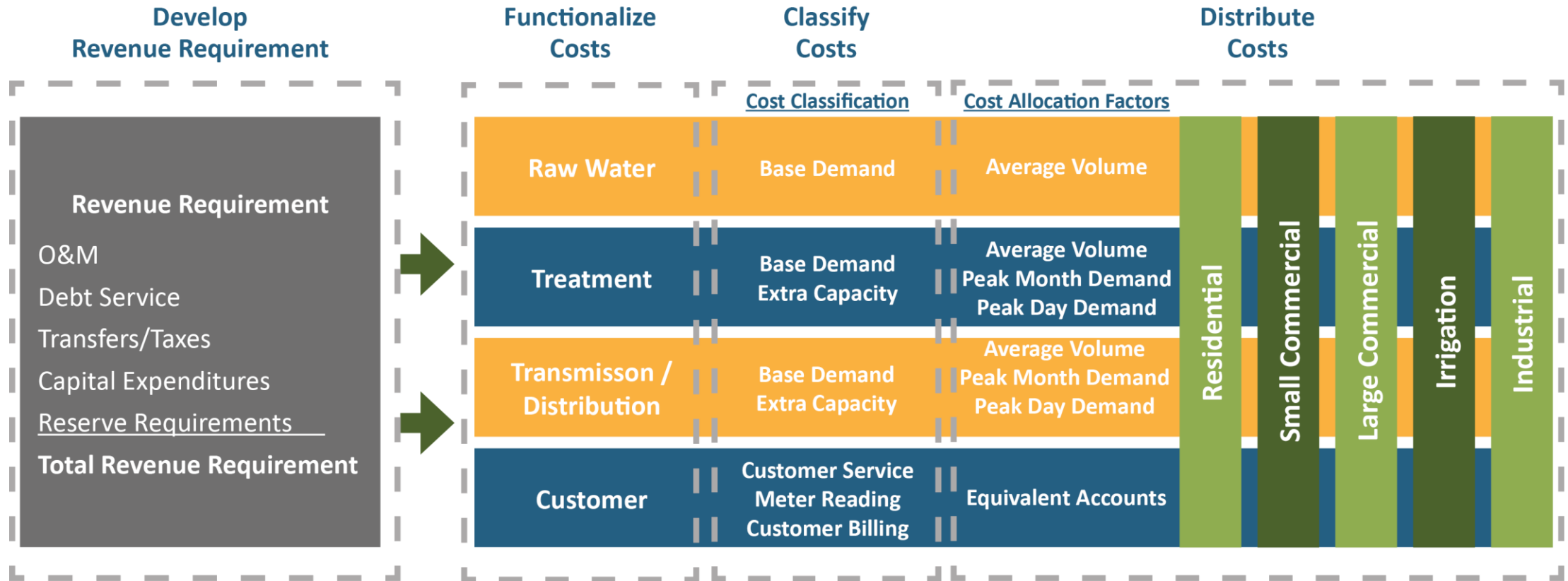
SAMPLE INCLINING BLOCK WATER RATES (MODERATE)

Quarterly Tiers	FY 2026 Rates	Total Usage	FY 2026 Revenue	Alternative Rates	Alternative Revenue
From 0 – 9k	\$11.94	98,233	\$1,172,902	\$9.00	\$884,097
From 9k – 18k	\$11.94	282,842	\$3,377,133	\$10.00	\$2,828,420
From 18k – 36k	\$11.94	231,371	\$2,762,570	\$12.00	\$2,776,452
Over 36k	\$11.94	735,591	\$8,782,957	\$13.00	\$9,562,683
Totals		1,348,037	\$16,095,562		\$16,051,652

Customer Impact	Average Residential		Average Commercial	
	FY 2026	Alternative	FY 2026	Alternative
Service Charge	\$36.00	\$36.00	\$36.00	\$36.00
Water Usage Charge	\$167.14	\$131.00	\$859.57	\$1,161.00
Sewer Usage Charge	\$47.92	\$47.92	\$246.46	\$246.46
Total Bill	\$251.06	\$214.92	\$1,142.03	\$1,443.46
\$ Change		(\$36.14)		\$301.43
% Change		(14.4%)		26.4%

RESIDENTIAL VS. NON-RESIDENTIAL RATES

- Requires a “Class Cost of Service” analysis



Note: For illustrative purposes only. Functions and allocators may change to align with utility operations/services.

SAMPLE CLASS BASED VOLUMETRIC RATES

	Residential	Non-Residential
Annual billed usage (kgal)	879,464	469,144
Peaking factor	1.120x	1.840x
Peaking-adjusted cost share	57.9%	42.1%
Calculated Rate (\$/kgal)	\$10.59	\$14.43
Revenue at Calculated Rates	\$9,313,524	\$6,770,547
Total revenue		\$16,084,071

Example for discussion purposes only, not based on actual class cost of service analysis.

SAMPLE BILL IMPACT – CLASS BASED RATES

Component	Residential FY 2026	Residential Class-Based Example	Non-Residential FY 2026	Non-Residential Class-Based Example
Service charge	\$36.00	\$36.00	\$36.00	\$36.00
Water usage charge	\$167.16	\$148.26	\$859.68	\$1,038.96
Sewer usage charge	\$47.92	\$47.92	\$246.46	\$246.46
Total Quarterly Bill	\$251.08	\$232.18	\$1,142.14	\$1,321.42
\$ change		(\$18.90)		\$179.28
% change		(7.5%)		15.7%

NEXT STEPS

- Complete five-year revenue requirement forecast with updated information.
- Develop rate forecasts for current rate structure and any alternative rate structures
- Deliver final report with recommended five-year rate plan
- Timeline:
 - Present updated financial forecast and recommended rate alternatives to Finance Committee: July 2026
 - Recommend water and sewer rates to Village Board: October 2026
 - Year 1 rates effective January 1, 2027.



THANK YOU!

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