



Water & Sewer Rate Study

Village of Oak Park

November 2019

BAXTER & WOODMAN
Consulting Engineers

Village of Oak Park, Illinois 2019 Water & Sewer Rate Study

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EXECUTIVE SUMMARY

Baxter & Woodman has completed an analysis of the Village of Oak Park water and sewer rates. The purpose of this study is to provide the Village with an assessment of the Village's Water & Sewer Fund health and various feasible scenarios for setting utilities rates to cover operating and capital improvement expenses while maintaining appropriate cash reserves in its water and sewer fund. The scope of this report includes:

- Analyzing the current water usage trends;
- Preparing a 5-year projection of water and sewer expenses, including incorporation of the Village's current and planned capital improvement projects plan;
- Evaluating a 5-year projection of revenues necessary to meet water and sewer fund expenses;
- Identifying systems of equitable water and sewer rates to meet revenue requirements for the next 5 years; and
- Analyzing the projected operating reserve balance to support rate stabilization.
- Completing a survey of neighboring water connection fees, and water and sewer rates.

Historically, the American Water Works Association (AWWA) has recommended a reserve balance of 25% of a municipalities' annual expenses less capital and debt servicing. The reserve balance amounts to \$2-3 Million over the period of the forecast. The Village of Oak Park is considering to observe this recommended balance in order to have adequate funds on hand to cover unexpected emergencies while minimizing the use of debt financing. However, due to significant Capital Improvement Projects in future years, the balance is projected to drop below the reserve balance threshold in Fiscal Year 2023. The Village has deemed the short term drop acceptable to minimize financial burden to residents. The projected operating reserve balance is expected to recover above and beyond the goal by the end of Fiscal Year 2024.

The existing rate structure is comprised of a fixed fee and volumetric rate that is billed quarterly for residential users and monthly for commercial users. The existing fixed fee is a three tiered rate structure: users with a 1-inch or smaller water meter, users with a 1 ½-inch to 3-inch water meter, and users with a 4-inch or larger water meter. A volumetric rate per 1,000 gallons is applied for water and sewer consumption separately. The existing rate structure equitably prorates Village expenses across its users and is recommended for continued use.

The following scenarios for achieving a sustainable fund balance were evaluated:

1. ***Baseline – No Increases***: This scenario looked at the projected fund balance under the assumption that no rate increases are applied to water or sewer rates beyond Fiscal Year 2019. Under this scenario, the fund balance is projected to fall below the operating reserve

balance goal after Fiscal Year 2021, reaching a balance of less than \$1 Million in Fiscal Year 2022, and reaching a projected balance of zero in Fiscal Year 2023.

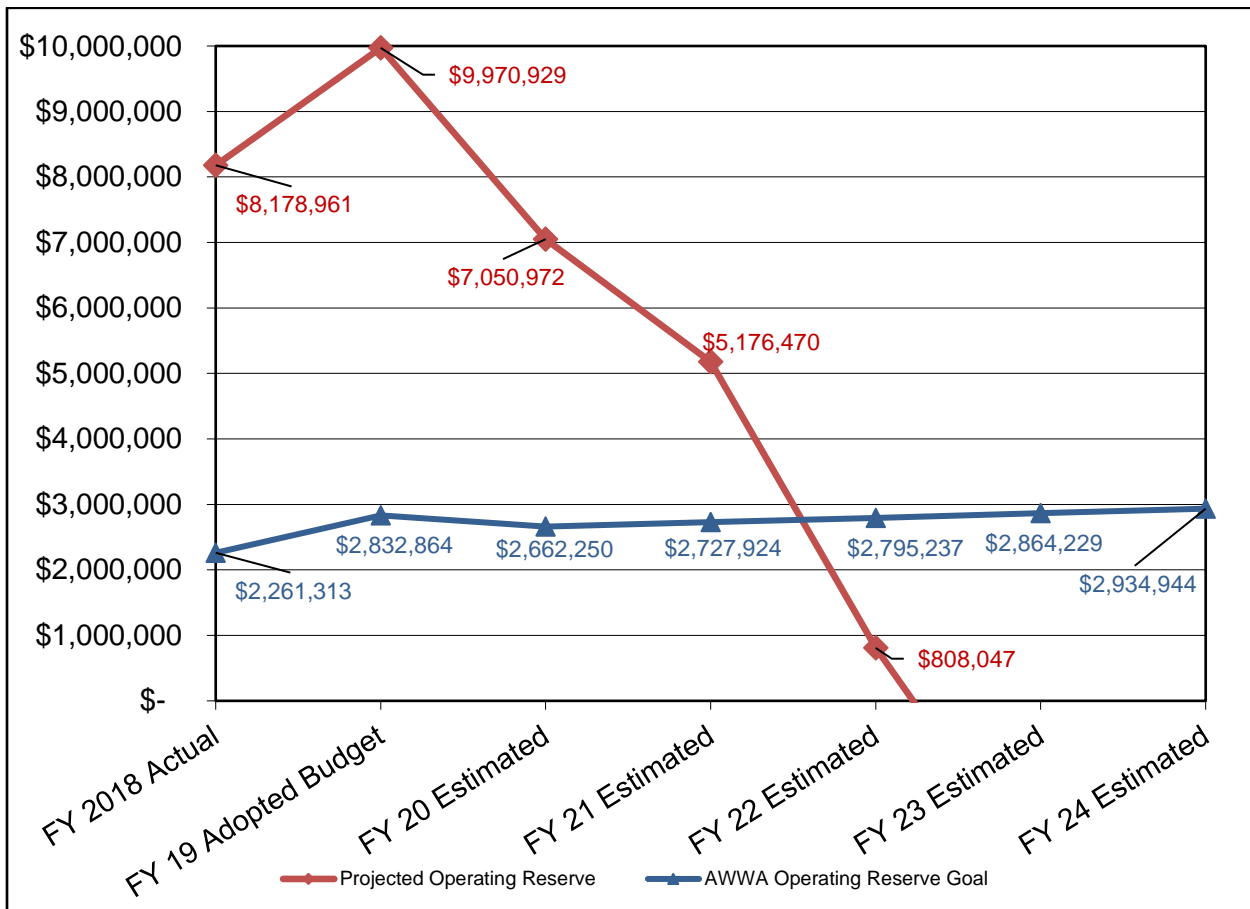
Under Scenario 1, fixed and volumetric rates remain as they are in Fiscal Year 2019:

Existing Billing Rates Structure

	Water Rate Charge	Sewer Rate Charge
Fixed Rate – 1-inch meter or smaller		\$5.00
Fixed Rate – 1 ½-inch to 3-inch meter		\$10.00
Fixed Rate – 4-inch meter or larger		\$15.00
Volumetric Rate per 1,000 gal	\$9.52	\$2.73

If no rate increases are made, Scenario 1 Baseline is expected to result in an operating reserve balance as shown below:

Scenario 1: Baseline Projected Operating Reserve



2. **Fixed and Volumetric Increases – 2/2/2/2/2:** This scenario looked at the fund balance with a 2% increase in the volumetric water and sewer rates each year through Fiscal Year 2024. The fixed rate is increased by 10% in Fiscal Year 2021 and 9.1% in Fiscal Year 2023 to all user groups. Under this scenario, the fund balance is projected to remain above the operating reserve balance goal, with an exception for Fiscal Year 2023 where the balance drops to \$1.1 Million to accommodate a large capital sewer project. The Operating Balance quickly recovers in Fiscal Year 2024 with a projected ending balance of \$4.8 Million.

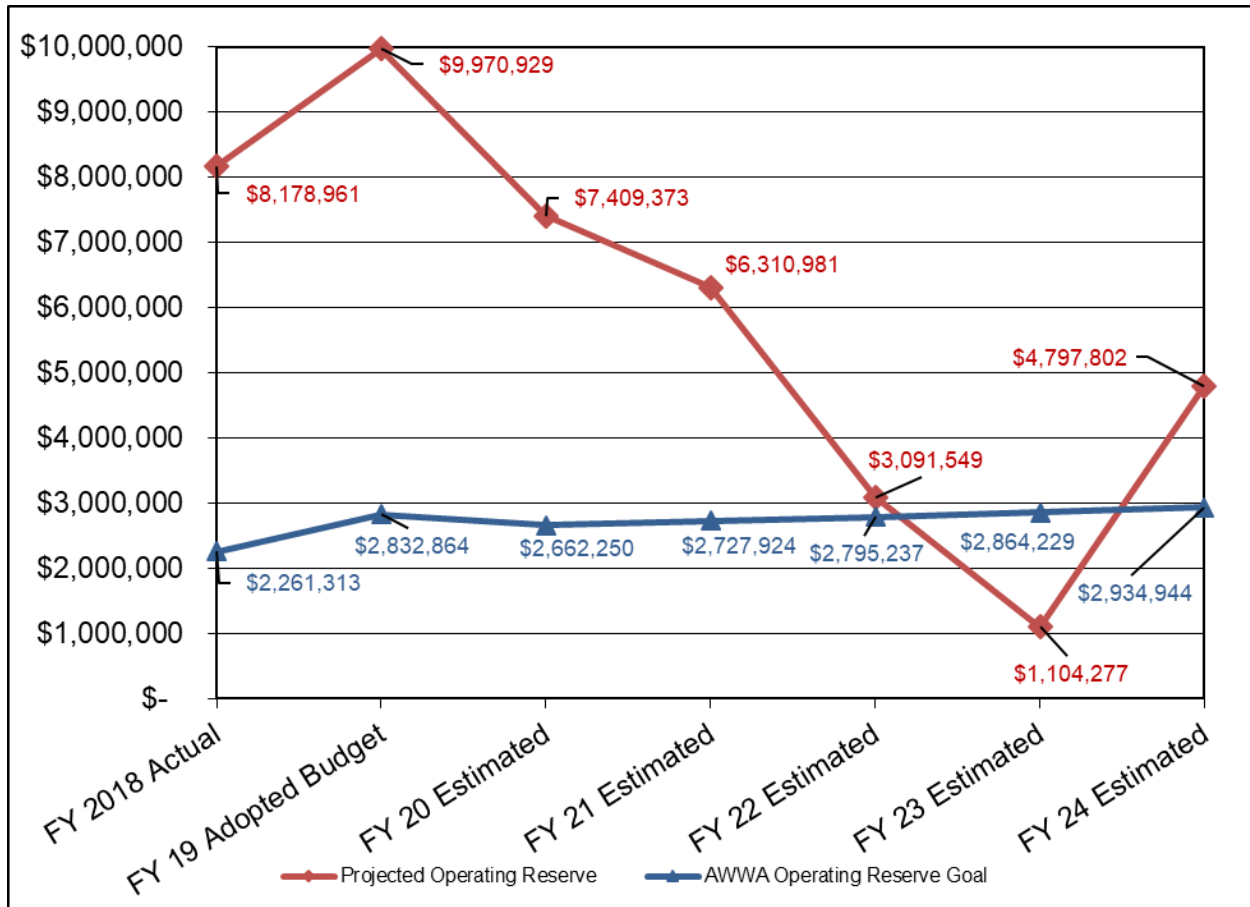
Under Scenario 2, fixed and volumetric Increases – 2/2/2/2/2, the following rates are applied:

Scenario 2: Fixed and Volumetric Rates

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Fixed Rate – 1 ½-inch to 3-inch meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Fixed Rate – 4-inch or larger meter	\$15.00	\$15.00	\$16.50	\$16.50	\$18.00	\$18.00
Volumetric Water Rate per 1,000 gal	\$9.52	\$9.71	\$9.90	\$10.10	\$10.30	\$10.51
Volumetric Sewer Rate per 1,000 gal	\$2.73	\$2.78	\$2.84	\$2.90	\$2.96	\$3.01

Scenario 2 is expected to provide an operating reserve balance as shown below:

Scenario 2: Projected Operating Reserve Balance



A sample Residential Customer using approximately 4,500 gallons per month would see the following estimated bill increases under Rate Scenario 2:

Scenario 2: Sample Residential Bill

4500 gal/mo.	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate -1-inch or smaller meter	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Water - Volumetric	\$42.84	\$43.70	\$44.57	\$45.46	\$46.37	\$47.30
Sewer - Volumetric	\$12.29	\$12.53	\$12.78	\$13.04	\$13.30	\$13.56
Bill per month	\$60.13	\$61.23	\$62.85	\$64.00	\$65.67	\$66.86
Bill per quarter	\$180.38	\$183.68	\$188.56	\$192.00	\$197.01	\$200.59

3. **Fixed and Volumetric Increases – 3/3/2/1/1:** This scenario looked at the fund balance with increases of 3%, 3%, 2%, 1%, and 1% in Fiscal Years 2020, 2021, 2022, 2023, and 2024 respectively. The fixed rate is increased by 10% in Fiscal Year 2021 and 9.1% in Fiscal Year 2023 to all user groups. Under this scenario, the fund balance is projected to remain above the operating reserve balance goal, with an exception in Fiscal Year 2023 where the balance drops to \$2.2 Million to accommodate a large capital sewer project. The operating reserve balance quickly recovers in Fiscal Year 2024 with a projected ending balance of \$5.9 Million.

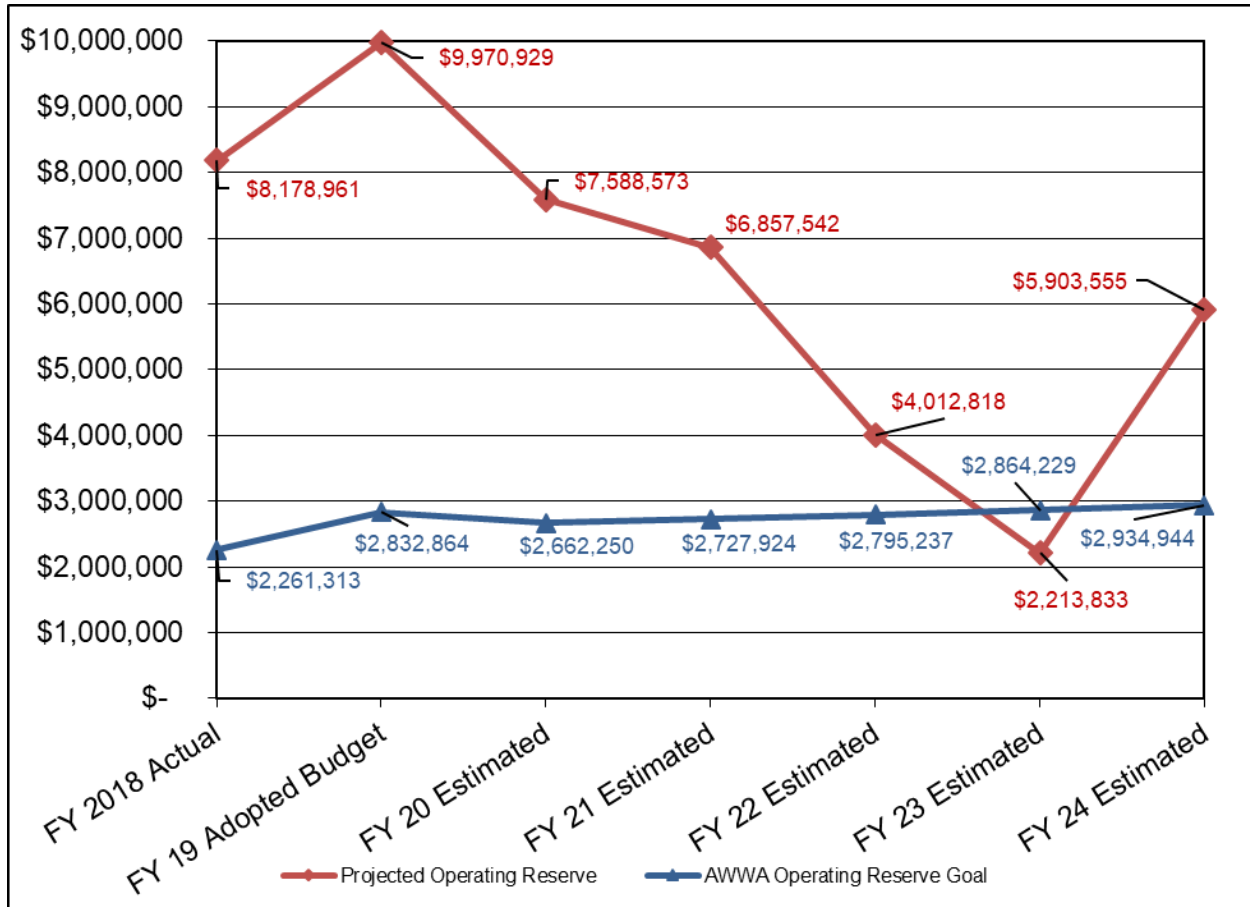
Under the Scenario 3: Fixed and Volumetric Increases – 3/3/2/1/1, the following rates are applied:

Scenario 3: Volumetric and Fixed Rates

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Fixed Rate – 1 ½-inch to 3-inch meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Fixed Rate – 4-inch or larger meter	\$15.00	\$15.00	\$16.50	\$16.50	\$18.00	\$18.00
Volumetric Water Rate per 1,000 gal	\$9.52	\$9.81	\$10.10	\$10.30	\$10.40	\$10.51
Volumetric Sewer Rate per 1,000 gal	\$2.73	\$2.81	\$2.90	\$2.95	\$2.98	\$3.01

Scenario 3 is expected to result in an operating reserve balance as shown below:

Scenario 3: Projected Operating Reserve Balance



A typical Residential Customer with a usage of approximately 4,500 gallons per month would see the following estimated bill increases under Rate Scenario 3.

Scenario 3: Sample Residential Bill

4500 gal/mo.	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate -1-inch or smaller meter	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Water - Volumetric	\$42.84	\$44.13	\$45.45	\$46.36	\$46.82	\$47.29
Sewer - Volumetric	\$12.29	\$12.65	\$13.03	\$13.29	\$13.43	\$13.56
Bill per month	\$60.13	\$61.78	\$63.98	\$65.15	\$66.25	\$66.85
Bill per quarter	\$180.38	\$185.34	\$191.95	\$195.46	\$198.75	\$200.55

A rate comparison survey was conducted with neighboring communities and municipalities that were similar in size to the Village of Oak Park. It should be noted that not all communities have publically accessible water and sewer rates. In addition, the rates used below for comparison purposes from the other municipalities may be outdated and potentially higher as noted. The table below assumes a calculated monthly water and sewer bill for a customer consuming 4,500 gallons a month. This table is provided strictly as a frame of reference and may not be an exact depiction of current rates between each municipality.

Sample Residential Bill Comparison (4,500 gallons/month)

Community	Rate Published (year)	Water Bill	Sewer Bill	Total Bill
Melrose Park	2019			\$25.26
Berwyn	2019	\$37.79	\$5.41	\$43.20
Forest Park	2018			\$43.97
Brookfield	2018			\$49.69
River Grove	2018	\$46.58	\$4.51	\$51.09
Cicero	2018	\$40.07	\$13.30	\$53.37
Elmwood Park	2016			\$58.28
Oak Park	2019 Baseline	\$47.84	\$12.29	\$60.13
River Forest	2019	\$40.06	\$26.41	\$66.47
Oak Park	2024 Scenario 3	\$53.29	\$13.56	\$66.85
Oak Park	2024 Scenario 2	\$53.30	\$13.56	\$66.86
Maywood	2019	\$65.39	\$3.07	\$68.46
North Riverside	2019			\$76.20
Riverside	2018			\$84.54

Rate scenarios 2 and 3 result in very similar bills by the end of Fiscal Year 2024, whether rate increases are applied uniformly or start high and then taper off. In both cases, the operating reserve balance drops below the goal in Fiscal Year 2023, however it rebounds in Fiscal Year 2024 to provide a healthy balance for future improvements. Increases to fixed rates allow a stable income to cover Village fixed operating costs, while the volumetric rate allows Oak Park to prorate its volume-based expenses equitably to its larger water users. These rates should be evaluated annually as Fiscal Year Actuals are published and compared against estimated projections.

It is recommended that the Village of Oak Park discuss information and material contained within this report with internal or external advisors and experts that the Village deems appropriate before acting on this information. Baxter & Woodman is not acting as a financial advisor to the Village, nor does it owe a fiduciary duty pursuant to Section 15B of the Exchange Act to the Village of Oak Park with respect to the information and material contained herein.

1. EXISTING WATER AND SEWER SYSTEM

The Village of Oak Park is located west of the City of Chicago, in Cook County, Illinois and serves a population of 52,000 people as of the 2017 Census. This population is largely residential with twelve commercial business districts. The Village owns, operates, and maintains both a water distribution system and a combined sewer system. The Village does not expect any large developments to enter the community, aside from the rehabilitation and/or redevelopment of existing properties. An updated water master plan is recommended to ensure the Village's infrastructure can accommodate any large scale redevelopments of single family homes into multi-family complexes.

The Village receives its water supply from the City of Chicago, purchasing approximately 1.9 billion gallons each year. The water system is comprised of three pumping stations, each with an underground reservoir for a total storage of 12.5 million gallons. Since the Village has no elevated storage, the pump stations continuously operate to maintain system pressure through approximately 120 miles of water main serving 12,500 residential and commercial water billing accounts.

The combined sewer system is comprised of 110 miles of sewer and lift stations. The sewer system is tributary to and conveys wastewater to the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) interceptor system.

2. WATER AND SEWER USAGE

Revenues for water and sewer services are almost entirely based on water sold and the sewer charge applied. Baxter & Woodman reviewed data related to the volume of water purchased from the City of Chicago as well as the amount of water sold to customers and utilized by the Village over the past four years.

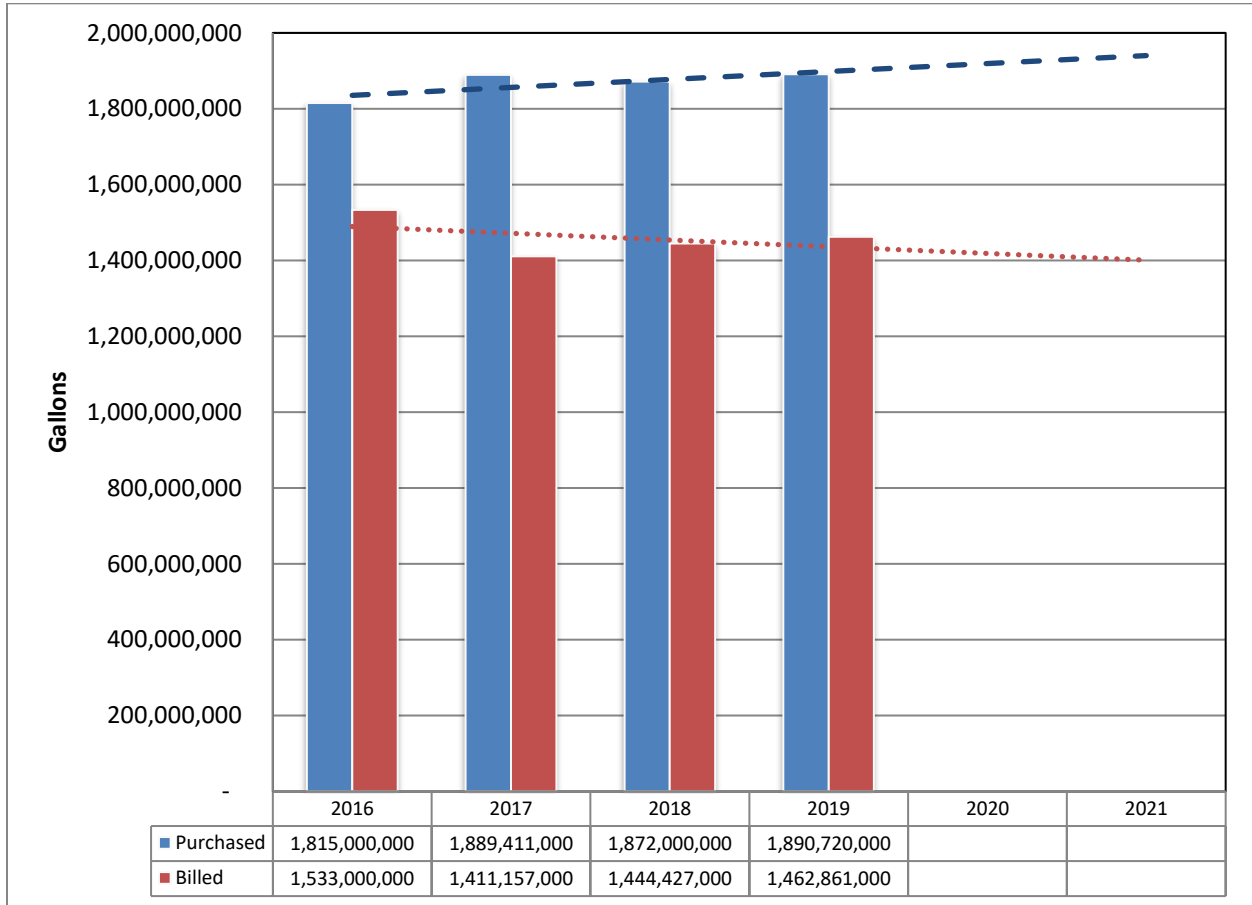
As a note, the data taken for the Water Billed was recorded from the Village's financial data which uses a slightly different time period than the recorded Water Purchased values which were recorded as part of the Village's Annual Water Use Audit Form (LMO-2). Table 1 and Figure 1 summarize this information.

TABLE 1

Summary of Water Purchased and Water Sold

Billing Period	Water Purchased (Gal)	Water Billed (Gal)	Non-Revenue Water (%)
Oct. 2015 – Sept. 2016	1,815,000,000	1,533,000,000	15.5%
Oct. 2016 – Sept. 2017	1,889,411,000	1,411,157,000	25.3%
Oct. 2017 – Sept. 2018	1,872,000,000	1,444,427,000	22.8%
Oct. 2018 – Sept. 2019	1,890,720,000	1,462,861,000	22.6%
Rate Study Assumed Value	1,890,720,000	1,462,861,000	22.6%

FIGURE 1
Annual Water Purchased vs. Billed



Water purchased from the City of Chicago has been steady over the past four years with only minor fluctuations. There are no major developments expected in the near future and the water purchased is anticipated to level off in the near future. The current difference between Purchased and Billed is anticipated to decrease as a byproduct of the planned Capital Improvement Projects that look to address the aging infrastructure. For the purposes of this analysis, the 2019 Purchased and Billed amounts are used to forecast the expenses and revenues respectively.

As the Village is not anticipating significant population growth and water usage is leveling out, the revenue projections in this analysis have been made utilizing the average water based on 2019's billing data and assuming zero growth in projecting water usage over the term of the study. These assumptions are intended to avoid over-estimating revenue.

3. CURRENT WATER AND SEWER RATES

The Village bills commercial accounts monthly and residential accounts quarterly for water and sewer services with the intent of collecting sufficient revenue to allow these utilities to be self-sustaining and self-renewing. All fees relating to water and sewer utility operation, including usage revenues, water meter fees, late payment penalties, water turn on/off fees and interest income, are deposited in the Water and Sewer Fund. This utility fund pays operation and routine maintenance costs for the water and sewer systems, as well as debt payments and costs for replacement and rehabilitation of existing infrastructure and equipment.

The Village bills customers a fixed fee based on meter size and the volume of water used. A sewer volumetric rate is applied to the total amount of water recorded through the meter. Table 2 summarizes the billing rates under the current ordinance.

TABLE 2
Existing Billing Rates Structure

	Water Rate Charge	Sewer Rate Charge
Fixed Rate – 1-inch meter or smaller	\$5.00	
Fixed Rate – 1 ½-inch to 3-inch meter	\$10.00	
Fixed Rate – 4-inch or larger meter	\$15.00	
Volumetric Rate per 1,000 gal	\$9.52	\$2.73

The Village currently has a three tiered fixed fee based on meter size: 1-inch or smaller, 1 ½-inch to 3-inch, and 4-inch or larger. A volumetric water and sewer rate is applied to the total amount of water passed through the meter for a given billing period. A fixed rate structure provides the Village a revenue source to account for fixed administrative and operational expenses. A volumetric rate traditionally allows the Village to equitably prorate its larger expenses that are typically tied to higher volumetric usage as well as sending price signals to encourage water conservation.

4. SCENARIO 1: BASELINE – NO INCREASE

Utilizing the assumed water consumption discussed in Section 3 above, a baseline projection was prepared assuming no rate increases are applied through Fiscal Year 2024. The projected expenses for this analysis are divided into three basic categories: administrative, operational, and maintenance expenses, debt service, and capital expenditures. There are no major operational or administrative changes anticipated at this time, therefore current manpower and equipment needs are not anticipated to change significantly. As such, budget line items in these areas are only adjusted for inflation.

The water purchased from the City of Chicago is the Village’s single largest expense. The City of Chicago has increased their rates annually at approximately 1% per year for the past four years. Due to the unpredictable nature of regulatory changes, the City of Chicago water rates were inflated at 2.5% per year for the duration of this forecast as a conservative approach to account for future water rate increases from the City of Chicago. Table 3 below shows the previous City of Chicago rates per 1,000 gallons.

TABLE 3
City of Chicago Water Rate Schedule

Year	City of Chicago Rate Charge per 1,000 gallons
2015	\$3.81
2016	\$3.81
2017	\$3.88
2018	\$3.95
2019	\$3.98

Administrative expenses include general personnel costs, supplies, and transfers out of the Water and Sewer Fund for the purchase of insurance. The debt servicing schedule was provided by the Village through Fiscal Year 2024.

Projected capital improvement expenses were taken from the Village’s 5 Year Capital Improvements Plan. This plan was prepared by Village staff and is based on their knowledge of system components and anticipated improvements to the water and sewer systems. The Capital Improvements Plan 2019-2024 is attached as Appendix A. Figure 2 shows the total projected expenses from the planned capital improvement projects. Figure 3 shows the projected total expenses incurred by the Village which do not keep up with a flat revenue stream.

FIGURE 2

Scenario 1: Baseline: Capital Improvement Plan 2019-2024

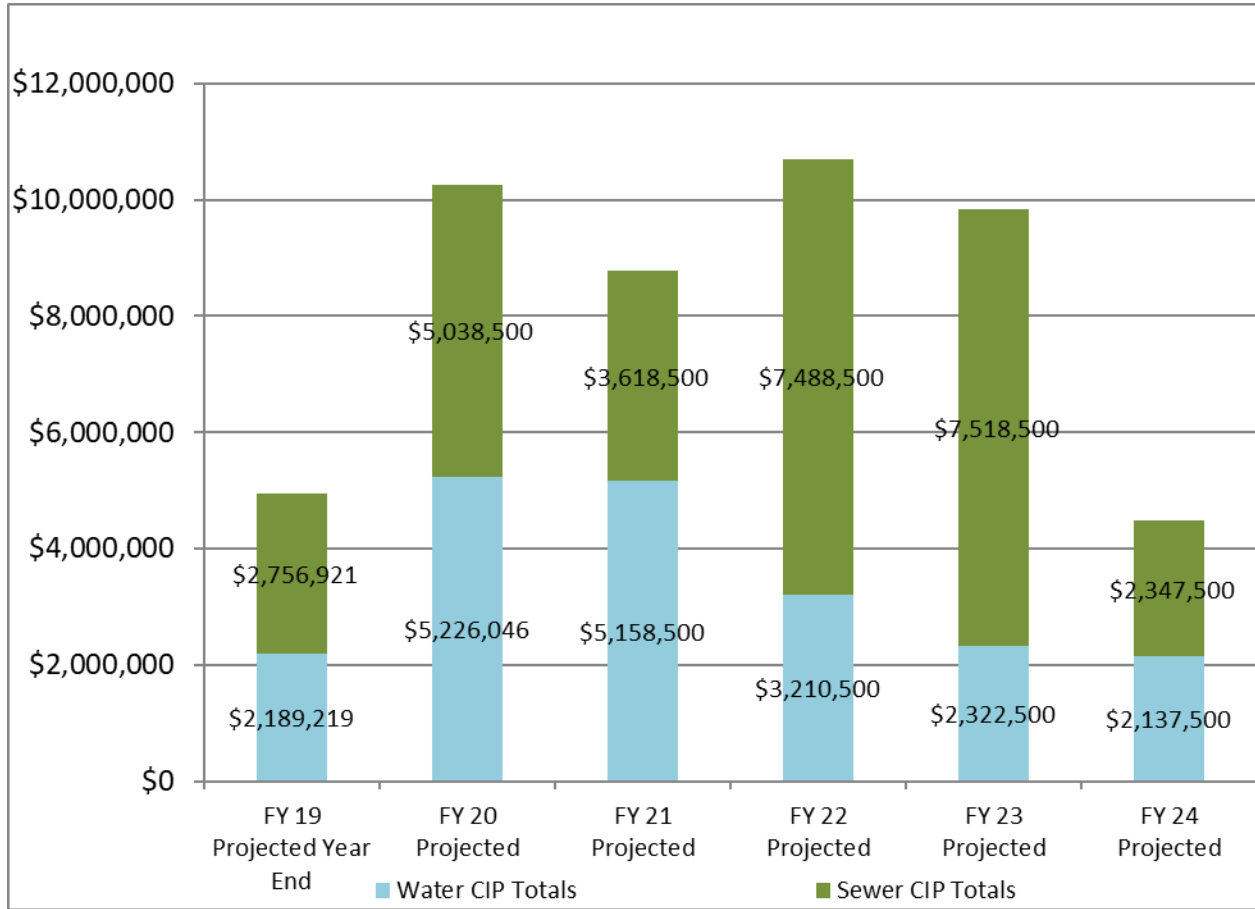
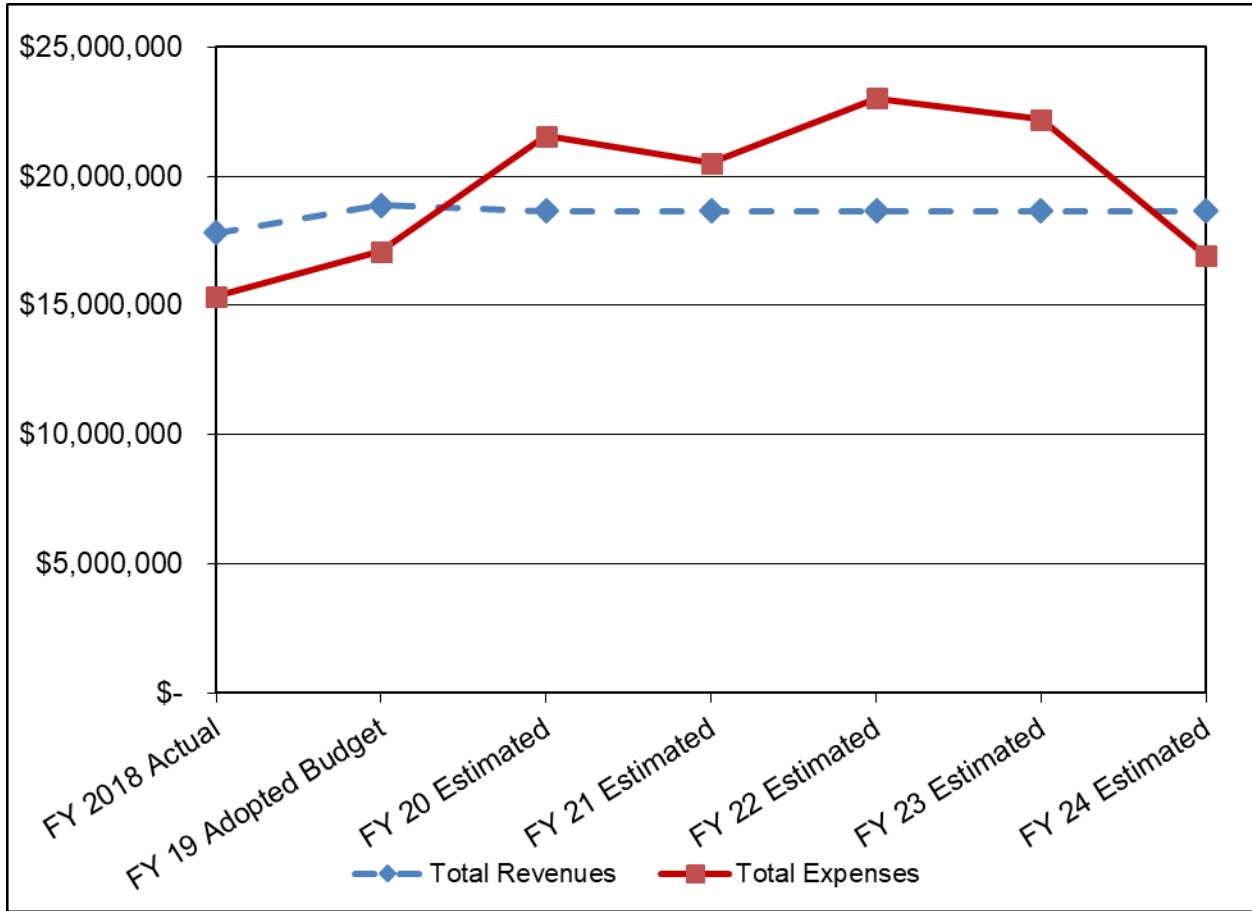


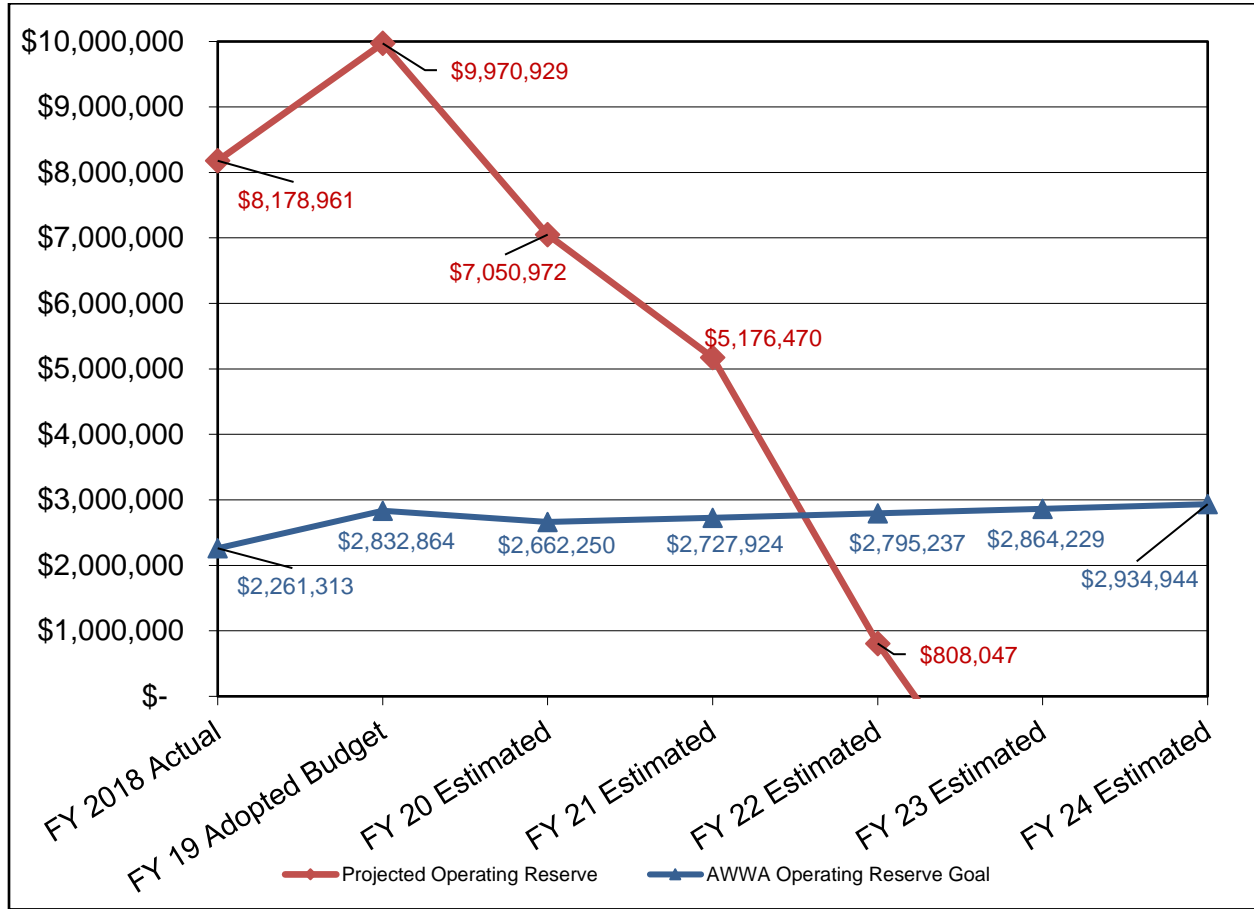
FIGURE 3
Scenario 1: Baseline Revenues and Expenses



Under the Baseline scenario, the projected operating reserve falls below the operating reserve goal between Fiscal Years 2021 and 2022 as shown in Figure 4. Ultimately, this rate structure is infeasible for the Village to maintain critical infrastructure while continuing to provide the same level of quality service to its users.

FIGURE 4

Scenario 1: Baseline Projected Operating Reserve



5. SCENARIO 2: FIXED AND VOLUMETRIC INCREASES

2/2/2/2/2

Based on the baseline scenario above, a required revenue projection was prepared in order to maintain a water and sewer fund balance no less than one million dollars in any given year. This scenario would allow the fund balance to drop below the fund balance goal, but through discussions with the Village, be an acceptable position for a single year.

A uniform 2% increase to the volumetric water and sewer rate annually from Fiscal Year 2020 through 2024 with two bumps to the fixed rate in Fiscal Year 21 and 23 are applied. The percentage increases are shown in Table 4 with the actual rate value shown in Table 5.

TABLE 4

Scenario 2: Fixed and Volumetric Percentage Increases 2/2/2/2/2

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	0%	0%	10%	0%	9.1%	0%
Fixed Rate – 1 ½-inch to 3-inch meter	0%	0%	10%	0%	9.1%	0%
Fixed Rate – 4-inch or larger meter	0%	0%	10%	0%	9.1%	0%
Volumetric Water Rate per 1,000 gal	0%	2%	2%	2%	2%	2%
Volumetric Sewer Rate per 1,000 gal	0%	2%	2%	2%	2%	2%

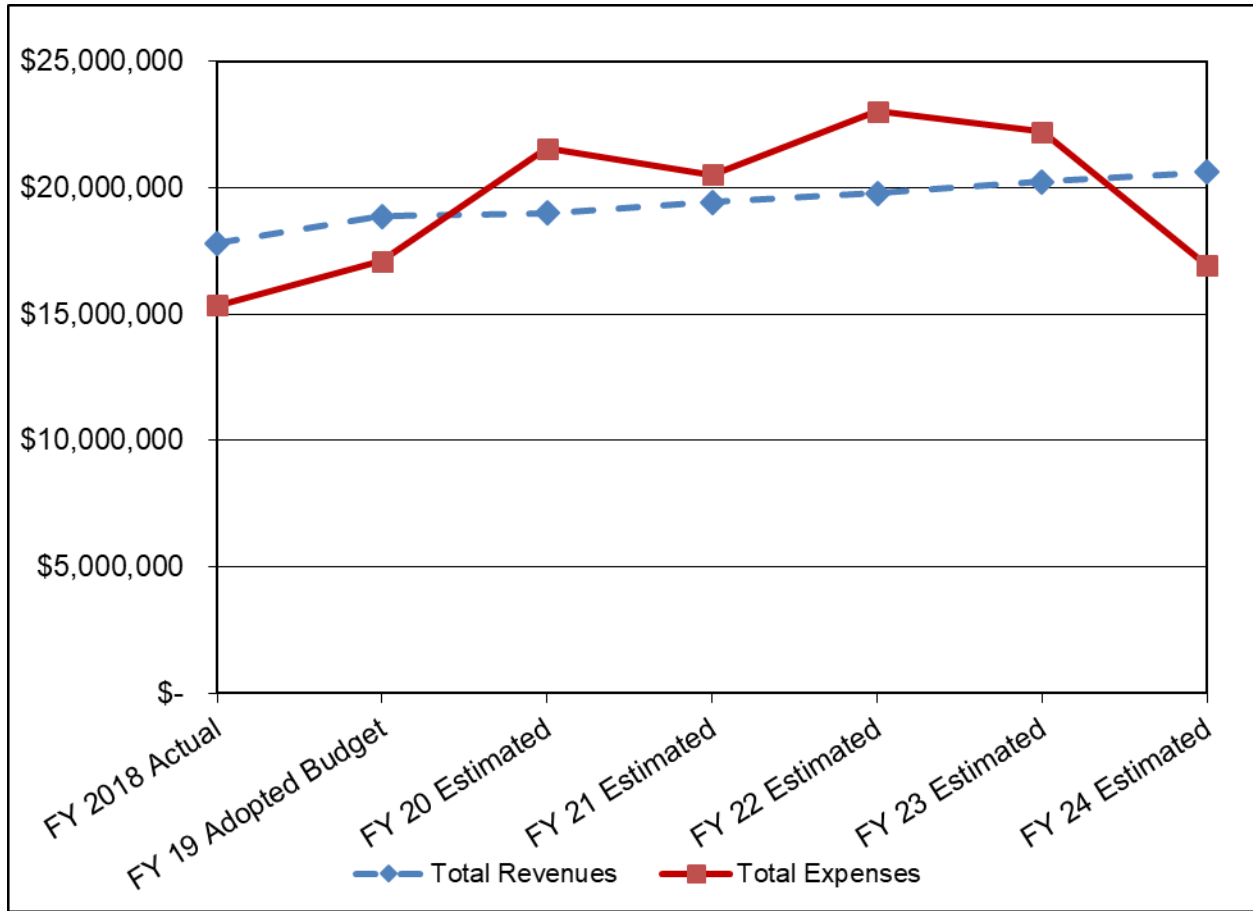
TABLE 5

Scenario 2: Volumetric and Fixed Rate Increases

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Fixed Rate – 1 ½-inch to 3-inch meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Fixed Rate – 4-inch or larger meter	\$15.00	\$15.00	\$16.50	\$16.50	\$18.00	\$18.00
Volumetric Water Rate per 1,000 gal	\$9.52	\$9.71	\$9.90	\$10.10	\$10.30	\$10.51
Volumetric Sewer Rate per 1,000 gal	\$2.73	\$2.78	\$2.84	\$2.90	\$2.96	\$3.01

These rate increases allow the Village to maintain a water and sewer fund balance of no less than one million in any given year. Figure 5 shows the projected revenues and expenses under this scenario.

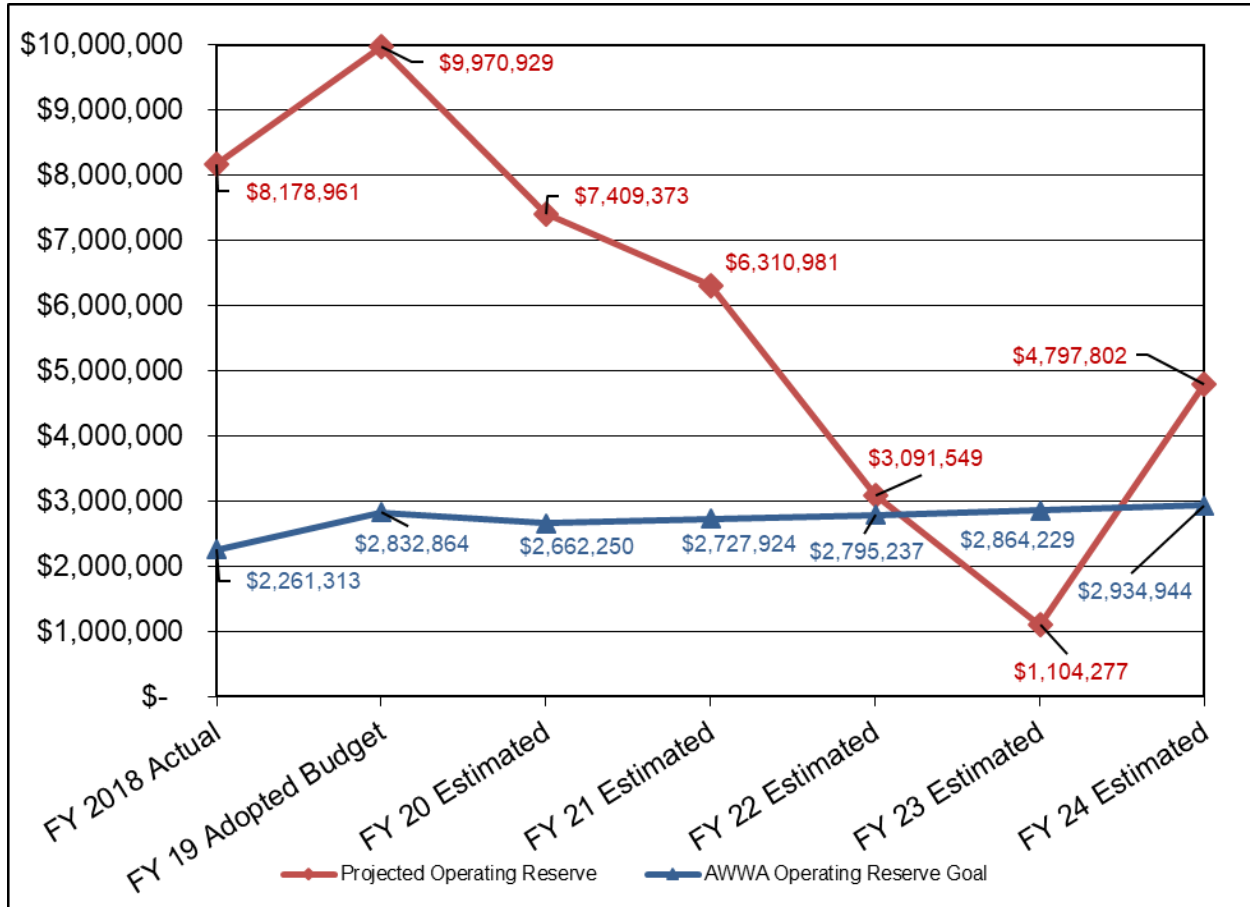
FIGURE 5
Scenario 2: Revenues and Expenses



The projected fund balance falls to \$1.1 million in Fiscal Year 2023, but quickly recovers in Fiscal Year 2024 with a projected ending balance of approximately \$4.8 Million. Figure 6 shows the projected operating reserve balance under this scenario.

FIGURE 6

Scenario 2: Projected Operating Reserve Balance



A sample Residential Customer with a usage of 4,500 gallons per month would see the following bill increases on their quarterly bill with Rate Scenario 2 as shown in Table 6. Generally, residential users are serviced by a 1 inch meter or smaller.

TABLE 6

Scenario 2: Sample Quarterly Residential Bill

4,500 gal/month	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate -1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Water - Volumetric	\$42.84	\$43.70	\$44.57	\$45.46	\$46.37	\$47.30
Sewer - Volumetric	\$12.29	\$12.53	\$12.78	\$13.04	\$13.30	\$13.56
Bill per month	\$60.13	\$61.23	\$62.85	\$64.00	\$65.67	\$66.86
Bill per quarter	\$180.38	\$183.68	\$188.56	\$192.00	\$197.01	\$200.59

A sample Commercial Customer with a usage of 16,000 gallons per month would see the following bill increases on their monthly bill with Rate Scenario 2 as shown in Table 7. Generally, a commercial user of this size would have a meter size between 1 ½ inch to 3 inches.

TABLE 7

Scenario 2: Sample Monthly Commercial Bill

16,000 gal/month	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate –1 ½ -inch to 3-inch water meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Water – Volumetric	\$152.32	\$155.37	\$158.47	\$161.64	\$164.88	\$168.17
Sewer - Volumetric	\$43.68	\$44.55	\$45.44	\$46.35	\$47.28	\$48.23
Bill per month	\$206.00	\$209.92	\$214.92	\$219.00	\$224.16	\$228.40

6. SCENARIO 3: FIXED AND VOLUMETRIC INCREASES

3/3/2/1/1

Scenario 3 was developed as a similar option to Scenario 2, considering the fund balance, operating reserve balance goal, and financial burden to residents and businesses. Rates are increased by 3% in Fiscal Year 2020 and 2021 to front-load the projected operating reserve fund. Smaller increases of 2% and 1% are applied to Fiscal Years 2022, 2023, and 2024. The same fixed rate increases as in Scenario 2 are applied to Fiscal Year 2021 and 2023. The percentage increases are shown in Table 8 with the actual rate value shown in Table 9.

TABLE 8

Scenario 3: Fixed and Volumetric Percentage Increases 3/3/2/1/1

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	0%	0%	10%	0%	9.1%	0%
Fixed Rate – 1 ½-inch to 3-inch meter	0%	0%	10%	0%	9.1%	0%
Fixed Rate – 4-inch meter or larger	0%	0%	10%	0%	9.1%	0%
Volumetric Water Rate per 1,000 gal	0%	3%	3%	2%	1%	1%
Volumetric Sewer Rate per 1,000 gal	0%	3%	3%	2%	1%	1%

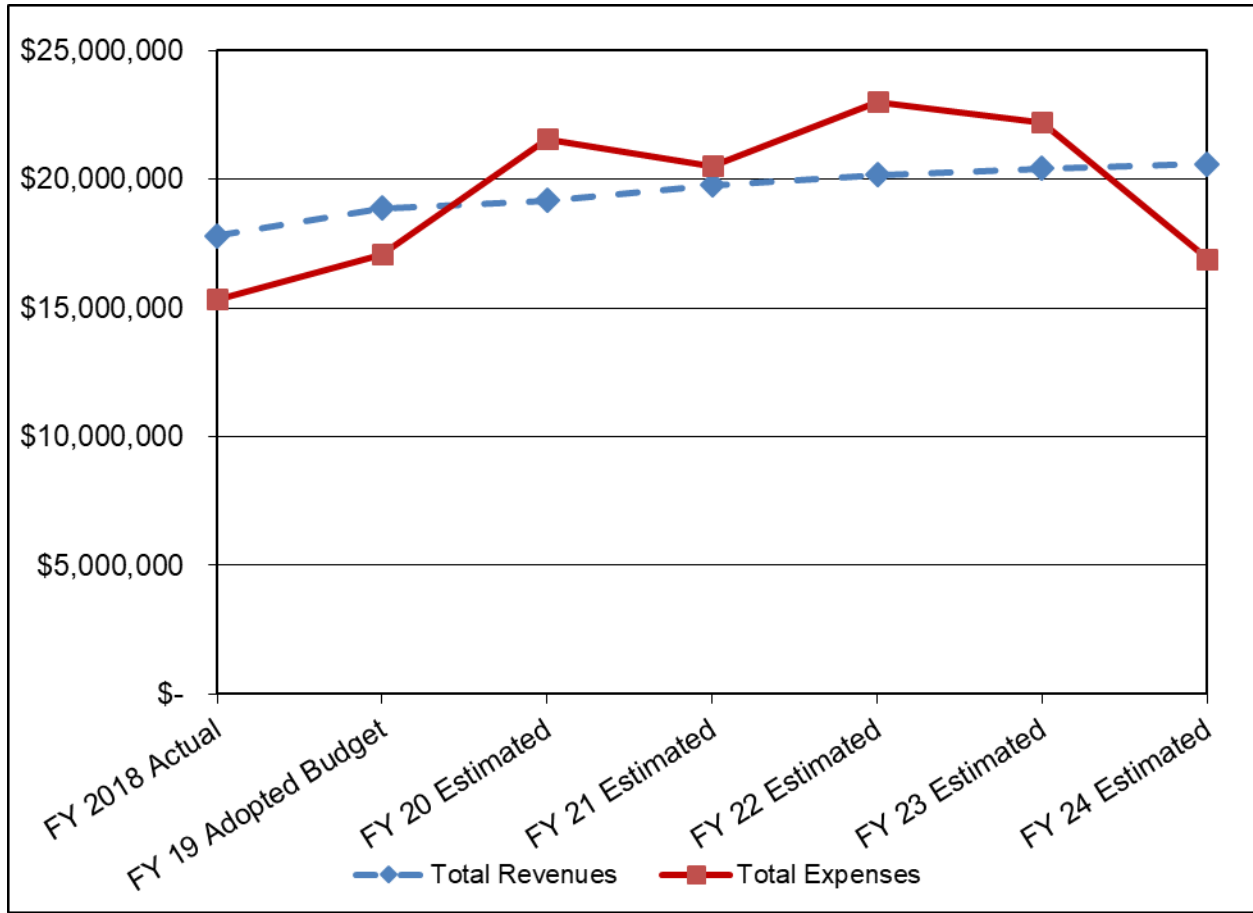
TABLE 9

Scenario 3: Volumetric and Fixed Rate Increases

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate – 1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Fixed Rate – 1 ½-inch to 3-inch meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Fixed Rate – 4-inch meter or larger	\$15.00	\$15.00	\$16.50	\$16.50	\$18.00	\$18.00
Volumetric Water Rate per 1,000 gal	\$9.52	\$9.81	\$10.10	\$10.30	\$10.40	\$10.51
Volumetric Sewer Rate per 1,000 gal	\$2.73	\$2.81	\$2.90	\$2.95	\$2.98	\$3.01

With these rate increases, the Village’s expenses remain consistent with the Baseline Scenario, however the revenues increase to cover the costs of Village’s projected expenses. Figure 7 shows the projected revenues and expenses under this scenario.

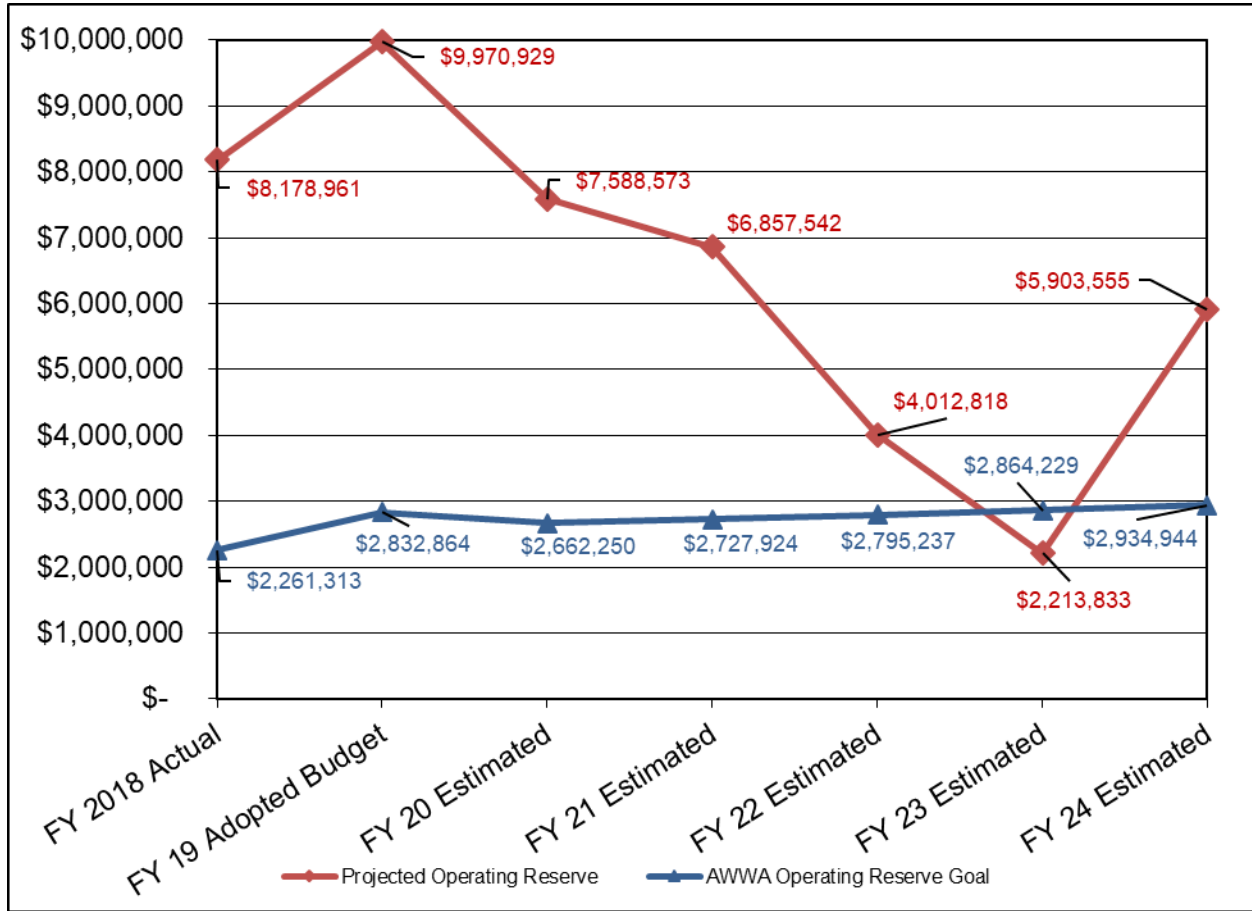
FIGURE 7
Scenario 3: Revenues and Expenses



These increases in rates allow the Village to meet or exceed the target reserve goal, with an exception in Fiscal Year 2023 where the projected ending balance is \$2.2 million to accommodate a large capital sewer project. The projected fund balance quickly recovers in Fiscal Year 2024 with a projected ending balance of \$5.9 Million. Figure 8 shows the projected operating reserve balance under this scenario.

FIGURE 8

Scenario 3: Projected Operating Reserve Balance



A sample residential customer with a usage of 4,500 gallons per month would see the following bill increases on their quarterly bill with Rate Scenario 3 as shown in Table 10. Generally, residential users are serviced by a 1 inch meter or smaller.

TABLE 10

Scenario 3: Sample Quarterly Residential Bill

4500 gal/mo.	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate -1-inch meter or smaller	\$5.00	\$5.00	\$5.50	\$5.50	\$6.00	\$6.00
Water - Volumetric	\$42.84	\$44.13	\$45.45	\$46.36	\$46.82	\$47.29
Sewer - Volumetric	\$12.29	\$12.65	\$13.03	\$13.29	\$13.43	\$13.56
Bill per month	\$60.13	\$61.78	\$63.98	\$65.15	\$66.25	\$66.85
Bill per quarter	\$180.38	\$185.34	\$191.95	\$195.46	\$198.75	\$200.55

A sample Commercial Customer with a usage of 16,000 gallons per month would see the following bill increases on their monthly bill with Rate Scenario 3 as shown in Table 11. Generally, a commercial user of this size would have a meter size between 1 ½-inch to 3-inches.

TABLE 11

Scenario 3: Sample Monthly Commercial Bill

16,000 gal/month	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Fixed Rate –1 ½ -inch to 3-inch water meter	\$10.00	\$10.00	\$11.00	\$11.00	\$12.00	\$12.00
Water – Volumetric	\$152.32	\$156.89	\$161.60	\$164.83	\$166.48	\$168.14
Sewer - Volumetric	\$43.68	\$44.99	\$46.34	\$47.27	\$47.74	\$48.22
Bill per month	\$206.00	\$211.88	\$218.94	\$223.10	\$226.22	\$228.36

7. WATER AND SEWER RATE COMPARISON

A rate comparison survey was conducted on neighboring communities and municipalities that were similar to the Village of Oak Park. It should be noted that not all communities had publically accessible water and sewer rates, and some have publish dates that extend beyond a year. The rates used for comparison from the other municipalities may be outdated and potentially higher as noted. Table 12 shows a calculated monthly water and sewer bill for a sample resident consuming 4,500 gallons a month. This table is provided strictly for a frame of reference and is not an exact depiction of current rates between each municipality.

TABLE 12

Sample Residential Bill Comparison (4,500 gallons/month)

	Rate Published (year)	Water Bill	Sewer Bill	Total Bill
Melrose Park	2019			\$25.26
Berwyn	2019	\$37.79	\$5.41	\$43.20
Forest Park	2018			\$43.97
Brookfield	2018			\$49.69
River Grove	2018	\$46.58	\$4.51	\$51.09
Cicero	2018	\$40.07	\$13.30	\$53.37
Elmwood Park	2016			\$58.28
Oak Park	2019 Baseline	\$47.84	\$12.29	\$60.13
River Forest	2019	\$40.06	\$26.41	\$66.47
Oak Park	2024 Scenario 3	\$53.29	\$13.56	\$66.85
Oak Park	2024 Scenario 2	\$53.30	\$13.56	\$66.86
Maywood	2019	\$65.39	\$3.07	\$68.46
North Riverside	2019			\$76.20
Riverside	2018			\$84.54

The rate comparison shows that Oak Park is currently in the middle compared to other communities for a sample residential consumer. The sample residential bill in Fiscal Year 2024 for both Scenario 2 and 3 places Oak Park in the middle compared to other communities.

As a note, other municipality's rate structures vary heavily from one another. Some municipalities factor sewer rates under property tax and others offset the residential user group by charging specific industrial and/or commercial user groups. These differences make it difficult to get an accurate comparison between municipalities.

Table 13 shows a calculated monthly water and sewer bill for a sample commercial business, using 16,000 gallons per month.

TABLE 13

Sample Commercial Bill Comparison (16,000 gallons/month)

Community	Rate Published (year)	Water Bill	Sewer Bill	Total Bill
Brookfield	2018			\$176.68
Berwyn	2019	\$157.54	\$19.25	\$176.79
Cicero	2018	\$142.46	\$56.06	\$198.52
River Grove	2018	\$186.88	\$16.04	\$202.92
Oak Park	2019 Baseline	\$162.32	\$43.68	\$206.00
Elmwood Park	2016			\$207.20
Oak Park	2024 Scenario 3	\$180.14	\$48.22	\$228.36
Oak Park	2024 Scenario 2	\$180.17	\$48.23	\$228.40
River Forest	2019	\$142.44	\$93.89	\$236.33
Maywood	2019	\$232.48	\$10.91	\$243.39
Forest Park	2018			\$246.38
Riverside	2018			\$262.24
North Riverside	2019			\$328.80
Melrose Park	2019			\$467.10

The rate comparison shows that Oak Park currently charges a fair rate relative to the other communities. The sample commercial bills for Scenarios 2 and 3 in Fiscal Year 2024 show that Oak Park will remain in the middle range of neighboring communities.

It is difficult to predict where the Village rates will fall within this ranking scale for years beyond 2020. The need for continued investment in water infrastructure is prevalent throughout all communities and is not unique to the Village of Oak Park. The industry trend is that communities are actively increasing their rates each year to keep pace with the true cost of providing clean, safe, reliable drinking water and treating wastewater to comply with regulatory agency requirements and maintain a healthy environment. Therefore, it can be expected that other communities will continue to raise utilities rates in the coming years.

8. CONNECTION FEE COMPARISON

A survey of water connection fees was conducted on neighboring communities and municipalities that were similar to the Village of Oak Park. As with the water and sewer rates, not all communities had publically accessible connection fees, with some of the fees published over a year ago. Table 14 shows the published connection fees for a sample water connection. This table is provided for reference and is not necessarily an accurate depiction of connection fees between municipalities.

TABLE 14
Connection Fee Comparison

Community	Meter Size								
	5/8"	¾"	1"	1 ½"	2"	3"	4"	6"	8"
Riverside	\$500	\$500	\$500	\$750	\$1000	\$1000	\$1000	\$1000	\$1000
River Forest	\$500	\$500	\$500	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000
Melrose Park	\$600	\$600	\$600	\$1000	\$1000	\$1200	\$1200	\$2400	\$2400
Oak Park						\$1300	\$1600	\$1900	\$2100
Brookfield	\$500		\$700	\$1000	\$1225	\$1537	\$2504	\$3518	\$4620
Cicero			\$1250	\$1800	\$2200	\$2300	\$2400	\$2800	\$3000
Forest Park			\$600	\$1400	\$1400	\$1400	\$1400	\$1400	\$1400
Berwyn	\$350	\$425	\$1500	\$2175	\$3925	\$5500	\$7050	\$4000+	\$6000+
								Special order	Special order

The connection fee comparison shows that for a 3-inch meter, the Village of Oak Park falls in the middle against other communities. It should be noted however that connection fees are generally unique to each municipality as they are intended to recover the cost of time and materials per connection.

9. CONCLUSION AND RECOMMENDATIONS

This analysis was intended to provide the Village with boundary conditions to measure the health of the Village's financial position, and identify a stable forecast of rates. In that regard, while the Village is currently in sound financial position, a steady rate increase is required in order to maintain the ongoing maintenance of the Village's water and sewer system and provide the same level of quality service to its customers.

In addition to the planned Capital Improvements Plan, the Village has considered the long-term potential of upcoming regulations requiring the replacement of lead water services. The cost of these replacements would be considerable with approximately 10,000 water services that would need upgrades and cost \$5,000-\$10,000 per service. This type of project would require significant planning and would likely be a 10 to 20 year replacement project.

9.1 Recommended Action Plan

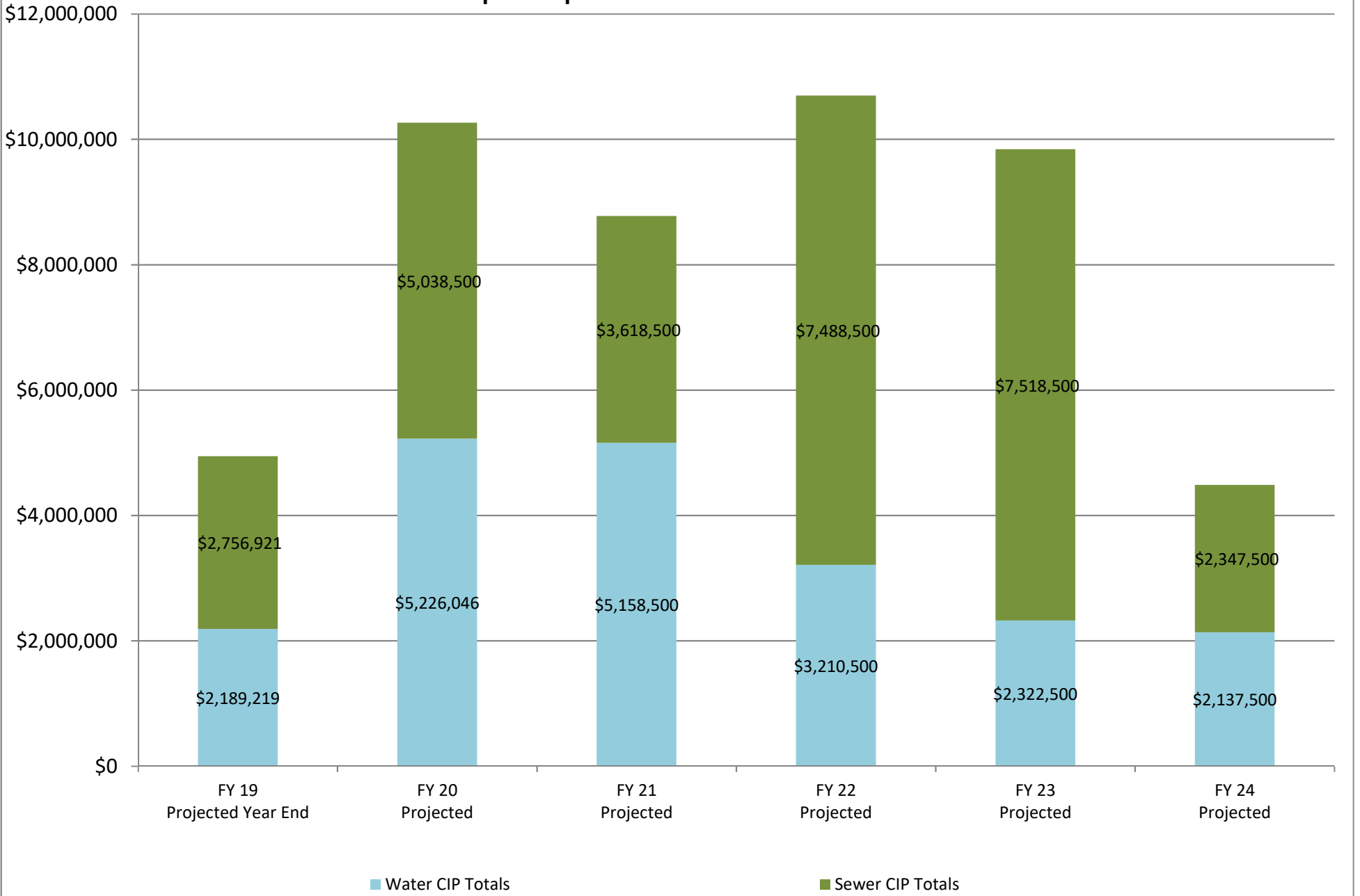
After discussion at the Village Board meeting and with Village staff, Baxter & Woodman recommends incorporating Scenario 3: Fixed and Volumetric Increases 3/3/2/1/1. This scenario allows the Village to prepare for planned capital improvements with an increase of only \$20 in the quarterly bill of a typical residential customer by Fiscal Year 2024. While Scenario 2: Fixed and Volumetric Increases 2/2/2/2/2 will cover the cost of capital improvements and results in a similar bill for a residential customer, the anticipated financial reserve in Fiscal Year 2024 is \$4.8 M versus \$5.9 M with Scenario 3.

Baxter & Woodman recommends that the Village thoroughly review this report and consult with Village staff and any financial advisors which are familiar with all aspects of the Village's finances. Our review focused on the Water & Sewer Fund, however those familiar with the overall finances of the Village should also be consulted. Provided the Village financial advisors are in agreement with the information contained in this report, the Village should consider what rates are agreeable to maintain a healthy operating reserve balance and community reception.

The Village should monitor fund values against the projected balances and identify any significant discrepancies. The plan should be monitored on an annual basis and adjustments made to the plan in the event there are material differences from the forecast.

APPENDIX

Village of Oak Park Capital Improvements Plan: 2019 to 2024



Village of Oak Park
Water and Sewer Rate Study
Appendix B - Water and Sewer Future Rate Increases
Scenario 3 - Volumetric and Fixed Rate Increases 3/3/2/1/1

FUTURE FIXED RATE INCREASES

Fixed Rate 1 inch or less meter	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rate Increase	0.00%	0.00%	0.00%	10.00%	0.00%	9.10%	0.00%
1" Meter Fixed Rate	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.50	\$ 5.50	\$ 6.00	\$ 6.00

Fixed Rate 1 1/2 inch to 3 inch meter	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rate Increase	0.00%	0.00%	0.00%	10.00%	0.00%	9.10%	0.00%
1 1/2 inch to 3 inch meter Fixed Rate	\$ 10.00	\$ 10.00	\$ 10.00	\$ 11.00	\$ 11.00	\$ 12.00	\$ 12.00

Fixed Rate 4 inch or larger meter	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rate Increase	0.00%	0.00%	0.00%	10.00%	0.00%	9.10%	0.00%
4 inch or larger meter Fixed Rate	\$ 15.00	\$ 15.00	\$ 15.00	\$ 16.50	\$ 16.50	\$ 18.00	\$ 18.00

FUTURE WATER RATE INCREASES

Volumetric rate per 1,000 gallons	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rate Increase	2.08%	2.04%	3.00%	3.00%	2.00%	1.00%	1.00%
Volumetric Rate	\$ 9.33	\$ 9.52	\$ 9.81	\$ 10.10	\$ 10.30	\$ 10.40	\$ 10.51

FUTURE SEWER RATE INCREASES

Volumetric Rate per 1,000 gallons	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Rate Increase	2.30%	2.25%	3.00%	3.00%	2.00%	1.00%	1.00%
Up to 15,000 Gallons Volumetric Rate	\$ 2.67	\$ 2.73	\$ 2.81	\$ 2.90	\$ 2.95	\$ 2.98	\$ 3.01