

MEMORANDUM

To: Village of Rushville

Copy: Town of Middlesex

From: Derek C. Anderson, PE

DATE: 07/28/2021

MRB GROUP PROJECT NO: 1805.21001.000

RE: Water Rate Study

MRB Group worked with the Village of Rushville, the Village of Rushville Department of Public Works Superintendent, and the Town of Middlesex to review the Village of Rushville Water Fund budget in order to establish equitable water rates that fully fund the budget and establishes a reserve for short term asset replacement.

WATER RATES AND USAGE

According to the Village of Rushville's 2018/2019 rate schedule, there are eight (8) different billing categories, each with its own rate structure.

Inside Village

Applies to customers inside the Village of Rushville.

- Base Rate: \$44.20 per quarter for first 6,000 gallons.
- Tier 1 Rate: \$6.16 per 1,000 gallons for 6,001 gallons to 50,000 gallons.
- Tier 2 Rate: \$7.70 per 1,000 gallons for 50,001 gallons and above.

The base rate has an effective rate of \$7.37 per 1,000 gallons based on an actual usage of 6,000 gallons.

Over the past three years, Inside Village customers utilized approximately 12,125,000 gallons per year.

Outside Village

Applies to customers outside the Village of Rushville but not in the Town of Middlesex water districts.

- 1.5 times the Inside Village Rate.
- Base Rate: \$66.30 per quarter for first 6,000 gallons.

MEMORANDUM

- Tier 1 Rate: \$9.24 per 1,000 gallons for 6,001 gallons to 50,000 gallons.
- Tier 2 Rate: \$11.55 per 1,000 gallons for 50,001 gallons and above.

The base rate has an effective rate of \$11.05 per 1,000 gallons based on an actual usage of 6,000 gallons.

Over the past three years, Outside customers purchased on average 1,071,000 gallons per year.

Castle Street Apartments

Applies only to the Castle Street Apartments.

- Base Rate: \$1,008.00 per quarter for first 144,000 gallons.
- Tier 1 Rate: \$7.00 per 1,000 gallons for usage above 144,000 gallons.

The base rate has an effective rate of \$8.88 per 1,000 gallons based on an actual usage of 144,000 gallons.

Castle Street Apartments typically purchased 406,000 gallons per year.

Marcus Whitman Schools

By agreement, the Marcus Whitman rate is \$7.70 per 1,000 gallons.

Over the past three years, Marcus Whitman typically purchased 2,767,000 gallons per year.

Town of Middlesex

Town of Middlesex rate is \$7.70 per 1,000 gallons. (Note: While \$7.70 is the rate that Rushville charges Middlesex, Middlesex typically pays a reduced rate. This rate is one factor that contributed to the need for this review.)

In 2018 and 2019, Town of Middlesex purchased approximately 10,286,000 gallons per year. In 2020, Town of Middlesex purchased approximately 26,411,000 gallons however, this quantity is not considered normal. It was reported that during 2020 there was a water main break in Middlesex that took several months to locate and repair. A more typical water use is 10,328,000 gallons per year.

MEMORANDUMBulk Users

Customers that purchase water from the Village of Rushville bulk fill station pay \$8.25 per 1,000 gallons.

Bulk users account for 1,970,000 gallons per year.

No Charge Easement

By agreement, one customer has access to water at no cost.

The no charge easement customer typically uses 170,000 gallons per year.

Village Water Use

Village facilities are not charged for water use.

Water use reported for Village facilities (WWTP, Highway, Village Hall, etc.) in 2018 was 2,885,740; in 2019 the use was 21,111,640 gallons, and in 2020 the usage was 295,225 gallons. Based on the 2018 usage, it appears there may be an extra "1" in the 2019 usage, and a missing "0" in the 2020 usage. A more typical water usage is 2,650,000 gallons. However, this usage too appears high since it represents approximately 8.4% of metered sales. However, since the usage is not billed, it does not affect revenue.

Typical Water Usage

By adjusting the 2020 Middlesex water use, and the 2019 and 2020 Village water use to more typical values, the three-year annual average water usage is approximately 31,487,000 gallons. However, of this amount, only 28,667,000 gallons were billed to customers. This quantity does not include water usage by Village facilities or the no charge easement customer.

MEMORANDUM**Adjusted Three-Year Average Usage**

Service	Annual Usage (gallons)	% of Total
Castle Street Apartments	406,000	1.29%
Inside Water Service (Village)	12,125,000	38.51%
Marcus Whitman	2,767,000	8.79%
Middlesex Bulk Water (Town)	10,328,000	32.80%
No Charge Easement	170,000	0.54%
Outside Service	1,071,000	3.40%
Village Water Usage (Muni)	2,650,000	8.42%
Bulk Fill Station	1,970,000	6.26%
3-Year Average Total	31,487,000	100.00%
Quantity for Budgeting	28,667,000	91.6%

Effective Uniform Water Rate

The effective uniform water rate is a single rate derived from total revenue and total quantity sold. It is a simplified method for review due to the multiple water rates managed by the Village.

For example, in 2019, the Village's revenue from water sales was \$213,200; the quantity of water billed was approximately 28,412,000 gallons. Therefore, the effective uniform water rate was \$7.51 per 1,000 gallons. The attached table, *Village of Rushville Water Rates – 2018/2019*, summarizes the effective uniform water rate for 2019 by source and rate structure.

In 2019, approximately 2,315,000 gallons was utilized by Village facilities and the no-charge easement. Since this water is not billed, it is not included in determining the effective uniform water rate.

BUDGET TRENDS

The overall Village budget includes General (A), Miscellaneous (CM), Water (FX), and Sewer (G) funds. Final budgets from 2012 through 2020¹ were reviewed in order to estimate future Water Fund revenues, expenditures, and fund balances through year 2026.

¹ *Open Book Trend Review*, New York State Comptroller

Revenue

Water Fund revenues typically include Metered Water Sales, Water Service Charges, Interest Penalties and Water Rents, Interest and Earnings, and Refunds from Prior Year's Expenditures. The 2020-2021 budget also included addition revenue from appropriation from other Village funds.

The final budgets indicate that from 2015 to 2021, Water Fund revenues typically increased by 3.65% per year (attached).

Expenditures

Expenditure categories in the Water Fund include:

- Unallocated Insurance
- Government and Local Support
- Source Supply Power & Pump
- Water Purification
- Water Transmission & Distribution
- Debt Principal & Interest
- Home and Community Services

From 2015 to 2021, Water Fund expenditures typically increased by 4.88% per year.

In 2019, Water Fund expenditures were \$246,997. In order to fully fund the expenditures without changing the fund balance, the effective uniform billing rate would need to be \$8.70 per 1,000 gallons. The attached table, *Uniform Water Rate Needed to Fund 2019 Expenditures*, summarizes the effective uniform water rate including a breakdown by category.

Treatment

An expenditure sub-set is treatment, which consists of the following expenditure categories:

- Source Supply Power & Pump (full)
- Water Purification (full)
- Water Transmission & Distribution (portion)
- Debt Principal & Interest (full)
- Home and Community Services (portion)

MEMORANDUM*Source Supply Power & Pump*

Source supply costs include labor, equipment and material costs applied to the category as reported by the Village. In 2019 the expenditure was \$86,935. Based on water quantity sold (28,412,215 gallons), the effective rate was \$3.05/1,000 gallons.

Water Purification

Water purification cost include labor, equipment and material costs applied to the category as reported by the Village. In 2019 the expenditure was \$608 with an effective rate of \$0.02/1,000 gallons.

Water Transmission & Distribution

Recognizing that maintenance of the water storage tank and the transmission main from the water plant to the Village and the Town of Middlesex water districts is only a portion of this category, and that both are essential to supplying the Village and Town, for purposes of this review, only 23.4% of the category is applied to treatment.

The transmission main consists of approximately 46.8% of the pipe in the Village's transmission main and distribution system. 23.4% represents approximately half of 46.8%, acknowledging that the balance of the category represents repairs and maintenance in the Village and its service areas outside the Town of Middlesex.

Water transmission costs include 23.4% of the labor, equipment and material costs applied to the category as reported by the Village. In 2019, 23.4% of the expenditure was \$7,241 with an effective rate of \$0.26/1,000 gallons.

Home and Community Services

Home and Community Services accounts for employee benefits. The portion of the category applicable to treatment is proportional to the personnel services applied to the total water fund and the categories considered treatment. In 2019 approximately 42% of the water fund budget home and community services category are attributable to treatment. In 2019, 42% the expenditure was \$9,910 with an effective rate of \$0.35/1,000 gallons.

Debt Principal & Interest

Debt service includes the principal and interest being paid for the water treatment plant improvement project completed in 2012. This project benefits all water system customers. In 2019 the expenditure was \$74,340 with an effective rate of \$2.62/1,000 gallons. The rate is essentially fixed for the duration of the loan.

Total Treatment Cost

In 2019, the portion of the effective uniform water rate needed to fully fund expenditures (\$8.70) without reducing fund balance attributable to treatment was \$6.05 per 1,000 gallons. See attached table, *Uniform Water Rate Needed To Fund 2019 Treatment Expenditures*, for a summary by category.

Employee Expenses

Employee Expenses is also a sub-set of the expenditure categories designated as personnel services and home and community services.

Village of Rushville provided guidance on how employee expenses are budgeted for each fund and each fund category based on employee classification. In general, there are two classes of employee; Admin and Allocated.

Admin expenses are split evenly between the Village's General Fund, Water Fund, and Sewer Fund. Within the water fund, Admin expenses are applied to General Government Support, and Home and Community Services categories. Examples of Admin employees include the mayor, trustees, clerk, and zoning officer plus others.

Allocated expenses are applied to the Village's General Fund, Miscellaneous Fund (Cemetery), Water Fund, and Sewer Fund based on time applied as reported on employee timesheets. Time applied to each category can vary from year to year due to variable system needs. Allocated employees include Arthur Rilands and Michale Piere. The 2020-2021 budget showed that Arthur Rilands applied 39.6% of his time to the water fund, and Michael Piere applied 27.4% of his time to the water fund. Allocated employee expenses are applied to the water fund categories for source supply power & pump, water purification, and water transmission and distribution.

Fund Balance

According to the Office of the New York State Comptroller, "a reasonable level of unreserved, unappropriated fund balance provides a cushion for unforeseen expenditures or revenue shortfalls and helps to ensure that adequate cash flow is available to meet the cost of operations."² For local governments, the Comptroller does not stipulate a limit on fund balance or reserve funds. Instead it is up to the local government to determine what is reasonable considering, for example, revenue, expenditures, potential unexpected expenditures, and other factors.

Review of the Water Fund indicates that from 2015 through the 2020, the Village endeavored to maintain a fund balance approximately equal to one year of expenditures.

The Water Fund shows a steady decrease in fund balance from 2015 to 2019 by approximately 4.08% per year. The fund balance decreased because total expenditures exceeded total revenue. The balance increased in 2020 by \$60,000 due to an increase in total revenue.

Short Lived Assets

Short lived assets are items with a significant capital cost such as pumps and filtration equipment that have limited service lives, typically 5, 10 or 15 years. Short lived asset costs can be paid for from a capital reserve fund or from fund balance. Short lived assets are beyond normal routine operation and maintenance expenditures.

The 2009 Engineering Report for the water treatment plant included a detailed analysis of short-lived assets. The evaluation was based on a membrane filtration system and listed the system as an individual line item. The evaluation was reviewed based on the installed DE filtration system. The review resulted in a recommended annual contribution to a capital reserve fund of \$20,100 per year (attached).

Trend Summary

Review of past budgets indicates a trend that expenditures typically outpace revenue causing the Village to periodically adjust short falls by allocating funds to the Water Fund or by adjusting water rates (attached).

² *Local Government Management Guide, Reserve Funds*, Office of the New York State Comptroller, Division of Local Government and School Accountability, January 2010.

MEMORANDUM

Projecting the budget based on current water rates and historical changes in demands and expenditures indicates that the Water Fund balance may drop to approximately \$78,800 in year 2026.

The projected balance of a recommended capital reserve fund, considering annual contributions and projected expenditures, for year 2026 is approximately \$79,200. The difference between the projected 2026 Water Fund Balance and the recommended capital reserve fund balance represents a potential shortfall of \$400 for un-allocated fund balance. Therefore, based on historical trends, funds may not be available from the Water Fund for un-anticipated system repairs by year 2026. An adjustment to the water rate is necessary.

RECOMMENDED WATER RATES

Establishing an equitable water rate is a function of:

- Projected revenue.
- Water rates charged to each type of service.
- Projected expenditures.
- Projected capital reserve fund balance.
- Projected, reasonable fund balance.

Revenue

Projected revenue is a function of individual billing rates and the quantity of water sold.

Review of water production data for 2018, 2019 and 2020 shows a steady increase in water demand. As stated previously, review of water revenue from 2015 to 2020 also shows a steady increase in revenue, which is due in part to increases in system demands. Previous studies of the water system for the water plant also projected an increase in system demands due to new users within the existing system and from water district expansion in the Town of Middlesex.

As presented earlier, the Village currently has eight different billing categories, each with different tiers. In reviewing the rates, it was noted that the effective rate for the base charge for Inside Village and Outside Village was higher than the rate for the first tier. The second tier rate was the highest rate making the first tier rate lowest. Castle Apartments has a base rate and one tier.

It is recommended that the Village adopt a more uniform rate structure within the different categories, and that the different category rates be fixed as a proportion to the Inside Village Rate.

MEMORANDUM

One rate structure that results in an increase in fund balance is as follows:

Inside Village

- Base Rate: \$8.76 per 1,000 gallons with a minimum charge of \$52.56 per quarter for first 6,000 gallons.
- Tier 1 Rate: \$8.76 per 1,000 gallons for 6,001 gallons and above.

Outside Village

- Base Rate: \$13.14 per 1,000 gallons with a minimum charge of \$78.84 per quarter for first 6,000 gallons.
- Tier 1 Rate: \$13.14 per 1,000 gallons for 6,001 gallons and above.
- This rate is 1.5 times the Inside Village rate.

Castle Street Apartments

- Base Rate: \$10.51 per 1,000 gallons with a minimum charge of \$1,066.97 per quarter for first 144,000 gallons.
- Tier 1 Rate: \$10.51 per 1,000 gallons for usage above 144,000 gallons.
- This rate is 1.2 times the Inside Village rate.

Marcus Whitman Schools

- \$9.20 per 1,000 gallons.
- This rate is 1.05 times the Village rate.

Town of Middlesex

- \$7.45 per 1,000 gallons.
- This wholesale rate is fixed at 85% of the Village Rate and includes treatment costs plus fair profit. Internally, the first-year fair profit is approximately 11.7%. This amount steadily decreases as projected expenditures increase.

Bulk Users

- \$10.51 per 1,000 gallons.
- This rate is 1.2 times the Inside Village rate.

No Charge Easement

- \$7.45 per 1,000 gallons.
- The 2009 Engineering report for the water treatment plant indicates that the transmission main from the raw water pump station to the former water plant had 5 or 6 users that drew raw water for farm operations. It appears that one user negotiated an agreement with the Village to provide an easement for the transmission main in return for free, raw water. The water system has since changed; all users on the transmission main are now served by potable water. Considering this change, it

MEMORANDUM

appears reasonable that the no-charge easement user now be charge at least a wholesale rate. For this reason, the proposed rate for the customer is the same as the Town of Middlesex.

Village Water Use

- Village facilities are not charged for water use.

Effective Uniform Water Rate

For the first year, based on a projected water usage billed of 28,667,000 gallons, the effective uniform water rate is \$8.68 per 1,000 gallons for a total revenue of \$248,925. See attached for a breakdown of the proposed effective uniform water rate by category.

Expenditures

The projected first year expenditures are \$248,925 (attached).

The first year expected treatment costs are \$189,697, which results in a treatment charge of \$6.58 per 1,000 gallons. This charge is a component of each proposed billing rate.

Fund Balance

The proposed water rates applied to projected increases in billed water demand, and projected increases in expenditures, results in a steadily growing fund balance. In 2026 the expected fund balance is \$228,935 with expected capital reserve fund accounting for \$79,115. Fund balance available for un-anticipated expenditures is \$149,780.

It should be noted revenue and expenditures were only projected to year 2026 at which time the rates will again be reviewed.

Treatment reserve fund balances were projected to year 2051; the same duration as presented in the 2009 Engineering Report. It is noted that the reserve fund projections show a major upgrade to the water treatment plant possible in year 2044 with a possible cost of \$393,000. Therefore, while the projected Water Fund balance may appear high in 2026, the balance is on track for establishing the funds that may be needed in year 2044.

MEMORANDUM**TOWN OF MIDDLESEX**

The Town of Middlesex overall budget includes three categories; General (A), Highway-Town-Wide (DA), and Water (SW).

Revenues

For the Town of Middlesex, water fund revenue is derived from Real Property Taxes, Metered Sales, and Interest and Earnings. Review of revenues from 2016 to 2019 indicated a steady increase in revenue.

In 2019, Town of Middlesex purchased 10,555,663 gallons of water. The following shows the effective water rate for revenues in 2019 expressed as dollars per thousand gallons.

Revenue Source	Revenue	Effective Water Rate
Taxes	\$77,040.52	\$7.30
Metered Sales	\$61,150.00	\$5.79
Interest and Earnings	\$26.75	\$0.00
Total Revenue	\$138,217.27	\$13.09

Expenditures

The Town of Middlesex water fund has six expense categories, Home and Community Services, Employee Benefits, Debt Principal, Debt Interest, and Operating Transfers.

The following shows the effective water rate for expenditures in 2019 expressed as dollars per thousand gallons.

Expenditure	Revenue	Effective Water Rate
Home and Community Services	\$102,516.02	\$9.71
Employee Benefits	\$3,827.99	\$0.36
Debt Principal & Interest	\$0.00	\$0.00
Total Expenditures	\$106,344.01	\$10.07

Fund Balance

Review of the Town's water fund balance shows an average annual increase from 2015 to 2019 of 17.41%. The water fund balance is growing because the revenue is greater than expenditures. The water fund balance at the end of 2019 was \$257,654.

Trend Summary

According to *Open Book Trend Review*, the Town experienced an increase in water fund revenue of 4.1% from 2016 to 2017, 17.5% from 2017 to 2018, and 1% from 2018 to 2019. The three-year average annual increase in revenue was 7.52%. Given the wide range in revenue changes, revenue projections were based on a modest annual increase of 1%.

According to *Open Books*, water fund expenditures decreased by 17.2% from 2016-2017, in 2017-2018 they decreased by 0.5%, then from 2018-2019 they increased by 14%. The three-year average annual change in revenue was negative (-)1.25%. Given the wide range in revenue changes for expenditures, revenue projections were based on a 2% increase for each expenditure line item except for water.

It was noted that the category, *Water Trans & Distrib, Contr Expend*, was unusually high in 2019. Future projections were based off of 2018.

The expenditure category, *Source Supply Power & Pumps, Contributory Expenditures*, represents the cost of water purchased from the Village of Rushville. From 2016 to 2019 the average annual increase was 2.76%. Based on a constant tax basis and water rate from 2016 to 2019, the increase represents an increase in water demand.

Future expenditures for *Source Supply* were based on the proposed water rate of \$7.45/1,000 gallons starting in year 2020 plus a 2.76% annual increase starting in 2021, which represents an annual increase in water demand.

While review of historical budget trends indicate that the annual increase in revenues outpaces the annual increase in expenditures, future trends were projected based on the rate of expenditure increase outpacing the rate of revenue increase. This is based on the understanding that water rates typically remain constant until they are adjusted (typically every five-years) causing revenues to remain relatively flat, and that expenditures typically increase due to annual labor, material and equipment cost increases needed to maintain and aging water system.

Based on revenue and expenditure projections, the water fund balance is expected to grow to \$394,394 in 2026.

MEMORANDUM**CONCLUSION**

MRB Group reviewed the Village of Rushville Water Fund budget to establish an equitable water rate that fully funds the budget and establishes a reserve for short term asset replacement. MRB Group believes that the proposed water rates presented in this evaluation meet these objectives. This study provides recommended retail rates for Village customers and a reduced wholesale rate for the Town of Middlesex.

VILLAGE OF RUSHVILLE WATER RATES

Service	Tier	Unit	Existing 2018/2019	Proposed Through 2025
Inside Village	Base: Min.0-6,000gal	Per Quarter	\$44.20	\$52.56
	#1: 6,001-50,000	/1,000 gallons	\$6.16	\$8.76
	#2: 50,000+	/1,000 gallons	\$7.70	\$8.76
Outside Village	Base: Min.0-6,000gal	Per Quarter	\$66.30	\$78.84
	#1: 6,001-50,000	/1,000 gallons	\$9.24	\$13.14
	#2: 50,000+	/1,000 gallons	\$11.55	\$13.14
Castle Apartments	Base: 0-144,000gal	Per Quarter	\$1,008.00	\$1,066.97
	#1: 144,000+	/1,000 gallons	\$7.00	\$10.51
Marcus Whitman	No Tiers	/1,000 gallons	\$7.70	\$9.20
Town of Middlesex	No Tiers	/1,000 gallons	\$7.70	\$7.45
Bulk Users	No Tiers	/1,000 gallons	\$8.25	\$10.51
No Charge Easement	No Tiers	/1,000 gallons	\$0	\$7.45
Village Water Use	No Tiers	/1,000 gallons	\$0	\$0

MRB Group also reviewed the Town of Middlesex Water Fund Budget to determine the effect of the proposed water rate on the water fund budget and the fund balance. This review determined that based on the Town's existing water district tax rate and metered sales rates, that the water fund balance will continue to grow to \$394,394 in 2026.

VILLAGE OF RUSHVILLE WATER RATES - 2018/2019
2019 USAGE
Inside Village

Accounts 2017 257
 Total Usage 2019 11,471,030 gallons - Billed

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-6,000 gal	\$ 44.20	per Quarter	6,168,000		\$ 45,438		\$ 7.37
6,001 - 50,000	\$ 6.16	/1000	5,303,030		\$ 32,667		\$ 6.16
50,000+	\$ 7.70	/1000	-		\$ -		#DIV/0!
Total			11,471,030	37.3%	\$ 78,104	36.6%	\$ 6.81

Outside Village

Accounts 2017 31
 Total Usage 2019 1,135,382 gallons - Billed

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-6,000 gal	\$ 66.30	per Quarter	744,000		\$ 8,221		\$ 11.05
6,001 - 50,000	\$ 9.24	/1000	391,382		\$ 3,616		\$ 9.24
5,000+	\$ 11.55	/1000	-		\$ -		#DIV/0!
Total			1,135,382	3.7%	\$ 11,838	5.6%	\$ 10.43

Castle Apartments

Accounts 2017 1 Two accounts billed as 1 account.
 Total Usage 2019 454,000 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-144,000 gal	\$ 1,008.00	per Quarter	454,000		\$ 4,032		\$ 8.88
144,000+	\$ 7.00	/1000	-		\$ -		#DIV/0!
Total			454,000	1.5%	\$ 4,032	1.9%	\$ 8.88

Marcus Whitman

Accounts 2017 3
 Total Usage 2019 2,883,140 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 7.70	/1000	2,883,140	9.4%	\$ 22,200.18	10.4%	\$ 7.70

Town of Middlesex

Accounts 2017 2
 Total Usage 2019 10,555,663 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 7.70	/1000	10,555,663	34.4%	\$ 81,278.61	38.1%	\$ 7.70

Bulk Users

Accounts 2017 1
 Total Usage 2019 1,913,000 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 8.25	/1000	1,913,000	6.2%	\$ 15,782.25	7.4%	\$ 8.25

No Charge Easement

Accounts 2017 1
 Total Usage 2019 203,110 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ -	/1000	203,110	0.7%	\$ -	0.0%	\$ -

Village Water Use

Accounts 2017 1
 Total Usage 2019 2,111,640 gallons

Tier	Rate 2018/2019	Unit	Usage 2019 (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ -	/1000	2,111,640	6.9%	\$ -	0.0%	\$ -

Total Revenue		Total Usage	30,726,965	100%			
		Usage Billed	28,412,215	92.5%	\$ 213,234.87	100.0%	\$ 7.51

VILLAGE OF RUSHVILLE
COST TO TREAT WATER

6/11/2021

UNIFORM WATER RATE NEEDED TO FUND 2019 EXPENDITURES

WATER USE - 01/01/2019 to 12/31/2019	(gallons)	(%)
Inside Village	11,471,030	37.3%
Outside Village	1,135,382	3.7%
Castle Street Appartments	454,000	1.5%
Marcus WHltman	2,883,140	9.4%
Town of Middlesex	10,555,663	34.4%
Bulk Users	1,913,000	6.2%
No Charge Easement	203,110	0.7%
Village Water Use	2,111,640	6.9%
Total 2019 Water Use	30,726,965	100.0%
Total Water Sales Used to Budget	28,412,215	92.5%

EXPENDITURES	2019 Expend	Cost/1,000
Unallocated Insurance		
1910 4 Unallocated Insurance, Contr Expend	\$ 5,000	\$ 0.18
1989 4 Other Gen Govt Support, Contr Expend	\$ -	\$ -
General Government Support		
8310 1 Water Administration, Pers Serv	\$ 25,503	\$ 0.90
8310 4 Water Administration, Contr Expend	\$ 345	\$ 0.01
Source Supply Pwr & Pump		
8320 1 Souce Supply Pwr & Pump, Pers Serv	\$ 25,541	\$ 0.90
8320 2 Source Supply Pwr & Pump, Equip & Cap Out	\$ 2,500	\$ 0.09
8320 4 Source Supply Pwr & Pump, Contr Expend	\$ 58,894	\$ 2.07
Water Purification		
8330 1 Water Purification, Pers Serv	\$ (123)	\$ (0.00)
8330 2 Water Purification, Equip & Cap Outlay Serv	\$ -	\$ -
8330 4 Water Purification, Contr Expend	\$ 741	\$ 0.03
Water Trans & Distrib		
8340 1 Water Trans & Distrib, Pers Serv	\$ 9,584	\$ 0.34
8340 2 Water Trans & Distrib, Equip & Cap Outlay	\$ 17,533	\$ 0.62
8340 4 Water Trans & Distrib, Contr Expend	\$ 3,765	\$ 0.13
Home and Community Services		
9010 8 State Retirement, Empl Bnfts	\$ 7,023	\$ 0.25
9030 8 Social Security, Empl Bnfts	\$ 4,397	\$ 0.16
9040 8 Workers Compensation, Empl Bnfts	\$ 2,414	\$ 0.09
9055 8 Disability Insurance, Empl Bnfts	\$ 92	\$ 0.00
9060 8 Hospital & Medical (dental) Ins, Empl Gnft	\$ 9,664	\$ 0.34

VILLAGE OF RUSHVILLE
COST TO TREAT WATER

6/11/2021

UNIFORM WATER RATE NEEDED TO FUND 2019 TREATMENT EXPENDITURES

COST TO TREAT WATER		2019 Expend	Cost/1,000
Source Supply Pwr & Pump			
8320 1	Source Supply Pwr & Pump, Pers Serv	\$ 25,541	\$ 0.90
8320 2	Source Supply Pwr & Pump, Equip & Cap Out	\$ 2,500	\$ 0.09
8320 4	Source Supply Pwr & Pump, Contr Expend	\$ 58,894	\$ 2.07
Water Purification			
8330 1	Water Purification, Pers Serv	\$ (123)	\$ (0.00)
8330 2	Water Purification, Equip & Cap Outlay Serv	\$ -	\$ -
8330 4	Water Purification, Contr Expend	\$ 741	\$ 0.03
Water Trans & Distrib			
Length of Pipe in Rushville Sysem		42,939 ft	
Length of Pipe, Direct Path Plant to Middlesex		20,135 ft	
As Percent of Total		46.89%	
Use for Distribution:		23.446%	
8340 1	Water Trans & Distrib, Pers Serv	\$ 2,247.11	\$ 0.08
8340 2	Water Trans & Distrib, Equip & Cap Outlay	\$ 4,110.87	\$ 0.15
8340 4	Water Trans & Distrib, Contr Expend	\$ 882.76	\$ 0.03
Home and Community Services			
Total Pers Serv charged to Water Fund		\$ 60,505	
Pers Serv charge to Source Supply		\$ 25,541	
Pers Serv charge to Purification		\$ (123)	
Sub-Total		\$ 25,418	
As % of Total Perv Serv		42%	
Total Home and Community Services		\$ 23,590	
Benefits based on % of Total Per Serv		\$ 9,910	\$ 0.35
<i>Total Cost to Treat</i>		\$ 97,463	\$ 3.43
Debt Principal & Interest			
9710 6	Debt Principle, Serial Bonds	\$ 38,000	\$ 1.34
9710 7	Debt Interest, Serial Bonds	\$ 36,340	\$ 1.28
9730 7	Debt Interest, Bond Anticipation Notes	\$ -	\$ -
9901 9	Transfer to Reserve Fund	\$ -	\$ -
<i>Total Debt Service</i>		\$ 74,340	\$ 2.62
Total Cost to Treat plus Debt Service		\$ 171,803	\$ 6.05
Balance of Water Fund Budget		\$ 75,194	\$ 2.65
Total Expenditures		\$ 246,997	\$ 8.70

VILLAGE OF RUSHVILLE TREND REPORT - WATER FUND (FX)		VILLAGE OF RUSHVILLE WATER - OPEN BOOK TREND REVIEW, NYS COMPTROLLER										VILLAGE OF RUSHVILLE WATER RATES - 2018/2019					
REVENUES		ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016	ACTUAL 2017	ACTUAL 2018	ACTUAL 2019	ACTUAL 2020		Budget 2021	PROJECTED 2022	PROJECTED 2023	PROJECTED 2024	PROJECTED 2025	PROJECTED 2026
2140	Metered Water Sales	\$ 180,625	\$ 174,941	\$ 176,756	\$ 177,043	\$ 171,714	\$ 190,048	\$ 202,861	\$ 220,232	\$ 280,457		\$ 185,500	\$ 221,006	\$ 229,067	\$ 237,422	\$ 246,083	\$ 255,059
2144	Water Service Charges	\$ 1,910	\$ -	\$ 712	\$ 2,175	\$ 1,420	\$ 42	\$ -	\$ -	\$ -		\$ 200					
2148	Interest & Penalties in Water Rents	\$ 4,101	\$ 3,043	\$ 3,094	\$ 3,781	\$ 2,974	\$ 2,665	\$ 3,536	\$ 4,440	\$ 4,305		\$ 3,000	\$ 3,542	\$ 3,542	\$ 3,542	\$ 3,542	\$ 3,542
2401	Interest And Earninigs	\$ 173	\$ 81	\$ 194	\$ 30	\$ 29	\$ 402	\$ 1	\$ -	\$ -		\$ 100					
2701	Refunds of Prior Year's Expenditures	\$ 11,324	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,935	\$ -	\$ -		\$ -					
2770	Unclassified / Appropriated	\$ -	\$ 307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 27,428					
Total Renvenue		\$ 198,133	\$ 178,372	\$ 180,756	\$ 183,029	\$ 176,137	\$ 193,157	\$ 208,333	\$ 224,672	\$ 284,762		\$ 216,228	\$ 224,548	\$ 232,609	\$ 240,964	\$ 249,625	\$ 258,601
			90.03%	101.34%	101.26%	96.23%	109.66%	107.86%	107.84%	126.75%		75.93%	103.85%	103.59%	103.59%	103.59%	103.60%
EXPENDITURES																	
Unallocated Insurance																	
1910	4 Unallocated Insurance, Contr Expend	\$ 3,740	\$ 3,868	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 5,000	\$ 5,000	\$ 5,000		\$ 5,300	\$ 5,558.52	\$ 5,829.66	\$ 6,114.01	\$ 6,412.24	\$ 6,725.02
1989	4 Other Gen Govt Support, Contr Expend	\$ -	\$ -	\$ 19	\$ 337	\$ 1,633	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Government Support																	
8310	1 Water Administration, Pers Serv	\$ 17,654	\$ 16,720	\$ 17,709	\$ 17,411	\$ 16,928	\$ 20,560	\$ 26,605	\$ 25,503	\$ 27,210		\$ 28,896	\$ 30,305.49	\$ 31,783.72	\$ 33,334.07	\$ 34,960.03	\$ 36,665.31
8310	4 Water Administration, Contr Expend	\$ 1,636	\$ 535	\$ 1,750	\$ 2,831	\$ 3,389	\$ 282	\$ 327	\$ 345	\$ 100		\$ 100	\$ 104.88	\$ 109.99	\$ 115.36	\$ 120.99	\$ 126.89
Source Supply Pwr & Pump																	
8320	1 Souce Supply Pwr & Pump, Pers Serv	\$ 22,854	\$ 44,190	\$ 16,208	\$ 12,266	\$ 13,609	\$ 16,011	\$ 15,934	\$ 25,541	\$ 22,655		\$ 24,691	\$ 25,895.37	\$ 27,158.50	\$ 28,483.23	\$ 29,872.58	\$ 31,329.70
8320	2 Source Supply Pwr & Pump, Equip & Cap Out	\$ 2,028	\$ -	\$ -	\$ 5,346	\$ 4,528	\$ 8,148	\$ 2,615	\$ 2,500	\$ 2,115		\$ 3,210	\$ 3,366.58	\$ 3,530.79	\$ 3,703.02	\$ 3,883.64	\$ 4,073.08
8320	4 Source Supply Pwr & Pump, Contr Expend	\$ 18,024	\$ 24,925	\$ 26,061	\$ 26,024	\$ 27,939	\$ 31,573	\$ 52,514	\$ 58,894	\$ 52,752		\$ 64,700	\$ 67,855.93	\$ 71,165.80	\$ 74,637.12	\$ 78,277.76	\$ 82,095.98
Water Purification																	
8330	1 Water Purification, Pers Serv	\$ 13,408	\$ 19,902	\$ 10,421	\$ 11,441	\$ 12,469	\$ 13,447	\$ 13,271	\$ (123)	\$ 503		\$ 2,791	\$ 2,927.14	\$ 3,069.92	\$ 3,219.66	\$ 3,376.71	\$ 3,541.42
8330	2 Water Purification, Equip & Cap Outlay Serv	\$ 3,115	\$ -	\$ -	\$ -	\$ 1,106	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8330	4 Water Purification, Contr Expend	\$ 10,942	\$ 12,188	\$ 4,346	\$ 6,087	\$ 2,671	\$ 4,505	\$ 9,570	\$ 741	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Trans & Distrib																	
8340	1 Water Trans & Distrib, Pers Serv	\$ 6,509	\$ 7,226	\$ 6,151	\$ 6,741	\$ 9,795	\$ 9,404	\$ 7,724	\$ 9,584	\$ 8,467		\$ 2,355	\$ 2,469.87	\$ 2,590.35	\$ 2,716.70	\$ 2,849.21	\$ 2,988.19
8340	2 Water Trans & Distrib, Equip & Cap Outlay	\$ 548	\$ 4,619	\$ -	\$ 8,698	\$ 12,778	\$ -	\$ -	\$ 17,533	\$ 4,129		\$ 1,200	\$ 1,258.53	\$ 1,319.92	\$ 1,384.31	\$ 1,451.83	\$ 1,522.65
8340	4 Water Trans & Distrib, Contr Expend	\$ 4,644	\$ 6,443	\$ 14,146	\$ 6,211	\$ 10,616	\$ 7,797	\$ 3,089	\$ 3,765	\$ 3,339		\$ 3,340	\$ 3,502.92	\$ 3,673.78	\$ 3,852.98	\$ 4,040.92	\$ 4,238.03
Home and Community Services																	
9010	8 State Retirement, Empl Bnfts	\$ 5,866	\$ 7,750	\$ 9,826	\$ 7,077	\$ 6,839	\$ 5,821	\$ 8,175	\$ 7,023	\$ 7,909		\$ 8,221	\$ 8,622.00	\$ 9,042.57	\$ 9,483.64	\$ 9,946.24	\$ 10,431.39
9030	8 Social Security, Empl Bnfts	\$ 4,622	\$ 6,735	\$ 3,862	\$ 3,661	\$ 4,039	\$ 4,389	\$ 3,553	\$ 4,397	\$ 4,596		\$ 4,582	\$ 4,805.50	\$ 5,039.90	\$ 5,285.74	\$ 5,543.57	\$ 5,813.97
9040	8 Workers Compensation, Empl Bnfts	\$ 846	\$ 1,100	\$ 1,430	\$ 1,859	\$ -	\$ 2,300	\$ -	\$ 2,414	\$ -		\$ 627	\$ 657.58	\$ 689.66	\$ 723.30	\$ 758.58	\$ 795.58
9055	8 Disability Insurance, Empl Bnfts	\$ 77	\$ 74	\$ 74	\$ 74	\$ 74	\$ 100	\$ -	\$ 92	\$ 237		\$ 387	\$ 405.88	\$ 425.67	\$ 446.44	\$ 468.21	\$ 491.05
9060	8 Hospital & Medical (dental) Ins, Empl Gnft	\$ 3,509	\$ 4,173	\$ 5,182	\$ 9,996	\$ 9,736	\$ 10,300	\$ 10,446	\$ 9,664	\$ 11,593		\$ 15,175	\$ 15,915.20	\$ 16,691.51	\$ 17,505.69	\$ 18,359.58	\$ 19,255.12
Sub-Total		\$ 120,022	\$ 160,448	\$ 121,685	\$ 130,560	\$ 142,649	\$ 139,137	\$ 158,823	\$ 172,873	\$ 150,605		\$ 165,575	\$ 173,651.40	\$ 182,121.75	\$ 191,005.26	\$ 200,322.10	\$ 210,093.39
% Increase			133.68%	75.84%	107.29%	109.26%	97.54%	114.15%	108.85%	87.12%		109.94%	104.88%	104.88%	104.88%	104.88%	104.88%
Debt Principal & Interest																	
9710	6 Debt Principle, Serial Bonds	\$ -	\$ -	\$ 35,786	\$ 34,000	\$ 35,000	\$ 35,000	\$ 36,000	\$ 37,000	\$ 38,000		\$ 38,000	\$ 38,000.00	\$ 38,000.00	\$ 38,000.00	\$ 38,000.00	\$ 38,000.00
9710	7 Debt Interest, Serial Bonds	\$ -	\$ -	\$ 36,885	\$ 40,099	\$ 39,376	\$ 38,633	\$ 37,889	\$ 37,124	\$ 36,338		\$ 36,340	\$ 36,340.00	\$ 36,340.00	\$ 36,340.00	\$ 36,340.00	\$ 36,340.00
9730	7 Debt Interest, Bond Anticipation Notes	\$ -	\$ 31,512	\$ 1,399	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9901	9 Transfer to Reserve Fund	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total		\$ -	\$ 231,512	\$ 74,070	\$ 74,099	\$ 74,376	\$ 73,633	\$ 73,889	\$ 74,124	\$ 74,338		\$ 74,340	\$ 74,340.00	\$ 74,340.00	\$ 74,340.00	\$ 74,340.00	\$ 74,340.00
FUND BALANCE																	
8021	Beginning Balance	\$ 417,508	\$ 495,619	\$ 282,031	\$ 294,027	\$ 272,397	\$ 231,509	\$ 211,896	\$ 187,517	\$ 165,190		\$ 225,009	\$ 201,322	\$ 177,878	\$ 154,025	\$ 129,645	\$ 104,607
	ADD - Revenues	\$ 198,133	\$ 178,372	\$ 180,756	\$ 183,029	\$ 176,137	\$ 193,157	\$ 208,333	\$ 224,672	\$ 284,762		\$ 216,228	\$ 224,548	\$ 232,609	\$ 240,964	\$ 249,625	\$ 258,601
	ADD - Increase in Fund Balance			\$ 26,995								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DEDUCT - Expenditures	\$ 120,022	\$ 391,960	\$ 195,755	\$ 204,659	\$ 217,025	\$ 212,770	\$ 232,712	\$ 246,997	\$ 224,943		\$ 239,915	\$ 247,991	\$ 256,462	\$ 265,345	\$ 274,662	\$ 284,433
8015	DEDUCT - Prior Period Adjustmnet																
8029	End Balance	\$ 495,619	\$ 282,031	\$ 294,027	\$ 272,397	\$ 231,509	\$ 211,896	\$ 187,517	\$ 165,190	\$ 225,009		\$ 201,322	\$ 177,878	\$ 154,025	\$ 129,645	\$ 104,607	\$ 78,774
% Increase					92.64%	84.99%	91.53%	88.49%	88.09%	136.21%		89.47%					
	End Blance Percent of Revenue	250%	158%	163%	149%	131%	110%	90%	74%	79%		93%	79%	66%	54%	42%	30%
	End Blance Percent of Expenditures	413%	72%	150%	133%	107%	100%	81%	67%	100%		84%	72%	60%	49%	38%	28%
Projected Treatment Reserve Fund Balance													\$ 19,280	\$ 37,700	\$ 40,550	\$ 60,430	\$ 79,155
Projected Un-Allocated Fund Balance													\$ 158,598	\$ 116,325	\$ 89,095	\$ 44,177	\$ (381)

Short Lived Assets for Treatment (DE Filters)				
r = 5.0%				
n	Equipment	DE Filters	A	P
1	\$ 820		\$ 820.00	\$ 820.00
2	\$ 1,680		\$ 1,680.00	\$ 819.51
3	\$ 7,250	\$ 10,000	\$ 17,250.00	\$ 5,471.85
4	\$ 220		\$ 220.00	\$ 51.04
5	\$ 1,375		\$ 1,375.00	\$ 248.84
6	\$ 200		\$ 200.00	\$ 29.40
7	\$ 930		\$ 930.00	\$ 114.22
8	\$ 1,060	\$ 2,000	\$ 3,060.00	\$ 320.45
9	\$ 1,240		\$ 1,240.00	\$ 112.46
10			\$ -	\$ -
11	\$ 3,235		\$ 3,235.00	\$ 227.71
12			\$ -	\$ -
13	\$ 9,055	\$ 12,500	\$ 21,555.00	\$ 1,216.90
14	\$ 1,215		\$ 1,215.00	\$ 61.99
15	\$ 740		\$ 740.00	\$ 34.29
16			\$ -	\$ -
17	\$ 3,120		\$ 3,120.00	\$ 120.74
18		\$ 3,000	\$ 3,000.00	\$ 106.64
19	\$ 500		\$ 500.00	\$ 16.37
20	\$ 3,093		\$ 3,093.00	\$ 93.54
21	\$ 2,270		\$ 2,270.00	\$ 63.55
22	\$ 5,363		\$ 5,363.00	\$ 139.28
23	\$ 8,200	\$ 385,000	\$ 393,200.00	\$ 9,490.60
24	\$ 425		\$ 425.00	\$ 9.55
25	\$ 2,240		\$ 2,240.00	\$ 46.93
26	\$ 920		\$ 920.00	\$ 18.00
27	\$ 1,080		\$ 1,080.00	\$ 19.76
28	\$ 1,240	\$ 4,000	\$ 5,240.00	\$ 89.72
29	\$ 8,694		\$ 8,694.00	\$ 139.50
30	\$ 8,044		\$ 8,044.00	\$ 121.07
Total	\$ 74,209	\$ 416,500	\$ 490,709.00	\$ 20,003.98
	Deposits to Reserve Fund			30
	Total of Deposites			\$ 600,119.35

Treatment Reserve Fund Balance			
Year	Deposite	Expenditure	Balance
2022	\$ 20,100.00	\$ 820.00	\$ 19,280.00
2023	\$ 20,100.00	\$ 1,680.00	\$ 37,700.00
2024	\$ 20,100.00	\$ 17,250.00	\$ 40,550.00
2025	\$ 20,100.00	\$ 220.00	\$ 60,430.00
2026	\$ 20,100.00	\$ 1,375.00	\$ 79,155.00
2027	\$ 20,100.00	\$ 200.00	\$ 99,055.00
2028	\$ 20,100.00	\$ 930.00	\$ 118,225.00
2029	\$ 20,100.00	\$ 3,060.00	\$ 135,265.00
2030	\$ 20,100.00	\$ 1,240.00	\$ 154,125.00
2031	\$ 20,100.00	\$ -	\$ 174,225.00
2032	\$ 20,100.00	\$ 3,235.00	\$ 191,090.00
2033	\$ 20,100.00	\$ -	\$ 211,190.00
2034	\$ 20,100.00	\$ 21,555.00	\$ 209,735.00
2035	\$ 20,100.00	\$ 1,215.00	\$ 228,620.00
2036	\$ 20,100.00	\$ 740.00	\$ 247,980.00
2037	\$ 20,100.00	\$ -	\$ 268,080.00
2038	\$ 20,100.00	\$ 3,120.00	\$ 285,060.00
2039	\$ 20,100.00	\$ 3,000.00	\$ 302,160.00
2040	\$ 20,100.00	\$ 500.00	\$ 321,760.00
2041	\$ 20,100.00	\$ 3,093.00	\$ 338,767.00
2042	\$ 20,100.00	\$ 2,270.00	\$ 356,597.00
2043	\$ 20,100.00	\$ 5,363.00	\$ 371,334.00
2044	\$ 20,100.00	\$ 393,200.00	\$ (1,766.00)
2045	\$ 20,100.00	\$ 425.00	\$ 17,909.00
2046	\$ 20,100.00	\$ 2,240.00	\$ 35,769.00
2047	\$ 20,100.00	\$ 920.00	\$ 54,949.00
2048	\$ 20,100.00	\$ 1,080.00	\$ 73,969.00
2049	\$ 20,100.00	\$ 5,240.00	\$ 88,829.00
2050	\$ 20,100.00	\$ 8,694.00	\$ 100,235.00
2051	\$ 20,100.00	\$ 8,044.00	\$ 112,291.00

VILLAGE OF RUSHVILLE WATER RATES - ADJUSTED

Inside Village

Accounts 2017 257 Rate with Transfer \$ 8.76 /1,000 gal
 2022 Budget Usage 12,125,000 gallons Transfer Amount 2021-2022 \$ -

Tier	Tiered Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-6,000 gal	\$ 52.56	per Quarter	6,168,000		\$ 54,032		\$ 8.76
6,000+ gal	\$ 8.76	/1000	5,957,000		\$ 52,183		\$ 8.76
5,000+	\$ 8.76	/1000	-		\$ -		#DIV/0!
Total			12,125,000	38.5%	\$ 106,215	42.7%	\$ 8.76

Outside Village

Accounts 2017 31
 2022 Budget Usage 1,071,000 gallons - Billed

Tier	Tiered Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-6,000 gal	\$ 78.84	per Quarter	744,000		\$ 9,776		\$ 13.14
6,001 - 50,000	\$ 13.14	/1000	327,000		\$ 4,297		\$ 13.14
5,000+	\$ 13.14	/1000	-		\$ -		#DIV/0!
Total			1,071,000	3.4%	\$ 14,073	5.7%	\$ 13.14

Castle Apartments

Accounts 2017 1 Two accounts billed as 1 account.
 2022 Budget Usage 406,000 gallons

Tier	Tiered Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
Min. 0-144,000 gal	\$ 1,066.97	per Quarter	406,000		\$ 4,268		\$ 10.51
144,000+	\$ 10.51	/1000	-		\$ -		#DIV/0!
Total			406,000	1.3%	\$ 4,268	1.7%	\$ 10.51

Marcus Whitman

Accounts 2017 3
 2022 Budget Usage 2,767,000 gallons

Tier	Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 9.20	/1000	2,767,000	8.8%	\$ 25,450.87	10.2%	\$ 9.20

Town of Middlesex

Accounts 2017 2
 2022 Budget Usage 10,328,000 gallons

Billing Rate \$ 7.45 /1000 gal
 Treatment Cost \$ 6.58 /1000 gal
 Markup 11.68%

Tier	Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 7.45	/1000	10,328,000	32.8%	\$ 76,943.60	30.9%	\$ 7.45

Bulk Users

Accounts 2017 1
 2022 Budget Usage 1,970,000 gallons

Tier	Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 10.51	/1000	1,970,000	6.3%	\$ 20,708.64	8.3%	\$ 10.51

No Charge Easement

Accounts 2017 1
 2022 Budget Usage 170,000 gallons

Tier	Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ 7.45	/1000	170,000	0.5%	\$ 1,266.50	0.5%	\$ 7.45

Village Water Use

Accounts 2017 1
 2022 Budget Usage 2,650,000 gallons

Tier	Rate 2021	Unit	2022 Budget Usage (gallons)	% Total	Revenue	% Total	Effective Rate
No Tiers	\$ -	/1000	2,650,000	8.4%	\$ -	0.0%	\$ -

Total Revenue

Total Usage 31,487,000 100%
Usage Billed 28,667,000 91.6% \$ 248,925.43 100.0% \$ 8.68

VILLAGE OF RUSHVILLE
COST TO TREAT WATER

6/11/2021

EFFECTIVE UNIFORM WATER RATE NEEDED FOR TREATMENT 2022 - 2026

COST TO TREAT WATER		2021 Budget	Cost/1,000
Source Supply Pwr & Pump			
8320 1	Souce Supply Pwr & Pump, Pers Serv	\$ 25,895	\$ 0.90
8320 2	Source Supply Pwr & Pump, Equip & Cap Out	\$ 3,367	\$ 0.12
8320 4	Source Supply Pwr & Pump, Contr Expend	\$ 67,856	\$ 2.35
Water Purification			
8330 1	Water Purification, Pers Serv	\$ 2,927	\$ 0.10
8330 2	Water Purification, Equip & Cap Outlay Serv	\$ -	\$ -
8330 4	Water Purification, Contr Expend	\$ -	\$ -
Water Trans & Distrib			
Length of Pipe in Rushville Sysem		42,939	
Length of Pipe, Direct Path Plant to Middlesex		20,135	
As Percent of Total		47%	
Use for Cost to Treat:		15%	
8340 1	Water Trans & Distrib, Pers Serv	\$ 370.48	\$ 0.01
8340 2	Water Trans & Distrib, Equip & Cap Outlay	\$ 188.78	\$ 0.01
8340 4	Water Trans & Distrib, Contr Expend	\$ 525.44	\$ 0.02
Home and Community Services			
Total Pers Serv charged to Water Fund		\$ 61,598	
Pers Serv charge to Source Supply		\$ 25,895	
Pers Serv charge to Purification		\$ 2,927	
Sub-Total		\$ 28,823	
As % of Total Perv Serv		47%	
Total Home and Community Services		\$ 30,406	
Benefits based on % of Total Per Serv		\$ 14,227	\$ 0.49
<i>Total Cost to Treat</i>		\$ 115,357	\$ 4.00
Debt Principal & Interest			
9710 6	Debt Principle, Serial Bonds	\$ 38,000	\$ 1.32
9710 7	Debt Interest, Serial Bonds	\$ 36,340	\$ 1.26
9730 7	Debt Interest, Bond Anticipation Notes	\$ -	\$ -
9901 9	Transfer to Reserve Fund	\$ -	\$ -
<i>Total Debt Service</i>		\$ 74,340	\$ 2.58
Total Cost to Treat plus Debt Service		\$ 189,697	\$ 6.58
Percent of Total		76.5%	76.5%

VILLAGE OF RUSHVILLE
COST TO TREAT WATER

6/11/2021

EFFECTIVE UNIFORM WATER RATE NEEDED FOR TREATMENT 2022 - 2026

COST TO TREAT WATER		2021 Budget	Cost/1,000
Source Supply Pwr & Pump			
8320 1	Source Supply Pwr & Pump, Pers Serv	\$ 25,895	\$ 0.90
8320 2	Source Supply Pwr & Pump, Equip & Cap Out	\$ 3,367	\$ 0.12
8320 4	Source Supply Pwr & Pump, Contr Expend	\$ 67,856	\$ 2.35
Water Purification			
8330 1	Water Purification, Pers Serv	\$ 2,927	\$ 0.10
8330 2	Water Purification, Equip & Cap Outlay Serv	\$ -	\$ -
8330 4	Water Purification, Contr Expend	\$ -	\$ -
Water Trans & Distrib			
Length of Pipe in Rushville Sysem		42,939	
Length of Pipe, Direct Path Plant to Middlesex		20,135	
As Percent of Total		47%	
Use for Cost to Treat:		15%	
8340 1	Water Trans & Distrib, Pers Serv	\$ 370.48	\$ 0.01
8340 2	Water Trans & Distrib, Equip & Cap Outlay	\$ 188.78	\$ 0.01
8340 4	Water Trans & Distrib, Contr Expend	\$ 525.44	\$ 0.02
Home and Community Services			
Total Pers Serv charged to Water Fund		\$ 61,598	
Pers Serv charge to Source Supply		\$ 25,895	
Pers Serv charge to Purification		\$ 2,927	
Sub-Total		\$ 28,823	
As % of Total Perv Serv		47%	
Total Home and Community Services		\$ 30,406	
Benefits based on % of Total Per Serv		\$ 14,227	\$ 0.49
<hr/>			
<i>Total Cost to Treat</i>		\$ 115,357	\$ 4.00
<hr/>			
Debt Principal & Interest			
9710 6	Debt Principle, Serial Bonds	\$ 38,000	\$ 1.32
9710 7	Debt Interest, Serial Bonds	\$ 36,340	\$ 1.26
9730 7	Debt Interest, Bond Anticipation Notes	\$ -	\$ -
9901 9	Transfer to Reserve Fund	\$ -	\$ -
<i>Total Debt Service</i>		\$ 74,340	\$ 2.58
<hr/>			
Total Cost to Treat plus Debt Service		\$ 189,697	\$ 6.58
Percent of Total		76.5%	76.5%

VILLAGE OF RUSHVILLE TREND REPORT - WATER FUND (FX)			VILLAGE OF RUSHVILLE WATER RATES - ADJUSTED - TIERED RATE (BASED ON INCREASING INCOME)					
REVENUES			Budget 2021	PROJECTED 2022	PROJECTED 2023	PROJECTED 2024	PROJECTED 2025	PROJECTED 2026
2140	Metered Water Sales		\$ 185,500	\$ 248,925	\$ 258,005	\$ 267,416	\$ 277,170	\$ 287,280
2144	Water Service Charges		\$ 200					
2148	Interest & Penalties in Water Rents		\$ 3,000	\$ 3,542	\$ 3,542	\$ 3,542	\$ 3,542	\$ 3,542
2401	Interest And Earnings		\$ 100					
2701	Refunds of Prior Year's Expenditures		\$ -					
2770	Unclassified		\$ 27,428	\$ -				
Total Revenue			\$ 216,228	\$ 252,467	\$ 261,547	\$ 270,958	\$ 280,712	\$ 290,822
				116.76%	103.60%	103.60%	103.60%	103.60%
EXPENDITURES								
Unallocated Insurance								
1910	4 Unallocated Insurance, Contr Expend		\$ 5,300	\$ 5,559	\$ 5,830	\$ 6,114	\$ 6,412	\$ 6,725
1989	4 Other Gen Govt Support, Contr Expend		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Government Support								
8310	1 Water Administration, Pers Serv		\$ 28,896	\$ 30,305	\$ 31,784	\$ 33,334	\$ 34,960	\$ 36,665
8310	4 Water Administration, Contr Expend		\$ 100	\$ 105	\$ 110	\$ 115	\$ 121	\$ 127
Source Supply Pwr & Pump								
8320	1 Souce Supply Pwr & Pump, Pers Serv		\$ 24,691	\$ 25,895	\$ 27,158	\$ 28,483	\$ 29,873	\$ 31,330
8320	2 Source Supply Pwr & Pump, Equip & Cap Out		\$ 3,210	\$ 3,367	\$ 3,531	\$ 3,703	\$ 3,884	\$ 4,073
8320	4 Source Supply Pwr & Pump, Contr Expend		\$ 64,700	\$ 67,856	\$ 71,166	\$ 74,637	\$ 78,278	\$ 82,096
Water Purification								
8330	1 Water Purification, Pers Serv		\$ 2,791	\$ 2,927	\$ 3,070	\$ 3,220	\$ 3,377	\$ 3,541
8330	2 Water Purification, Equip & Cap Outlay Serv		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8330	4 Water Purification, Contr Expend		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Trans & Distrib								
8340	1 Water Trans & Distrib, Pers Serv		\$ 2,355	\$ 2,470	\$ 2,590	\$ 2,717	\$ 2,849	\$ 2,988
8340	2 Water Trans & Distrib, Equip & Cap Outlay		\$ 1,200	\$ 1,259	\$ 1,320	\$ 1,384	\$ 1,452	\$ 1,523
8340	4 Water Trans & Distrib, Contr Expend		\$ 3,340	\$ 3,503	\$ 3,674	\$ 3,853	\$ 4,041	\$ 4,238
Home and Community Services								
9010	8 State Retirement, Empl Bnfts		\$ 8,221	\$ 8,622	\$ 9,043	\$ 9,484	\$ 9,946	\$ 10,431
9030	8 Social Security, Empl Bnfts		\$ 4,582	\$ 4,806	\$ 5,040	\$ 5,286	\$ 5,544	\$ 5,814
9040	8 Workers Compensation, Empl Bnfts		\$ 627	\$ 658	\$ 690	\$ 723	\$ 759	\$ 796
9055	8 Disability Insurance, Empl Bnfts		\$ 387	\$ 406	\$ 426	\$ 446	\$ 468	\$ 491
9060	8 Hospital & Medical (dental) Ins, Empl Gnt		\$ 15,175	\$ 15,915	\$ 16,692	\$ 17,506	\$ 18,360	\$ 19,255
Sub-Total			\$ 165,575	\$ 173,651	\$ 182,122	\$ 191,005	\$ 200,322	\$ 210,093
% Increase			109.94%	104.88%	104.88%	104.88%	104.88%	104.88%
Debt Principal & Interest								
9710	6 Debt Principle, Serial Bonds		\$ 38,000	\$ 38,000	\$ 38,000	\$ 38,000	\$ 38,000	\$ 38,000.00
9710	7 Debt Interest, Serial Bonds		\$ 36,340	\$ 36,340	\$ 36,340	\$ 36,340	\$ 36,340	\$ 36,340.00
9730	7 Debt Interest, Bond Anticipation Notes		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9901	9 Transfer to Reserve Fund		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total			\$ 74,340	\$ 74,340	\$ 74,340	\$ 74,340	\$ 74,340	\$ 74,340.00
Total Expenditures			\$ 239,915	\$ 247,991	\$ 256,462	\$ 265,345	\$ 274,662	\$ 284,433
% Increase			106.66%	103.4%	103.4%	103.5%	103.5%	103.6%
Water Fund Revenue Over (Under) Expense			\$ (23,687)	\$ 4,476	\$ 5,085	\$ 5,613	\$ 6,050	\$ 6,389
FUND BALANCE								
8021	Beginning Balance		\$ 225,009	\$ 201,322	\$ 205,798	\$ 210,883	\$ 216,496	\$ 222,546
ADD - Revenues			\$ 216,228	\$ 252,467	\$ 261,547	\$ 270,958	\$ 280,712	\$ 290,822
ADD - Increase in Fund Balance								
DEDUCT - Expenditures			\$ 239,915	\$ 247,991	\$ 256,462	\$ 265,345	\$ 274,662	\$ 284,433
8015	DEDUCT - Prior Period Adjustmnet							
8029	End Balance		\$ 201,322	\$ 205,798	\$ 210,883	\$ 216,496	\$ 222,546	\$ 228,935
% Increase				102.22%	102.47%	102.66%	102.79%	102.87%
End Blance Percent of Revenue			93%	82%	81%	80%	79%	79%
End Blance Percent of Expenditures			84%	83%	82%	82%	81%	80%
Projected Treatment Reserve Fund Balance				\$ 19,280	\$ 37,700	\$ 40,550	\$ 60,430	\$ 79,155
Projected Un-Reserved Fund Balance				\$ 186,518	\$ 173,183	\$ 175,946	\$ 162,116	\$ 149,780

Municipality: Town of Middlesex						Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Account Code	Code Narrative	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
STATEMENT OF REVENUES AND OTHER SOURCES												
SW1001	Real Property Taxes	\$ 53,372.00	\$ 55,200.00	\$ 72,715.49	\$ 77,040.52	\$ 77,810.93	\$ 78,589.04	\$ 79,374.94	\$ 80,168.69	\$ 80,970.38	\$ 81,780.09	\$ 82,597.90
Real Property Taxes:		\$ 53,372.00	\$ 55,200.00	\$ 72,715.49	\$ 77,040.52	\$ 77,810.93	\$ 78,589.04	\$ 79,374.94	\$ 80,168.69	\$ 80,970.38	\$ 81,780.09	\$ 82,597.90
SW2140	Metered Water Sales	\$ 58,154.00	\$ 61,248.00	\$ 64,100.00	\$ 61,150.00	\$ 61,761.50	\$ 62,379.12	\$ 63,002.92	\$ 63,632.95	\$ 64,269.28	\$ 64,911.98	\$ 65,561.10
SW2148	Interest & Penalties On Water Rents											
Departmental Income:		\$ 58,154.00	\$ 61,248.00	\$ 64,100.00	\$ 61,150.00	\$ 61,761.50	\$ 62,379.12	\$ 63,002.92	\$ 63,632.95	\$ 64,269.28	\$ 64,911.98	\$ 65,561.10
SW2401	Interest And Earnings	\$ 17.00	\$ 17.00	\$ 22.12	\$ 26.75	\$ 27.02	\$ 27.30	\$ 27.58	\$ 27.86	\$ 28.14	\$ 28.43	\$ 28.72
Use of Money And Property:		\$ 17.00	\$ 17.00	\$ 22.12	\$ 26.75	\$ 27.02	\$ 27.30	\$ 27.58	\$ 27.86	\$ 28.14	\$ 28.43	\$ 28.72
SW2680	Insurance Recoveries											
Sale of Property And Compensation For Loss:		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SW2770	Unclassified (specify)	\$ 375.00										
Miscellaneous Local Sources:		\$ 375.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenues:		\$ 111,918.00	\$ 116,465.00	\$ 136,837.61	\$ 138,217.27	\$ 139,599.45	\$ 140,995.46	\$ 142,405.44	\$ 143,829.50	\$ 145,267.80	\$ 146,720.50	\$ 148,187.72
Detail Revenues and Other Sources:		\$ 111,918.00	\$ 116,465.00	\$ 136,837.61	\$ 138,217.27	\$ 139,599.45	\$ 140,995.46	\$ 142,405.44	\$ 143,829.50	\$ 145,267.80	\$ 146,720.50	\$ 148,187.72
Percent Increase in Revenue:			104.06%	117.49%	101.01%	101.00%	101.00%	101.00%	101.00%	101.00%	101.00%	101.00%
STATEMENT OF EXPENDITURES AND OTHER USES												
SW83101	Water Administration, Pers Serv	\$ 17,759.00	\$ 18,585.00	\$ 18,882.72	\$ 20,750.54	\$ 21,165.56	\$ 21,588.88	\$ 22,020.66	\$ 22,461.08	\$ 22,910.31	\$ 23,368.52	\$ 23,835.90
SW83102	Water Administration, Equip & Cap Outlay											
SW83104	Water Administration, Contr Expend	\$ 1,365.00	\$ 1,403.00	\$ 7,730.00	\$ 4,846.40	\$ 4,943.33	\$ 5,042.20	\$ 5,143.05	\$ 5,245.92	\$ 5,350.84	\$ 5,457.86	\$ 5,567.02
SW83204	Source Supply Pwr & Pump, Contr Expend	\$ 48,845.00	\$ 51,699.00	\$ 53,155.91	\$ 52,948.09	\$ 76,943.60	\$ 79,064.70	\$ 81,244.28	\$ 83,483.94	\$ 85,785.34	\$ 88,150.19	\$ 90,580.23
SW83402	Water Trans & Distrib, Equip & Cap Outlay	\$ 5,513.00	\$ 487.00	\$ 3,913.88	\$ 2,111.02	\$ 2,153.25	\$ 2,196.32	\$ 2,240.25	\$ 2,285.06	\$ 2,330.77	\$ 2,377.39	\$ 2,424.94
SW83404	Water Trans & Distrib, Contr Expend	\$ 36,403.00	\$ 5,231.00	\$ 5,865.59	\$ 21,859.97	\$ 6,102.56	\$ 6,224.62	\$ 6,349.12	\$ 6,476.11	\$ 6,605.64	\$ 6,737.76	\$ 6,872.52
Home And Community Services:		\$109,885.00	\$77,405.00	\$89,548.10	\$102,516.02	\$111,308.30	\$114,116.72	\$116,997.36	\$119,952.11	\$122,982.90	\$126,091.72	\$129,280.61
SW90108	State Retirement, Empl Bnfts	\$1,589.00	\$2,177.00	\$2,267.00	\$2,215.00	\$ 2,259.30	\$ 2,304.49	\$ 2,350.58	\$ 2,397.60	\$ 2,445.56	\$ 2,494.48	\$ 2,544.37
SW90308	Social Security , Empl Bnfts	\$1,778.00	\$1,458.00	\$1,444.43	\$1,581.79	\$ 1,613.43	\$ 1,645.70	\$ 1,678.62	\$ 1,712.20	\$ 1,746.45	\$ 1,781.38	\$ 1,817.01
SW90558	Disability Insurance, Empl Bnfts	\$31.00	\$23.00	\$31.20	\$31.20	\$ 31.83	\$ 32.47	\$ 33.12	\$ 33.79	\$ 34.47	\$ 35.16	\$ 35.87
SW90608	Hospital & Medical (dental) Ins, Empl Bnft											
Employee Benefits:		\$3,398.00	\$3,658.00	\$3,742.63	\$3,827.99	\$3,904.56	\$3,982.66	\$4,062.32	\$4,143.59	\$4,226.48	\$4,311.02	\$4,397.25
SW97106	Debt Principal, Serial Bonds											
Debt Principal:		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SW97107	Debt Interest, Serial Bonds											
Debt Interest:		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Expenditures:		\$ 113,283.00	\$ 81,063.00	\$ 93,290.73	\$ 106,344.01	\$ 115,212.86	\$ 118,099.38	\$ 121,059.68	\$ 124,095.70	\$ 127,209.38	\$ 130,402.74	\$ 133,677.86
SW99019	Transfers, Other Funds		\$12,723.00									
Operating Transfers:		\$ -	\$ 12,723.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Uses:			\$12,723.00									
Detail Expenditures and Other Uses:		\$ 113,283.00	\$ 93,786.00	\$ 93,290.73	\$ 106,344.01	\$ 115,212.86	\$ 118,099.38	\$ 121,059.68	\$ 124,095.70	\$ 127,209.38	\$ 130,402.74	\$ 133,677.86
Revenue - Expenditures:		\$ (1,365.00)	\$ 22,679.00	\$ 43,546.88	\$ 31,873.26	\$ 24,386.59	\$ 22,896.08	\$ 21,345.76	\$ 19,733.80	\$ 18,058.42	\$ 16,317.76	\$ 14,509.86
End Fund Balance:		\$159,556.00	\$182,235.00	\$225,781.88	\$257,655.14	\$282,041.73	\$304,937.81	\$326,283.57	\$346,017.37	\$364,075.79	\$380,393.55	\$394,903.41
Change:			114.21%	123.90%	114.12%	109.46%	108.12%	107.00%	106.05%	105.22%	104.48%	103.81%