TOWN OF GREATER NAPANEE UTILITIES

2022 DRAFT BUDGET





TABLE OF CONTENTS

SLIDE

NO. 3: SUMMARY OF UTILITIES BUDGET

NO. 4: EXECUTIVE SUMMARY

NO. 5: EXECUTIVE SUMMARY

NO. 6: FUNDING FOR WPCP PROJECT

NO. 7: STAFF RECOMMENDATION

NO. 8: AVERAGE RESIDENTIAL CONSUMPTION

NO. 9: KEY NOTES - AVG. CONSUMPTION

NO.10: OPERATING EXPENDITURES

NO. 11: OPERATING EXPENDITURES

NO. 12: 2022 SALARIES & BENEFITS

NO. 13: 2022 CAPITAL EXPENDITURES

NO. 14: CAPITAL DEBENTURES

NO. 15: 2022 PROJECTED REVENUE

NO. 16: UTILITIES REVENUE – KEY NOTES

NO. 17: IMPOST & WORKING RESERVES

NO. 18: HISTORICAL RATE INCREASES

NO. 19: RATE INCREASE VS. ADDITIONAL REVENUE

NO. 20: FINANCIAL IMPACT TO CUSTOMER

NO. 21: HISTORICAL BUDGETS

NO. 22: PROPOSED 2022 IMPOST RATES

NO. 23: DECLINING BLOCK RATE STRUCTURE

NO. 24: EXISTING DECLINING BLOCK RATE STRUCTURE

NO. 25: PROPOSED 2022 RATE SCHEDULE

NO. 26: HOW TO CALCULATE YOUR WATER BILL

NO. 27: 2021 RATE COMPARISON

NO. 28: 2021 RATE COMPARISON – KEY NOTES

NO. 29: CAPITAL & MAINTENANCE RESERVES

NO. 30: OVERALL SUMMARY

SUMMARY OF UTILITIES BUDGET

The proposed 2022 Utilities Budget will remain debt free and will continue to provide adequate financial resources to undertake substantial capital work. Historical rate increases have typically been slightly above inflationary costs with an intent to slowly close the gap on asset depreciation. Based upon current inflationary costs and the present economic recovery period that the Province is facing, Staff are recommending a proposed increase that better reflects a 5-year average.



- 2021 revenue was lower than budget by approximately \$667K (federal funding). This was a direct result of the change in WPCP project. Future funding will be directly related to a revised scope and timelines for the project.
- Offsetting that lower revenue were decreases in wages and benefits (~\$27K), operating expenses (~\$95K), and capital
 expenses (~\$1.9M for WPCP), resulting in an overall budget surplus of approximately \$1.5M, adding to the reserve balance for
 future capital work.
- 31 new customers were added to the system in 2021, adding to revenue with some associated offsetting operational costs.
- Elimination of additional bi-monthly charges for private fire hydrants and sprinklers is recommended and reflected in line 13.

 The recommendation is based on billing equity as residential properties serviced by municipally owned hydrants do not pay an additional fire protection charge.
- Current charges for treatment of hauled sewage (septic tank waste) do not cover the additional operational and maintenance costs to treat that highly concentrated waste stream. A step from \$9.08/m³ to \$15.00/m³ is recommended for 2022. The average rate charged by neighboring municipalities is \$37.40/m³.
- Reserve balances are presently \$2,493,110 in Impost Reserve and \$1,641,823 in the Working Reserve. Reserve targets to be part of WPCP Project financing strategy.



EXECUTIVE SUMMARY

(CONTINUED)

- Reserves are sufficient to cover proposed 2022 Capital Projects no borrowing or use of reserves required for 2022
- Transfer to Reserve (Line 75) calculated as total revenue less total operating and wages/benefits expenses. Annually, this sum is transferred to Reserves (w/ Line 76) to fund future capital projects.
- Federal grant funding is shown as a revenue stream on Line 16. The \$600K represents the 50% funding provided by Infrastructure Canada for the estimated \$1.2M in design work for the WPCP Project in 2022.
- For future consideration, the Draft Water and Sewer Lot Levy Background Study indicates that substantial increases to impost and development charges are required to adequately address growth-related capital projects. Due to COVID-19, this will be re-addressed post-economic recovery after the pandemic.
- Water conservation efforts by residential users can have a significant impact on revenue current average of 26.4m³/billing cycle compares favorably to 40m³ in 2008. The average residential water/sewer bill in 2008 was \$190.07/bi-monthly, where the average in 2021 was \$206.99. The conservation efforts has offset rising user rates and has contributed to relatively stable consumer burden while affording continued responsible stewardship of the system.
- Consistently modest user rate increases over the past several years have gradually increased reserves to finance ongoing and future capital projects, while staying very competitive with rates charged by neighbouring municipalities. The proposed 2022 budget continues with that strategy toward sustainable growth.

FUNDING FOR THE WATER POLLUTION CONTROL (WPCP) PLANT PROJECT

- Project schedule delayed by ~18 months due to change in design from new-build to retrofit
- Retrofit will maximize use of existing infrastructure and minimize or eliminate the need for construction on the vacant property
- Upset budget limit and phased construction schedule build some or all phases based on affordability
- Design ~\$1.2M in 2022 funded 50% by Grant / 50% 2022 Revenue
- Short term...No borrowing required for this project in 2022
- Construction 2023 2025 (completion summer 2025)
- Debenture for unfunded balance in 2023/24 estimated \$1.4M annual payment
- In the long term...Approximately \$3M transferred to reserve annually about ½ required to service anticipated debt
- Remainder (~\$1.5M) will be available for other future capital projects.



Staff recommends a 2.0% rate increase to base and consumption charges.

*1% rate increase = approximately \$67,000 additional revenue.



Staff is also recommending the 2.0% increase be applied to all other service fees within the current Rate Schedule, unless otherwise noted.



The bi-monthly financial impact to the average (26.4m³) customer would be \$4.14 (\$211.13 average bi-monthly bill).

STAFF RECOMMENDATION

AVERAGE RESIDENTIAL CONSUMPTION (BI-MONTHLY) \$170.04 30 \$164.88 \$175.25 \$202.76 \$206.99 27.1 \$186.68 27.2 \$175.26 \$180.65 \$186.98 \$193.99 26.4 26.4 26.4 \$187.93 26.1 25.4 25.2 25.2 25.1 0% 4% 24.5 25 2.1% 2% 4% 2.0% 2.5% 1.85% CONSUMPTION (M3) PER BILLING CYCLE 2.5% 1.9% 1.9% 20 15 10 The above percentages represent the approved rate increases 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021



KEY NOTES - AVERAGE CONSUMPTION

A total of 3,454 customers are serviced by the Town of Greater Napanee
*one service connection/customer

3,048 or 88% are defined as residential and have a water meter that is no larger than 25mm (1")

Residential water customers account for approximately 60% of billed water revenue (includes large residential meters)

2021 average residential water consumption was 26.4m³/bi-monthly

Significant drop in average consumption since 2008 (40.5m³)

Water conservation efforts by the general public appear to have remained consistent over the past few years

 $25m^3$ the fixed and variable rate portions of a water bill are 52/48.

As water consumption increases the fixed portion percentage becomes smaller (@50m³ - 14% fixed and 86% variable).



OPERATING EXPENDITURES

- Projected year end expenditures are expected to be approximately \$95K under the approved 2021 budget. Many line items are subject to fluctuating operational demands and treatment requirements. When maintenance requirements are within a typical range, it is normal to see YE projections lower than the allocated budget.
- 2022 operating budget increased \$115,351 (6.7% increase) above the 2021 operating budget to reflect projected operational needs. Note: \$47K was added to Operating from Capital as per Council's Direction.



OPERATING EXPENDITURES

Utilities Admin:

- Line 51 & 52: Savings in projected YE (-\$21,963) due to alternate delivery method to Staff training during pandemic. (Conferences & Education)
- Line 54: Increase in projected YE & 2022 budget due to increased costs with new phone system (Telephone)
- Line 68: Overage in projected YE due to purchase of new billing software. Reduction to 2022 budget with elimination of existing service provider. (Service Contracts)
- Line 71: Increase for 2022 (\$16,523) due to increased insurance fees (Insurance)
- Line 75: This operational expenditure will be used to provide adequate financial resources to fund future long-term debt for capital
 projects. (Transfer to Reserve) Annual allocation is Revenue less Operating (inc. Salaries) = Available Capital (\$3,173,721 in 2022)
- Line 76: \$1M in Federal Funding was not claimed during 2021 due to change in WPCP project direction. 2022 budget includes an anticipated \$600K in Federal Funding plus \$25K in water meter sales for 2022. (Transfer to Capital)

Utilities Garage:

• Line 86: Increase to 2022 budget for purchase of a new compactor. (Equipment)

Water Pollution Control Plant (WPCP):

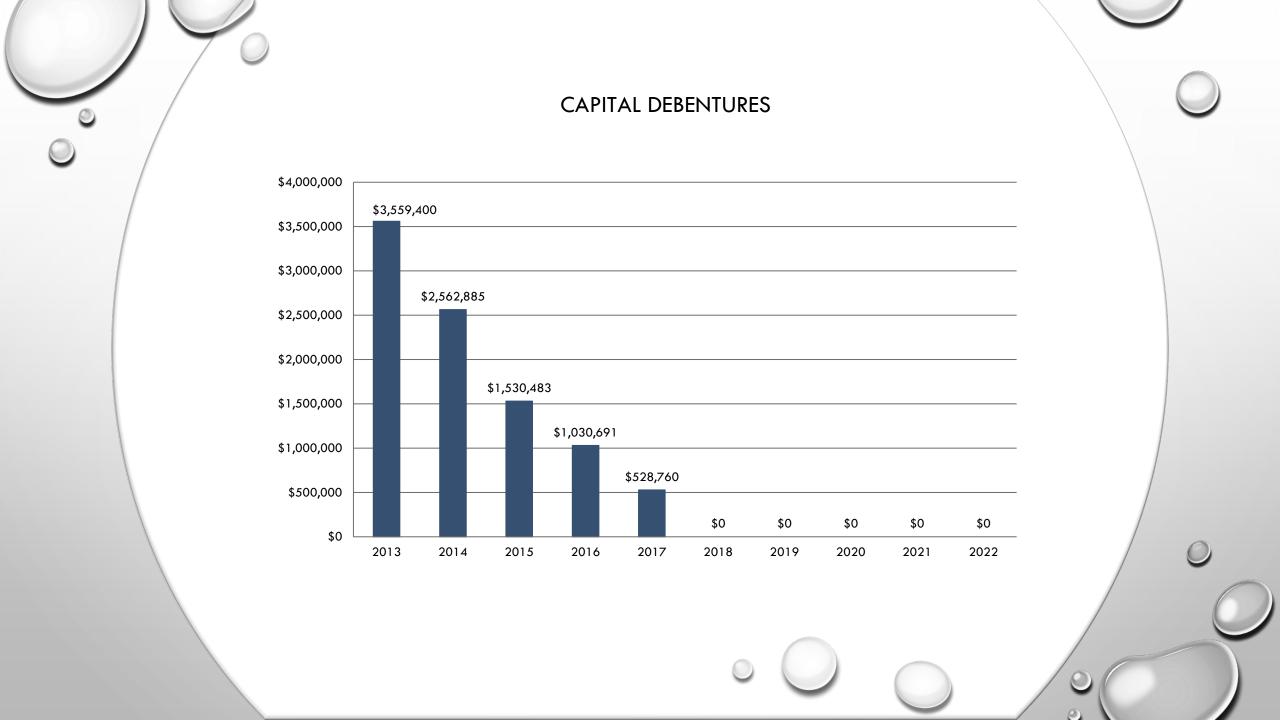
- Line 115, 117 & 120: 2022 budget increases to allow for purchase of replacement pump (\$11K), valves (\$20K) as well as increased
 maintenance costs. Some of these purchases were pulled from Capital presentation at Councils direction. 2021 overages a result of
 aging equipment and necessary repairs. (Equipment, Repairs & Pumps)
- WWC Sewermains, WWC Sewer Service Repairs, WD Water Service Repairs, :
 - Line 153, 275, 513 & 514: Savings in projected YE (~\$42K total) due to fewer emergency repair requirements (Total Expenses)
- WWC Lift Stations Hwy. 41:
 - Line 206: Projected YE ~\$3,350 over budget as a new starter was installed on the backup generator. (Repairs)
- Water Treatment Plant (WTP) AL Dafoe, & Lake Station:
 - Line 398: Budget increase (\$8K) to replace turbidity analyzer in 2022 (removed from Capital) (Equipment)
 - Line 406: 2022 budget increase(\$5K) to accommodate increased costs of treatment chemicals. (Chemicals)
 - Line 407 & 408: Decrease in budget values (\$10K) based on historical trends. (Materials & Building Maintenance)
 - Line 446: Overage (~\$3K) to replace a starter. Offset by decrease (~\$3K) in chemical costs for 2021. (Materials)
- Water Treatment Plant Sandhurst Shores:
 - Line 489: Budget increase (\$8K) to replace turbidity analyzer in 2022 (removed from Capital) (Equipment)
 - Line 500: Overage (~\$1500) due to intake inspection. Not to repeat in 2022. (Service Contracts)
 - Line 501: Budget increase (\$2500) as system has additional sampling requirements as a Large Residential DWS (Labs/Analysis)
- WD System Hydrants:
 - Line 528, 529 & 531: Projected YE over budget (\$3,686) due to hydrant replacement and repairs (vehicle damage). (Total Expenses)



- 2022 variance over 2021 Budget of \$38,810 (Council approved organizational changes)
- 2021 Projected Year End is approximately \$27,000 (or 1.5%) under budget due to Staff vacancies.
- Year-end salary allocations may fluctuate between line items each year based upon actual workload requirements and system requirements. Total Admin Wages will be allocated accordingly during year-end adjustments.



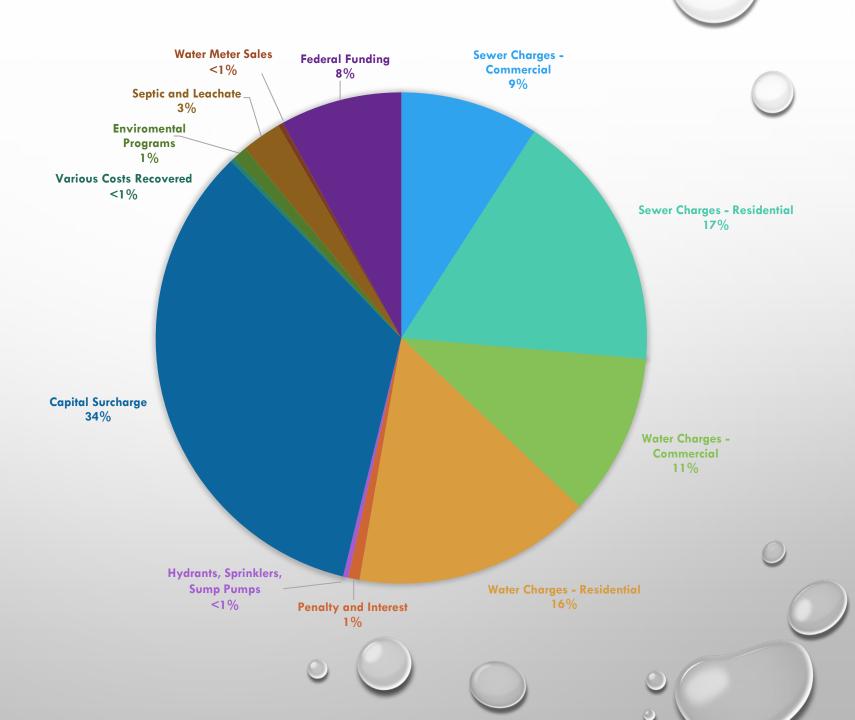
2022 CAPITAL EXPENDITURES			
INGROUND WORKS – includes full reconstruction & engineering for:	\$1,789,453		
Bridge Street (from Belleville Rd. to Richard St)			
Richard Street (from Thomas St. to River)			
Shoreline Crescent (entire cul-de-sac)			
A.L. DAFOE DWS -			
Raw Water Liner Replacement (carry forward from 2021)	\$254,400		
SANDHURST SHORES DWS -			
Residuals Process Upgrades	\$25,000		
WATER POLLUTION CONTROL PLANT -			
Preconstruction Design	\$1,200,000		
GENERAL -			
Water Meter Purchase (200 replacement meters)	\$80,000		
Maintenance Part Storage	\$12,000		
	\$3,360,853		





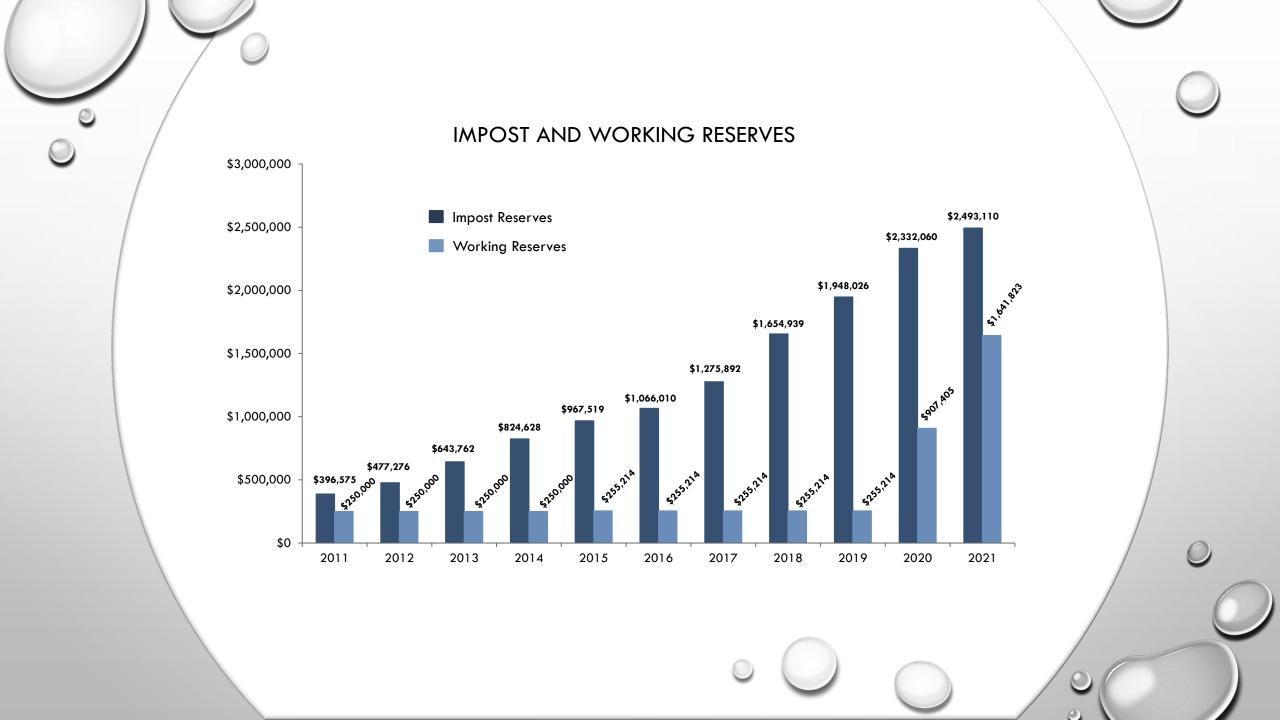
2022 PROJECTED REVENUE

	\$7,483,684
Federal Funding	\$600,000
Water Meter Sales	\$25,000
Septic and Leachate	\$195,862
Environmental Programs (on-site sewage systems)	\$71,400
Various Costs Recovered	\$21,389
Capital Surcharge	\$2,542,516
Hydrants, Sprinklers, Sump Pumps	\$25,000
Penalty and Interest	\$55 , 938
Water Charges - Residential	\$1,1 <i>7</i> 3,518
Water Charges - Commercial	\$799,541
Sewer Charges - Residential	\$1,291,356
Sewer Charges - Commercial	\$682,164



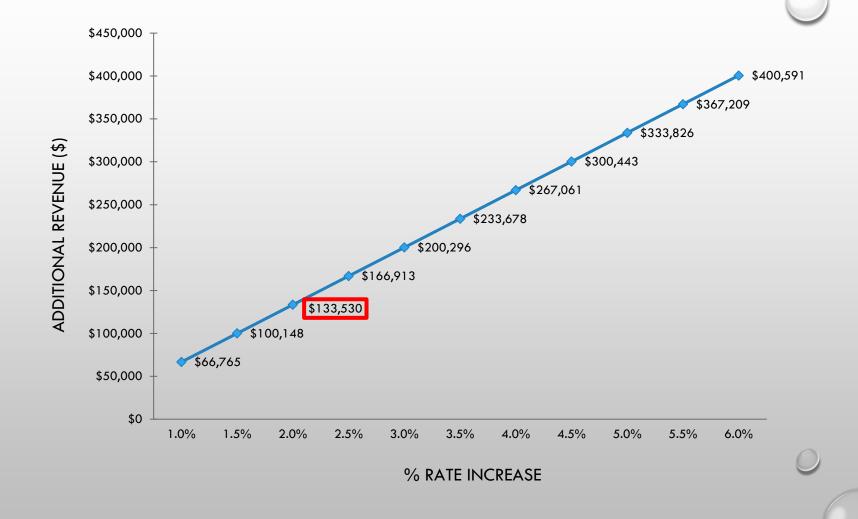
UTILITIES REVENUE KEY NOTES

- 31 new customers to date in 2021 (down from 36 residential in previous year).
- **Line 13:** Decrease in 2022 revenue as a result of elimination of hydrant/sprinkler charges. (Hydrants, Sprinklers, Sump Pumps)
- Line 14 &15: New in 2022, Maintenance & Capital Surcharges combined to show as one line item. This will be reflective on water billing (mid-year transition); users will then see only Capital Surcharge at 66%. (Capital Surcharge & Maintenance Surcharge)
- Line 8 & 10: Increase in YE revenue (~\$123K) for commercial consumption. Directly related to pandemic recovery. (Sewer Charges & Water Charges Commercial)
- **Line 10:** 2021 YE includes approximately 11,342 loads of water (\$22,684) from the Medium Fill Station to date. (Water Charges Commercial)
- It should be noted that our Small Fill Station has provided 704m³ of free water to our residents to date in 2021. That is equivalent to **1.4 million water bottles!**
- Line 9 & 11: Increase in overall residential consumption (~\$132K). Community growth, increased rates and the shift to 'working from home' has an impact on this. (Sewer Charges & Water Charges Residential)
- **Line 16:** Federal Funding claim (see projections for 2022 2024 budgets) for the WPCP Project (Grant Federal)
- **Line 25**: Projected YE for septic permits/inspections higher than budgeted as an anomaly due to increased development pressure. (Environmental Programs)

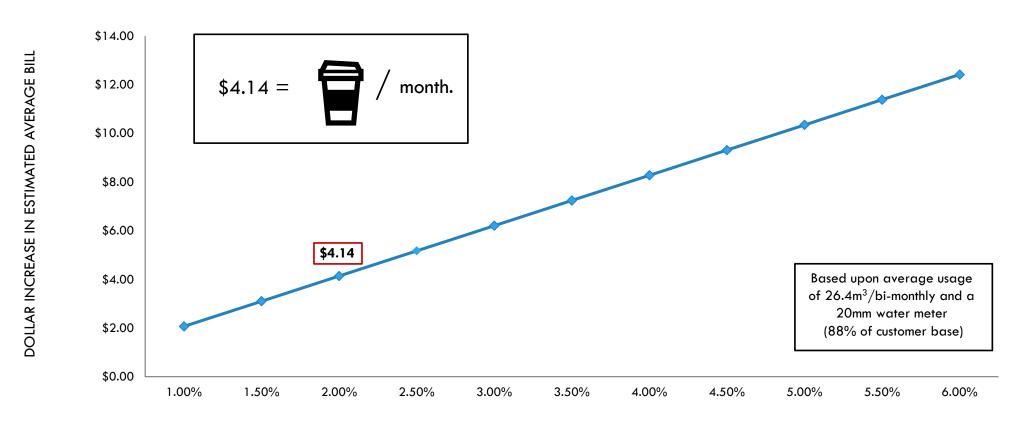




RATE INCREASE VS. ADDITIONAL REVENUE



FINANCIAL IMPACE TO CUSTOMER BI-MONTHLY



PERCENTAGE RATE INCREASE



HISTORICAL BUDGETS

RESIDENTIAL	WATER AND SEWER RATES
Each dwelling unit of a building with three or less dwelling units	\$4770.26/dwelling unit
First three dwelling units of a building have four or more dwelling units	\$14,310.77
Each additional dwelling unit of a building with four or more dwelling units larger than 93 m ²	\$4,294.48/dwelling unit
Each additional dwelling unit of a building with four or more dwelling units of 70 m^2 to $93\mathrm{m}^2$	\$3,818.71/dwelling unit
Each additional dwelling unit of a building with four or more dwelling units smaller than 70 m ²	\$3,342.94/dwelling unit
Each dwelling unit of a building subsidized and constructed exclusively for senior citizens	\$2,441.47/dwelling unit
Mobile homes	\$2,441.47/pad

NON-RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND EDUCATIONAL (the rates below apply to floor space below ground level with public access)	WATER AND SEWER RATES
Each institutional bed	\$1,433.58/bed
Each hotel or Motel like accommodation (note that areas used as lobbies, offices, fitness facilities and commercial space are subject to commercial rates.)	\$913.99/bedroom
Floor area up to 1,850 m ² including space below ground level with public access	\$9.58/m²
Additional floor area between 1,850 m ² and 3,700 m ² including space below ground level with public access	\$4.82/m²
Additional floor area greater than 3700 m ² including space below ground level with public access	\$2.44/m²
Minimum for non-residential, commercial, industrial and educational	\$2,278.71
Maximum for non-residential, commercial, industrial and educational	\$45,574.10

The rates above are the minimums that shall apply. The Town may impose further charges where it is considered that water consumption and/or sewage discharge will have a significant impact upon the water and/or sewage systems.

PROPOSED 2022 IMPOST RATES

DECLINING BLOCK RATE STRUCTURE KEY NOTES

What is the existing declining block rate structure?

A declining block rate structure simply provides a lower unit rate of cost for water and sewer within a certain range of consumption (the higher the consumption, the lower the rates). The proposed 2022 Rate Schedule provides one (1) lower unit rate for the Industrial/Commercial consumption (greater than 1000m³). The previous 0-500m³ rate was phased out in 2020. Currently, residential rates do not change due to consumption.

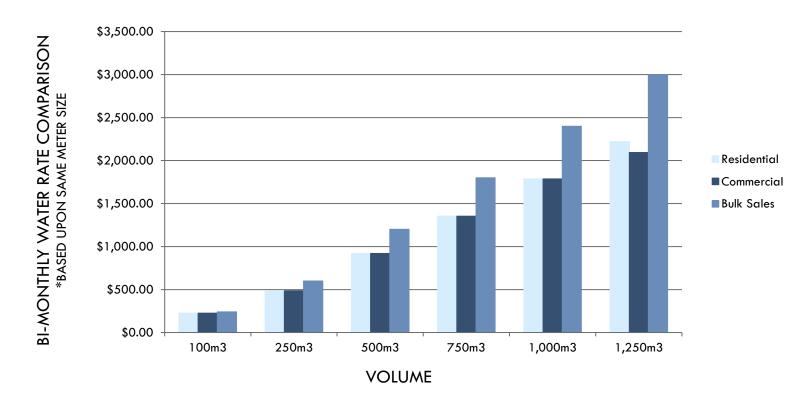
Why are declining block rate structures being phased out?

The Ministry of Environment, Conservation and Parks is the primary regulating authority for water and wastewater systems in Ontario and has been promoting water conservation in recent years. Declining block rate structures do not promote water conservation but do contribute to reduced treatment capacities and premature large scale capital upgrades. The provincial influence urges municipalities to eventually incorporate inclining block rate structures. Please note that approach to water conservation is taken in consideration by the Province during compliance inspections and also when reviewing funding applications.

What is the Staff recommended approach moving forward?

Minor reductions in the declining block structure have been implemented by Council since 2012 with no adverse impact to industry. Staff will closely monitor billing but with the current approach the declining block would not be eliminated until 2027.

CHART REFLECTS 2022 PROPOSED RATES (water only)



RESIDENTIAL WATER RATES: \$1.04/m³ (plus surcharge & base rates)

• BULK WATER RATES: \$2.40/m³

COMMERCIAL WATER RATES: \$1.04/m³ (0-1,000m³)

\$0.94/m³ (over 1,000m³) (plus surcharges & base rates)

EXISTING DECLINING BLOCK RATE STRUCTURE (COMMERCIAL)



PROPOSED 2022 RATE SCHEDULE

- Proposed 2.0% increase applied to all rates unless otherwise stated.
- The MECP is strongly urging municipalities to eliminate reliance on declining block rate structures. Staff is proposing an additional 2.0% increase to the water and sewer consumption charges (>1,000m³). These efforts are being recommended as they support conservation which is important for the purposes of future grant applications (demonstrates that all efforts have been undertaken to reduce flows).
- The declining block rate structure can be very slowly adjusted without causing any adverse impact to large water users. The remaining declining block will take in excess of five additional years to fully implement (currently in 10th year).
- The current rate for treatment of hauled sewage (septic tank waste) does not cover the additional operational and maintenance costs related to treating that waste stream. Conventional pollutants are typically 50 to 100 times higher in septage than in municipal sanitary sewage. A step from \$9.08/m³ to \$15.00/m³ is recommended. The average rate charged by neighboring municipalities is \$37.40/m³.

2022 RATE SCHEDULE SUMMARY

WATER SERVICE AND SEWER SERVICE BASE CHARGES

Water Meter Size	Bi-Monthly Base Rate for Water	Bi-Monthly Base Rate for Sewer	
20mm or less (%")	\$31.83	\$31.83	
25mm (1")	\$45.76	\$45.76	
32mm (1 1/4")	\$76.75	\$81.91	
37mm (1 ½")	\$102.47	\$110.49	
50mm (2")	\$185.13	\$200.91	
75mm (3")	\$272.26	\$301.37	
100mm (4")	\$369.69	\$401.82	
150mm (6") or larger	\$414.75	\$453.51	

Note: Where multiple meters are present in one facility, the base rate charge (only one) shall be based upon the largest meter size for water and/or sewer plus \$22.24 for each extra meter provided that the billing for each meter is sent to one individual customer and that the meters service facilities within the same rate class (that is to say only residential or only industrial/commercial/institutional).

WATER AND SEWER CONSUMPTION CHARGES

	Water Rate	Sewer Rate (see note below
Residential	\$1.04 /m3	\$1.35 /m³
Industrial/Commercial		
0 to 1,000 m ²	\$1.04/m³	\$1.35 /m³
greater than 1,000 m ³	\$0.94 /m3	\$1.20 /m ³

Note: Sewer charges will be based on metered water consumption, unless a sewage meter is installed. Where residential customers are connected to the sewer only - no meter, a rate of 2 m³/day will be applied.

OTHER CHARGES AND ADJUSTMENTS

ACCOUNTS IN ARREARS

TRANSACTION HISTORY/ COPY OF BILL

THIRD ALL ALL ALL ALL ALL ALL ALL ALL ALL AL	
RESIDENTIAL SERVICES WITHOUT METERS	\$182.28 /30 day for Water only
	\$410.16 /30 day for Water & Sewer
FIRE HYDRANTS, FIRE STAND PIPES &	
SPRINKLER SYSTEMS	\$88.99 /Bi-Monthly
PRIVATE HYDRANT ANNUAL INSPECTION	\$106.43 /Hydrant (upon request)
TEMPORARY SERVICE CONNECTION	No Charge for the first one day use
	\$42.32 /day for services less than 50mm

HYDRANT USE	as per bylaw plus commercial water use charges apply
BULK WATER	\$2.40 /m² metered consumption
	\$52.08 /month minimum charge
	\$52.08 /load - assisted loading
	\$2.00 /m² - Medium Fill Station
ACCOUNT CHANGES AT CUSTOMER'S	\$39.05 /event
TEMPORARY SERVICE DISCONNECTION OR RE:	\$44.59 includes meter reading
	\$60.00 surcharge after normal business hours
SERVICES RENDERED	Cost plus 5% (+HST if applicable)
SEWER VIDEO INSPECTION	\$66.98
NEW WATER METER AND APPURTENANCES	Cost with installation at customer's expe

10% on-time charge on billed amou

SURCHARGES

MAINTENANCE RESERVE FUND	66% of Water & Sewer Charges
TSS in excess of 350 mg/L	\$0.80 /kg
PHENOL in excess of 1 mg/L	\$0.80 /kg
BOD in excess of 300 mg/L	\$0.80 /kg
PHOSPHORUS in excess of 10 mg/L	\$14.22 /kg
TKN in excess of 100 mg/L	\$3.17 /kg
LEACHATE Volume	\$9.26 /m²
LEACHATE based on COD	\$0.40 /COD Value
HAULED SEWAGE	\$15.00 /m²
SUMP PUMP 1/6 hp	\$58.54 /Bi-Monthly
SUMP PUMP 1/4 hp	\$86.34 /Bi-Monthly
SUMP PUMP1/3 hp	\$115.11 /Bi-Monthly

HOW TO **CALCULATE** YOUR WATER **BILL**

COWING SOOM

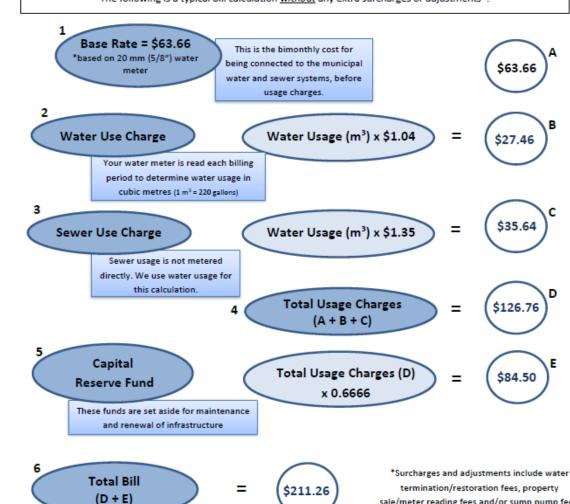
How to Calculate your Basic Residential Water & Wastewater Bill

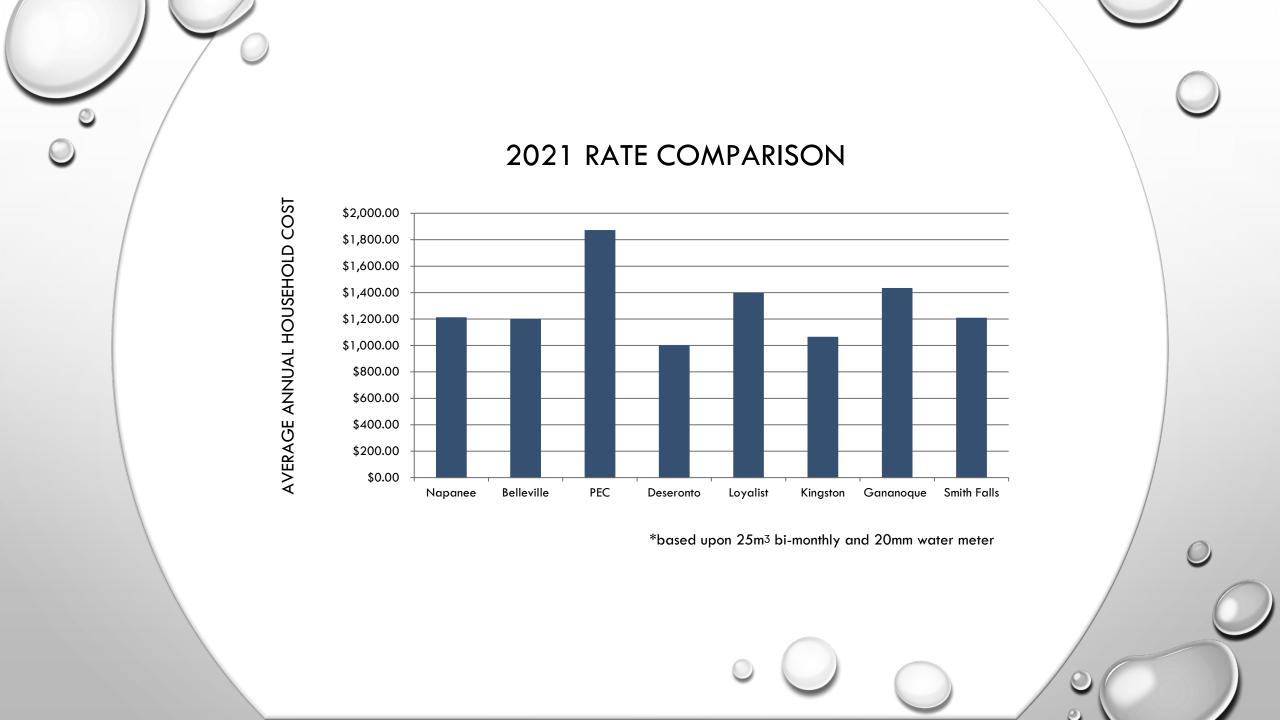
Water Usage (from your bill) 26.4 m³

sale/meter reading fees and/or sump pump fees.

2022

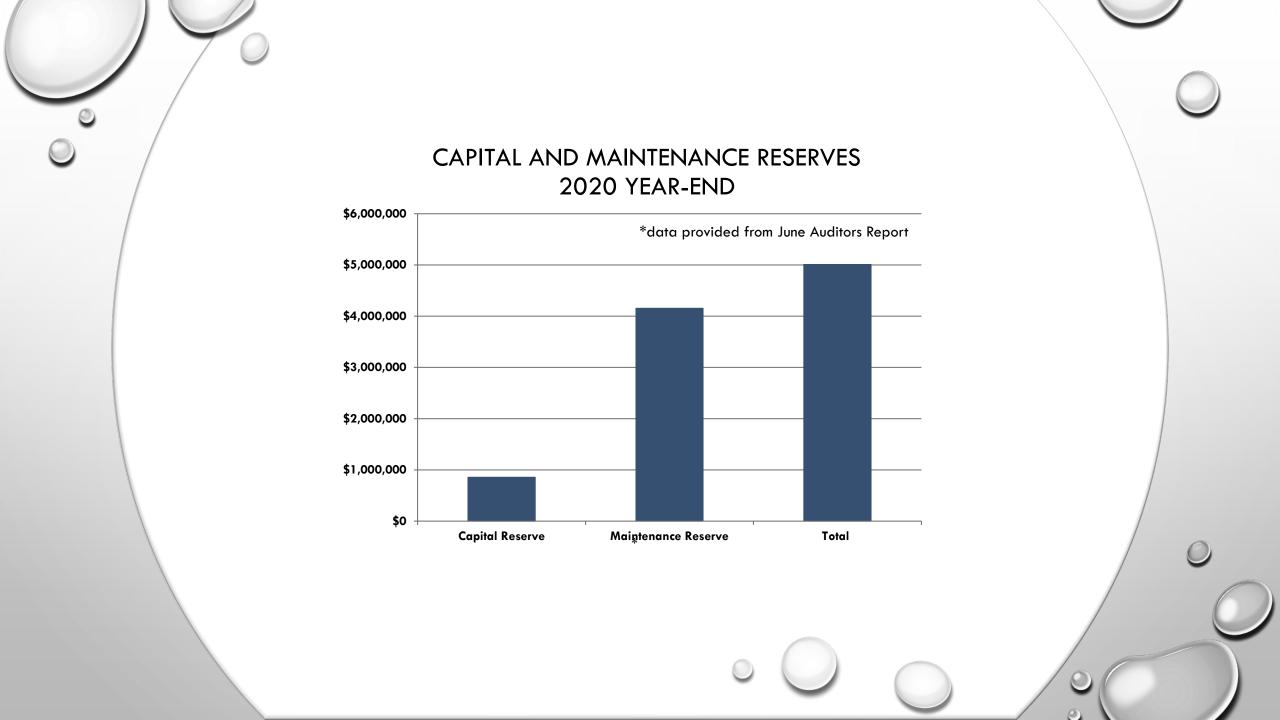
Water and wastewater bills will be issued every other month - January, March, May, July, September & November Remember that the total amount on your bill is for two months of service and use. The following is a typical bill calculation without any extra surcharges or adjustments*.





2021 RATE COMPARISON KEY NOTES

- The 2021 Rate Comparison survey was conducted internally by staff and included a total of eight (8) municipalities.
- It is important to note that when comparing municipal water and sewer rates there are many variables that can impact study results. Treatment technologies, varying municipal approach to sustainability/asset management, economies of scale, and level of service are a few major factors that can significantly impact survey results.
- Three of the listed comparators have user rates that are above the Town of Greater Napanee, and two others are slightly below but within \$2.
- The current fixed and variable rate portions within Greater Napanee's rate structure allows the security to help address fixed costs while providing some flexibility to the consumer for water conservation and savings.
- The study results indicate that the Town of Greater Napanee is not only very competitive but has demonstrated a cost-effective approach to sustainability. Greater Napanee user rate increases have been very low over the last several years when compared to other municipalities across the province.



	2021 Budget	2021 Projected Year End	2022 Budget	2022 Variance Over 2021 Budget
Operating Expenditures	\$1,726,963	\$1,632,409	\$1,842,314	\$115,351
Salaries and Benefits	\$1,803,839	\$1,776,936	\$1,842,649	\$38,810
Capital Expenditures	\$3,869,084	\$1,917,518	\$3,360,853	-\$508,231
Total Expenses	\$7,399,886	\$5,326,862	\$7,045,817	-\$354,069
Revenue	\$7,469,160	\$6,801,682	\$7,483,684	\$14,524

^{*}Surplus of \$437,867 to be transferred to Capital Reserves to fund future Projects.

OVERALL SUMMARY