

Subject: 2021 Budget-Water and Wastewater Operating Budget, Rate Setting

and Requisition

Report to: Budget Review Committee of the Whole

Report date: Thursday, November 26, 2020

Recommendations

- That the 2021 Water & Wastewater net operating base budget increase of \$1,229,624 or 1% for Operating and \$1,229,417 or 1% for Capital Financing over the 2020 operating budget BE APPROVED in accordance with the 2021 budget planning strategy;
- 2. That the 2021 Water Operations gross operating budget of \$47,038,985 and net budget in the amount of \$46,656,372 as outlined in Appendix 7 for the Water Budget, Rates and Requisition **BE APPROVED**;
- 3. That the proposed fixed water requisition shown in Table 4 of Report CSD 65-2020, based on 25% of the Region's water net operating budget for the year and divided by 12 to determine the monthly charge, to be billed to each of the serviced Local Area Municipalities starting January 1, 2021, apportioned based on their previous three year's average water supply volumes, **BE APPROVED**;
- 4. That the Region's proposed 2021 variable water rate of \$0.611, shown in Table 5 of Report CSD 65-2020, to be effective January 1, 2021 and calculated by taking 75% of the Region's water net operating budget and dividing by the estimated supply volume, to be billed on a monthly basis to each serviced Local Area Municipality based on the previous month's metered flows, **BE APPROVED**;
- 5. That the 2021 Wastewater Operations gross operating budget of \$81,409,557 and net budget in the amount of \$78,774,320 as outlined in Appendix 7 of Report CSD 65-2020 for the Wastewater Budget, Rates and Requisition **BE APPROVED**;
- 6. That the proposed 2021 fixed wastewater requisition as shown in Table 6 of Report CSD 65-2020, based on 100% of the Region's net operating budget for the year and divided by 12 to determine the monthly charge, to be billed to each of the Local Area Municipalities starting January 1, 2021, apportioned based on their previous three year's average wastewater supply volumes, BE APPROVED;

- 7. That the 2021 wastewater monthly bills **INCLUDE** the reconciliation for the 2019 net requisition allocation based on actual wastewater flows versus the estimated flows, as shown in Table 7 of Report CSD 65-2020;
- 8. That the necessary by-laws **BE PREPARED** and **PRESENTED** to Council for consideration; and
- 9. That a copy of Report CSD 65-2020 **BE CIRCULATED** to the Local Area Municipalities.

Key Facts

- The proposed Water net budget represents a \$0.7 million increase, or 1.60% over 2020; the proposed Wastewater net budget represents a \$1.7 million increase, or 2.24% over 2020, for a combined Water & Wastewater Budget increase of 2% as shown in Table 1.
- The budget is representative of the 2021 budget planning strategy of 2.00% for base budget expenditure (1% for operating and 1% for enhanced capital financing) before COVID-19 expenditures.
- Staff have deferred the 2021 request for a 5.15% increase that supports the Council approved Safe Drinking Water Act (SDWA) Financial Plan in order to comply with 2021 budget planning strategy.
- Incorporated in the 2% increase for the 2021 operating budget is the requirement for the operating and debt servicing cost associated with the proposed South Niagara Falls Wastewater treatment facility. This has been accommodated with a reduction in the transfer to the capital reserve which will be re-established through future commitments to the 5.15% increase in accordance with the SDWA Financial Plan.
- The requisition methodology conforms to Councils approved cost recovery methodology from 2011, which was reaffirmed through report CSD 61-2015, on July 2, 2015. The methodology apportions to the LAMs water at 75% variable rate and 25% as a fixed component and wastewater 100% fixed.
- The proposed variable water rate is increased to \$0.611 (2020 = \$0.602) attributed to the budget increase with no projected change in water flows for 2021.
- The municipal requisitions have been corrected for an error in one quarter of a year's actual water and wastewater flows incorporated within the three year average.

Financial Considerations

The Water and Wastewater Division's proposed 2021 net budget amount of \$125.40 million represents a \$2.5 million net increase or 2% (1% for base operating and 1% for enhanced capital financing) from the 2020 budget, as shown in Table 1. The total net cost related to the Wastewater program is \$78.7 million, representing a net increase of \$1.7 million, or 2.24% from 2020. The remaining \$46.7 million relates to the Water program, which has increased by \$0.7 million, or 1.60% from 2020. The proposed gross budget and comparison to the 2020 net budget are outlined in Table 1.

Table 1 – Summary of Proposed Water and Wastewater Budget ('\$000)

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Water & Wastewater 2021 Budget Summary	Water	Wastewater	Total
2020 Net Requisition	45,921	77,021	122,942
2021 Budget:			
Total Operating Expenses	22,225	47,913	70,138
Business Support	1,828	3,296	5,124
Reserve Transfer & Debt Charges	22,527	29,430	51,957
2021 Gross Budget Total - Before	46,580	80,639	127,219
Enhanced Capital Financing	40,560	60,039	121,219
Enhanced Capital Financing (1%)	459	770	1,229
2021 Gross Budget Total	47,039	81,410	128,449
Less: Revenues*	(352)	(2,572)	(2,924)
Less: Safe Restart Funding*	(31)	(93)	(124)
2021 Net Requisition	46,656	78,744	125,401
Percentage Change	1.60%	2.24%	2.00%

^{*}Revenue amounts presented in this table do not include revenue amounts in water and wastewater shared services (included as an offset in total operating expenses).

Analysis

The 2021 Water and Wastewater budgets were developed giving consideration to historical results (2019 actuals, 2020 forecast), operational concerns, legislative compliance, standard operating procedures, impacts as a result of COVID-19 and cross-divisional and corporate business support costs. In Table 2, the increases/pressures identified for 2021 are \$3.0 million before recommended mitigation measures totaling \$1.6 million.

Table 2 – Summary of Proposed Water and Wastewater Budget with Pressures

and Mitigations ('000)

Water & Wastewater 2021 Budget Summary	Water \$	Wastewater \$	Total \$	Total %
2020 Net Requisition	45,921	77,021	122,942	
Gross Increase/Pressures	599	2,376	2,975	
Base Subtotal	46,520	79,396	125,916	2.42%
Mitigations	(292)	(1,328)	(1,620)	
Safe Restart Funding	(31)	(93)	(124)	
Net Operating Increase	276	954	1,230	
Base Total	46,197	77,974	124,172	1.00%
Enhanced Capital Financing	459	770	1,229	1.00%
2021 Net Requisition	46,656	78,744	125,401	2.00%

Council previously adopted a 5.15% increase as per the SDWA financial plan. This would have allowed for a budget increase of \$6.3 million, however, the budget planning strategy only allowed for a 2% increase or \$2.5 million: 1% for base operating (\$1.2 million) and 1% for enhanced capital financing (\$1.2 million). Given the largely fixed cost nature of the operations (i.e., chemicals, utilities, property tax, previously approved debt charges) staff needed to identify mitigations options within the very small budget of discretionary spending so not to impact the daily operations of the services. Of the total requisition amount of \$125M for 2021 approximately 94% of the total amount is fixed as it relates to treatment of water and wastewater and capital financing. The remaining 6% can be classified as discretionary expenditures that does not specifically relate to water/wastewater treatment (i.e., CSO grants, certain building maintenance such as snow removal and grass cutting). The proposed mitigations will decrease the net requisition increase from 2.42% or \$3 million to the budget planning strategy amount of 2% or \$2.5 million.

The increases/pressures to the budget of \$3.0 million are largely due to the following:

- Utilities (Gross: \$0.8 million; Net: \$0.4 million) The gross increase aligns with overall corporate utility assumptions for 2021. Utility rebates of \$0.4 million have also been budgeted. This is an increase of 3.6% in the overall utility budget.
- Chemical Costs (\$0.5 million) The pressure is representative of various chemical contracts being renewed in 2021 plus additional anticipated chemical usage at the existing Niagara Falls WWTP to meet compliance objectives. This is an increase of 12.1% in the overall chemicals budget.

- Base Capital financing (\$0.5 million) 1% or \$0.5 million increase in base funding for capital to address infrastructure backlog.
- External Legal (\$0.3 million) External legal fees are anticipated to increase as a result of on-going legal issues associated with previously completed capital works which cannot be accommodated within the existing base budget of \$34,000.
- Property Taxes (\$0.3 million) Annual inflationary increases on property taxes
 plus the on-boarding of the previously unbudgeted new NOTL treatment facility.
 This is an increase of 12.5% in the overall property tax budget
- Bio-Solids (\$0.2 million) Expected increases in volumes and contract per unit rates as initiated in 2020. This is an increase of 3.23% in the combined bio-solids budget for cake disposal, land application and sludge haulage.
- Compensation (\$0.1 million) annual increases as per current labour contracts and policies.
- Business Support/Department Allocations (\$0.2 million) increase in allocations from other departments (i.e. integrated services, facilities, finance, insurance, etc.)
- Repair & Maintenance (-\$0.2 million) decrease in repair and maintenance as a result of reduced spend in 2020 (excluding the impacts of increase R&M Grounds as a result of student deferral – see below).

The mitigations of \$1.6 million are comprised of the following discretionary expenses:

- CSO Program Deferral (-\$1.0 million) The 2020 annual budget for this program is \$4.0 million with \$2.0 million funded from the rate requisition and \$2.0 million funded from Development Charges. Deferring half of the 2021 CSO would provide \$1.0 million relief on the proposed 2021 wastewater requisition. The \$1.0 million program cost represents 1.27% on the 2021 wastewater requisition and 0.80% on the combined 2021 water/wastewater requisition. The Region currently has \$16 million in commitments (as at y/e 2019) to 10 LAMs for approved but unspent CSO projects which will be maintained. Deferring half of the 2021 CSO funding may allow municipalities to complete historical projects that remain outstanding anticipating they too may experience some budget pressures due to the current economic environment but will allow some projects to proceed in 2021.
- Student Position Deferral (Gross: -\$0.4 million; Net: -\$0.2 million) Student positions supplement staff resources to enable staff to focus on special projects.

As well they are responsible for grass cutting which will now be completed by the contractor.

- Water Wagon/Water Festival Deferral (-\$0.2 million) Deferral of both the water wagon and in person water festival activities (continued virtually in 2020/21) for 2021 as a result of COVID-19 restrictions.
- Salary Gapping (-\$0.2 million) Staff have implemented a salary gapping strategy which estimates the savings due to staff turnover at 1% of the proposed personnel budget.

The proposed one-time mitigations provided above (deferrals of half the 2021 CSO program, student positions, Water wagon/festival, and conferences) will create additional pressures in 2022 to re-instate the programs, however these are anticipated to be accommodated within the 5.15% SDWA Financial Plan previously approved by Council.

Reserve Management - Capital/Infrastructure

The proposed 2021 budget planning strategy of 2% recommended 1% for base services and 1% for capital financing enhancement. As a result, staff are deferring the Council approved SDWA Financial Plan combined water/wastewater increase of 5.15% for 2021. Staff will be recommending that the financial plan be reinstated for 2022 in order to address both the asset renewal backlog as well as the Region's annual funding gap of \$77 million (10 year Average Annual Renewal Investment – AARI) that had been identified in the 2017 Council approved comprehensive Asset Management Plan (AMP).

As per the capital financial strategy, staff proposed as a guiding principle that a minimum reserve balance of 2% of the current asset value be maintained. The dotted lines on the chart below illustrate the 2% target compared to the forecasted reserve balance for each year. The Reserve balance has been decreasing to support the necessary backlog of infrastructure renewal. The strategy is to replenish the reserve with the 5.15% increase each year in accordance with the financial plan. The transfer to reserve is being temporarily reduced to accommodate the new South Niagara Falls WWTP debt charges and operating costs budget within a 2% overall budget increase. However, until the plant is operational, this budget will continue to fund pay-as-you-go capital projects (in accordance with the Budget Planning By-law) to invest in critical infrastructure similar to the transfer to capital reserve.

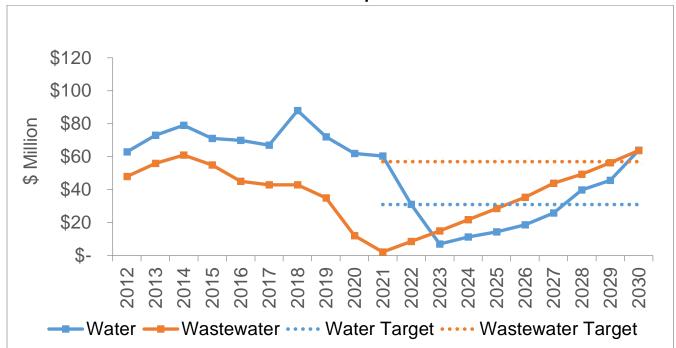


Chart 1 – Forecasted Water and Wastewater Capital Reserve Balances

South Niagara Falls Wastewater Treatment Facility

As identified in report PW 39-2020 – South Niagara Falls Update, the SNF WWTP capital projects and required debt financing can be accommodated within a 2% rate increase in 2021 with the following key strategies:

- Temporary reduction in the transfer to the WW capital reserve to accommodate increased debt charge budget (\$3.8 million). To be used for pay-as-you-go infrastructure until SNF WWTP debt is required;
- Use of plant operations and maintenance budget to fund pay-as-you-go infrastructure until the plant is operational (\$5.3 million operating costs net of savings); and
- 5.15% combined requisition increase from 2022 2028 is required to re-establish the transfers to capital reserves to \$40 million from \$21 million in 2020 to support the asset management plan.

For 2021, the capital projects funded from the total SNF WWTP operating and debt charge budget amounts of \$9.1 million can be found in Appendix 1.

Table 3 below provides a reconciliation of the wastewater operations (net), capital reserve contributions and the debt charge amounts. The impacts of the SNF WWTP have been accommodated in the base budget by decreasing the transfer to the capital reserve.

Table 3 – Reconciliation of the Wastewater Operating Budget with Consideration to the SNF WWTP

Wastewater Operating Budget	Operating (Net)	Reserve Contributions	Debt Charge	Total
2020 Approved Net Budget	\$47,908	\$20,963	\$8,150	\$77,021
Changes SNF WWTP:				
Reduction in transfer to				
Reserve to increase Debt	0	(3,814)	3,814	0
Charge Budget				
Reduction in transfer to				
Reserve to increase for net	5,265	(5,265)	0	0
Plant Operating Expenses				
Temporary Budget allocation				
to Capital Until SNF WWTP	(5,265)	\$9,079	(\$3,814)	0
Operational				
2021 Net Budget Impact After	47,908	20,963	8,150	77,021
SNF WWTP	47,900	20,903	0,130	11,021
% Increase due to SNF WWTP	0.00%	0.00%	0.00%	0.00%
Changes 2021 Net Budget:				
Base Budget Change	636	(379)	697	953
Capital Financing	0	770	0	770
Enhancement – 1%	U	110	U	110
2021 Net Budget	48,544	21,354	8,847	78,744
% Increase total Wastewater	1.33%	1.87%	8.55%	2.24%

COVID-19 Impacts

Staff have identified \$0.1 million in COVID-19 related expenditures that will be funded from Safe Restart funding for 2021 water and wastewater operations. These amounts primarily relate to enhanced cleaning and social distancing measures for Regional staff.

Water and wastewater flow volumes from municipalities have also declined due to business related shutdowns due to COVID-19. However relative to the three-year average, water flows are only down 1.3% as of September 2020. As the 2020 water and

wastewater flows are part of the 3-year average used for the 2021 water and wastewater fixed requisitions this reduction will impact the distribution of costs across the municipalities. This has caused municipalities that have had relatively consistent flows over the 3-year average to be allocated a greater share of the fixed requisition. For the wastewater fixed charge, any variations in the 3-year average for 2021 relative to actual flows will be incorporated in the year-end reconciliation in the 2023 wastewater billing (as is the 2019 reconciliation in the 2021 requisition). For the water fixed amount, there is no year-end reconciliation. Area municipalities may be eligible to claim these fluctuations as COVID-19 related impacts for Provincial funding.

Water Requisition

Fixed Water Requisition

As per Council's approved methodology, \$11,664,093 (25%) of the net Water budget will be recovered from fixed monthly requisitions to the local municipalities based on historical flows. The historical water flows and percentages utilized are included in **Appendix 2 and 3.** This annual amount based on the historical flows is then divided by 12 to determine the monthly charge to be billed to each of the services LAMs starting January 1, 2021. Also included as part of **Appendix 2**, is the annual impact on the fixed water requisition between 2020 and 2021 for each LAM. Table 4 summarizes the fixed amounts to be billed to each LAM based on the above methodology.

Table 4 – Fixed Water Requisition for 2021 Net Budget

Municipality	3-Year	Allocation	Monthly
<u>Municipality</u>	Avg. (%)	(\$)	(\$)
Fort Eric	7.63%	\$889,681	\$74,140
Grimsby	5.42%	\$632,039	\$52,670
Lincoln	4.13%	\$482,303	\$40,192
Niagara Falls	25.35%	\$2,956,366	\$246,364
Niagara-on-the-Lake	5.67%	\$660,791	\$55,066
Pelham	2.25%	\$262,062	\$21,839
Port Colborne	5.05%	\$589,592	\$49,133
St. Catharines	26.65%	\$3,107,935	\$258,995
Thorold	3.74%	\$436,001	\$36,333
Welland	12.42%	\$1,448,698	\$120,725
West Lincoln	1.70%	\$198,626	\$16,552
Total	100.00%	\$11,664,093	\$972,008

Table 4 – Fixed Water Requisition for 2021 Net Budget-REVISED

Municipality	3-Year	Allocation	Monthly
Municipanty	Avg. (%)	(\$)	(\$)
Fort Erie	7.58%	\$883,772	\$73,648
Grimsby	5.46%	\$637,160	\$53,097
Lincoln	4.16%	\$485,166	\$40,431
Niagara Falls	25.27%	\$2,947,840	\$245,653
Niagara-on-the-Lake	5.73%	\$668,598	\$55,716
Pelham	2.25%	\$262,088	\$21,841
Port Colborne	5.05%	\$589,416	\$49,118
St. Catharines	26.55%	\$3,097,272	\$258,106
Thorold	3.78%	\$441,389	\$36,782
Welland	12.42%	\$1,448,636	\$120,720
West Lincoln	1.74%	\$202,756	\$16,896
Total	100.00%	\$11,664,093	\$972,008

Variable Water Rate

The remaining \$34,992,279 (75%) will be charged through the variable rate. The recommended variable rate of \$0.611 per cubic metre as outlined in Table 5 is based on a water forecast using the past three year average flows plus an anticipated growth factor. Despite above average growth for the Region in recent years the flow estimates are still volatile and are dependent on weather conditions. The resulting estimate for 2021 is an overall volume consistent with the amount used for the 2020 budget. An overview of the water trends and related risk is outlined in more detail in **Appendix 3**. The proposed variable water rate increase is \$0.009 (1.53%) (2020 = \$0.602) which is attributed only to the budget increase. Any variation in water flows that result from COVID-19 will be mitigated at 2021 year-end with Safe Restart funding held in the taxpayer relief reserve.

Table 5 – Variable Water Rate for 2021 Net Budget

2021 Variable Water Rate	
Variable Allocation	\$34,992,279
(75% x \$46,656,372)	\$34,992,279
2021 Water Flow Forecast (m³)	57,250,000
Variable Rate (\$/m³)	\$0.611

Wastewater Requisition

The wastewater net requisition is recovered 100% from fixed monthly requisitions to the local municipalities, apportioned based on the historical three year average flows. The annual amount is divided by twelve to determine the monthly charge to each of the serviced LAMs starting January 1, 2021. The historical wastewater flows and apportionments are included in **Appendix 4** as well as the comparison of the fixed wastewater requisition amount between 2020 and 2021 for each LAM. Table 6 provides the fixed amounts to be billed to each LAM based on the above methodology.

Table 6 - Fixed wastewater Requisition for 2021 Net Budget

Municipality	3-Year	Allocation	Monthly
<u>Municipality</u>	Avg. (%)	(\$)	(\$)
Fort Erie	10.39%	\$8,184,943	\$682,079
Grimsby	4.63%	\$3,643,091	\$303,591
Lincoln	3.82%	\$3,010,169	\$250,847
Niagara Falls	18.76%	\$14,775,188	\$1,231,266
Niagara-on-the-Lake	4.05%	\$3,188,847	\$265,737
Pelham	1.84%	\$1,449,600	\$120,800
Port Colborne	6.06%	\$4,771,502	\$397,625
St. Catharines	29.06%	\$22,884,473	\$1,907,039
Thorold	5.24%	\$4,126,205	\$343,850
Welland	14.45%	\$11,376,462	\$948,038
West Lincoln	1.69%	\$1,333,840	\$111,153
Total	100.00%	\$78,744,320	\$6,562,027

Table 6 - Fixed wastewater Requisition for 2021 Net Budget -REVISED

	_	
3-Year	Allocation	Monthly
Avg. (%)	(\$)	(\$)
10.25%	\$8,073,792	\$672,816
4.40%	\$3,463,418	\$288,618
3.84%	\$3,027,278	\$252,273
18.70%	\$14,728,945	\$1,227,412
4.06%	\$3,193,230	\$266,103
1.83%	\$1,442,578	\$120,215
6.10%	\$4,805,270	\$400,439
29.20%	\$22,996,058	\$1,916,338
5.30%	\$4,173,480	\$347,790
	Avg. (%) 10.25% 4.40% 3.84% 18.70% 4.06% 1.83% 6.10% 29.20%	Avg. (%) (\$) 10.25% \$8,073,792 4.40% \$3,463,418 3.84% \$3,027,278 18.70% \$14,728,945 4.06% \$3,193,230 1.83% \$1,442,578 6.10% \$4,805,270 29.20% \$22,996,058

Municipality	3-Year Avg. (%)	Allocation (\$)	Monthly (\$)
Welland		\$11,476,001	\$956,333
West Lincoln	1.73%	\$1,364,268	\$113,689
Total	100.00%	\$78,744,319	\$6,562,027

As per Council's approved cost recovery methodology, the 2021 monthly Wastewater charges will include reconciliation of the 2019 Wastewater requisition payments. Municipal 2019 rebates or charges will be based on their respective share of actual flows versus the estimated share used to initially allocate the 2019 charges. This reconciliation results in a total of \$1,944,713 in payments to, and \$1,944,713 in rebates from, the local municipalities. Tables outlining the calculation of the reconciliation have been included as **Appendix 5**, and the total charge including the 2021 requisition and 2019 reconciliation by local municipality has been included as **Appendix 6**.

Table 7 – Wastewater Reconciliation for 2019 included in 2021 Requisition

Municipality	Reconciliation (\$)	Monthly Rebate (\$)	Monthly Payment (\$)
Fort Erie	(298,910)	(24,909)	
Grimsby	(246,320)	(20,527)	
Lincoln	(65,291)	(5,441)	
Niagara Falls	(1,272,205)	(106,017)	
Niagara-on-the-Lake	62,552		5,213
Pelham	(61,986)	(5,165)	
Port Colborne	381,960		31,830
St. Catharines	661,502		55,125
Thorold	450,909		37,576
Welland	311,092		25,924
West Lincoln	76,697		6,391
Total	(0)	(162,059)	162,059

Risks & Opportunities

- Water/wastewater flows are weather dependant and therefore subject to fluctuations that are outside the Region's control.
- COVID-19 has also caused reductions in water flows. Any variation in water flows as a result of COVID-19 will be offset at year-end 2021 with Safe Restart funding (taxpayer relief reserve).

Unanticipated equipment and underground infrastructure failure may impact

- Unanticipated equipment and underground infrastructure failure may impact operating expenditures.
- Although additional capital financing has been included in the 2021 water and wastewater operational budget it is short of the SDWA financial plan recommended combined increase of 5.15%. This planned reduction in capital financing limits financial flexibility until the budget fully addresses the asset management plan/SDWA.

Alternatives Reviewed

Council may approve an additional increase of 3.15% over 2020 to maintain the previously adopted SDWA Financial Plan for a combined aggregate increase of 5.15%. This alternative is **NOT RECOMMENDED** but would be supported by Staff if Council direction is provided. This increase would generate an additional \$3.9 million in funds for 2021 that could be used to maintain the program mitigations (including the CSO program) and further enhance infrastructure funding.

Relationship to Council Strategic Priorities

The 2021 Water and Wastewater proposed budgets support Council's strategic priorities of organizational excellence, by meeting or exceeding legislative requirements and having 42% of the total program costs related to infrastructure renewal and replacement.

Other Pertinent Reports

Asset Management Plan
Niagara 2041 Growth Strategy – Local Municipal Growth Allocations
2016 Water & Wastewater Master Servicing Plan Update
Safe Drinking Water Act Financial
South Niagara Falls WWTP Update

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Appendices

Appendix 1	2021 Wastewater Capital Projects Funded with SNF WWTP Operating
	and Debt Charge Budget Amounts
Appendix 2	Water Flows and Fixed Water Requisition by Local Area
	Municipality - REVISED
Appendix 3	Water Volume Analysis
Appendix 4	Wastewater Flows and Fixed Wastewater Requisition by Local
	Area Municipality - REVISED
Appendix 5	2019 By-law Wastewater Reconciliation
Appendix 6	Fixed Wastewater Requisition including Reconciliation by Local
	Area Municipality - REVISED
Appendix 7	2021 Water and Wastewater Schedule of Revenues and Expenditures
	by Object of Expenditure

2021 Wastewater Capital Projects Funded with SNF WWTP Operating and Debt Charge Budget Amounts

- Mill St. Area Sanitary Improvements \$825,000
- East Side Pump Station Forcemain Replacement \$1,500,000
- Laboratory and Sampling Equipment Upgrade Program \$100,000
- Campden Pump Station Upgrades \$1,200,000
- Rolling Acres Pump Station Upgrades and Forcemain replacement \$300,000
- George Street SPS Upgrade \$2,600,000
- Spring Gardens Pumping Station Upgrades and Forcemain Replacement -\$350,000
- Royal Manor Pump Station Upgrades and Forcemain Replacement \$300,000
- Nickel St Pumping Station Upgrades \$300,000
- Fares St Pumping Station Upgrades \$300,000
- Arena Pumping Station Upgrades \$300,000
- Region Wide Sludge Septic Haulage Program \$1,000,000
- Nigh Rd Pumping Station Upgrade \$300,000

Water Flows and Fixed Water Requsition by Local Area Municipality

Table 1 - Water Flows by Municipality

Municipality	3-Year Avg. per 2020 By-law		3-Year Avg. per 2021 By law	
mamo.p.m.,	Megalitres	%	Megalitres	%
Fort Erie	4 ,686	8.06%	4 ,355	7.63%
Grimsby	3,258	5.60%	3,094	5.42%
Lincoln	2,315	3.98%	2,361	4.13%
Niagara Falls	15,424	26.53%	14,471	25.35%
Niagara-on-the-Lake	3,147	5.41%	3,235	5.67%
Pelham	1,266	2.18%	1,283	2.25%
Port Colborne	3,093	5.32%	2,886	5.05%
St. Catharines	15,350	26.41%	15,213	26.65%
Thorold	2,076	3.57%	2,134	3.74%
Welland	6,653	11.45%	7,091	12.42%
West Lincoln	862	1.48%	972	1.70%
Total	58,130	100%	57,096	100%

Table 1 - Water Flows by Municipality - REVISED

Municipality	3-Year Avg. per 2020 By-law		3-Year Avg. per 2021 By-law	
	Megalitres	%	Megalitres	%
Fort Erie	4,478	7.84%	4,308	7.58%
Grimsby	3,027	5.30%	3,106	5.46%
Lincoln	2,254	3.94%	2,365	4.16%
Niagara Falls	14,989	26.23%	14,370	25.27%
Niagara-on-the-Lake	3,105	5.43%	3,259	5.73%
Pelham	1,178	2.06%	1,278	2.25%
Port Colborne	3,037	5.31%	2,873	5.05%
St. Catharines	15,148	26.51%	15,099	26.55%
Thorold	2,127	3.72%	2,152	3.78%
Welland	6,932	12.13%	7,062	12.42%
West Lincoln	874	1.53%	988	1.74%
Total	57,149	100%	56,860	100%

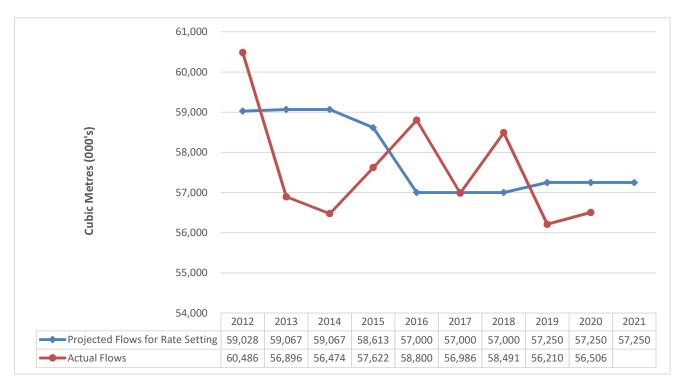
Table 2 - Fixed Water Requsition by Municipality

	Fixed Requisition			
Municipality	2020	2021	Diffe	rence
	(\$000)	(\$000)	\$000s	%
Fort Eric	900	890	(10)	-1.11%
Grimsby	608	632	24	3.94%
Lincoln	453	4 82	30	6.52%
Niagara Falls	3,011	2,956	(55)	-1.82%
Niagara-on-the-Lake	624	661	37	5.95%
Pelham	237	262	26	10.78%
Port Colborne	610	590	(20)	-3.35%
St. Catharines	3,043	3,108	65	2.14%
Thorold	427	436	9	2.06%
Welland	1,393	1,449	56	4.03%
West Lincoln	176	199	23	13.11%
Total	11,480	11,665	184	1.60%

Table 2 - Fixed Water Requsition by Municipality - REVISED

		Fixed Requisition			
Municipality	2020	2021	Differ	ence	
	(\$000)	(\$000)	\$000s	%	
Fort Erie	900	884	(16)	-1.76%	
Grimsby	608	637	29	4.78%	
Lincoln	453	485	32	7.15%	
Niagara Falls	3,011	2,948	(63)	-2.10%	
Niagara-on-the-Lake	624	669	45	7.20%	
Pelham	237	262	26	10.79%	
Port Colborne	610	589	(21)	-3.38%	
St. Catharines	3,043	3,097	54	1.79%	
Thorold	427	441	14	3.32%	
Welland	1,393	1,449	56	4.03%	
West Lincoln	176	203	27	15.46%	
Total	11,480	11,664	184	1.60%	

Water Volume Analysis



The 2020 actual flows are estimate to finish the year approximately 1.3% lower than project flows. The forecasted water usage in 2020 is estimated to total to 56,506 ML.

The water volume forecast for 2021 has been prepared giving consideration to historical trends and current considerations.

The volume forecast for 2021 is above the 3-year calendar average of 57,069 ML and below the 5-year average of 57,399 ML. This includes 2018 which were more typical summer weather years. 2016 experienced drought conditions during the summer. 2017 and 2019 experienced very wet summers. The 2020 flows are impacts by a dry summer and COVID-19 shutdowns. The 2021 estimate reflects no change over previous year's projection.

COVID-19 volitility may continue into 2021. Any variation in flow as a result of COVID-19 that has a negative impact on variable water revenuew will be mitigated with Provicial Safe Restart funding.

Wastewater Flows and Fixed Requisitoin By Local Area Municipality

Table 1 - Wastewater Flows by Municipality

<u>Municipality</u>	3-Year Avg. po			g. per 2021 law
	Megalitres	%	Megalitres	%
Fort Erie	7,931	10.44%	7,679	10.39%
Grimsby	3,688	4.86%	3,418	4.63%
Lincoln	2,907	3.83%	2,824	3.82%
Niagara Falls	14,901	19.62%	13,861	18.76%
Niagara-on-the-Lake	3,141	4.14%	2,992	4.05%
Pelham	1,360	1.79%	1,360	1.84%
Port Colborne	4,480	5.90%	4,476	6.06%
St. Catharines	21,608	28.45%	21,469	29.06%
Thorold	3,845	5.06%	3,871	5.24%
Welland	10,858	14.30%	10,673	14.45%
West Lincoln	1,220	1.61%	1,251	1.69%
Total	75,938	100%	73,874	100%

Table 1 - Wastewater Flows by Municipality - REVISED

Municipality	• .	3-Year Avg. per 2020 By- law		3-Year Avg. per 2021 By-law	
	Megalitres	%	Megalitres	%	
Fort Erie	7,931	10.44%	7,712	10.25%	
Grimsby	3,688	4.86%	3,308	4.40%	
Lincoln	2,907	3.83%	2,892	3.84%	
Niagara Falls	14,901	19.62%	14,069	18.70%	
Niagara-on-the-Lake	3,141	4.14%	3,050	4.06%	
Pelham	1,360	1.79%	1,378	1.83%	
Port Colborne	4,480	5.90%	4,590	6.10%	
St. Catharines	21,608	28.45%	21,966	29.20%	
Thorold	3,845	5.06%	3,987	5.30%	
Welland	10,858	14.30%	10,962	14.57%	
West Lincoln	1,220	1.61%	1,303	1.73%	
Total	75,938	100%	75,218	100%	

Tables 2 - Fixed Wastewater Requsition by Municipality

	Fixed Requisition			
Municipality	2020	2021		ence
	(\$000)	(\$000)	\$000s	%
Fort Erie	8,044	8,185	141	1.75%
Grimsby	3,740	3,643	(97)	-2.60%
Lincoln	2,949	3,010	61	2.09%
Niagara Falls	15,114	14,775	(338)	-2.24%
Niagara-on-the-Lake	3,185	3,189	3	0.11%
Pelham	1,379	1,450	71	5.12%
Port Colborne	4,544	4,772	227	5.00%
St. Catharines	21,916	22,884	968	4.42%
Thorold	3,900	4,126	226	5.81%
Welland	11,012	11,376	364	3.31%
West Lincoln	1,238	1,334	96	7.78%
Total	77,021	78,744	1,724	2.24%

Tables 2 - Fixed Wastewater Requsition by Municipality - REVISED

Tables 2 - Fixed Wastewater Requisition by Municipality - REVISED					
	Fixed Requisition				
Municipality	2020	2021	Diffe	rence	
	(\$000)	(\$000)	\$000s	%	
Fort Erie	8,044	8,074	30	0.37%	
Grimsby	3,740	3,463	(277)	-7.40%	
Lincoln	2,949	3,027	79	2.67%	
Niagara Falls	15,114	14,729	(385)	-2.54%	
Niagara-on-the-Lake	3,185	3,193	8	0.25%	
Pelham	1,379	1,443	64	4.61%	
Port Colborne	4,544	4,805	261	5.75%	
St. Catharines	21,916	22,996	1,080	4.93%	
Thorold	3,900	4,173	274	7.02%	
Welland	11,012	11,476	464	4.21%	
West Lincoln	1,238	1,364	127	10.24%	
Total	77,021	78,744	1,724	2.24%	

2019 By-law Wastewater Reconciliation

Wastewater Flows (Mega Litres)				
NA veisie ality	Prior 3-Yr Avg	2019 By-Law Period		
Municipality	FIIOI 3-11 AVY	Actual Flows ¹		
Fort Erie	7,348	7,931		
Grimsby	3,216	3,345		
Lincoln	2,745	3,013		
Niagara Falls	14,247	14,624		
Niagara-on-the-Lake	2,864	3,286		
Pelham	1,309	1,404		
Port Colborne	3,944	4,846		
St. Catharines	20,064	23,261		
Thorold	3,420	4,333		
Welland	10,025	11,602		
West Lincoln	1,125	1,348		
Total	70,306	78,992		

	Wastewater Fixed Allocation Percentages					
Municipality	Prior 3-Yr Avg	2019 By-Law Period Actual Flows ¹	Difference			
Fort Erie	10.5%	10.0%	-0.4%			
Grimsby	4.6%	4.2%	-0.3%			
Lincoln	3.9%	3.8%	-0.1%			
Niagara Falls	20.3%	18.5%	-1.8%			
Niagara-on-the-Lake	4.1%	4.2%	0.1%			
Pelham	1.9%	1.8%	-0.1%			
Port Colborne	5.6%	6.1%	0.5%			
St. Catharines	28.5%	29.4%	0.9%			
Thorold	4.9%	5.5%	0.6%			
Welland	14.3%	14.7%	0.4%			
West Lincoln	1.6%	1.7%	0.1%			
Total	100.0%	100.0%	0.0%			

Wastewater Fixed Allocation charge (\$000)				
Marsiainaliha	2019 By-Law	Charges Based on	Underpayment/	
Municipality	Charges ^{1,2}	Actual Flows ¹	(Overpayment) ³	
Fort Erie	\$ 7,596	\$ 7,297	\$ (299)	
Grimsby	3,324	3,078	(246)	
Lincoln	2,837	2,772	(65)	
Niagara Falls	14,728	13,455	(1,272)	
Niagara-on-the-Lake	2,961	3,023	63	
Pelham	1,354	1,292	(62)	
Port Colborne	4,077	4,459	382	
St. Catharines	20,741	21,402	662	
Thorold	3,536	3,986	451	
Welland	10,363	10,675	311	
West Lincoln	1,163	1,240	77	
Total	\$ 72,680	\$ 72,680	\$ (0)	

Sum of Overpayment:	(1,944,714)
Percentage of Requisition	2.68%

Notes:

- 1. 2019 By-Law period consists of the 12 month period from January 2019 to December 2019
- 2. Charges paid excluded payments made/rebates received for 2017 reconciliation.
- 3. Underpayments/(Overpayments) based on comparing 2 difference allocation methodologies (3-yr average vs. actual flows during By-law period).

Fixed Wastewater Requisition Including Reconciliation by Municipality Comparison

	Requisition		Reconciliation Payment		Total Charge (Reguisition + Reconciliation)				
Municipality			/ (Refund)				Reconciliation)		
	2020	2021	2020	2021	2020	2021	Differ	ence	
	By-Law	By-Law	(2018 Rec.)	(2019 Rec.)	By-Law	By-Law			
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	
Fort Erie	8,044	8,185	(190)	(299)	7,854	7,886	32	0.40%	
Grimsby	3,740	3,643	73	(246)	3,813	3,397	(416)	-10.92%	
Lincoln	2,949	3,010	23	(65)	2,972	2,945	(27)	-0.91%	
Niagara Falls	15,114	14,775	(711)	(1,272)	14,402	13,503	(899)	-6.24%	
Niagara-on-the-Lake	3,185	3,189	115	63	3,300	3,251	(49)	-1.48%	
Pelham	1,379	1,450	(84)	(62)	1,295	1,388	92	7.11%	
Port Colborne	4,544	4 ,772	160	382	4,704	5,153	449	9.55%	
St. Catharines	21,916	22,884	448	662	22,364	23,546	1,182	5.28%	
Thorold	3,900	4,126	301	451	4,200	4,577	377	8.97%	
Welland	11,012	11,376	(192)	311	10,820	11,688	868	8.02%	
West Lincoln	1,238	1,334	57	77	1,294	1,411	116	8.99%	
Total	77,021	78,744	•	•	77,021	78,744	1,724	2.24%	

Fixed Wastewater Requisition Including Reconciliation by Municipality Comparison - REVISED

	Requisition		Reconciliation Payment / (Refund)		Total Charge (Requisition + Reconciliation)				
Municipality	2020 By-Law	2021 By-Law	2020 (2018 Rec.)	2021 (2019 Rec.)	2020 By-Law	2021 By-Law	Difference		
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	%	
Fort Erie	8,044	8,074	(190)	(299)	7,854	7,775	(79)	-1.01%	
Grimsby	3,740	3,463	73	(246)	3,813	3,217	(596)	-15.63%	
Lincoln	2,949	3,027	23	(65)	2,972	2,962	(10)	-0.33%	
Niagara Falls	15,114	14,729	(711)	(1,272)	14,402	13,457	(946)	-6.57%	
Niagara-on-the-Lake	3,185	3,193	115	63	3,300	3,256	(44)	-1.35%	
Pelham	1,379	1,443	(84)	(62)	1,295	1,381	85	6.57%	
Port Colborne	4,544	4,805	160	382	4,704	5,187	483	10.27%	
St. Catharines	21,916	22,996	448	662	22,364	23,658	1,293	5.78%	
Thorold	3,900	4,173	301	451	4,200	4,624	424	10.09%	
Welland	11,012	11,476	(192)	311	10,820	11,787	967	8.94%	
West Lincoln	1,238	1,364	57	77	1,294	1,441	147	11.34%	
Total	77,021	78,744	-	-	77,021	78,744	1,724	2.24%	

Object of Expenditure	2020 Water Budget Total (\$)	2020 Wastewater Budget Total (\$)	2020 Combined Total (\$)	2021 Water Budget Total (\$)	2021 Wastewater Budget Total (\$)	2021 Combined Total (\$)	Combined Total Variance (\$)	Total Combined Variance (%)	Note
A_40000AB Compensation	7,954,489	10,773,458	18,727,947	7,672,587	10,588,464	18,261,051	(466,896)	(2.5%)	(1)
A_41000AB Administrative	594,726	742,955	1,337,681	492,196	1,086,665	1,578,861	241,180	18.0%	(2)
A_44000AB Operational & Supply	1,759,425	10,854,079	12,613,504	2,078,986	11,499,124	13,578,110	964,606	7.6%	(3)
A_50000AB Occupancy & Infrastructure	5,639,309	11,340,226	16,979,535	5,999,040	12,032,768	18,031,808	1,052,273	6.2%	(4), (5)
A_52000AB Equipment, Vehicles, Technology	1,175,515	3,301,033	4,476,548	1,157,143	3,129,063	4,286,206	(190,342)	(4.3%)	(5)
A_56000AB Partnership, Rebate, Exemption	10,000	4,000,000	4,010,000	10,000	2,000,000	2,010,000	(2,000,000)	(49.9%)	(6)
A_75100AC Transfers To Funds	19,786,216	20,962,502	40,748,718	20,698,763	17,539,843	38,238,606	(2,510,112)	(6.2%)	(7)
A_60000AC Allocation Between Departments	629,912	862,801	1,492,713	610,620	913,076	1,523,696	30,983	2.1%	(8)
A_60260AC Allocation Within Departments	4,164,914	6,503,657	10,668,571	4,204,379	6,664,250	10,868,629	200,058	1.9%	(8)
Gross Expenditure Subtotal	41,714,506	69,340,712	111,055,217	42,923,714	65,453,253	108,376,967	(2,678,250)	(2.4%)	
A_30000AB Taxation	(45,920,957)	(77,020,694)	(122,941,651)	(46,656,372)	(78,744,319)	(125,400,691)	(2,459,040)	2.0%	
A_32400AB By-Law Charges & Sales	(12,000)	(1,409,278)	(1,421,278)	(12,000)	(1,505,443)	(1,517,443)	(96,165)	6.8%	
A_34950AB Other Revenue	(367,663)	(2,074,294)	(2,441,957)	(339,663)	(1,066,894)	(1,406,557)	1,035,400	(42.4%)	(6)
A_75000AC Transfers From Funds	-	-	-	(30,950)	(92,900)	(123,850)	(123,850)	-	(9)
Gross Revenue Subtotal	(46,300,620)	(80,504,266)	(126,804,886)	(47,038,985)	(81,409,556)	(128,448,541)	(1,643,655)	1.3%	
Net Expenditure (revenue) before indirect	(4,586,114)	(11,163,555)	(15,749,669)	(4,115,271)	(15,956,303)	(20,071,574)	(4,321,905)	27.4%	
allocations	(4,300,114)	(11,103,333)	(13,743,003)	(4,113,271)	(13,330,303)	(20,071,374)	(4,321,903)	21.470	
A_70000AC Indirect Allocation	1,942,566	2,879,953	4,822,519	1,766,598	3,205,914	4,972,512	149,993	3.1%	
A_70200AC Capital Financing Allocation	2,643,548	8,283,602	10,927,150	2,348,673	12,750,389	15,099,062	4,171,912	38.2%	(7)
Allocation Subtotal	4,586,114	11,163,555	15,749,669	4,115,271	15,956,303	20,071,574	4,321,905	27.4%	
Net Expenditure (revenue) after indirect	0	•	•			0	0	0	
allocations	U	U	v	U	U	U	U	U	

Notes

- (1) Includes compensation pressure for existing water/wastewater staff complement of \$0.1M less mitigation impacts of student positon deferrals, waterfestival/wagon deferral and salary gapping totaling \$(0.5M).
- (2) Includes external legal pressure of \$0.3M less impacts by waterfestival/wagon deferral \$(0.1M).
- (3) Includes pressures related to chemicals of \$0.5M and Bio-solid of \$0.2M.
- (4) Includes pressures related to utilities of \$0.8M and property taxes of \$0.3M less utilities rebate of \$(0.4M).
- (5) Includes decrease in R&M of \$(0.2M).
- (6) Includes 1/2 deferral of the 2021 CSO funding of \$(2M). Corresponding decrease in Development Charge revenue of \$1M.
- (7) Includes base capital financing increase of \$0.5M, enhanced capital financing of \$1.2M and impacts of SNF WWTP with net impact of \$0.
- (8) Includes pressure related to business support/department allocation (i.e., self supported operations) of \$0.2M.
- (9) Safe Restart Funding of \$0.1M to offset COVID-19 related expenditures.