Water/Wastewater Budget

In 2011, a ten-year Water and Wastewater Financial Plan was approved by Council which recommended an annual rate increase of 7.4% to achieve financial sustainability. In 2017, the recommended 7.4% increase was approved, and this same increase is recommended for 2018.

The City has three main components to the water and wastewater billing structure that fund Water/Wastewater expenditures:

**Variable Water Rate**: The City establishes a per cubic metre rate for water. All water customers pay the same amount for every cubic metre (1,000 litres of water used). Since a customer only pays for the volume of water they use, this portion of the rate is referred to as the variable water rate.

**Fixed Water Charge**: Water budgets contain fixed costs that do not change in direct proportion to water consumption. The cost to treat and distribute municipal water remains relatively constant, regardless of the volume actually consumed by residents. The fixed water charge provides the City with a stable source of annual funding to offset these fixed costs. The fixed water charge is set for a residential meter (5/8 and 3/4 inch meter) and is increased for each larger size meter in accordance with the ratios established by the American Water Works Association.

**Wastewater Surcharge**: The wastewater surcharge is a percentage and is applied to total water charges (variable and fixed) as there are no meters to measure the outflows of wastewater.

This rate structure is consistent with most Ontario municipalities.

The Water and Wastewater user fee rates are calculated on the projected consumption for the upcoming year. Consistent with similar trends across the province, consumption of water has been decreasing for a number of years. This decline can be attributed to many factors, including:

- Conservation of water through education and technology such as water saving devices.
- Customers using less water in response to increased prices.

Although this reduction in consumption has delayed the need for costly capital infrastructure expansions, it has put upward pressure on the water and wastewater user fee rates in recent years.

Typical Water/Wastewater Charges (200 Cu M/year)
Water/Wastewater Rates

The City of Greater Sudbury is dedicated to the supply and delivery of high quality potable water and the effective collection and treatment of wastewater to meet the current and future needs of our community. As one of our most precious resources, the City is committed to working with our residents and partners to protect water in all of its forms.

Water/Wastewater operates in a highly regulated framework of federal, provincial and municipal regulations, standards and policies. The operation is guided by financial and tactical strategic plans, with an updated Asset Management and Master Plan currently in development.

Water and wastewater budgets contain fixed costs that do not change in direct proportion to water consumption. The cost to distribute, collect and treat municipal water and wastewater throughout the city remains relatively constant, regardless of the volume actually consumed by all residents.

Operational expenses are affected by rising energy prices, chemical prices and many other factors outside the control of the municipality.

The City of Greater Sudbury is responsible for 1,700 kilometres of water and wastewater mains, that’s more than the distance to Winnipeg. A total of 12 treatment facilities, much higher than the provincial average, were constructed to meet the needs of individual communities prior to amalgamation. These also require funds for operations and maintenance. The older this infrastructure becomes, the more costly it is to operate, maintain and replace.

The Province of Ontario requires that all municipalities collect the full cost of water and wastewater services directly from end users. City Council adopted a user pay system in 2001 and charges that were previously rolled into municipal property taxes are billed directly to customers.

The City of Greater Sudbury understands the effect of rate increases on households. Water/Wastewater operations are under constant review to improve efficiencies wherever possible.

Water/Wastewater operates five areas:

1. **Water Treatment**: Responsible for the operation and maintenance of water treatment plants, supply wells, booster stations, residential and bulk fill stations, and storage tanks/reservoir.

2. **Wastewater Treatment**: Responsible for the operation and maintenance of wastewater treatment facilities, sewage lift stations, sludge and hauled liquid waste receiving.

3. **Distribution and Collection**: Responsible for the operation and maintenance of underground infrastructure, including water mains, water system valves, fire hydrants, pressure regulating stations, sewer mains, rock tunnel, and manholes.

4. **Compliance and Operational Support**: Responsible for water metering, regulatory compliance sampling and monitoring, data management, technical computer system integration and planning, maintenance planning, quality management systems, drinking water source protection, and wastewater source control program implementation.

5. **Capital Engineering and Administration**: Responsible for oversight, strategic planning, administrative coordination as well as long-range planning of Water and Wastewater facilities and linear infrastructure, and capital renewal and replacement of existing infrastructure assets.

**Water/Wastewater Revenues (000’s)**

- **Fire Protection Levy**: $3,785 (4.8%)
- **Other Revenues**: $2,602 (3.3%)
- **Water Revenue**: $35,486 (44.6%)
- **Wastewater Revenue**: $37,602 (47.3%)
## Water/Wastewater

### Actual vs. Budget:

<table>
<thead>
<tr>
<th></th>
<th>2015 Actuals</th>
<th>2016 Actuals</th>
<th>2017 Projected Actuals</th>
<th>2017 Budget</th>
<th>2018 Budget</th>
<th>Dollar Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levies</td>
<td>(229,969)</td>
<td>(229,162)</td>
<td>(59,489)</td>
<td>(58,908)</td>
<td>(41,647)</td>
<td>17,261</td>
<td>-29.3%</td>
</tr>
<tr>
<td>User Fees</td>
<td>(59,860,905)</td>
<td>(64,408,361)</td>
<td>(67,927,437)</td>
<td>(69,519,030)</td>
<td>(74,456,286)</td>
<td>(4,937,256)</td>
<td>7.1%</td>
</tr>
<tr>
<td>Contr from Reserve and Capital</td>
<td>(3,735,798)</td>
<td>(233,267)</td>
<td>(1,260,768)</td>
<td>(445,345)</td>
<td>(377,317)</td>
<td>68,028</td>
<td>-15.3%</td>
</tr>
<tr>
<td>Other Revenues</td>
<td>(628,940)</td>
<td>(975,680)</td>
<td>(871,431)</td>
<td>(517,100)</td>
<td>(814,600)</td>
<td>(297,500)</td>
<td>57.5%</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td>(64,455,612)</td>
<td>(65,846,470)</td>
<td>(70,119,125)</td>
<td>(70,540,383)</td>
<td>(75,689,850)</td>
<td>(5,149,467)</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017 Actuals</th>
<th>2018 Budget</th>
<th>Dollar Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Benefits</td>
<td>12,374,564</td>
<td>13,693,976</td>
<td>14,072,608</td>
<td>378,632</td>
</tr>
<tr>
<td>Materials - Operating Expenses</td>
<td>3,465,737</td>
<td>4,877,735</td>
<td>4,933,511</td>
<td>55,776</td>
</tr>
<tr>
<td>Energy Costs</td>
<td>4,284,666</td>
<td>4,507,295</td>
<td>4,753,352</td>
<td>246,057</td>
</tr>
<tr>
<td>Rent and Financial Expenses</td>
<td>-</td>
<td>24,260</td>
<td>63,077</td>
<td>38,817</td>
</tr>
<tr>
<td>Purchased/Contract Services</td>
<td>12,699,951</td>
<td>11,249,293</td>
<td>169,574</td>
<td>1.5%</td>
</tr>
<tr>
<td>Debt Repayment</td>
<td>2,719,262</td>
<td>4,109,417</td>
<td>(68,028)</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Grants - Transfer Payments</td>
<td>4,034</td>
<td>5,000</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Contr to Reserve and Capital</td>
<td>25,551,165</td>
<td>32,518,779</td>
<td>4,216,054</td>
<td>14.9%</td>
</tr>
<tr>
<td>Internal Recoveries</td>
<td>6,677,233</td>
<td>7,769,813</td>
<td>278,585</td>
<td>3.7%</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>67,776,612</td>
<td>79,474,850</td>
<td>5,315,467</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017 Budget</th>
<th>2018 Budget</th>
<th>Dollar Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Budget</strong></td>
<td>3,321,000</td>
<td>3,785,000</td>
<td>166,000</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

### Staffing Complement

<table>
<thead>
<tr>
<th></th>
<th>2017 Budget</th>
<th>2018 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time Positions</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Part Time Hours</td>
<td>5,163</td>
<td>5,163</td>
</tr>
<tr>
<td>Crew Hours</td>
<td>30,198</td>
<td>30,198</td>
</tr>
</tbody>
</table>
### Analysis of Water/Wastewater Budget Changes – Revenues ($000)

<table>
<thead>
<tr>
<th>Description</th>
<th>2017 Revenue Budget</th>
<th>2018 Revenue Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Water Revenue</td>
<td>2,432</td>
<td>$75,690</td>
</tr>
<tr>
<td>2 Wastewater Revenue</td>
<td>2,381</td>
<td></td>
</tr>
<tr>
<td>3 Contribution from Reserve and Capital</td>
<td>(68)</td>
<td></td>
</tr>
<tr>
<td>4 Other user fees and revenues</td>
<td>405</td>
<td></td>
</tr>
</tbody>
</table>

### Analysis of Water/Wastewater Budget Changes – Expenses ($000)

<table>
<thead>
<tr>
<th>Description</th>
<th>2017 Expense Budget</th>
<th>2018 Expense Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Salaries &amp; Benefits - reflects negotiated wage increases, in range progression and job</td>
<td>379</td>
<td>$79,475</td>
</tr>
<tr>
<td>reclassification and benefits costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Changes to Debt Servicing Costs</td>
<td>(68)</td>
<td></td>
</tr>
<tr>
<td>3 Inflationary and contractual cost increases - materials, purchased services and energy</td>
<td>510</td>
<td></td>
</tr>
<tr>
<td>4 Increased Capital Envelopes to support approved Capital Projects.</td>
<td>4,216</td>
<td></td>
</tr>
<tr>
<td>5 Increased costs allocated from other departments</td>
<td>279</td>
<td></td>
</tr>
</tbody>
</table>

2018 WATER/WASTEWATER

CITY OF GREATER SUDBURY 2018 BUDGET
Water/Wastewater Revenue Sources

On July 1, 2001, the City adopted a fully user-pay basis for water and wastewater services, whereby the full cost would be funded through user fees except for a percentage of costs that relate to fire protection capacity.

Under the City’s current rate structure, customers are charged a fixed monthly service fee (2017: $18.64 residential) that varies based on the size of the water service as well as a variable consumption charge calculated on a per cubic metre basis (2017: $1.484 per cubic metre), with revenues from the fixed charge accounting for approximately 43% of user fee revenues.

In the absence of meters for wastewater outflows, user fees for wastewater are calculated as a percentage of water rates (2017: 112.8%) and as such, incorporate both a fixed and variable component.

**Average Homeowner**

The chart below illustrates the impact of the 2018 rates on a homeowner who uses 200 cubic metres of water per year. The cost increase for 2018 is approximately $6.80 per month for the average homeowner.

<table>
<thead>
<tr>
<th>2018 Water/Wastewater Rate Impact</th>
<th>2017</th>
<th>2018</th>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Usage Charge</td>
<td>296.76</td>
<td>320.40</td>
<td>23.64</td>
<td></td>
</tr>
<tr>
<td>Annual Fixed Service Charge</td>
<td>223.68</td>
<td>238.68</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total Annual Water</strong></td>
<td>520.44</td>
<td>559.08</td>
<td>38.64</td>
<td>7.4%</td>
</tr>
<tr>
<td><strong>Wastewater</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Usage Surcharge</td>
<td>334.75</td>
<td>361.09</td>
<td>26.34</td>
<td></td>
</tr>
<tr>
<td>Annual Fixed Service Surcharge</td>
<td>252.31</td>
<td>268.99</td>
<td>16.68</td>
<td></td>
</tr>
<tr>
<td><strong>Total Annual Wastewater</strong></td>
<td>587.06</td>
<td>630.08</td>
<td>43.02</td>
<td>7.3%</td>
</tr>
<tr>
<td><strong>Total Annual Water/Wastewater Charges</strong></td>
<td>$1,107.50</td>
<td>$1,189.16</td>
<td>$81.66</td>
<td>7.4%</td>
</tr>
</tbody>
</table>
Rate Consumption: Sample Residential Customers

The following chart compares Greater Sudbury’s 2017 Rates to those of other northern Ontario municipalities. The chart uses rates for 2017, as some other cities have not yet determined the rates for 2018.

<table>
<thead>
<tr>
<th></th>
<th>Sudbury</th>
<th>North Bay</th>
<th>Timmins</th>
<th>Sault Ste. Marie</th>
<th>Thunder Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Volume Charge</td>
<td>$297</td>
<td>$254</td>
<td>$0</td>
<td>$143</td>
<td>$321</td>
</tr>
<tr>
<td>Annual Service Charge</td>
<td>$224</td>
<td>$331</td>
<td>$410</td>
<td>$315</td>
<td>$268</td>
</tr>
<tr>
<td><strong>Total Annual Water</strong></td>
<td>$521</td>
<td>$585</td>
<td>$410</td>
<td>$458</td>
<td>$589</td>
</tr>
<tr>
<td><strong>Wastewater</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Volume Charge</td>
<td>$335</td>
<td>$195</td>
<td>$0</td>
<td>$89</td>
<td>$289</td>
</tr>
<tr>
<td>Annual Service Charge</td>
<td>$252</td>
<td>$229</td>
<td>$434</td>
<td>$195</td>
<td>$241</td>
</tr>
<tr>
<td><strong>Total Annual Wastewater</strong></td>
<td>$587</td>
<td>$424</td>
<td>$434</td>
<td>$284</td>
<td>$530</td>
</tr>
<tr>
<td><strong>Total Water/Wastewater</strong></td>
<td>$1,108</td>
<td>$1,009</td>
<td>$844</td>
<td>$742</td>
<td>$1,119</td>
</tr>
</tbody>
</table>

*2017 BMA Study

Water Revenue

<table>
<thead>
<tr>
<th></th>
<th>2017 Budget</th>
<th>2017 Sept Forecast</th>
<th>2018 Budget</th>
<th>Dollar Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Charges</td>
<td>33,053,870</td>
<td>32,527,010</td>
<td>35,486,048</td>
<td>2,432,178</td>
<td>7.4%</td>
</tr>
<tr>
<td>Other user fees</td>
<td>898,671</td>
<td>880,632</td>
<td>925,632</td>
<td>26,961</td>
<td>3.0%</td>
</tr>
<tr>
<td>Contributions from Reserve and Capital</td>
<td>128,102</td>
<td>128,102</td>
<td>101,282</td>
<td>(26,820)</td>
<td>-20.9%</td>
</tr>
<tr>
<td>Other Revenues</td>
<td>138,291</td>
<td>139,943</td>
<td>130,622</td>
<td>(7,669)</td>
<td>-5.5%</td>
</tr>
<tr>
<td><strong>Total Water Revenues</strong></td>
<td>$34,218,934</td>
<td>$33,675,687</td>
<td>$36,643,584</td>
<td>$2,424,650</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

The rate structure for water includes a monthly service charge that varies according to the size of the water meter. The variation in the service charge is based on ratios recommended by the American Water Works Association (AWWA).

The rate structure for water also includes a uniform rate for each cubic metre of water consumed. For water, the uniform rate is applied to all consumption. The impact of the proposed rate increase on the monthly service charge and consumption water rate is shown in the following table.
## Water Rates

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8”</td>
<td>$19.89</td>
</tr>
<tr>
<td>3/4”</td>
<td>$19.89</td>
</tr>
<tr>
<td>1”</td>
<td>$49.72</td>
</tr>
<tr>
<td>1.5”</td>
<td>$99.44</td>
</tr>
<tr>
<td>2”</td>
<td>$159.11</td>
</tr>
<tr>
<td>3”</td>
<td>$318.21</td>
</tr>
<tr>
<td>4”</td>
<td>$497.21</td>
</tr>
<tr>
<td>6”</td>
<td>$994.42</td>
</tr>
<tr>
<td>8”</td>
<td>$1,591.07</td>
</tr>
<tr>
<td>10”</td>
<td>$2,287.16</td>
</tr>
</tbody>
</table>

**Volume Charge per Cubic Metre** $1.602

## Wastewater Revenue

<table>
<thead>
<tr>
<th></th>
<th>2017 Budget</th>
<th>2017 Sept Forecast</th>
<th>2018 Budget</th>
<th>Dollar Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater Charges</td>
<td>35,220,641</td>
<td>34,216,221</td>
<td>37,602,277</td>
<td>2,381,636</td>
<td>6.8%</td>
</tr>
<tr>
<td>Contributions from</td>
<td>317,243</td>
<td>317,243</td>
<td>276,035</td>
<td>(41,208)</td>
<td>-13.0%</td>
</tr>
<tr>
<td>Reserve and Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Revenues</td>
<td>428,116</td>
<td>790,777</td>
<td>716,025</td>
<td>287,909</td>
<td>67.3%</td>
</tr>
</tbody>
</table>

**Total Wastewater Revenues** $35,966,000 $35,324,241 $38,594,337 $2,628,337 7.3%

The wastewater surcharge is a percentage and is applied to total water charges (volume and fixed) as there are no meters to measure the outflows of wastewater. For 2018 the wastewater surcharge is 112.7 % of water charges.
Water/Wastewater

The capital budget for water/wastewater is approximately $37.2 million in 2018, compared to $56 million in 2017. This decrease is the result of:

One-time Clean Water/Wastewater grants of $6.9 received in 2017 funded various watermain and sewermain improvements in our community.

No internal financing of projects in 2018 ($16.7 million in 2017).

Capital envelopes include a higher allocation of approximately $4.2 million due to Council direction for a water/wastewater user fee increase of 7.4% in 2018, in line with the long-term financial plan for this division.
Water/Wastewater

Overview
Water/Wastewater is responsible for all water and wastewater infrastructure assets and operates in a highly regulated framework of federal, provincial and municipal regulations, standards and policies.

Services

Water Treatment:
- Operates and maintains water treatment plants, supply wells, booster stations, residential and bulk fill stations, and storage tanks and reservoirs.

Wastewater Treatment:
- Operates and maintains wastewater treatment facilities, sewage lift stations, sludge and hauled liquid waste receiving.

Distribution and Collection:
- Operates and maintains underground infrastructure, including water mains, water system valves, fire hydrants, pressure regulating stations, sewer mains, rock tunnel, and manholes.

Compliance and Operational Support:
- Responsible for water metering, regulatory compliance sampling and monitoring, data management, technical computer system integration and planning, maintenance planning, quality management systems, drinking water source protection, and wastewater source control program implementation.

Capital Engineering and Administration:
- Responsible for oversight, strategic planning, administrative coordination as well as long-range planning of Water/Wastewater facilities and linear infrastructure, and capital renewal and replacement of existing infrastructure assets.
Water/Wastewater

2017 Accomplishments

- Lined 13 kilometres of water and sewer mains to minimize impacts on traffic, reduce the risks of underground failures and extend the life of the underground infrastructures.
- Completed the Water/Wastewater Master Plan and Asset Management Plan.

Strategic Issues and Opportunities

- The completion of the Water/Wastewater Master Plan provides a more refined strategy to guide the level of investment and priorities for capital investments to enhance water and wastewater system safety, while meeting legislated requirements, improving system performance and efficiency, and supporting community growth.
- The completion of the Asset Management Plan provides a risk-reduction based framework to guide the maintenance, renewal, and replacement of current and future infrastructure assets, enabling refinement of future funding requirements, and proactive preparation to meet future legislative requirements.
- Significant business improvement initiatives through the introduction of improved technology and automation enable the establishment of performance metrics.
- A defined strategy to update water metering technology through a feasibility study will lead to improved operations and service.

Key Deliverables in 2018

- Update the Financial Plan, which recommends funding requirements to achieve fiscally sustainable water and wastewater systems in Greater Sudbury.
- Continue work to reduce the amount of inflow and infiltration into the City’s wastewater collection systems as well as reduce the volume of non-revenue water leakage from the City’s water distribution systems.
- Continue to update the Asset Management Plan with condition assessment information on existing assets.

Key Performance Indicators

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Measure Category</th>
<th>CGS Result</th>
<th>Median Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost of Wastewater Collection/Conveyance and Treatment/Disposal per Megalitre Treated</td>
<td>Efficiency</td>
<td>$1,084</td>
<td>$927</td>
</tr>
<tr>
<td>Number of Water Main Breaks per 100 km (excluding connections) of Water Distribution Pipe</td>
<td>Customer Service</td>
<td>8.3</td>
<td>7.7</td>
</tr>
</tbody>
</table>
## Water Summary

### CATEGORY DESCRIPTION

(For detailed project listing see attached)

<table>
<thead>
<tr>
<th></th>
<th>2018 REQUEST</th>
<th>2019 OUTLOOK</th>
<th>2020 OUTLOOK</th>
<th>2021 OUTLOOK</th>
<th>2022 OUTLOOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Council Approvals</td>
<td>$700,738</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>Water Distribution</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watermain Priority Projects</td>
<td>$9,472,376</td>
<td>$10,173,501</td>
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### Priority Setting:

The Water and Wastewater Capital Budget priorities are primarily determined by the recommendations and framework contained in the Water / Wastewater Infrastructure Master Plan and Asset Management Plan, both recently received by Council.

The Master Plan provides recommendations for the long term infrastructure needs, based on four primary principles: Safety; Efficiency; Regulatory Requirements; and Development.

The Asset Management Plan (AMP) provides a strategic framework to: guide infrastructure decisions; efficiently and effectively allocate resources to meet the City’s desired levels of service in lowest overall lifecycle costs; and identify costs and benefits of infrastructure investment decisions across the organization, all in accordance with best practices. The risk assessment incorporated within the AMP utilizes condition and age data, service criticality, socioeconomic, environmental and traffic impacts among others, to determine the priority projects.

The priorities are then allocated within the constraints of the City’s Water / Wastewater Financial Plan.
### Water Detail

<table>
<thead>
<tr>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT TYPE</th>
<th>2018 REQUEST</th>
<th>2019 OUTLOOK</th>
<th>2020 OUTLOOK</th>
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## Water Detail

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<th>2018 REQUEST</th>
<th>2019 OUTLOOK</th>
<th>2020 OUTLOOK</th>
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### Watermain Replacement / Rehabilitation

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### Distribution System - Other

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### Condition Assessment - Watermains

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### Network Looping

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### TOTAL - Water Distribution

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<tr>
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## Water Detail

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<td>Wanapitei WTP - Intake Pump Replacement</td>
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<td>Master Plan Program / Study Recommendations</td>
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<td>Reservoirs / Tanks / Booster Stations</td>
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## Water Detail

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<th>2019 OUTLOOK</th>
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**PROJECT COSTS**

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**Notes:**

1) Capital Financing Reserve Fund - Water:

| | $2,868,211 |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| Maley Drive Watermain | $1,500,000 | Proposed Federal Government Funding | $1,500,000 |
| Watermain Rehabilitation (Lining) | $943,211 | Proposed Provincial Government Funding | $1,500,000 |
| Depot & Public Work Administrative Upgrades | $425,000 |

2) Lorne Street Funding

| | $1,500,000 |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| Maley Drive Watermain | | Proposed Federal Government Funding | $1,500,000 |
| Watermain Rehabilitation (Lining) | | Proposed Provincial Government Funding | $1,500,000 |
| Depot & Public Work Administrative Upgrades | | | |

---

**Notes:**

1) Capital Financing Reserve Fund - Water: $2,868,211

2) Lorne Street Funding

- Maley Drive Watermain
  - Proposed Federal Government Funding: $1,500,000
- Watermain Rehabilitation (Lining)
  - Proposed Provincial Government Funding: $1,500,000
- Depot & Public Work Administrative Upgrades
  - Proposed Provincial Government Funding: $1,500,000
## Wastewater Summary

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<th>2019 OUTLOOK</th>
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<td>Reserves: Capital</td>
<td>$ (843,921)</td>
<td>$ (1,497,000)</td>
<td>$ (359,735)</td>
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<tr>
<td>Government Grants: Federal and Provincial Funding for Lorne</td>
<td>$ -</td>
<td>$ -</td>
<td>$ (940,000)</td>
<td>$ -</td>
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<tr>
<td><strong>CAPITAL ENVELOPE (W/WW User Fees)</strong></td>
<td>$14,251,033</td>
<td>$14,536,054</td>
<td>$14,826,775</td>
<td>$15,123,311</td>
<td>$15,425,777</td>
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### Priority Setting:

The Water and Wastewater Capital Budget priorities are primarily determined by the recommendations and framework contained in the Water / Wastewater Infrastructure Master Plan and Asset Management Plan, both recently received by Council.

The Master Plan provides recommendations for the long term infrastructure needs, based on four primary principles: Safety; Efficiency; Regulatory Requirements; and Development.

The Asset Management Plan (AMP) provides a strategic framework to: guide infrastructure decisions; efficiently and effectively allocate resources to meet the City’s desired levels of service in lowest overall lifecycle costs; and identify costs and benefits of infrastructure investment decisions across the organization, all in accordance with best practices. The risk assessment incorporated within the AMP utilizes condition and age data, service criticality, socioeconomic, environmental and traffic impacts among others, to determine the priority projects.

The priorities are then allocated within the constraints of the City’s Water / Wastewater Financial Plan.
## Wastewater Detail

### Previous Council Approvals

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Project Type</th>
<th>2018 Request</th>
<th>2019 Outlook</th>
<th>2020 Outlook</th>
<th>2021 Outlook</th>
<th>2022 Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lively Sanitary Sewer Upgrades Jacob St. - Construction</td>
<td>R,E</td>
<td>$1,267,800</td>
<td>$1,785,000</td>
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<tr>
<td>Copper Cliff Wastewater System Upgrades - Construction</td>
<td>N,R,E</td>
<td>$1,000,000</td>
<td>$963,068</td>
<td>$963,068</td>
<td>$963,068</td>
<td>$963,068</td>
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<tr>
<td>Gatchell Outfall Sewer - (Construction) (2019-2020)</td>
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<td>$1,000,000</td>
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**Subtotal Previous Council Approvals**

$5,198,047 $7,328,315 $4,943,315 $2,593,315 $2,593,315

### Wastewater Collection

#### Sewer Priority Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Project Type</th>
<th>2018 Request</th>
<th>2019 Outlook</th>
<th>2020 Outlook</th>
<th>2021 Outlook</th>
<th>2022 Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lorne Street / MR 55 - Detailed Design Engineering &amp; Contract Admin</td>
<td>R</td>
<td>$405,000</td>
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<tr>
<td>Lorne Street / MR 55 - Construction</td>
<td>R</td>
<td></td>
<td>$1,410,000</td>
<td>$250,000</td>
<td>$250,000</td>
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<tr>
<td>Consultant Fees - Various Projects</td>
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<td>$250,000</td>
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<tr>
<td>Attbee Avenue - Gemmell Street to Lasalle Boulevard</td>
<td>R</td>
<td>$200,000</td>
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<tr>
<td>Preliminary Design for Subsequent Years (incl. CCTV &amp; Geotech)</td>
<td>R</td>
<td>$175,000</td>
<td>$175,000</td>
<td>$175,000</td>
<td>$175,000</td>
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<tr>
<td>Various Bridges &amp; Culverts - Sanitary Sewer Work</td>
<td>R</td>
<td>$150,000</td>
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<tr>
<td>Melvin Avenue - Kathleen Street to Mable Street</td>
<td>R</td>
<td>$125,000</td>
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<tr>
<td>Maki Avenue Upgrades - Preliminary Design</td>
<td>R</td>
<td>$125,000</td>
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<tr>
<td>McAllister Avenue - Lasalle Blvd to South End</td>
<td>R</td>
<td>$100,000</td>
<td></td>
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<tr>
<td>Loach's Road - Eden Point Drive to Cerrill Crescent</td>
<td>R</td>
<td>$100,000</td>
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<tr>
<td>Avalon Road - Bancroft Drive to South End</td>
<td>R</td>
<td>$100,000</td>
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<tr>
<td>Leslie Street - Notre Dame Avenue to Murray Street</td>
<td>R</td>
<td>$100,000</td>
<td></td>
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<tr>
<td>Tarmaud Street - Howey Drive to South End</td>
<td>R</td>
<td>$100,000</td>
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<tr>
<td>System Improvements (Development Related)</td>
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<tr>
<td>QA / QC Testing for Linear Works (Various Locations)</td>
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<td>$100,000</td>
<td>$100,000</td>
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<td>$100,000</td>
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<tr>
<td>Fairburn Street - Barrydowne Road to East End</td>
<td>R</td>
<td>$25,000</td>
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<tr>
<td>Dell Street - Morin Avenue to Snowden Avenue</td>
<td>R</td>
<td>$500,000</td>
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<tr>
<td>Dean Avenue - Lorne Street to Jane Street</td>
<td>R</td>
<td>$200,000</td>
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<tr>
<td>Douglas Street Bridge - Sanitary Sewer Work</td>
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<tr>
<td>As-Built Drawings Updates</td>
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<td>$100,000</td>
<td>$100,000</td>
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<tr>
<td>Dean Avenue - Jane Street to Landsend Street</td>
<td>R</td>
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<tr>
<td>Maple Street - Regional Street to Cul-de-sac East of Ethelbert Street</td>
<td>R</td>
<td>$100,000</td>
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<tr>
<td>Maple - Parkwood Street to West End</td>
<td>R</td>
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<tr>
<td>Maple Street - Ethelbert Street to East End</td>
<td>R</td>
<td>$50,000</td>
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<tr>
<td>Stanley Street - Ash Street to Pine Street</td>
<td>R</td>
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<tr>
<td>Lively Sanitary Sewer Phase 2</td>
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<tr>
<td>Various Sewer with Watermain &amp; Roads Priority Projects</td>
<td>R</td>
<td>$2,922,465</td>
<td>$1,232,421</td>
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<tr>
<td>Ethelbert Street - Spruce Street to Linden Street</td>
<td>N,R</td>
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<tr>
<td>Notre Dame Avenue - Wilma to 0.6km North of Cambri Heights Drive</td>
<td>R</td>
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<tr>
<td>Contingency - Sewer with Watermain Priority Projects</td>
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<td>$60,486</td>
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**Subtotal - Sewer Priority Projects**

$2,215,486 $1,772,440 $4,235,000 $5,580,887 $5,857,421

### Sewer System Rehabilitation
### Wastewater Detail

<table>
<thead>
<tr>
<th>PROJECT DESCRIPTION</th>
<th>PROJECT TYPE</th>
<th>R (Renewal)</th>
<th>E (Expansion)</th>
<th>N (New)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitary Sewer System Rehabilitation &amp; Repair (3 Yr Contracts)</td>
<td>N</td>
<td>1,425,000$</td>
<td>$1,525,000</td>
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<tr>
<td>Sanitary Sewer Laterals Rehabilitation</td>
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<tr>
<td>Consultant Services for Rehabilitation Projects (3 Year Contracts)</td>
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<td>100,000$</td>
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<td>$100,000</td>
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<tr>
<td>Rock Tunnel Maintenance &amp; Repair (Contribution to Reserve)</td>
<td>R</td>
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<tr>
<td><strong>SUBTOTAL - Sewer System Rehabilitation</strong></td>
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<td>1,725,000$</td>
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<tr>
<td>Collection System - Other</td>
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<tr>
<td>Collection Support - Contract Support</td>
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<tr>
<td>Rock Tunnel Maintenance &amp; Repair (Contribution to Reserve)</td>
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<tr>
<td><strong>SUBTOTAL - Collection System - Other</strong></td>
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<td>$175,000</td>
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<tr>
<td>Condition Assessment - Sewer System</td>
<td></td>
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<tr>
<td>Sanitary Rock Tunnel Inspections (Contribution to Reserve)</td>
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<td><strong>SUBTOTAL - Condition Assessment - Sewer System</strong></td>
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<tr>
<td>Wastewater Plants</td>
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<tr>
<td>Plants - Lift Stations</td>
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<td>Lift Station Upgrades / Standby Power - Various Locations</td>
<td>N</td>
<td>450,000$</td>
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<td>Annual SCADA/Communication Upgrades</td>
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<td>Condition Assessment</td>
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<td>Lagoon Upgrades</td>
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<tr>
<td>Operating Manuals &amp; Facility As-Built Updates</td>
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<td>Roofing &amp; Fencing</td>
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<tr>
<td>Security Improvements</td>
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<tr>
<td>Health &amp; Safety Inspections and Upgrades</td>
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<td><strong>SUBTOTAL - Plants - System Wide</strong></td>
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<tr>
<td>Wastewater Treatment Plants</td>
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<tr>
<td>Sudbury WWTP - Blower</td>
<td>R</td>
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<tr>
<td>Copper Cliff Sewage Treatment Plant - Capital Contribution to Vale</td>
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<td>85,000$</td>
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<tr>
<td>(Contribution to Reserve)</td>
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<tr>
<td>Sudbury WWTP Equipment Upgrades - Tank Cleaning, Equipment Failure</td>
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<td>668,000$</td>
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<td><strong>SUBTOTAL - Wastewater Treatment Plants</strong></td>
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<tr>
<td>Wastewater - Strategic Initiatives</td>
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<tr>
<td>Master Plan Program / Study Recommendations</td>
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<tr>
<td>Sewer Inspection &amp; Maintenance Program</td>
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<tr>
<td>Locates - Contribution to Operating</td>
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<tr>
<td>Depot &amp; Public Work Administrative Upgrades</td>
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<tr>
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<tr>
<td>GIS - Various Equipment &amp; Software</td>
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<tr>
<td>Benchmarking (Contribution to Operating)</td>
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<tr>
<td>Public Awareness (Contribution to Operating)</td>
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