Service: Water

$1.43

Cost per day for the average residential rate payer (2020 to 2023) using 200 m³ of water per year with 16 mm connection.

Who we are:
- The City operates, sustains, expands and improves the waterworks infrastructure to efficiently deliver high quality and reliable drinking water to residential, commercial, industrial and institutional customers.
- This service is responsible for water infrastructure planning, engineering and design functions, the operation and maintenance of the water distribution system along with managing the billing system for water, wastewater and stormwater.

What we do:
- The provision of safe, reliable potable water services contributes to the health of the City's residents, the protection of property through fire suppression activities and economic activity by ensuring sufficient water supply for commercial, industrial and institutional customers.
Why we do it:

- **Mandatory** - The provision of drinking water is critical to ensuring the public health and safety of residents as well as contributing towards economic activity in the community. All major urban Ontario municipalities are responsible for drinking water systems and must conform to the requirements of all applicable legislation and regulations including the Safe Drinking Water Act, and its related regulations, most notably Ontario Regulation 188/07: Licensing of Municipal Drinking Water Systems, Ontario Regulation 169/03: Water Quality Standards, Ontario Regulation 170/03: Drinking Water Systems and Ontario Regulation 128/04: Certification of Drinking Water System Operators and Water Quality Analysts.

The following table provides an overview of the budget for this service:

<table>
<thead>
<tr>
<th>Budget Summary ($000’s)</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2020 to 2023 TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Operating Expenditures</td>
<td>$84,739</td>
<td>$87,488</td>
<td>$90,530</td>
<td>$93,695</td>
<td>$356,452</td>
</tr>
<tr>
<td>Other Revenues</td>
<td>$84,739</td>
<td>$87,488</td>
<td>$90,530</td>
<td>$93,695</td>
<td>$356,452</td>
</tr>
<tr>
<td><strong>Net Tax Levy Supported Operating Budget</strong></td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Total Capital Expenditures</td>
<td>$45,705</td>
<td>$39,727</td>
<td>$34,654</td>
<td>$84,508</td>
<td>$204,594</td>
</tr>
<tr>
<td>Full-Time Equivalents (FTE’s)</td>
<td>109.0</td>
<td>109.0</td>
<td>109.0</td>
<td>109.0</td>
<td>N/A</td>
</tr>
</tbody>
</table>


The following section provides an overview of the key activities the service plans to undertake from 2020 to 2023 to implement the Corporation's 2019 to 2023 Strategic Plan, as well as an overview of the risks and challenges the service is anticipated to experience during this period:

**Service Highlights 2020 to 2023**

- **Computerized Maintenance Management System** – The recently rolled out Computerized Maintenance Management System (Cityworks) work order software will be implemented and integrated into daily tasks, to optimize staff efficiencies while documenting operational and maintenance activities.

- **Downtown Leak Detection** – The Downtown Leak Detection program will continue to utilize, enhance, and expand upon leak detection and condition assessment technologies and programs, such as the Downtown Leak Detection monitoring program, in-pipe condition assessments, fibre optic acoustic monitoring.
Training and Education – The City’s ongoing training and education program will continue to provide Water Operations staff with mandated training, continuing education and skill-development to maintain their certification levels, and ensure compliance with regulatory requirements such as the accredited Operating Authority for London’s Drinking Water System.

New Reservoir – Springbank Reservoir #2 is nearing the end of its useful life and also requires expansion to maintain security of supply. Design of this work is scheduled to begin in 2020 with construction beginning in 2023. This is a critical project for the Water System and will be the largest project undertaken by the Water Service Area in over ten years.

Arva Huron Pipeline - The environmental assessment on the Arva Huron Pipeline will be completed over the Multi-Year Budget period. The Arva Huron Pipeline is the most critical supply of water into the City of London. The watermain is aging and has shown signs of stress including a major repair that was required in 2017. Work to replace and relocate the pipeline’s most critical chamber is scheduled to begin in 2020.

Rapid Transit Coordination - Over the Multi-Year Budget period the Infrastructure Renewal program will be coordinated with the Rapid Transit program to support the renewal of infrastructure nearing or at the end of life along Rapid Transit corridor.

Risks and Challenges Anticipated in 2020 to 2023

- The Fibre Optic Acoustic Monitoring Program actively monitors several of the City’s most critical watermains. In the event that the system identifies a problem, City staff will act quickly to rectify the issue before a catastrophic failure occurs. As the scope and magnitude of these repairs are hard to predict or quantify, there is a financial risk related to addressing these repairs. It should be noted that addressing these repairs has a much lower financial and social cost than dealing with a major watermain break.

- The Condition Assessment Investigative Program uses non-invasive technologies to find deficiencies in steel and concrete watermains. If a problem is identified, City staff will act quickly to rectify the issue before a failure occurs. As the scope and magnitude of these repairs are hard to predict or quantify, there is a financial risk related to addressing these repairs. Addressing these repairs has a much lower financial and social cost than dealing with a watermain break.

- As key water operations staff are nearing retirement, the training of junior staff will need to be accelerated. Through training and mentoring, junior staff will be provided the opportunities to gain the knowledge, skills, and abilities to fill senior operator roles. Operations staff must be fully qualified and appropriately certified in accordance with Safe Drinking Water Act requirements and continue to fulfill the City’s Drinking Water Quality Management Standards - Operational Plan.
• There is uncertainty inherent in any forecast of future water demand revenue. Unpredictable events such as weather patterns or the operations of industrial plants can have a significant impact on demand and ultimately the total water rate revenues.
• Unforeseen changes in legislation or regulations, including those specifically related to construction of watermains or health and safety can have a financial impact on the capital and operational work of the Water Service Area.
• A colder than normal winter can freeze water services and lead to an increased number of watermain breaks both impacting customers and increasing operational and repair costs.

Other reference information and links:
• Civic Works Committee, June 18, 2019, Long Term Water Storage Options (Reservoir Expansion) Municipal Class Environmental Assessment Notice of Completion
• 2021 Development Charges Background Study Update
• Water Service Area Financial Plan
• Backflow Prevention and Monitoring Program
• Water By-law W8
• Infrastructure Renewal Projects

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