



Date: 2021-05-05

From: Steven Dollmaier, Director of Operations

Subject: Comprehensive Water and Wastewater Master Plan

Report: OPS2021-21

Recommendation

That report OPS2021-21 Comprehensive Water and Wastewater Master Plan be received; and

That GSS Engineering Consultants Ltd. be retained, at the cost of \$167,800.00 excluding HST to prepare a Comprehensive Water and Wastewater Master Plan for the Township of Georgian Bluffs.

Background

The objective of the Comprehensive Water and Wastewater Master Plan is to develop a comprehensive plan that will incorporate all facets of the management, expansion and future funding of water, wastewater, and storm systems for the East Linton Settlement Area. This process will involve an assessment of existing servicing infrastructure to identify necessary upgrades and future servicing priorities.

The intent of creating the Comprehensive Water and Wastewater Master Plan is to provide a blueprint for continued success in delivering safe, reliable, and cost-efficient drinking water and wastewater services. A key driver of the Plan is the need to prepare for long-term growth in the Township, while continuously improving service delivery.

Thus, the Master Plan will accomplish two key objectives:

- Develop a cost-effective, resilient water and wastewater infrastructure plan to service future growth to 2032 and beyond; and
- Develop an integrated, long-term strategy to provide sustainable water and wastewater services.

Analysis

The Township advertised a Request for Proposals from engineering consultants to prepare a comprehensive Water and Wastewater Master Plan (Master Plan) focusing on the study areas, as defined and mapped in Appendix A to this report.

The objectives of the Master Plan are to:

- Employ current standards to determine system hydraulics, system capacities, water treatment capacities, water availability, and water quality;
- Determine a recommended servicing strategy that will provide the following over a range of planning horizons (near to long term):
 - Expand the serviced area to include unserved and undeveloped lands, particularly in the East Linton/Cobble Beach Area, thereby creating the opportunity for development growth;
 - Allow the addition of new water network users to reduce per capital operating costs for all users in the most cost-effective way. It is expected that a comprehensive range of alternatives shall be considered to determine the best possible solution;
- Create a Township GIS asset database for linear infrastructure and appurtenances, ensure that it is consistent and compatible with the financial asset management inventory (Public Sector Digest CityWide);
- Ensure completeness of the Township's existing tabular asset inventory of the water and wastewater treatment plant components;
- Construct an accurate water and wastewater network model for use in assessing future subdivision and development impacts on the East Linton Water and Wastewater System infrastructure;
- Review existing infrastructure condition and performance and ability to accommodate the area's projected growth rates and economic analysis parameters for both a 10-year and 25-year horizon; and
- Identify any new capital projects that may be required to support the above objectives and provide costs and possible impacts on user fees.

The Master Plan will provide the Township of Georgian Bluffs with strategies to manage infrastructure improvements and growth in the most effective and efficient manner. The study will also identify the individual projects required to complement these strategies, and prioritize projects based on need and required timing.

This Master Plan will develop the policy and strategy framework for water and wastewater servicing and define a blueprint for future capital projects to support growth.

The master planning process fulfills Phases 1 and 2 of the Municipal Class Environmental Assessment (MCEA) in identifying the need and justification for recommended projects and programs. The process includes consultations with the public and key stakeholders to receive feedback that will help shape the Master Plan.

Plan for Resilient and Robust Water and Wastewater Services

Resilient communities and robust services are key priorities established by the Province in the Growth Plan and Asset Management Regulations for Municipal Infrastructure, which incorporates planning through a climate lens. Master planning provides an opportunity to integrate:

- New infrastructure to support growth,
- Asset renewal needs informed by condition assessments, and
- Considerations for infrastructure resilience to manage the impact of climate change in alignment with the Township's Climate Action Plan (currently under development by the Climate Action Committee).

Underpinning and influencing these evolving needs are changes in regulatory requirements that affect servicing. Staff recognize the importance of remaining adaptive to regulatory changes. Potential changes in the near-to medium-term include amendments to provincial policy that could impact population and employment forecasts, and updates to drinking water quality guidelines through scientific advances. The Master Plan will ensure that infrastructure planning remains responsive to ongoing regulatory changes by continuing to work closely with regulators.

Financial Impact

Costs to prepare the Master Plan will be funded from the East Linton Water Reserves. The Master Plan will be carried out in conjunction with the Municipal Comprehensive Review (Official Plan Review and Update). Additionally, a fiscal impact analysis will be completed, to plan for growth and associated servicing alternatives.

It is expected that the long-term infrastructure plan for the preferred servicing strategy will be finalized in the second or third quarter of 2022.

As part of the Master Plan process, capital and life cycle costs of water and wastewater infrastructure required to support growth, will be identified. This work will create a fiscal impact analysis to assess cost implications of future growth.

Strategic Priorities

Demonstrate and Enhance Environmental Stewardship

The Township of Georgian Bluffs strives to become a leader in Environmental Stewardship by reducing energy consumption, reducing solid waste, increasing diversion rates of recyclable materials, and lessening the environmental impact of existing and future infrastructure through innovation and upgrading.

3.1 Manage drinking and storm water.

- (a) Operate drinking water systems to maintain a high standard of public health and safety, protect the environment and ensure long term sustainability.
- (b) Investigate opportunities to extend water service to supply areas in need of potable water and increase users to ensure water systems are sustainable and economical.
- (c) Re-evaluate the current water billing model to ensure a fair equitable system that recognizes payment for all water used to promote water conservation.

Conclusion

The creation of a Comprehensive Water and Wastewater Master Plan supports the Township's Municipal Comprehensive Review process to update the Township's Official Plan in alignment with the provincial policies.

The Master Plan Update will follow the principles of integration, infra-stretching, and innovation to guide its decision-making process. Completion of the Master Plan is anticipated to be complete in the second or third quarter of 2022.

Supporting Documentation

Schedule A – Master Plan – Study Location
Schedule B – RFP 2021 Master Servicing Plan

Respectfully Submitted: Steven Dollmaier, Director of Operations

Report Approval Details

Document Title:	OPS2021-21 Comprehensive Water and Wastewater Master Plan.docx
Attachments:	<ul style="list-style-type: none">- Master Plan - Study Location.pdf- RFP 2021-01 - Master Servicing Plan.pdf
Final Approval Date:	Apr 26, 2021

This report and all of its attachments were approved and signed as outlined below:

Jenn Burnett, Senior Planner

Tim Lewis, Chief Building Official / By-law Enforcement Officer

Kassandra Rocca, Director of Finance / Treasurer

Janet Hilts, HR Manager

Brittany Drury, Clerk

Al Meneses, Chief Administrative Officer