

Municipality of South Huron Water and Wastewater Master Plan Special Council Meeting

February 24, 2025

AGENDA

- 1 What is Driving the Master Plan?
- 2 What are the Inputs into the Master Plan?
- 3 Where do the Projects Come From?
- 4 What Does the Master Plan Inform?





GEI Presentation of February 3, 2025

What is Driving the South Huron Water and Wastewater Master Plan?



Responsible	Planning for Buildout	Capital Program	Capital Program
Management		Development	Development
 Essential to Revisit Needs Periodically Support Other Needs (Capital Program, Utility Rates, Development Charges, Etc.) Long-Term Plan for a Water Distribution System is a Regulatory Requirement (DWQMS) to Own/ Operate a Drinking Water System 	 Support Responsible Development Supply and Treatment Capacity Flexibility in Servicing Strategy 	 Coordination and Consolidation of Renewal and Growth Needs Long-Term Visioning of System Needs 	 Understanding of Servicing Impacts and Costs Capital Forecast to Service Existing and Support Future Growth



Responsible Management

Revisit Needs Periodically

- Review previous Master Plan. What's complete; what's not; and are recommendations still valid
- Review **new information and reports**, such as: MECP Inspection reports, main break reports, maintenance records, laboratory results, sewage by-pass reports, Asset Management Plan, and Road Condition Study (ie. 2021 SOI Report)
- Review updated Regulations, Best Management Practices, Council direction such as allocating 50% of road restoration costs on reconstruction projects to water & sewer.

Support other needs

- Identify and prioritize projects for annual capital and operating budget and 10-year capital forecast.
- Provide information for Water / Wastewater Rates and Financial Plan
- Identify growth related projects for Development Charges Background Study

Long Term Plan for Water System

• Regulatory requirement to maintain License (DWQMS), renewal in 2026.



Planning For Buildout

Support Responsible Development

- Alignment with Official Plan and Official Plan Update
- Utilize existing infrastructure investments.
- Consider servicing upgrades for lands within existing settlement areas
- Consider long term growth, including allowances for future expansion of existing settlement areas.

Water Supply and Treatment Capacity

- These are expensive, so long-term planning is critical
- Exeter-Hensall pipeline and LHPWSS WTP capacity.
- Exeter WWTF upgrades to access approved capacity
- Long-term plan for replacing Exeter sewage lagoons with Mechanical Treatment Plant.
- Grand Bend STF designed as an expandable plant and includes 20 years of growth.

Flexibility in Servicing Strategy

- Plan so that growth related projects are built when needed or when opportunities arise.
- Partner with others for mutually beneficial projects (ie. Developers and other Municipalities).
- Regulatory requirement to maintain Licence (DWQMS), renewal in 2026.



Capital Program Development

Coordination and Consolidation of Renewal and Growth Needs

- Consider growth in the design of all **street reconstruction projects**.
- Consider growth in other infrastructure upgrades, such as the **watermain replacement** project on Grand Bend Line and treatment plant projects such as the Exeter Sewage Lagoon sand filter rehabilitation project.
- Partner with others, such as Developers and other Municipalities, whenever possible, for **mutually beneficial projects** such as water & sewer oversizing for the CVD Development and Grand Bend Sewage Treatment Plant.

Long-Term Visioning of System Needs

- Road map to follow for planning future projects
- Planning 10-year capital budget forecast
- Long term planning for water supply and wastewater treatment capacity.
- Partner with others for mutually beneficial projects (ie. Developers and other Municipalities).
- Regulatory requirement to maintain Licence (DWQMS), renewal in 2026.



Capital Program Development

Understanding of Servicing Impacts and Costs

- Alignment with Road Condition Study (ie. 2021 SOI Report)
- Alignment with Asset Management Plan and CCTV Inspection ratings for Sewers
- Alignment with Water & Wastewater Rate Study and Financial Plan

Capital Forecast to Service Existing and Support Future Growth

- Annual Operating and Capital Budgets
- 10-year capital forecasts



What are the inputs into the Master Plan?



- W/WW Operational Info Inspection Reports, Operational & Maintenance Records (ie. MECP Inspection Reports, Main break Reports, Hydrant & Valve Maintenance Records, Bacteriological Results, Sewage By-pass Reports, etc.)
- Past W/WW Studies Previous Master Plan, Studies, Environmental Assessments (ie. 2018 Master Plan, Grand Bend Trunk Sewer ESR, Exeter WWTF sand filter assessment report, etc.)
- Planning Studies Official Plan and growth studies (ie. Existing Official Plan, OP Update, potential future growth, development pre-consultations and applications, etc.)
- Asset Management Plan (ie. Condition assessments, CCTV inspections, AMP recommended annual expenditures, etc.)
- Road Condition Study (ie. 2021 SOI Report)



Where do the Projects Come From?



Where do the Projects Come From?

- Approximately <u>60%</u> of the projects are <u>Asset Management related</u> projects that align with the Road Condition Study (2021 SOI Report)
 - 67% of the Exeter Wastewater projects align with the SOI Report
 - 59% of the Exeter Water projects align with the SOI Report
 - 46% of the Stephen Water projects align with the SOI Report

2. Approximately 19% of the projects are Growth related

Many growth-related projects are developer driven, such as the Subdivision watermain looping, Grand Bend Trunk Sewer Extension and Crediton SPS Upgrade.

Other growth-related projects are Municipal driven, such as the future Exeter Water Tower and future Exeter Mechanical Sewage Treatment Plant.

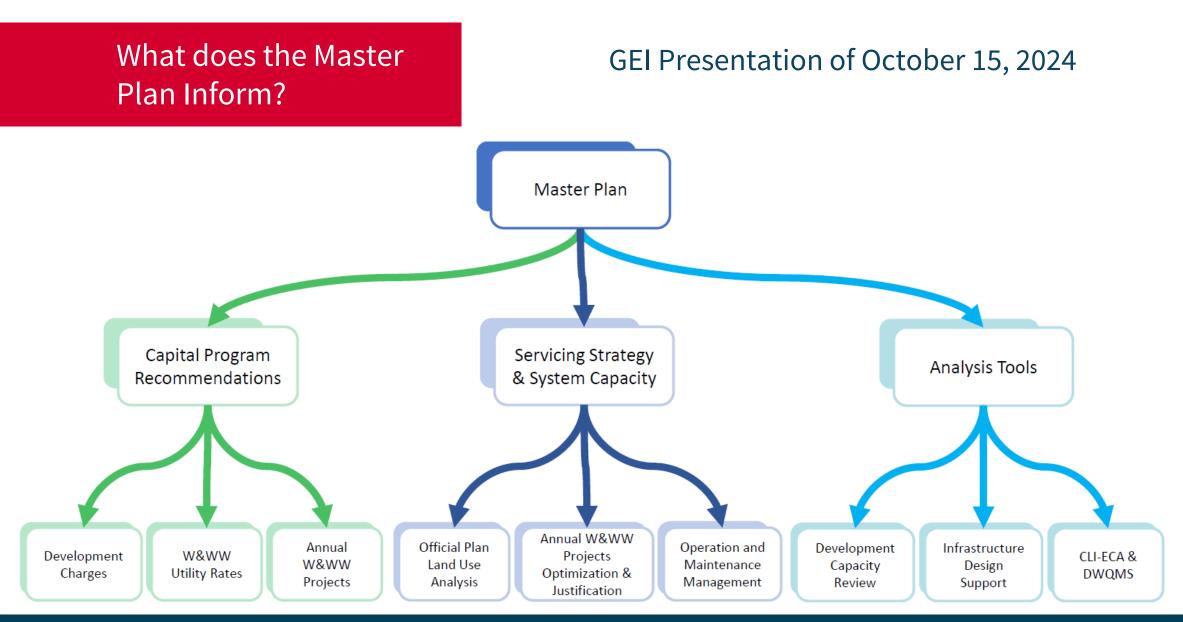
- 3. Approximately <u>18%</u> of the projects are <u>Infrastructure Improvements</u> such as meter replacements, SCADA upgrades, water tower maintenance work, system redundancy, SPS decommissionings, WWTF filters, UV disinfection, and sludge removal
- 4. Approximately <u>7%</u> of the projects are related to improved <u>fire flow</u> and <u>4%</u> of the projects are rural <u>watermain replacement</u> projects.

Regulations (ie. DWQMS, Soil Management Regulation, etc.)



What does the Master Plan Inform?







What does the Master Plan Inform?

- DC Charges Background Study
- ➢ Water / Wastewater Rate Study
- > Water and Wastewater Financial Plan
- > Annual Capital and Operating Budgets
- > 10 Year Capital Budget Forecast
- > Official Plan Update



What does the Master Plan Inform?

- > Operational & Maintenance decisions
- Development Reviews
- Infrastructure Design Support
- > CLI-ECA Applications Review and Approval
- > Drinking Water System License Renewal (DWQMS Requirement)

Grant Funding Applications





