



**TOWN OF WHITCHURCH-STOUFFVILLE**

WATER AND WASTEWATER MASTER PLAN

# **APPENDIX C**

## **Servicing Principles and Policies Paper**



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## LIST OF ABBREVIATIONS

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| Term of Acronym    | Description                                                                 |
|--------------------|-----------------------------------------------------------------------------|
| 2018 Master Plan   | Town of Whitchurch-Stouffville 2018 Water and Wastewater Master Plan        |
| 2024 Master Plan   | Town of Whitchurch-Stouffville 2024 Water and Wastewater Master Plan Update |
| DC                 | Development Charges                                                         |
| EA                 | Environmental Assessment                                                    |
| GM BluePlan        | GM BluePlan Engineering Ltd                                                 |
| MECP               | Ministry of the Environment, Conservation, and Parks                        |
| MMAH               | Ministry of Municipal Affairs and Housing                                   |
| OP                 | Official Plan                                                               |
| ORMCP              | Oak Ridges Moraine Conservation Plan                                        |
| QMS                | Quality Management System                                                   |
| Region             | Region of York                                                              |
| Region Master Plan | Region of York 2022 Water and Wastewater Master Plan                        |
| SPR                | Source Protection Regions                                                   |
| Town               | Town of Whitchurch-Stouffville                                              |

## 1 Introduction

The Town of Whitchurch-Stouffville (Town) retained GM BluePlan Engineering Ltd. (GM BluePlan) to complete the 2024 Water and Wastewater Master Plan Update (2024 Master Plan) which provides a review, development, and evaluation of water and wastewater servicing strategies for the Town to meet growth forecasts to 2051. The purpose of this report is to review the development of water and wastewater policies and guiding principles which are integral in providing direction to the master planning process.

### 1.1 Study Background and Objectives

Providing safe, reliable, and sustainable water and wastewater services is an important matter to the public and to the municipalities in charge of planning, operating and maintaining the municipal water and wastewater systems. Applying reasonable policies is essential to make sure that adequate planning and design principles are followed while developing servicing strategies, implementing the water and wastewater capital programs and system upgrades, as well as in the operation and maintenance of these systems.

Development of the water and wastewater principles and policies have been built on existing documentation and other related sources including:

- Town of Whitchurch-Stouffville 2018 Water and Wastewater Master Plan (2018 Master Plan)
- Town of Whitchurch-Stouffville Official Plan (OP)
- Region of York (Region) Official Plan
- Region of York 2022 Water and Wastewater Master Plan (Region Master Plan)
- Federal and Provincial policies and legislation
- Ministry of Environment, Conservation and Parks (MECP) water and wastewater design guidelines
- Town of Whitchurch-Stouffville Design Guidelines and Standard Drawings
- Municipal By-Laws
- Existing municipal policies and procedures

The objectives of the principles and policies review include, but are not limited to:

- Providing direction for planning and identifying water and wastewater servicing issues that may have an impact to growth options.
- Providing direction for normal operation and maintenance of the water and wastewater systems (the policies do not replace normal operation and maintenance procedures or best practices).
- Providing direction for development of servicing strategies for the Town's 2024 Master Plan.
- Ensuring appropriate design and costing criteria are utilized for developing servicing strategies for the Town's 2024 Master Plan.
- Setting policies that can be reasonably implemented.
- Setting policies that are robust and sustainable.

Although best management practices and criteria are updated over time, the context, intent, and validity of the policies should remain intact.

**"Policy is the overall guiding principle. Criteria is the tactical implementation of policy"**

## 1.2 Approach

The approach in establishing and implementing the water and wastewater policies is as follows:

- Establish overall guiding vision for the 2024 Master Plan as the foundation for related servicing policies.
- Develop general policies as well as separate water and wastewater policies.
- Support York Region in addressing full cycle of water and wastewater servicing issues and program initiatives from the water source to the customer, from the customer to the treated wastewater discharge and final discharge to recipient water body.
- Highlight key criteria and best practices related to each policy.
- Review and discuss principles and policy with the Town.
- Consolidate the general, water and wastewater policies.
- Utilize the policy and guiding principles to guide the development of servicing strategies for the 2024 Master Plan.
- Implement and utilize the policies and principles within the day-to-day decision making for planning and operation of the Town's water and wastewater systems.

## 2 Servicing Principles and Policies

As part of the 2024 Master Plan, specific servicing principles and policies have been developed to guide and provide direction for the development of water and wastewater servicing strategies. In general, the Town is looking to build and maintain efficient, reliable, sustainable and well managed water and wastewater systems that provide high level of service to the public. In order to capture these goals, the servicing principles and policies as outlined below:

- General servicing policies (**Table 2-1**)
- Water servicing policies (**Table 2-2**)
- Wastewater servicing policies (**Table 2-3**)

The above policies address a wide range of servicing needs. These policies have been developed to address current pressing issues such as climate change, wet weather management, energy management, infrastructure optimization, system security and resiliency.

The following tables provide details for each servicing policy category.

**Table 2-1: General Servicing Policies**

| Policy No. | Policy Area                               | Policy Statement                                                                                                                                                                                            | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.01       | Planning and Municipal Servicing Policies | <i>"The Town of Whitchurch-Stouffville shall provide adequate municipal servicing for water and wastewater in accordance with the population and employment projections in the time horizon of the OP."</i> | <ul style="list-style-type: none"> <li>The Town will comply with the development and servicing requirements of the Greenbelt Protection Act and the Places to Grow Act</li> <li>Planning and design of servicing strategies will optimize use of existing infrastructure where possible</li> <li>Infrastructure will be planned and designed in accordance with growth projections in the Town's OP</li> <li>Timing of growth will be reviewed with consideration to a reasonable implementation schedule for infrastructure required to meet the projected growth</li> <li>The Town should endeavor to coordinate with neighboring municipalities and Region as required to facilitate servicing solutions for lands that are best serviced through inter-municipal servicing strategies</li> <li>Municipal servicing will be implemented using typical standards (MECP Design Guidelines, Town of Whitchurch-Stouffville Design Guidelines and Standard Drawings)</li> </ul> |
| G.02       | Environmental Protection                  | <i>"The Town of Whitchurch-Stouffville shall consider, protect and endeavour to minimize impact to the natural, built and cultural environment and heritage of the community."</i>                          | <ul style="list-style-type: none"> <li>Servicing studies shall consider the Region and Town OP Environmental and Heritage Policies as well as the relevant provincial policy documents including Provincial Policy Statement, A Place to Grow, Greenbelt Plan, and the Oak Ridges Moraine Conservation Plan (ORMCP).</li> <li>Services will be planned through the appropriate Environmental Assessment (EA) process to ensure full regard for the natural and cultural heritage.</li> <li>Carry out water and wastewater infrastructure construction activities outside of key ecological periods to minimize damage to the natural environment and wildlife habitat (e.g., construction outside breeding bird season and high runoff periods in spring).</li> </ul>                                                                                                                                                                                                          |
| G.03       | Planning Horizon                          | <i>"The Town of Whitchurch-Stouffville shall ensure that the design of water and wastewater infrastructure recognizes the potential for growth beyond the time horizon of the OP."</i>                      | <ul style="list-style-type: none"> <li>Recognize that the service life of infrastructure may be 30 years or more.</li> <li>Consider, where appropriate, potential for growth beyond the time horizon of the OP for the planning and sizing of infrastructure</li> <li>Evaluate the value of oversizing versus future twinning of services</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Policy No. | Policy Area                     | Policy Statement                                                                                                                                                                                                                                             | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                 |                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Consider: <ul style="list-style-type: none"> <li>Potential ultimate site requirements</li> <li>Potential for phasing implementation and construction</li> <li>Potential need for infrastructure oversizing</li> <li>Overall project life cycle cost</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| G.04       | Reserve Capacity                | <i>"The Town of Whitchurch-Stouffville will endeavor to maintain sufficient reserve capacity in its municipal water and wastewater infrastructure and facilities to provide operational flexibility and meet potential changes in servicing conditions."</i> | <ul style="list-style-type: none"> <li>The Town will ensure appropriate coordination with the Region in regard to regional water and wastewater infrastructure that services the Town</li> <li>Recognize there is a time frame required to implement expansion of the infrastructure and facilities and initiate planning, the EA process, design, and construction for expansion with consideration of the in-service date</li> <li>Consider timing expansions to withstand impacts from: <ul style="list-style-type: none"> <li>Extreme conditions (such as power failures)</li> <li>Equipment shutdowns (planned or unplanned)</li> <li>Fluctuation in growth rates</li> <li>Fluctuating demand criteria</li> <li>Decreasing system and equipment performance</li> </ul> </li> <li>Day to day operation and maintenance of infrastructure and facilities requires flexibility for operating conditions, fluctuating flows, equipment shutdowns, maintenance, emergency operations and other unforeseen conditions</li> <li>Inability to maintain adequate operating capacity will trigger future expansions or upgrades of the infrastructure</li> <li>Additional capacity for infrastructure will consider full capacity and appropriate reserve capacity defined through the Town's design criteria and levels of service</li> </ul> |
| G.05       | System Reliability and Security | <i>"The Town of Whitchurch-Stouffville shall endeavor to provide reliability, resiliency and security in its water and wastewater systems with attention to high risk and critical areas."</i>                                                               | <ul style="list-style-type: none"> <li>Recognize that all systems are susceptible to some level of failure or breakdown or need to be taken out of service for regular maintenance. It is reasonable to provide a level of reliability to ensure an acceptable level of service is maintained</li> <li>System reliability is further defined through design criteria</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Policy No. | Policy Area                                   | Policy Statement                                                                                                                                                                                                                                                                                        | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.06       | Location of Municipal Services and Facilities | <i>"The Town of Whitchurch-Stouffville shall endeavor to locate all of its services and facilities on public property or on municipally-owned easements."</i>                                                                                                                                           | <ul style="list-style-type: none"> <li>The Town will optimize new and existing infrastructure within the Town rights-of-way, or on Town-owned property (including designated lots and easements)</li> <li>Adequate property size will be maintained to facilitate all day-to-day activities and emergency response</li> <li>Where feasible, property is to be sized to allow for future expansion and/or end-of-life replacement while maintaining customer service with original asset</li> <li>The Town will comply with the development and servicing requirements of the Provincial Policy Statement, York Region Official Plan and Town Official Plan</li> </ul> |
| G.07       | Municipal Servicing                           | <i>"The Town of Whitchurch-Stouffville shall provide municipal water and wastewater servicing to accommodate growth within the existing and future approved service areas."</i>                                                                                                                         | <ul style="list-style-type: none"> <li>Provide municipal servicing to support urban intensification</li> <li>Consider economic and technical servicing viability of supporting growth with local rural supply or with extension of lake-based supply if no existing infrastructure is available at the appropriate time.</li> <li>Areas currently serviced by private water and wastewater systems will be limited to the ability to service growth using private systems</li> </ul>                                                                                                                                                                                  |
| G.08       | Climate Change                                | <i>"The Town of Whitchurch-Stouffville shall maximize the use of existing municipal and private systems, and consider the potential impact of climate change and ensure that it helps guide the planning and sizing of infrastructure, in line with the Town's Sustainable Development Guidelines."</i> | <ul style="list-style-type: none"> <li>Water and wastewater infrastructure and facilities will be designed with consideration to the potential impacts to and from climate change</li> <li>The MECP "Climate Ready: Adoption Strategy and Action Plan" will provide direction to the Town's climate change initiatives</li> <li>Restore natural/grassed areas back to original or enhanced natural conditions post-construction</li> </ul>                                                                                                                                                                                                                            |
| G.09       | Energy Efficiency and Optimization            | <i>"The Town of Whitchurch-Stouffville shall implement best practices and standards to ensure system efficiency and optimization through infrastructure planning, design, operation and maintenance."</i>                                                                                               | <ul style="list-style-type: none"> <li>All aspects of planning, design, operation, and maintenance should consider efficiency and optimization</li> <li>Where applicable, implementation of energy-efficient component and/or practices and their impact on the full life-cycle costing should be evaluation</li> <li>Maintenance management systems should be developed to ensure that equipment is properly maintained and operating efficiently</li> </ul>                                                                                                                                                                                                         |

| Policy No. | Policy Area                       | Policy Statement                                                                                                                                                                                                                                           | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                   |                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Facilities will be planned and designed with consideration to minimize overall lifecycle costs, including capital and operating/maintenance costs</li> <li>Attention to energy use will provide significant opportunity to optimize lifecycle costs</li> <li>Passive gravity infrastructure strategies should be considered and supported where viable to minimize energy usage and improve general reliability (i.e.: water storage vs pumping and gravity sewers vs pumping)</li> </ul>                    |
| G.10       | Integrated Infrastructure Program | <i>"The Town of Whitchurch-Stouffville shall coordinate and integrate the Master Plan with Town, Regional and Provincial planning, programs, and policies where appropriate."</i>                                                                          | <ul style="list-style-type: none"> <li>Coordination and integration will ensure servicing policies and strategies are aligned</li> <li>Key initiatives for integration include the Region Master Plan and Town of Whitchurch-Stouffville Transportation Master Plan</li> </ul>                                                                                                                                                                                                                                                                      |
| G.11       | Level of Service                  | <i>"The Town of Whitchurch-Stouffville shall outline the Level of Service Objectives through the Master Plan and endeavor to meet/exceed the minimum requirements as outlined in the objectives."</i>                                                      | <ul style="list-style-type: none"> <li>The Town will review and evaluate strategies developed through the Master Plan based on their ability to meet requirements outlined in the Level of Service Objectives</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| G.12       | Region and Town Collaboration     | <i>"The Town of Whitchurch-Stouffville and Region of York will endeavour to maintain consistent criteria, standards and policy with respect to approach and level of service for planning and design the water and wastewater systems to meet growth."</i> | <ul style="list-style-type: none"> <li>Region has responsibility to plan, build, operate and maintain the trunk water and wastewater systems including major facilities while the Town of Whitchurch-Stouffville plans, builds, operates and maintains the local distribution and collection systems</li> <li>Consideration should be given to both Region of York and Town design criteria in the planning of water and wastewater infrastructure</li> <li>The trunk and local systems are integrated and should be planned accordingly</li> </ul> |
| G.13       | Sustainability                    | <i>"The Town of Whitchurch-Stouffville will endeavour to undertake sustainable planning, designing, operation and maintenance of the water and wastewater systems."</i>                                                                                    | <ul style="list-style-type: none"> <li>The Town will strive to plan, design, operate and maintain water and wastewater systems that are environmentally, financially, operationally, legislatively, and socially sustainable</li> <li>Financial sustainability shall consider and utilize appropriate funding mechanisms including but not limited to Development Charges, local cost to development, rates, and reserves to provide a long term balanced and equitable plan to fund the delivery of servicing</li> </ul>                           |

| Policy No. | Policy Area             | Policy Statement                                                                                                                                                                                                                                                                                                    | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.14       | New Development         | <i>"The Town of Whitchurch-Stouffville shall not permit new partial servicing for developments within the community of Stouffville's urban boundary, servicing for new development within the Town's general boundary shall be governed by the established Provincial, Regional and Town's servicing policies."</i> | <ul style="list-style-type: none"> <li>• Municipal water and wastewater services best support sustainability and management of land uses</li> <li>• Servicing policies established by the MECP and the Ministry of Municipal Affairs and Housing (MMAH) as well as the Provincial Policy Statement, Greenbelt Plan and ORMCP shall be adhered to.</li> </ul>                                                                                                                                                                                  |
| G.15       | Existing Infrastructure | <i>"The Town of Whitchurch-Stouffville shall optimize the use of existing capacity, prior to the upgrading or expansion of infrastructure."</i>                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Planning and design of servicing strategies should utilize capacity of existing infrastructure</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |
| G.16       | Standards and By-Laws   | <i>"The Town of Whitchurch-Stouffville shall endeavour to adopt design guidelines and standards, and by-laws for the municipally serviced areas"</i>                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Ensure consistency with Best Practices</li> <li>• Ensure consistency of processes and equipment within facilities</li> <li>• Incorporate feedback from operations and maintenance</li> </ul>                                                                                                                                                                                                                                                                                                         |
| G.17       | Communication           | <i>"The Town of Whitchurch-Stouffville shall ensure open communications between the public, regulatory agencies, and Town Departments."</i>                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Master Plan will follow open communication process; points of contact will include, but not limited to: <ul style="list-style-type: none"> <li>○ Points of public contact through the Town's "Come Together" public engagement website</li> <li>○ Points of contact with regulatory agencies</li> <li>○ Points of contact with Region of York</li> <li>○ Points of contact with Indigenous Communities</li> <li>○ Points of contact with internal staff and other departments</li> </ul> </li> </ul> |
| G.18       | Monitoring              | <i>"In coordination with York Region, the Town of Whitchurch-Stouffville shall monitor water and wastewater system conditions and water demand and wastewater flow information."</i>                                                                                                                                | <ul style="list-style-type: none"> <li>• Monitor water demand in the existing system</li> <li>• Monitor wastewater flows in the existing system</li> <li>• Use the data to gauge changes in trends in water use that might impact capital programs or billings</li> <li>• Use the data to complete ongoing updates and calibration to hydraulic modeling tools</li> </ul>                                                                                                                                                                     |

| Policy No. | Policy Area     | Policy Statement                                                                                                                                                                                  | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.19       | Program Costing | <i>“The Town of Whitchurch-Stouffville shall utilize a transparent, traceable and consistent costing methodology to establish Master Plan level capital project costs.”</i>                       | <ul style="list-style-type: none"> <li>Methodology for cost estimates will be documented as part of the Master Plan, which will be a process that can be used for subsequent analyses</li> <li>Town will periodically review the costing methodology and unit costs to ensure cost estimates are appropriate and as accurate as possible</li> <li>Town will consider life cycle cost analysis in Master Plan decision making process</li> </ul>                                                                    |
| G.20       | Strategic Plan  | <i>“The Town of Whitchurch-Stouffville will recommend Master Plan servicing strategies that align with the Town’s Strategic Plan.”</i>                                                            | <ul style="list-style-type: none"> <li>Provide high quality, cost conscious public services that contribute to a healthy, safe, and prosperous community, in a sustainable manner</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| G.21       | Operations      | <i>“The Town of Whitchurch-Stouffville will consider current and future Town operating procedures when recommending Master Plan servicing strategies, location and sizing of infrastructure.”</i> | <ul style="list-style-type: none"> <li>Servicing strategies will take into consideration operating protocols in place to reduce operating costs, maintain water quality and service pressure standards.</li> <li>Maintain adequate fire storage columns and maintain system resiliency necessary to facilitate maintenance or emergency operations</li> <li>System designs shall consider daily and seasonal fluctuations in demand to function efficiently within the full range of low to high demand</li> </ul> |
| G.22       | Coordination    | <i>“The Town of Whitchurch-Stouffville shall update as needed the Master Plan to align with and inform the Development Charges (DC) Background Study updates.”</i>                                | <ul style="list-style-type: none"> <li>Endeavour to complete timely updates</li> <li>Ensure coordination with the Finance Department schedule for updates</li> <li>Maintain tracking of implementation of DC projects to facilitate DC updates</li> <li>Ensure DC funds are utilized through the Town’s capital works programs</li> </ul>                                                                                                                                                                          |

**Table 2-2: Water Servicing Policies**

| Policy No. | Policy Area                            | Policy Statement                                                                                                                                                                                       | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W.01       | Health & Safety                        | <i>"The Town of Whitchurch-Stouffville will promote health, productivity and safety of the community through design, construction and maintenance of the Town's potable water infrastructure."</i>     | <ul style="list-style-type: none"> <li>The Town will prepare a comprehensive strategy to manage existing and future water servicing needs</li> <li>Ensure that planning and implementation of the potable water systems are consistent with legislative policies and guidelines</li> <li>Municipal servicing will be implemented under typical standards (MECP Design Guidelines, Town's Design Guidelines and Standard Drawings)</li> </ul>                                                                                                                                                                                                                                                                                                    |
| W.02       | Raw Water Sources                      | <i>"The Town of Whitchurch-Stouffville shall support the Region of York to endeavor to enhance, protect and maintain quality, quantity and safety of its raw water sources."</i>                       | <ul style="list-style-type: none"> <li>Applies to both lake-based and groundwater-based supplies (Regional)</li> <li>Monitoring of water sources is required to ensure safe yield limit of the water taking is occurring (Regional)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| W.03       | Treatment & Distribution Water Quality | <i>"The Town of Whitchurch-Stouffville shall support the Region of York to meet or exceed legislated water quality criteria throughout the distribution system."</i>                                   | <ul style="list-style-type: none"> <li>Water quality will meet, at a minimum, all legislated criteria</li> <li>Water quality objectives should meet or exceed historical performance</li> <li>Maximize the potential capacity and performance of the facilities and equipment to achieve the best water quality on an on-going basis</li> <li>Implement industry best practices to ensure sustainability of operations and maintenance, maintenance management, systems, training, manuals, other monitoring / trending data is maintained</li> <li>Ensure staff are adequately trained in disinfection systems and methodology</li> <li>Review the economics, reliability, and water quality impacts of implementing new technology</li> </ul> |
| W.04       | Water Demand Projections               | <i>"The Town of Whitchurch-Stouffville shall utilize a water demand projection methodology that uses Town design criteria and recognizes recent water supply data and current consumption trends."</i> | <ul style="list-style-type: none"> <li>Forward-looking water demand projections in the Master Plan must appropriately identify future water needs to ensure the best estimate for infrastructure capacity and timing</li> <li>The Town will utilize a starting point methodology based on recent historical water supply conditions and usage to project growth demand</li> <li>The Town will establish current water design criteria and standards for new growth demand</li> <li>All infrastructure to be designed in accordance with the Town of Whitchurch-Stouffville Design Guidelines and Standard Drawings</li> </ul>                                                                                                                   |

| Policy No. | Policy Area                             | Policy Statement                                                                                                                                                                                                                           | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W.05       | Distribution Requirements               | <i>“The Town of Whitchurch-Stouffville shall provide potable water at adequate pressure and flow to its customers.”</i>                                                                                                                    | <ul style="list-style-type: none"> <li>• Provide pressures which meet current design criteria and standards</li> <li>• MECP Design Guidelines identify a typical recommended operating range of 275-700 kPa (40-100 psi)</li> <li>• Review and optimize Pressure Zone Boundaries throughout the Town</li> <li>• Evaluate impacts of tightening operating pressure range</li> <li>• Have an adequate combination of storage capacity, pumping capacity, and stand-by power to meet the desired level of service under emergency conditions (requires Regional cooperation)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| W.06       | Fire Flow Requirements                  | <i>“The Town of Whitchurch-Stouffville will establish acceptable levels of service for fire flow through consideration of land use, the Town’s Fire Master Plan, MECP Design Guidelines, and the Fire Underwriters Survey Guidelines.”</i> | <ul style="list-style-type: none"> <li>• Provide pressures and flows which meet current design criteria and standards</li> <li>• Dialogue with fire department, industry leaders and insurance industry</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| W.07       | Water Efficiency and Consumption Trends | <i>“The Town of Whitchurch-Stouffville shall encourage and promote water conservation with an awareness of the impacts that water efficiency and conservation have on the water network.”</i>                                              | <ul style="list-style-type: none"> <li>• Continue to assess water demand conditions and determine reasonableness of trends (potential lower water use and consumption)</li> <li>• Encourage customer best practice for water efficiency and conservation</li> <li>• Apply where appropriate demand trends (efficiency) into future design criteria and growth forecasts</li> <li>• Consider the potential impact to design criteria, demand projections, servicing strategies and scheduling of future infrastructure</li> <li>• Objectives can be achieved through implementing best practices, including but not limited to the following: <ul style="list-style-type: none"> <li>○ Restricted lawn watering by-law</li> <li>○ Public education</li> <li>○ Plumbing code requirements for new construction including low-flow aerators, shower heads and toilets</li> <li>○ Use of rain barrels</li> <li>○ Encourage low water consumption and/or natural landscaping and native species</li> <li>○</li> </ul> </li> </ul> |

| Policy No. | Policy Area                            | Policy Statement                                                                                                                                                                                                                                        | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W.08       | Water Supply and Distribution Security | <i>"The Town of Whitchurch-Stouffville shall plan, design, construct, operate and maintain the water system to provide adequate level of service and security of supply to the customers."</i>                                                          | <ul style="list-style-type: none"> <li>• The Town shall continue to implement standards, criteria, and standard operating procedures for the water system</li> <li>• There is an awareness and integration between the Regional water system, local distribution system and water services on private property</li> <li>• The Town will maintain appropriate standards for the local water system to protect public and private side of infrastructure (e.g., maintain adequate pressure levels as per Town's level of service)</li> <li>• Objectives can be achieved through implementing best practices including the following: <ul style="list-style-type: none"> <li>○ Multiple supply points to service areas and pressure districts</li> <li>○ Twinning or replacing feeder mains as required</li> <li>○ Looping of water mains</li> <li>○ Providing sufficient valves to ensure that critical water mains can be isolated for maintenance or repair</li> <li>○ Regular maintenance</li> <li>○ Repair and replacement programs</li> <li>○ Staff training</li> </ul> </li> <li>• Provide resilient network design and assets that allow prolonged outage for maintenance and rehabilitation of critical assets</li> </ul> |
| W.09       | Climate Change                         | <i>"The Town of Whitchurch-Stouffville shall consider the potential impact of climate change on water infrastructure as well as the potential impact to water infrastructure on climate change in the planning and design of water infrastructure."</i> | <ul style="list-style-type: none"> <li>• Optimize use of existing water infrastructure, thereby reducing the need to build new infrastructure to meet existing and future water demands</li> <li>• Ensure resiliency within the water system by connecting to existing infrastructure to allow aging infrastructure to be properly rehabilitated and maintained</li> <li>• Design water infrastructure to meet existing and future water demands to reduce the risk of premature upsizing/need for additional infrastructure</li> <li>• Decrease the carbon footprint by reducing shipment distances of water infrastructure materials, equipment, and resources where possible</li> <li>• Use energy efficient water infrastructure materials, equipment, and construction technologies where possible</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                              |

**Table 2-3: Wastewater Servicing Policies**

| Policy No. | Policy Area                                 | Policy Statement                                                                                                                                                                                    | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WW.01      | Health & Safety                             | <i>"The Town of Whitchurch-Stouffville will promote health, productivity and safety of the community through design, construction and maintenance of the Town's wastewater infrastructure."</i>     | <ul style="list-style-type: none"> <li>The Town will prepare a comprehensive strategy to manage existing and future wastewater servicing needs</li> <li>Ensure that planning and implementation of the wastewater systems are consistent with legislative policies and guidelines</li> <li>Municipal servicing will be implemented under typical standards (MECP Design Guidelines, Town of Whitchurch-Stouffville Design Guidelines and Standard Drawings)</li> </ul> |
| WW.02      | Wastewater Collection Requirements          | <i>"The Town of Whitchurch-Stouffville shall meet at a minimum the requirements of the Environmental Compliance Approvals set out by governing bodies and the appropriate collection criteria."</i> | <ul style="list-style-type: none"> <li>In coordination with York Region, manage wet weather conditions (inflow / infiltration) through asset management programs to minimize extraneous flows and maximize efficient use of available wastewater infrastructure</li> </ul>                                                                                                                                                                                             |
| WW.03      | Wastewater Flow Projections                 | <i>"The Town of Whitchurch-Stouffville shall utilize a wastewater flow projection methodology that recognizes recent wastewater flow and current consumption trends."</i>                           | <ul style="list-style-type: none"> <li>Wastewater flow projections in the Master Plan must appropriately identify future wastewater needs to ensure the best estimate for infrastructure capacity and timing</li> <li>The Town will establish current wastewater design criteria and standards for new growth</li> <li>All infrastructure to be designed in accordance with the Town of Whitchurch-Stouffville Design Guidelines and Standard Drawings</li> </ul>      |
| WW.04      | Separated Wastewater and Stormwater Systems | <i>"The Town of Whitchurch-Stouffville shall plan and maintain separate wastewater and stormwater systems."</i>                                                                                     | <ul style="list-style-type: none"> <li>The Town will continue to build, maintain, and operate separated wastewater and stormwater systems</li> <li>The Town will endeavor as part of I/I reduction measures to identify and remediate existing sanitary sewer cross connections and implement strategies to prevent future cross connections and stormwater impact on the wastewater system</li> </ul>                                                                 |
| WW.05      | Wastewater Collection and Pumping Systems   | <i>"The Town of Whitchurch-Stouffville shall provide adequate reliability and security in wastewater pumping and collection systems."</i>                                                           | <ul style="list-style-type: none"> <li>Alternative infrastructure strategies should be considered and supported where viable to minimize the need for long term sanitary pumping, with gravity solutions favoured</li> <li>Forcemain twinning should be considered and examined to provide adequate velocities during different phases of development and security in operation.</li> </ul>                                                                            |

| Policy No. | Policy Area               | Policy Statement                                                                                                                                                                                                                                                       | Servicing Implications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                           |                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>The Town should have adequate security in the pumping systems and will consider installation standby power.</li> <li>The Town shall endeavour to provide adequate level of facility storage, system storage and standby power to manage emergency conditions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| WW.06      | Wet Weather Flow Criteria | <i>“The Town of Whitchurch-Stouffville shall utilize current wet weather flow criteria to determine peak wet weather flows and size wastewater infrastructure.”</i>                                                                                                    | <ul style="list-style-type: none"> <li>Existing systems across the Town have a range of existing performance and levels of flow under wet weather flow conditions</li> <li>Notwithstanding existing conditions, the Town shall consider planning for new growth consistently across all systems</li> <li>The level of service under wet weather conditions will be established through the Master Plan design criteria in conjunction with other related studies</li> <li>Consideration to environmental, social, and financial factors as well as the feasibility for implementation should be given when determining the wet weather criteria</li> </ul>                                                                                                                                                                                                                                                                     |
| WW.07      | Climate Change            | <i>“The Town of Whitchurch-Stouffville shall consider the potential impact of climate change on wastewater infrastructure as well as the potential impact of wastewater infrastructure to climate change in the planning and design of wastewater infrastructure.”</i> | <ul style="list-style-type: none"> <li>Maximize use of wastewater gravity sewers to reduce greenhouse gas emissions.</li> <li>Optimize use of existing wastewater infrastructure, thereby reducing the need to build new infrastructure to meet existing and future capacity needs</li> <li>Ensure resiliency in the wastewater system by connecting to existing infrastructure thereby allowing aging infrastructure to be properly rehabilitated and maintained</li> <li>Design wastewater infrastructure to meet existing and future capacity needs to reduce the risk of premature upsizing/need for additional infrastructure</li> <li>Decrease the carbon footprint by reducing shipment distances of wastewater infrastructure materials, equipment, and resources where possible</li> <li>Use energy efficient wastewater infrastructure materials, equipment, and construction technologies where possible</li> </ul> |

### 3 Policy Implementation

This Principles and Policies Document has been structured such that additional policies may be added as required. The policy statements themselves have been worded such that they should remain relevant over time, though these can also be edited as required.

It is anticipated that through technological innovations, regulatory changes, and updated servicing priorities, some of the criteria or best practices will require updating in the future. The policy structure should allow this to be done without necessarily having to edit the actual policy statement.

### 4 Summary

The Principles and Policies Document was initially developed through the Town's 2018 Master Plan and updated through the 2024 Master Plan. The general, water and wastewater principles and policies developed in this document will provide guidance and direction to the Master Plan process. The policies and principles should also form part of the Town's day-to-day planning, design, construction, operations and maintenance practices for the municipal water and wastewater systems.