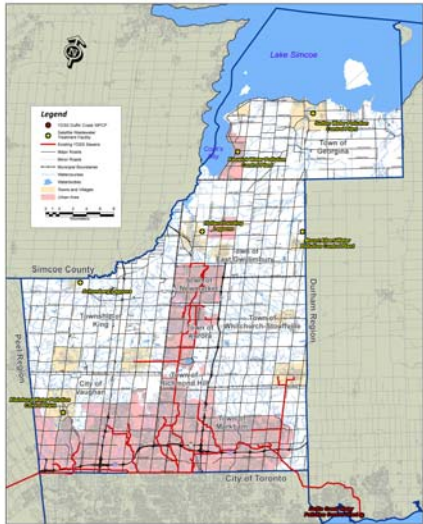


Water and Wastewater Master Plan Update

Region of York



Client:
Region of York

In 2009, XCG, in conjunction with another consultant, completed the York Region Water and Wastewater Plan Update Study. York Region is one of the fastest growing municipalities in Ontario with an anticipated 40% increase in population planned between 2009 and 2031. The Region is also home to a vibrant natural environment and includes the Oak Ridges Moraine, numerous wetlands and kettle lakes. The York Water and Wastewater Master Plan Update recognized the key challenges faced by the Region. These challenges include striking a balance between intensification and greenfield development, matching employment to population growth, maintaining and enhancing the quality of life residents enjoy, and ensuring that the timing, cost and approvals for new infrastructure can be provided. The Master Plan Update Study had several components including the development of snapshot of current conditions, the development of a comprehensive Water and Wastewater Sustainability Strategy, assessing current and future unit water and wastewater rates, identification of an infrastructure projects plan and implementation strategy that will enable water and wastewater servicing of new growth that will occur through both intensification and greenfield development, and extensive consultation and engagement of stakeholders and local residents.

The sustainability strategy is intended to provide the Region with the means to integrate sustainability into the planning and operation of its water and wastewater facilities. The strategy is organized around 10 themes and was developed to recognize applicable industry best practices. Themes included

- ensuring safe and clean drinking water
- maintaining healthy watersheds
- respect for natural and cultural heritage
- wise use of water
- protection of community well being
- providing full and equitable funding and value for money
- promoting timely and integrated service delivery
- planning for climate change
- encouraging communications, consultation and engagement
- conducting monitoring, performance measurement and adaptive management.

To assess future needs, comprehensive models of the water and wastewater systems were developed, calibrated, and utilized. For the wastewater systems, an InfoWorks model was enhanced and recalibrated in advance of undertaking detailed analysis. The model was then utilized to identify constraints and opportunities, identifying necessary infrastructure and the timing of new infrastructure. Needs at treatment facilities were also assessed and two distinct water and wastewater alternatives were developed and evaluated to provide servicing for future growth areas. These included Lake Ontario based servicing and Lake Simcoe based servicing. Detailed evaluation of the alternatives was completed using evaluation criteria based on the sustainability strategy theme, objectives, and performance indicators.

The Water and Wastewater Master Plan Update concluded with the selection of a preferred alternative and the identification of supportive policies and programs to support sustainable servicing. The Lake Ontario based servicing was selected as the preferred alternative and an infrastructure upgrade project with an estimated cost of \$4.8 billion between 2009 and 2031 was developed.

Expert People. Better Decisions.