

# 2021 WATER & WASTEWATER MASTER PLAN UPDATE:

Open House 2



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## EXPLORE YORK REGION'S 2021 WATER AND WASTEWATER MASTER PLAN UPDATE - OPEN HOUSE 2

**As more people choose to make York Region their home, we must continue to carefully plan the water and wastewater services we provide.**

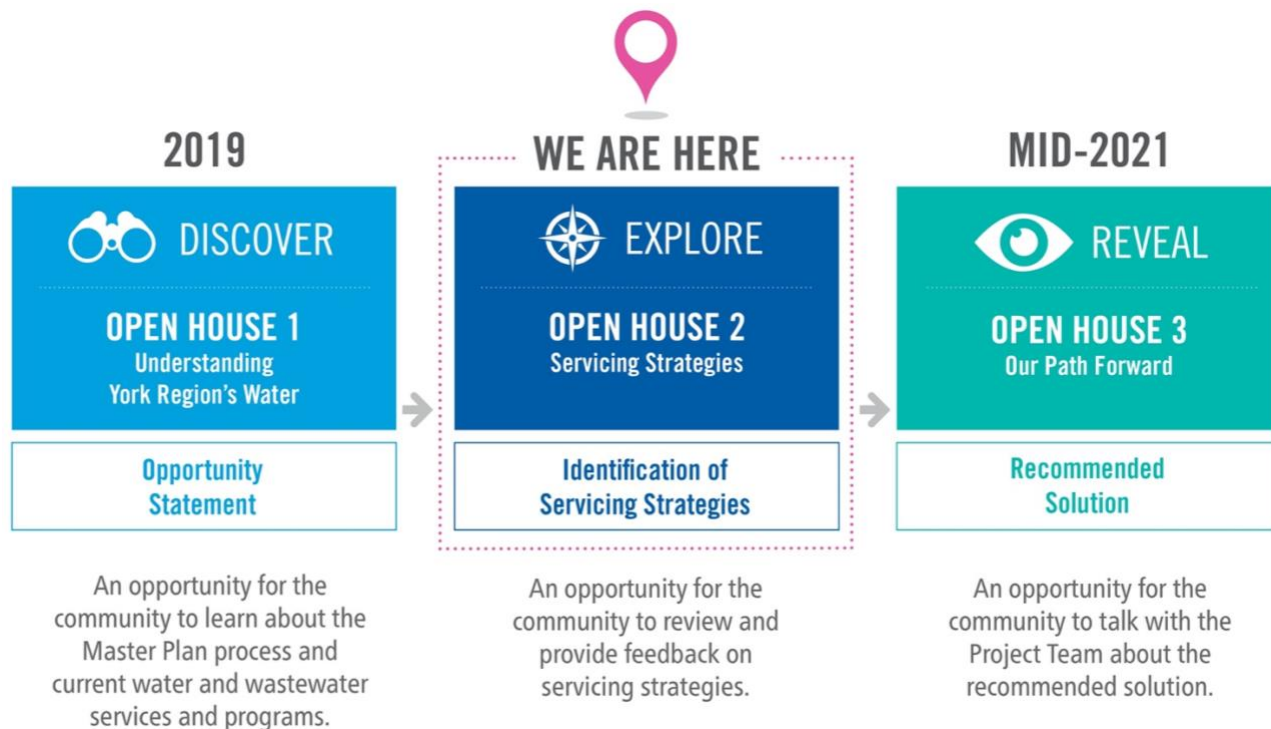
We do this through our Water and Wastewater Master Plan process. It was last updated in 2016, and we're updating it again to ensure essential water and wastewater services meet community needs to 2051.

During this online Open House, we will provide you with an update on **where we are in the planning process** and **outline servicing strategies** under consideration to meet the needs of our growing communities.

**Your feedback is important to us** and we want to hear from you. We'll ask you some questions as we go along. You'll have the opportunity to leave comments or questions at the end as well. This Open House will be **open for feedback until March 2**.

This is the second of three Open Houses. If you missed the first Open House, you can [take a deeper dive here](#) or read the [Open House 1 summary report](#).

We will reveal our recommended water and wastewater servicing solutions and infrastructure program at the third Open House in Summer 2021.



Accessible formats or communication supports due to disability are available upon request. Please contact Laura Alpi, Project Liaison at [water@york.ca](mailto:water@york.ca) or 1-877-464-9675 ext. 73029.

## ABOUT THE PLAN

Did you know by 2051, York Region is expected to grow from 1.2 million to 2.02 million people and from 655,000 to over 990,000 jobs?

BUILDING ON PREVIOUS  
**MASTER PLAN**  
RECOMMENDATIONS



York Region is updating its long-term  
**water and wastewater servicing**  
strategies and infrastructure program to accommodate

**2.02** MILLION  
PEOPLE

**& 990,000** **JOB****S**

IN ACCORDANCE WITH THE REGIONAL OFFICIAL PLAN IN AN



ENVIRONMENTALLY, SOCIALLY AND FISCALLY RESPONSIBLE MANNER

The Province of Ontario sets [growth and development targets](#) for municipalities in a way that supports economic prosperity, protects the environment and helps communities achieve a high quality of life.

Our [Regional Official Plan](#) outlines **where** and **how this future growth and development is expected to occur** and ensures we meet York Regional Council's vision of safe, caring communities.

Based on these growth and development targets, our Water and Wastewater Master Plan **assesses what infrastructure is required to ensure drinking water and wastewater services meet the needs of our existing and future communities.**

If you joined our first Open House, you might remember our Master Plan update was planning long-term strategies and infrastructure to accommodate growth to 2041.

Recently, we were given provincial direction to **expand our Master Plan update to accommodate growth for an additional ten years**, from 2041 to 2051. To reflect this, we've updated our planning horizon.

## PLANNING FOR FUTURE GROWTH IN YORK REGION

We are currently updating our [Regional Official Plan](#), through a process called the [Municipal Comprehensive Review](#).

Together, York Region's Regional Official Plan, Water and Wastewater Master Plan and [Transportation Master Plan](#) take a coordinated approach to regional growth by ensuring infrastructure is well-planned and delivered efficiently and effectively.

This integrated planning approach determines the most cost-effective and beneficial infrastructure solutions to meet the needs of our growing communities. Our recommended water and wastewater servicing solutions and related infrastructure program will **align with land-use planning and policies** identified as part of the Municipal Comprehensive Review.



The Regional Official Plan update, along with our Water and Wastewater and Transportation Master Plan updates, are key inputs to the Region's 2022 [Development Charges Bylaw update](#).

Development charges are fees collected on new residential and non-residential developments which help fund growth-related infrastructure including paramedic, police, public health, roads, social housing, transit, waste diversion, water and wastewater services.

These charges help ensure proper infrastructure is in place in time to welcome new residents and businesses to York Region.



## THE WATER AND WASTEWATER MASTER PLAN PROCESS

**Did you know...we've been planning York Region's drinking water and wastewater services for over 45 years?**

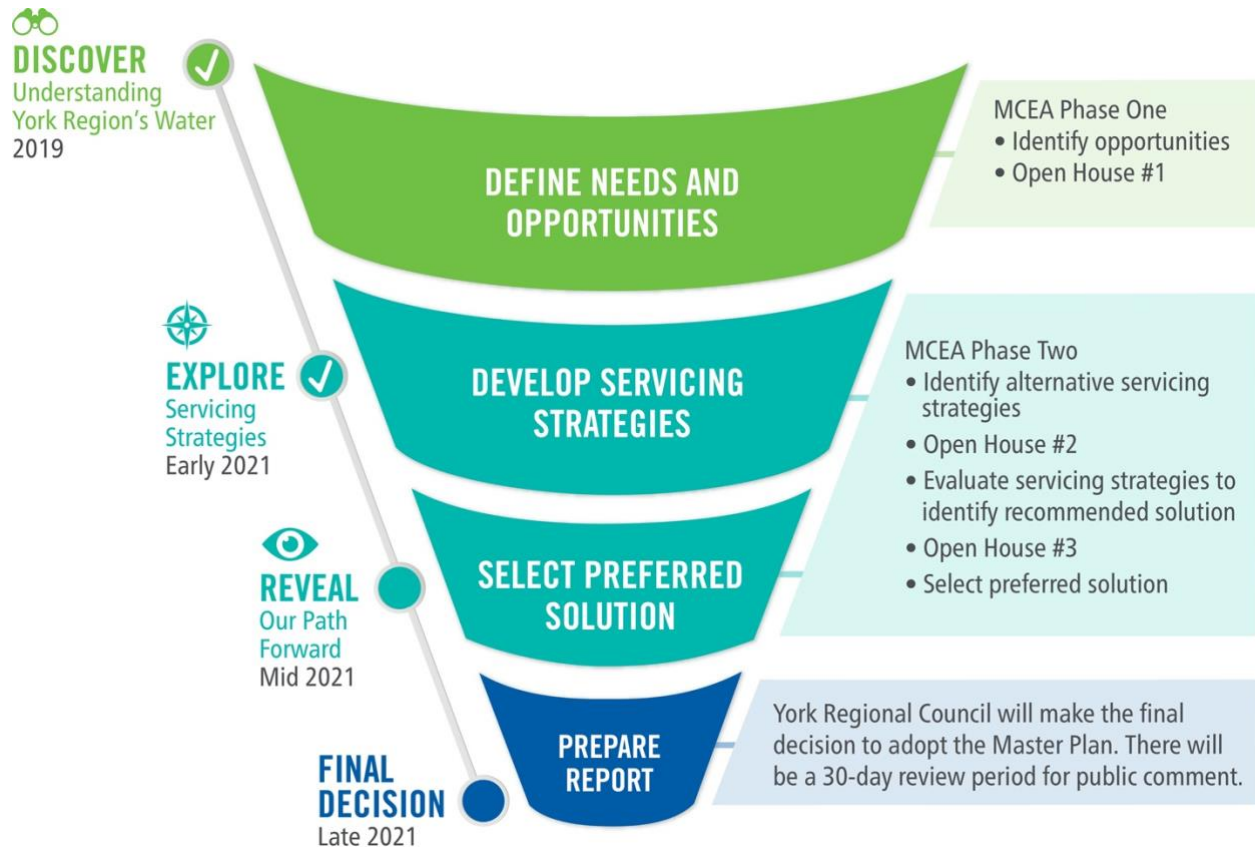
York Region has a well-established process to plan and service the needs of our growing communities. This includes regular updates to the Regional Official Plan in response to provincial direction as well as updating our Water and Wastewater and Transportation Master Plans.

Master Plans are usually **updated every five years** to ensure long-term strategies and recommendations remain relevant to York Region's evolving needs.

This Water and Wastewater Master Plan update will continue to build on recommendations and solutions identified in the 2016 Master Plan update and **will recognize the maturity of our water and wastewater systems**. We have been planning and constructing water and wastewater infrastructure since York Region was first established in the **1970s**. This infrastructure continues to serve our communities to this day.



This update follows an approved process under the *Environmental Assessment Act* called the Municipal Class Environmental Assessment process. The Master Plan timeline shows where we are in the process.



The Class Environmental Assessment process provides a consistent, streamlined and straightforward process for planning and implementing municipal infrastructure projects. It also ensures public and stakeholder participation.

**Additional resources:**

- [Municipal Class Environmental Assessment manual](#)

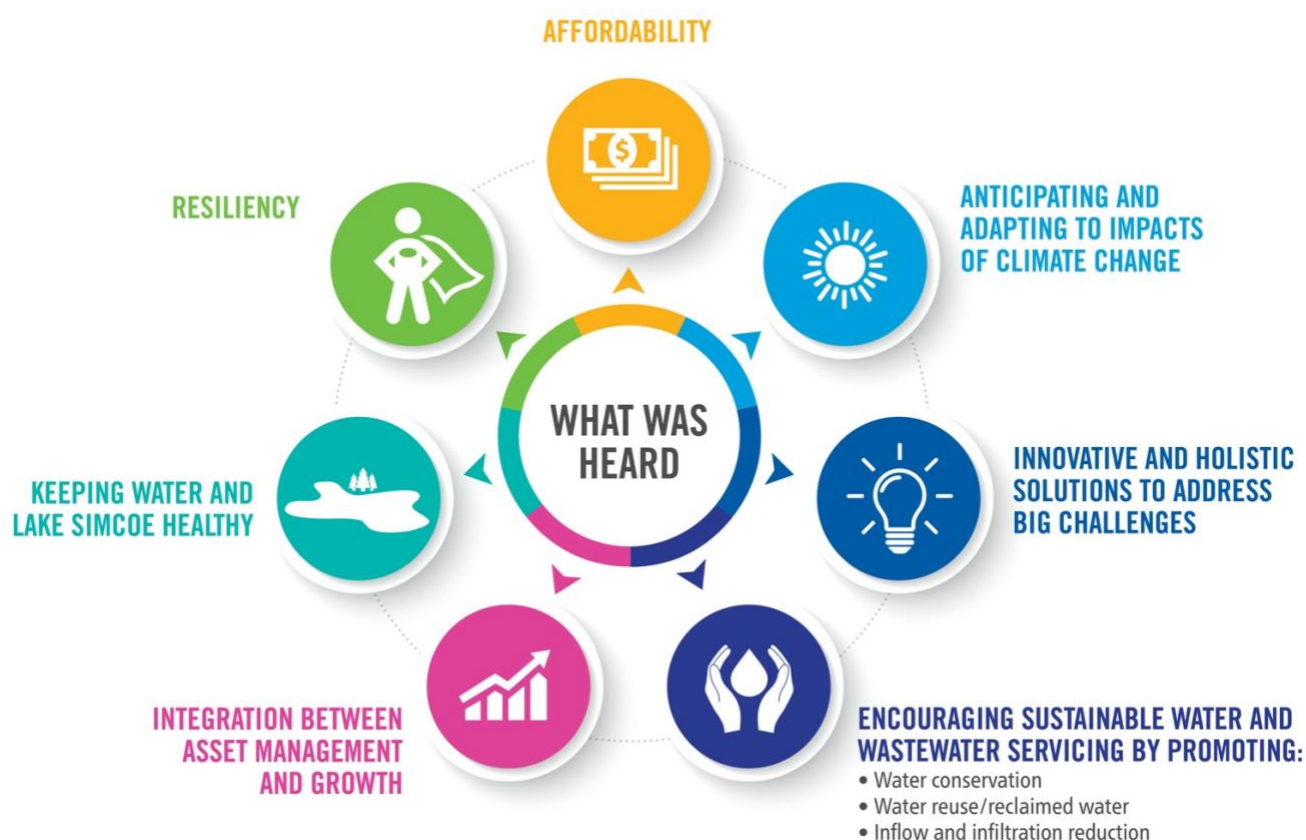
## WHAT WE'VE HEARD SO FAR

**In fall 2019, we held our first Water and Wastewater Master Plan update Open House.**

We engaged with residents, local businesses and community partners to explain our existing water and wastewater systems and hear your views, concerns and expectations.

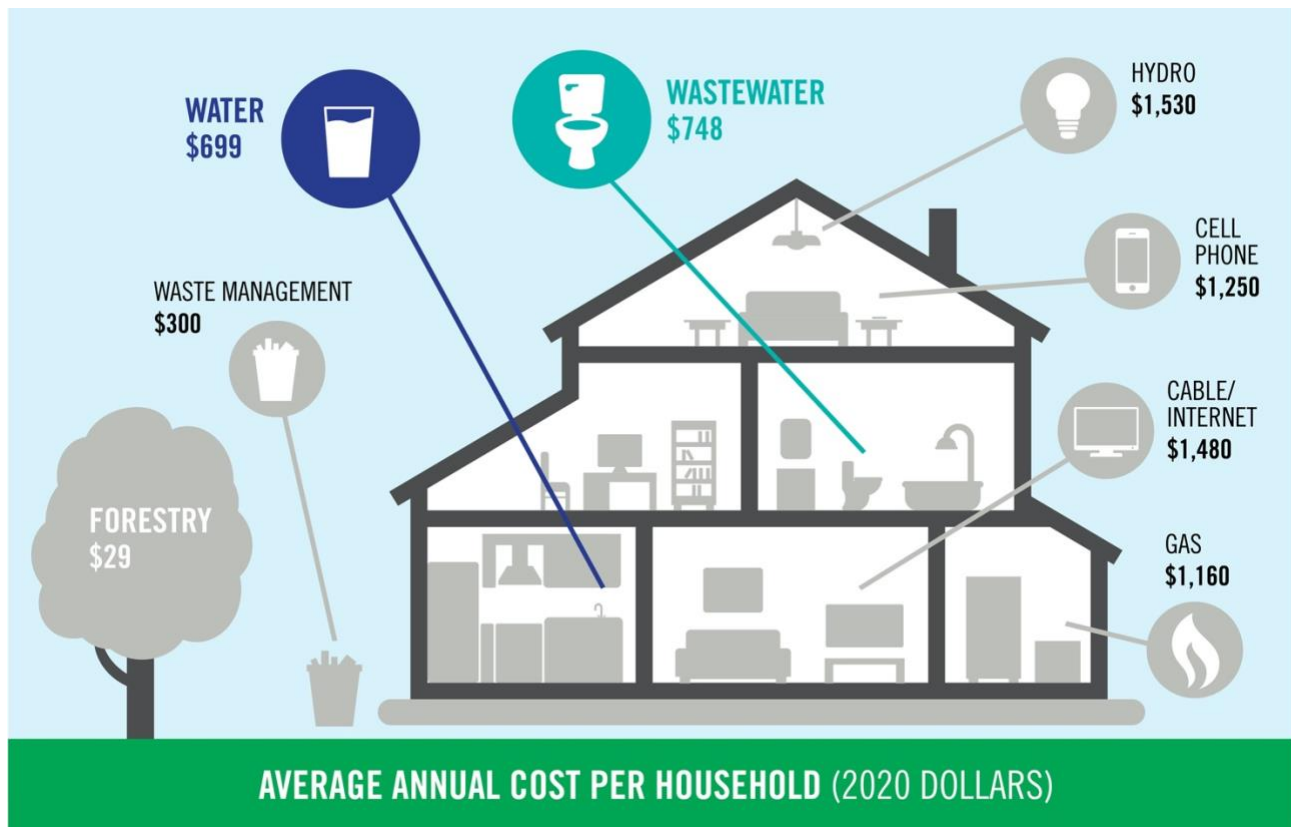
Your feedback is important to the Master Plan process and helps identify the work that needs to be done and the challenges we need to address.

Some of the biggest themes we heard were that **affordability, long-term sustainability of resources, protecting our environment and system resiliency** are all essential to you.





Did you know in 2020 the average household cost for water and wastewater services in York Region was \$1,447 a year (or less than \$4 a day)?



## UNDERSTANDING YORK REGION'S UNIQUE ENVIRONMENT

The Water and Wastewater Master Plan ensures we continue to provide clean, safe and affordable water and wastewater services 24/7 while protecting our region's environment.

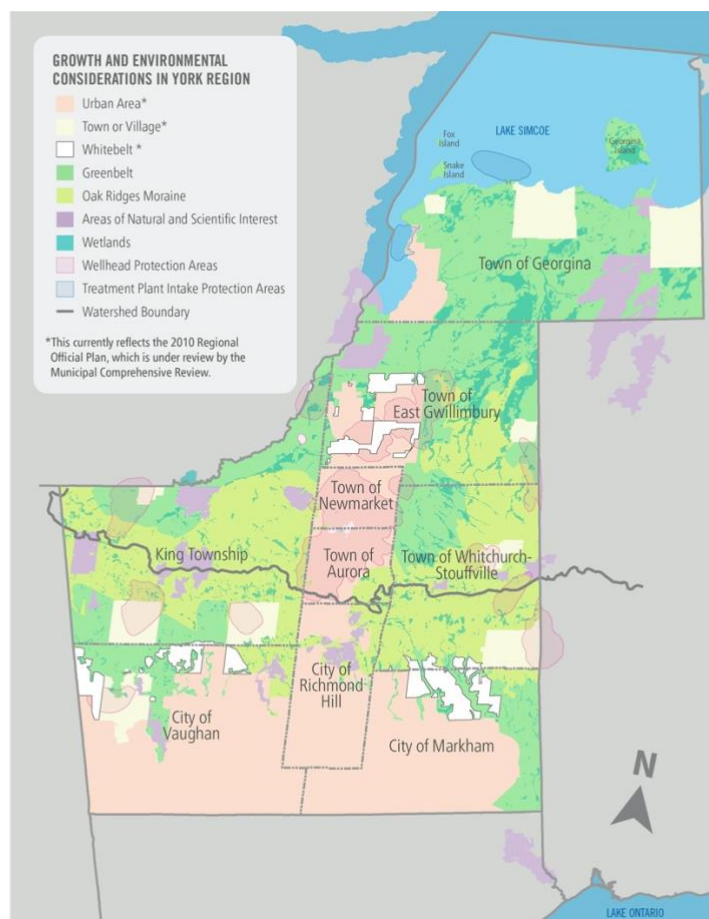
**Did you know 69% of York Region's environment – such as the Greenbelt and Oak Ridges Moraine – is protected by province-wide legislation?**

These requirements **influence where and how we grow** and service our population and are important considerations for the Region in planning its future water and wastewater services.

For example, York Region is situated between two watersheds: **Lake Simcoe to the north and Lake Ontario to the south, separated by the Oak Ridges Moraine**. Provincial regulations dictate how much water can be transferred across that divide.

This map shows York Region's key environmental features that we carefully consider and strive to protect. This includes **protecting** water resources that we all rely on for our drinking water, such as **groundwater and lake water**. These environmental features, as well as land-use policies, have determined to a large extent the shape of York Region's existing water and wastewater systems.

### Growth and environmental considerations in York Region



## WHERE DOES WATER COME FROM?

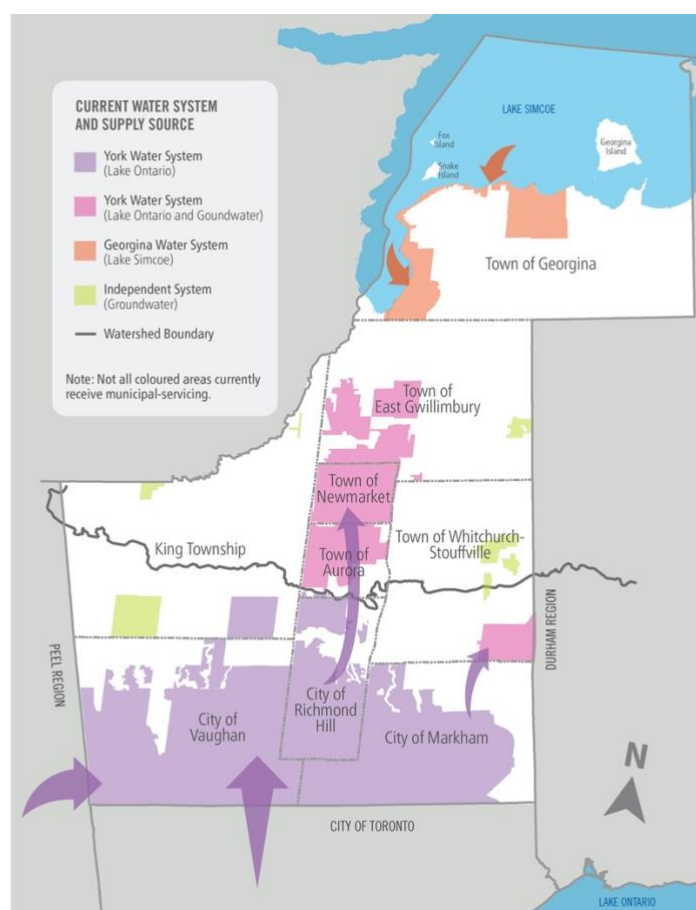
York Region collects, treats, stores and then distributes water to its nine local municipalities. In turn, the municipalities distribute and collect water and wastewater to and from homes and businesses within their communities.

**Did you know York Region is the only regional municipality in the Greater Hamilton-Toronto Area that does not have direct access to Lake Ontario (our main supply of water)?**

York Region has partnerships with the City of Toronto and Peel Region to supply treated drinking water sourced from Lake Ontario, which covers most of the Region's needs (90%). The remaining supply comes from groundwater (7%) and Lake Simcoe (3%).

### York Region's current water system

The map below generally shows the movement of water and where it comes from for different serviced areas ("water systems") across York Region.



Watch our [SOURCE IT video](#) to find out more about where our water comes from.

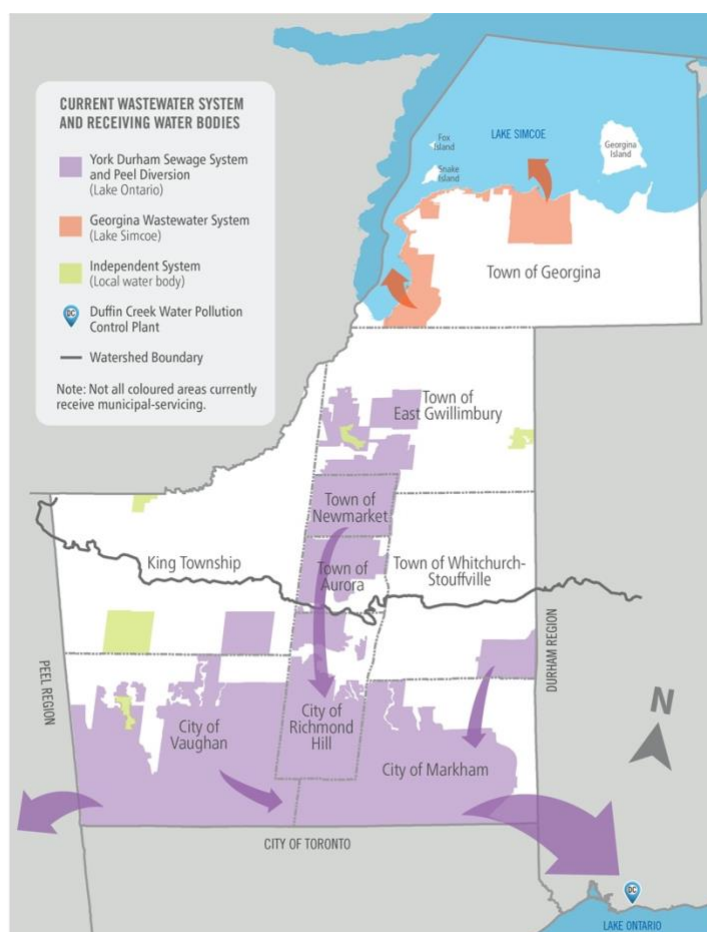
For more information on York Region's water system, visit [york.ca/wateris](http://york.ca/wateris)

## WHERE DOES WATER GO?

York Region's wastewater is treated in accordance with environmental regulations. The majority (95%) is treated and discharged to Lake Ontario through partnerships with Peel and Durham Regions. The remaining wastewater is treated through seven treatment facilities located in York Region.

### York Region's current wastewater system

The map below shows generally the movement of wastewater and where treated wastewater is discharged for different serviced areas ("wastewater systems") across York Region.



Our [MOVE IT video](#) offers a glimpse into York Region's massive water system, including the inside of a water treatment plant, pumping station and water tower.

Over the past 50 years, York Region has established vast, complex and efficient water and wastewater systems through progressive planning and construction activities.

York Region's [Corporate Asset Management Plan](#) outlines our owned, planned and managed water and wastewater infrastructure assets and our strategy to sustain and financially manage these assets throughout their useful life.

## HOW DOES YORK REGION DEVELOP SERVICING STRATEGIES FOR THE FUTURE?

**We look at all options, such as:**

- Do nothing
- Limit growth
- Manage demand
- Expand and optimize

**What do these options mean?**

**Do nothing** typically provides a benchmark for comparison. Doing nothing would put the Region **at risk** of being unable to meet requirements of the *Safe Drinking Water Act* and the *Ontario Water Resources Act*.

**Limit growth** means limiting regional growth to what our existing water and wastewater systems can service. This would put the Region **in conflict** with the [\*Places to Grow Act, 2005\*](#) and [\*A Place to Grow – Growth Plan for the Greater Golden Horseshoe\*](#).

**Manage demand** considers whether we could service our future growth by **increasing water conservation** and **reducing inflow and infiltration**. This option can't meet the needs of growth on its own but is worth exploring in combination with other options.

**Expand and optimize** our **existing systems** allows us to meet growth needs to 2051 while complying with our regulatory requirements.

**A combination of managing demand - and expanding and optimizing our existing systems - are considered in our next step of creating servicing strategies.**

Long-term servicing **requires a commitment to demand management**. Our best options moving forward are to expand and optimize the existing systems while continuing to manage demand through existing programs.



## RESPONDING TO CUSTOMER DEMAND FOR WATER AND WASTEWATER SERVICES

**Building, operating and maintaining water and wastewater infrastructure requires significant investment.**

In 2020, York Region spent **\$709 million to construct, operate and maintain** the water and wastewater systems, funded through **user rates** and **development charges**.

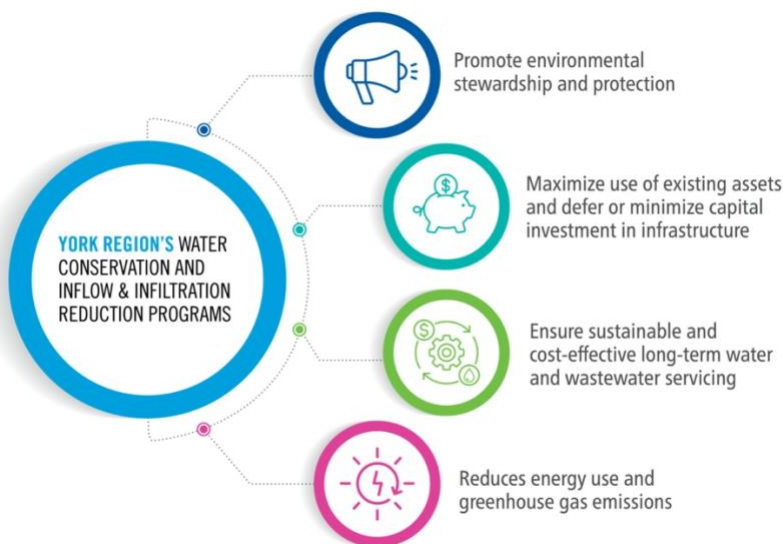
While our existing systems are built to accommodate high demands (such as during the summer months when we typically use more water), **managing and reducing demand on our systems lessens the need to expand them**. This is a key component to developing efficient and cost-effective servicing strategies.

**Did you know the average York Region resident uses an average of 200 litres of water each day? We're aiming to reduce that to 150 litres of water per person each day by 2051.**

York Region manages the demand on our water and wastewater systems through a combination of measures that encourage local towns and cities, residents and businesses to consider how much water they use, when they use it, and how they dispose of it.

A few examples of these measures are:

- [Promoting water conservation](#) in your home or business and in municipal systems
- [Reducing inflow and infiltration](#) (rain or groundwater that sneaks into the sewage system through sump pumps, downspouts and/or holes and cracks in pipes)



**York Region has a long history of water conservation programming and has made big strides in reducing residential water use.**

Our [2021 Long Term Water Conservation Strategy](#) will continue to **promote responsible water use** and position York Region as an influencer for the water efficiency and conservation industry.

Since 2011, York Region's [Inflow and Infiltration Reduction Strategy](#) has **saved 20 million litres inflow and infiltration per day** through partnerships and programs with local municipalities, the development community and people like you. An upcoming 2021 update of the Strategy will build on these successes and **will aim to reduce 40 million litres per day** by 2031 to support optimization of the wastewater system.

Reducing inflow and infiltration **reduces the cost of treating rain and groundwater as sewage**. It also improves the resiliency and ability of our system to cope with extreme weather. Over time, changes to our climate are expected to bring warmer, wetter and wilder weather. [Reducing inflow and infiltration around your home](#) can reduce the potential of basement flooding and overflows in your neighbourhood.

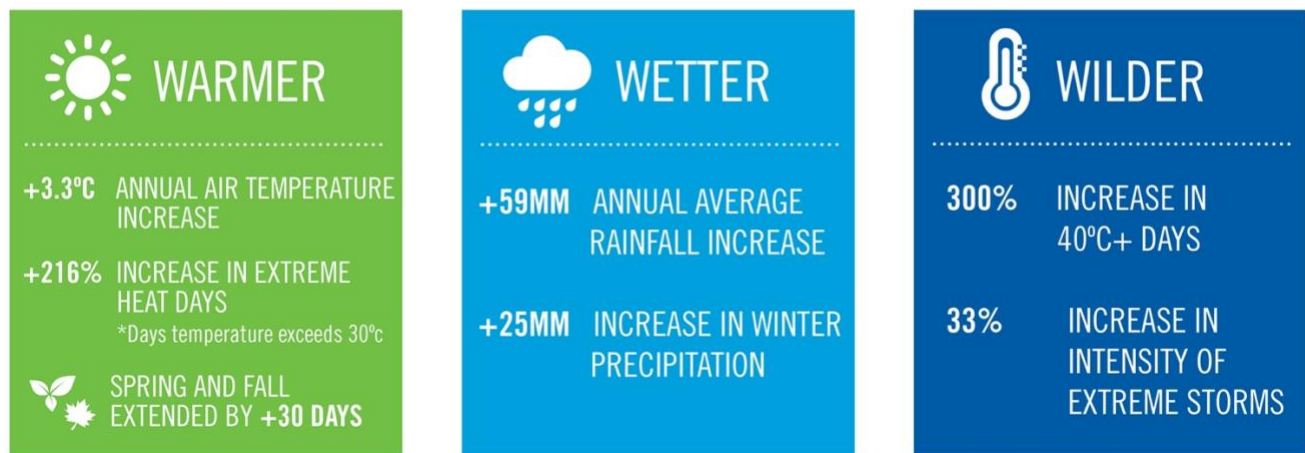
## THE IMPACTS OF CLIMATE CHANGE

Climate change has both immediate and long-lasting impacts on our infrastructure, health care, human services, emergency services, natural systems and economies.

To mitigate the impacts and improve climate resiliency, York Region has released a [Draft Climate Change Action Plan](#). Actions include reducing greenhouse gas emissions and integrating **climate change considerations into infrastructure design** and asset management.

Water and wastewater treatment are energy intensive processes and are reflected in York Region's [Energy Conservation and Demand Management Plan](#). This plan aims to mitigate climate change by **reducing greenhouse gas emissions** under York Region's control and influence.

## PREDICTED CLIMATE TRENDS FOR YORK REGION BY 2050



### Additional resources

- [A guide for water efficiency at home](#)
- [Energy Conservation and Demand Management](#)
- [Energy Reporting](#)

## WHAT ARE YORK REGION'S WATER AND WASTEWATER SERVICING STRATEGIES?

The proposed servicing strategies:

- Build on the 2016 Water and Wastewater Master Plan recommendations
- Use the **One Water** principles of integration, innovation and 'infra-stretching'
- Meet regulatory requirements
- Address key growth areas defined through the [Municipal Comprehensive Review](#)

**The strategies represent big-picture, Region-wide approaches to addressing water and wastewater servicing needs to 2051.**

The key features of our proposed 2021 water and wastewater servicing strategies are:

1. Continuing to meet drinking water needs through **gradual expansion** of supply from Lake Ontario, Lake Simcoe and groundwater wells (where possible)
2. Increasing wastewater treatment by strategically **expanding the existing** Lake Ontario-based, Lake Simcoe-based and independent wastewater systems (where relevant)
3. Advancing demand management initiatives such as **water conservation** and **inflow and infiltration reduction**

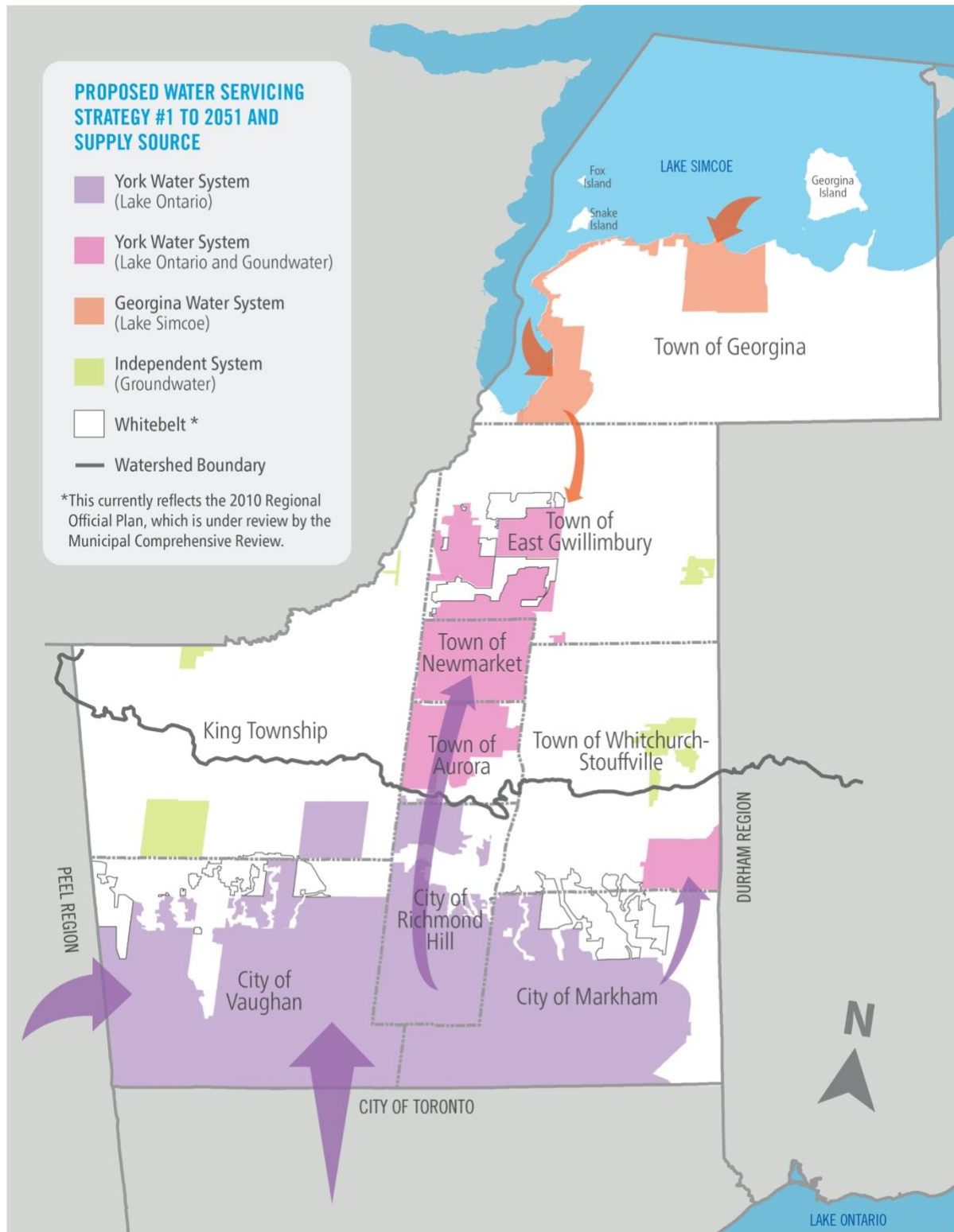
### **About the proposed servicing strategy maps**

The arrows show generally where water is needed and where it will come from, and where wastewater servicing is needed and where treated wastewater will be discharged.

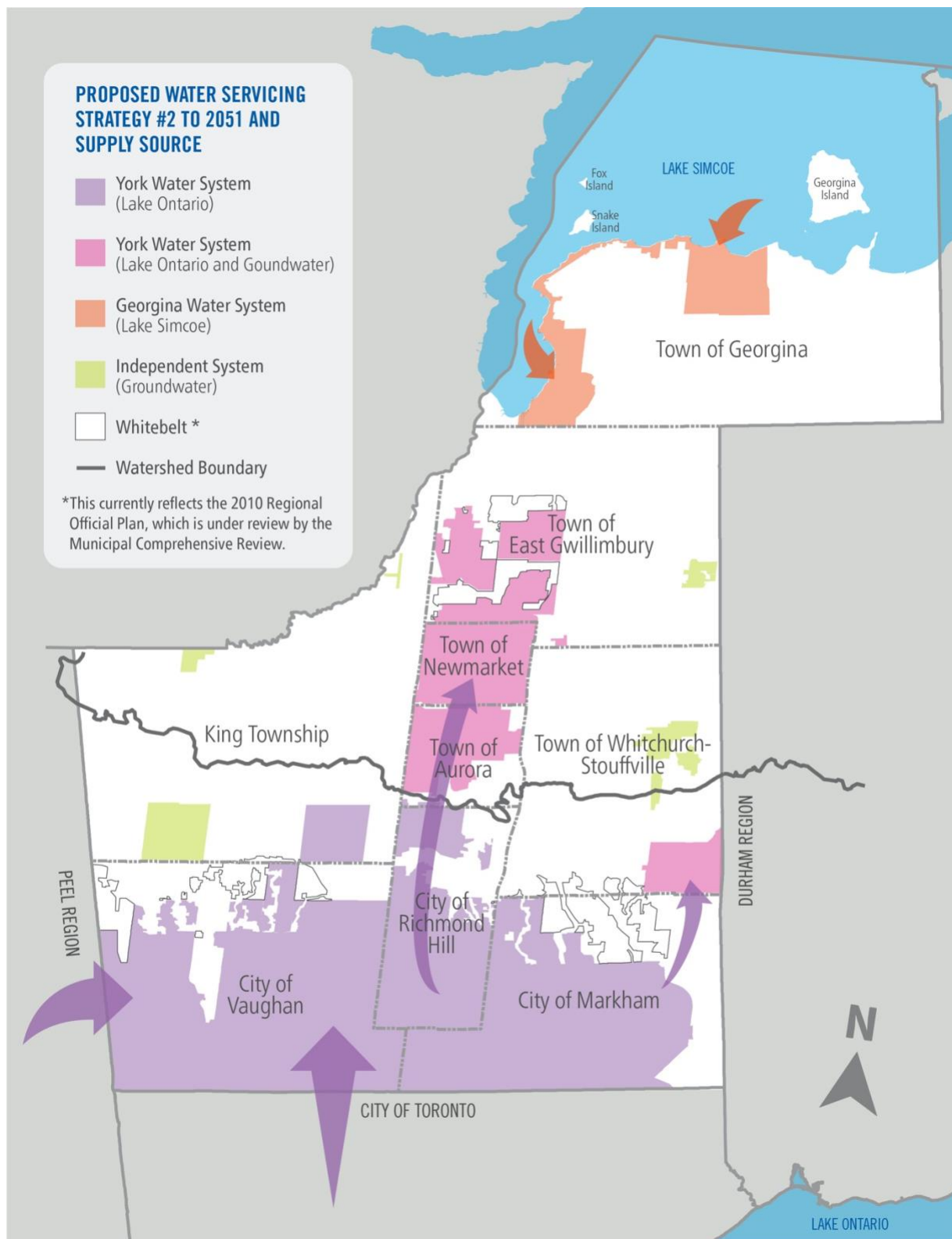
The arrows do not represent watermain or sewer main routes nor does their size accurately represent the quantity of water needed or of wastewater conveyed.

## Proposed water servicing strategies 1 and 2 to 2051

The difference between the two proposed water strategies is the arrow on Strategy #1 represents a Lake Simcoe-supplied connection from Georgina to East Gwillimbury.

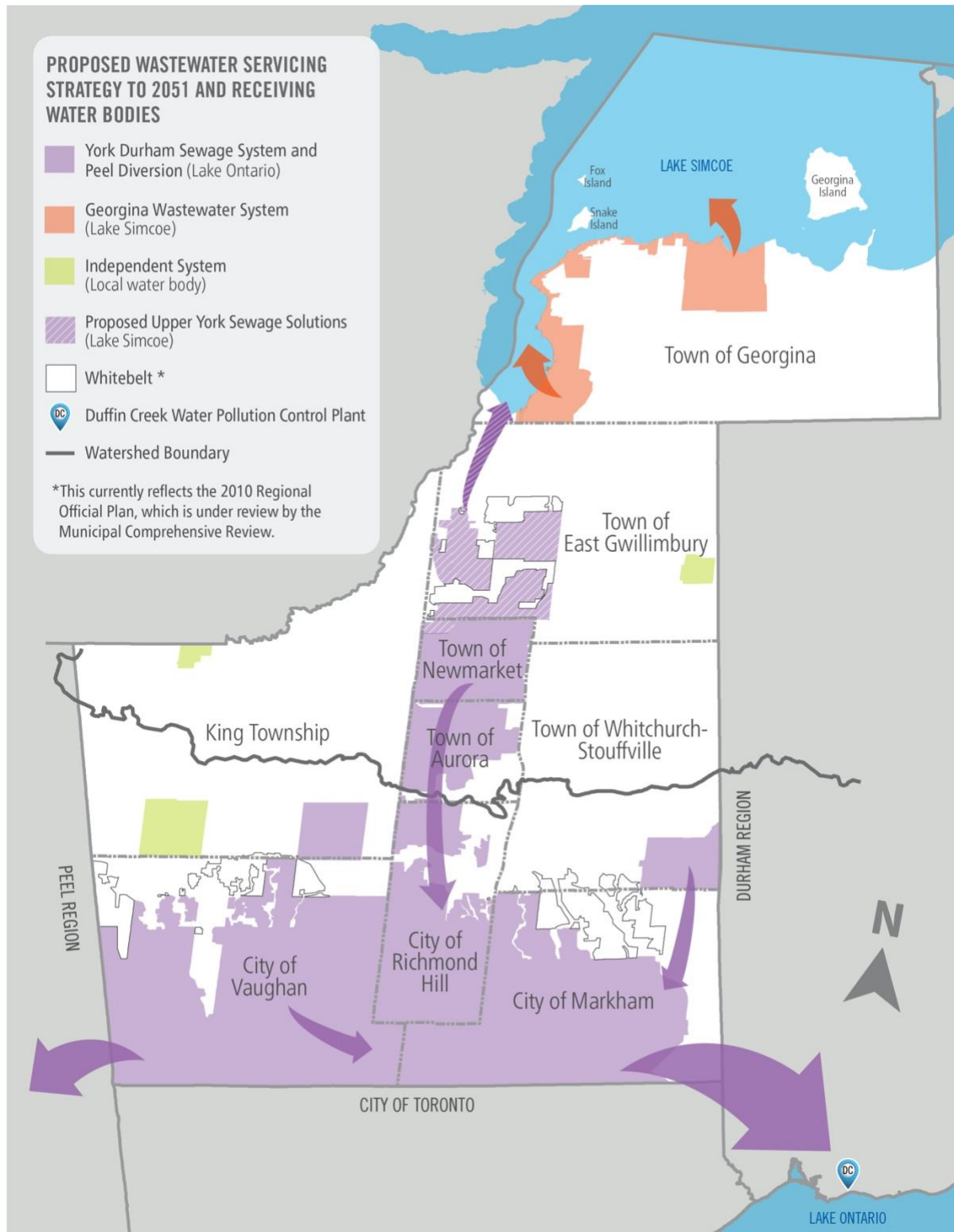






## Proposed wastewater servicing strategy to 2051

The location of future growth and regulatory requirements largely determine which treatment systems will need to be expanded and the amount of expansion required.



In the next phase of the Master Plan update, we will evaluate the water strategies to determine the preferred servicing strategy. **Recommended infrastructure to implement the strategies will be presented at Open House 3** this summer. These recommendations will include improvements to the water and wastewater network needed to transfer treated water and collect and treat wastewater.

**Additional information on York Region's wastewater systems:**

- [Upper York Sewage Solutions](#)
- [Duffin Creek Wastewater Treatment Facility](#)
- [Wastewater collection and treatment in York Region](#)
- [Water and wastewater construction projects in York Region](#)

## EVALUATING THE WATER SERVICING STRATEGIES

York Region will assess the two proposed water servicing strategies using criteria that builds on the 2016 Master Plan and reflects the priorities identified by nearly 1,400 York Region residents in a recent [Water Perceptions Survey](#)

These criteria also follow the process laid out in the Municipal Engineers Association [Municipal Class Environmental Assessment process](#).

In summer 2021, the third Open House will focus on our path forward and present the recommended servicing strategy and associated infrastructure program. We will be engaging with you to **get your feedback and confirm we are on the right track**.

The graphic below illustrates the evaluation process and the high-level criteria that are used to evaluate servicing strategy alternatives.

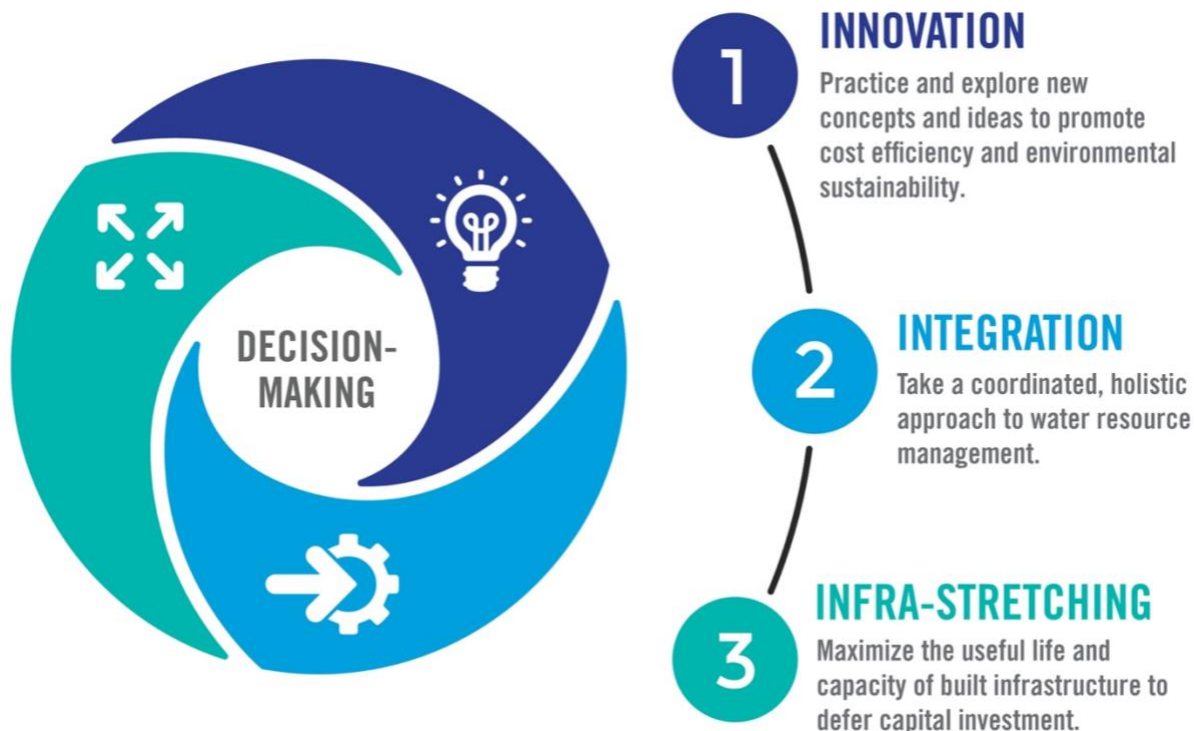


## THE ONE WATER APPROACH: VALUING ALL WATER

York Region is committed to protecting water resources and delivering water and wastewater services 24/7 in a way that is safe, clean and affordable while protecting environmental health.

So, how do we accomplish this?

Two words: **One Water**.



**The One Water approach realizes the value of all water – drinking water, wastewater, recycled water, rainwater, stormwater and more.**

By viewing **all water** as a resource, the One Water approach reduces the need to build new infrastructure by **making the best use of the existing infrastructure**, conserving water to lessen pressure on natural and financial resources, and utilizing water reuse to create markets for treated wastewater.

One Water is a key strategic component of the Water and Wastewater Master Plan and will enable York Region to sustainably meet the water needs of a growing population.



## GET INVOLVED AND STAY CONNECTED!

For more information about the 2021 Master Plan update or to sign up for project updates, contact us at [water@york.ca](mailto:water@york.ca) or 1-877-464-9675.

For information on popular environmental topics, contests and events, subscribe to our [Splash e-newsletter](#).

**Our third and final Open House is scheduled for Summer 2021.**