

# The Epic Journey of Water in York Region

## Water

All life depends on water. We need it to stay hydrated, grow food, stay clean and to produce electric power. In Ontario, we are fortunate to enjoy freshwater resources, as only 0.01% of all Earth's water is fit for human use. There are approximately 250,000 freshwater lakes in Ontario, with roughly one-sixth of the province covered by water.

Since water is everywhere, we often think of it as limitless. However, there is a fixed amount constantly cycling through our natural and manufactured environments. We borrow water from nature, treat it, use it and treat it again before returning it to the water cycle. Unfortunately, our activities can have a negative effect on this cycle.

## York Region's Water and Wastewater System

In York Region, water comes from three different sources depending on where you live, work or visit. About 90% of water is drawn from Lake Ontario, 7% from wells connected to the Oak Ridges Moraine and 3% from Lake Simcoe.

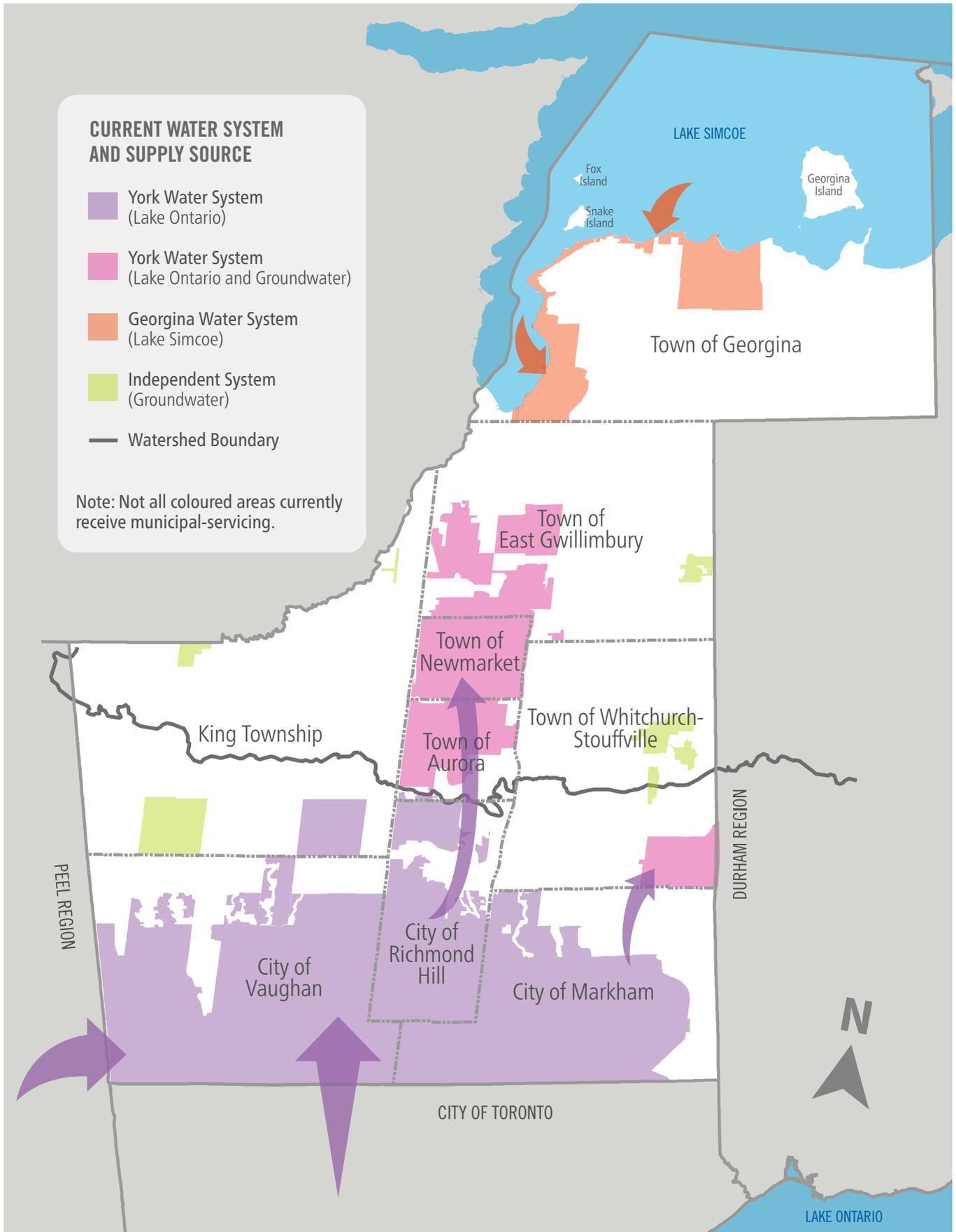
Depending on the source of the water, different features work to maintain a safe, reliable supply.

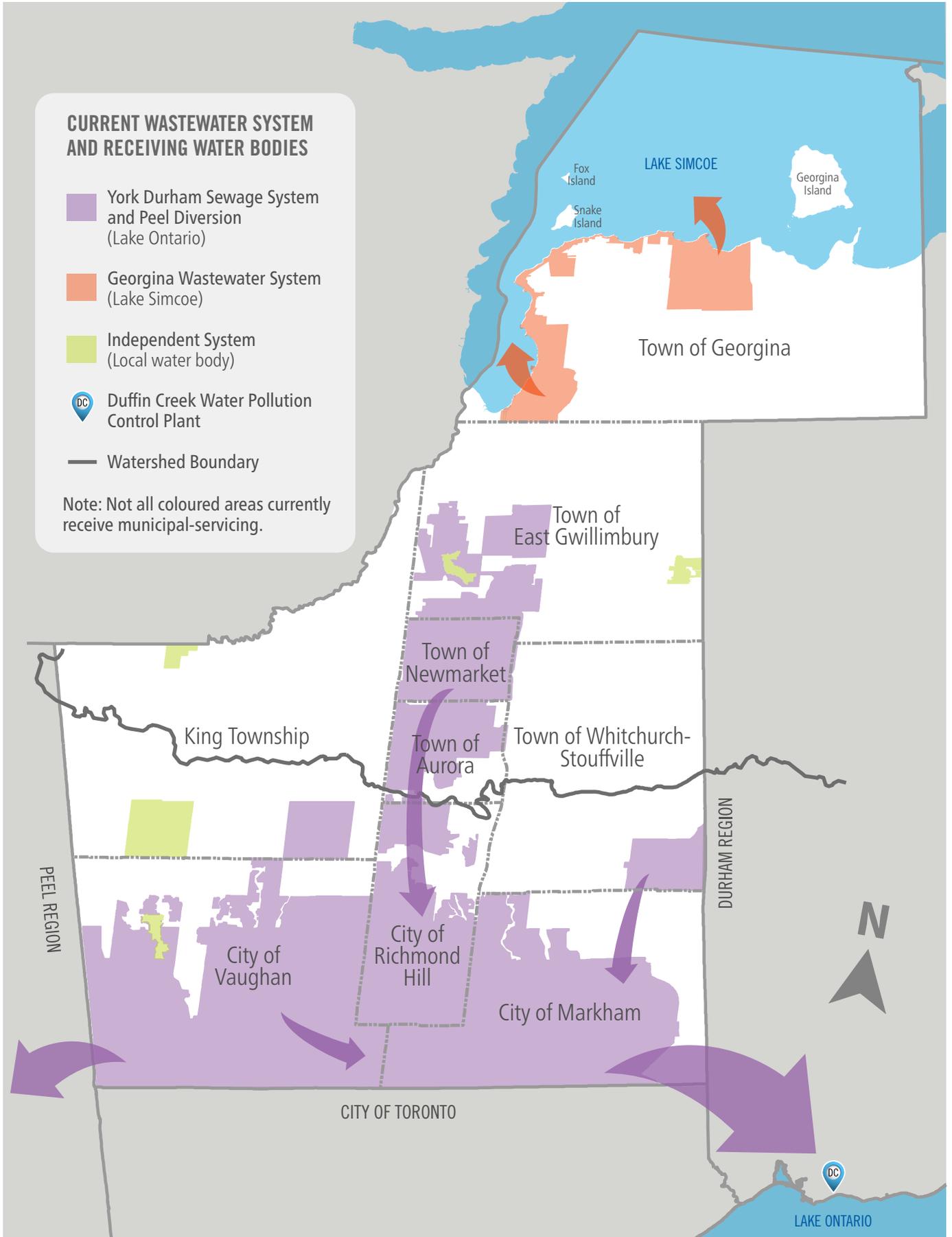
Using the maps below, determine the following:

- Where your school gets its water from on the Current Water System map
- Where wastewater from your school goes on the Current Wastewater System map
- Choose another location in York Region such as a cottage, relative's house or a place

you like to visit. Does this location get its water from a different source than your school? Where does the wastewater go in this location?

- **Bonus question:** if you were visiting Canada's Wonderland at 1 Canada's Wonderland Drive in the City of Vaughan, where does their water come from and where would their wastewater go?





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## Water Works

On York Region's YouTube channel, watch the following videos and use the questions to engage in group discussion.

**Water Works: [Source It](#)** [3:15 mins]

1. Where does York Region's water come from?
2. What are some activities that help protect our water sources?

**Water Works: [Move It](#)** [3:55 mins]

3. Where does our treated water go?
4. Where is treated water stored?

**Water Works: [Treat It](#)** [3:32 mins]

5. What are the three main stages of treating water?
6. What is SCADA, and what does it do?

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## Water Works

**Water Works:** [Source It](#) [3:15 mins]

### 7. Where does York Region's water come from?

**Answer:** All water comes from the natural environment. York Region's source water comes from Lake Ontario, Lake Simcoe and groundwater pumped up from wells

### 8. What are some activities that help protect our water sources?

**Answer:** Keeping chemicals and contaminants out of water sources, monitoring the quality of water sources, minimizing rainfall runoff from parking lots, fields and roofs (which can carry pollutants) into our water sources

**Water Works:** [Move It](#) [3:55 mins]

### 9. Where does our treated water go?

**Answer:** Taps, toilets, hydrants and hoses

### 10. Where is treated water stored?

**Answer:** Reservoirs (a building on or just under the ground that holds water) or elevated tanks (water towers)

**Water Works:** [Treat It](#) [3:32 mins]

### 11. What are the three main stages of treating water?

**Answer:** Screening (remove the big chunks), Filtration (remove the little chunks), Disinfection (kill bacteria)

### 12. What is SCADA, and what does it do?

**Answer:** SCADA stands for Supervisory Control and Data Acquisition, which is a system of computers that lets staff monitor various parts of the water and wastewater treatment, distribution and collection process