

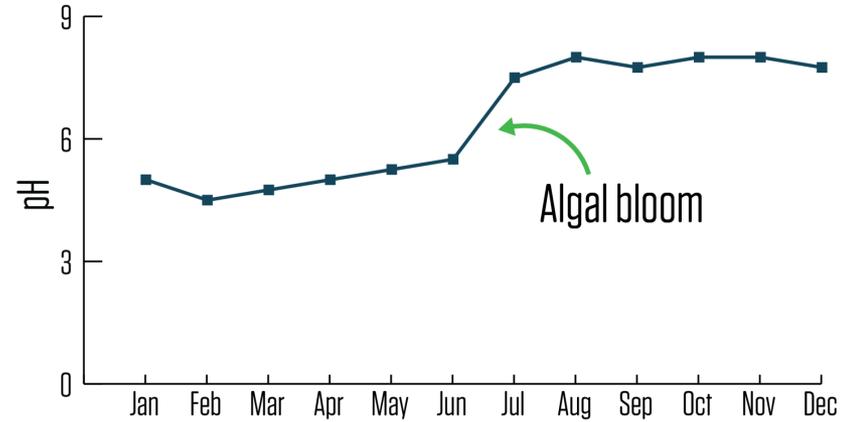
# Investigating an algae bloom

# What is an algae bloom?

When water quality conditions are right for **algae**, a type of aquatic plant, to grow rapidly, it can quickly take over a water body causing what is known as an **algae bloom**.

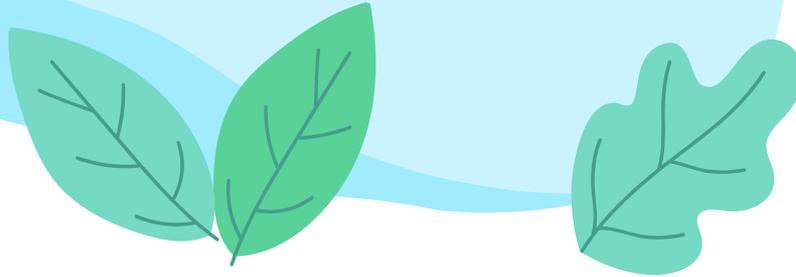
They are a major problem in many Canadian lakes!

- Decreased oxygen
- Decreased clarity
- *Blue-Green Algae*, one type of algae bloom, is extremely toxic



# Big question

Does the landscape around a lake influence potential algae blooms?



*Discuss with a classmate*



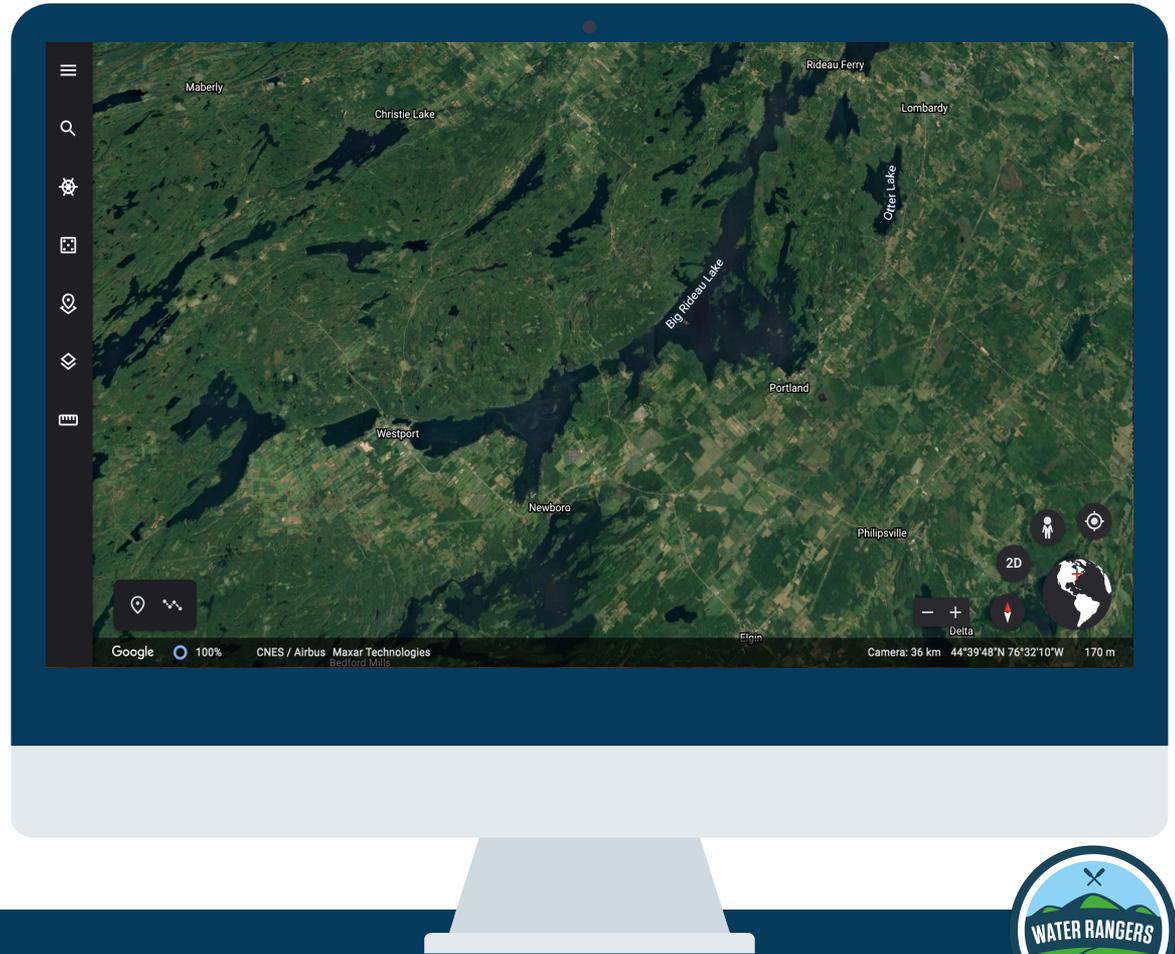
*Draw a picture*



*Explain your hypothesis*

# 01 Explore the map

Take a look at [Big Rideau Lake on Google Earth](#). Big Rideau is a popular summer cottage lake, and it has a lot of boat traffic as they move through the Rideau Canal.



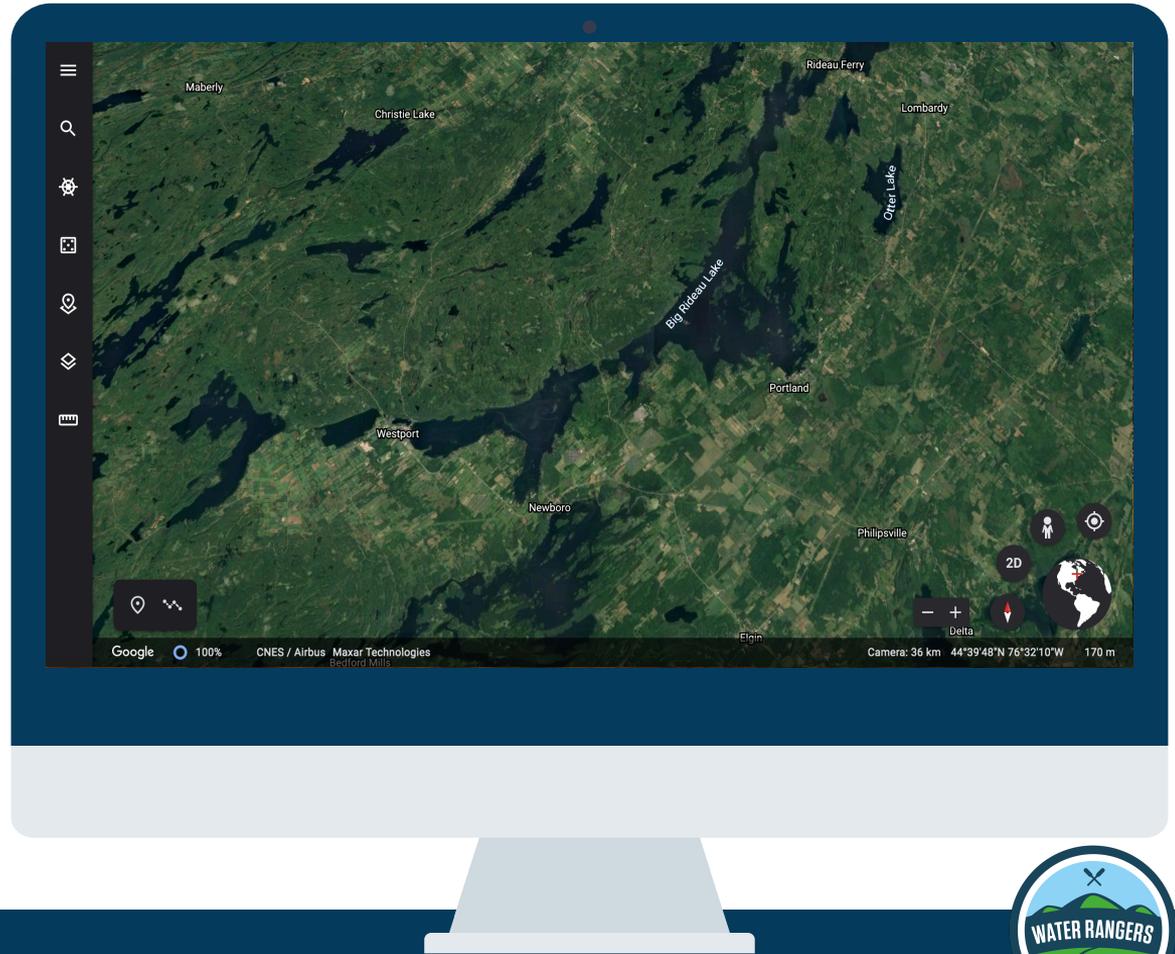
# 01 Explore the map

How do you think the runoff differs between the North and South shores of Big Rideau?

How would this difference influence algae blooms?



*Revise your picture with what you learned!*



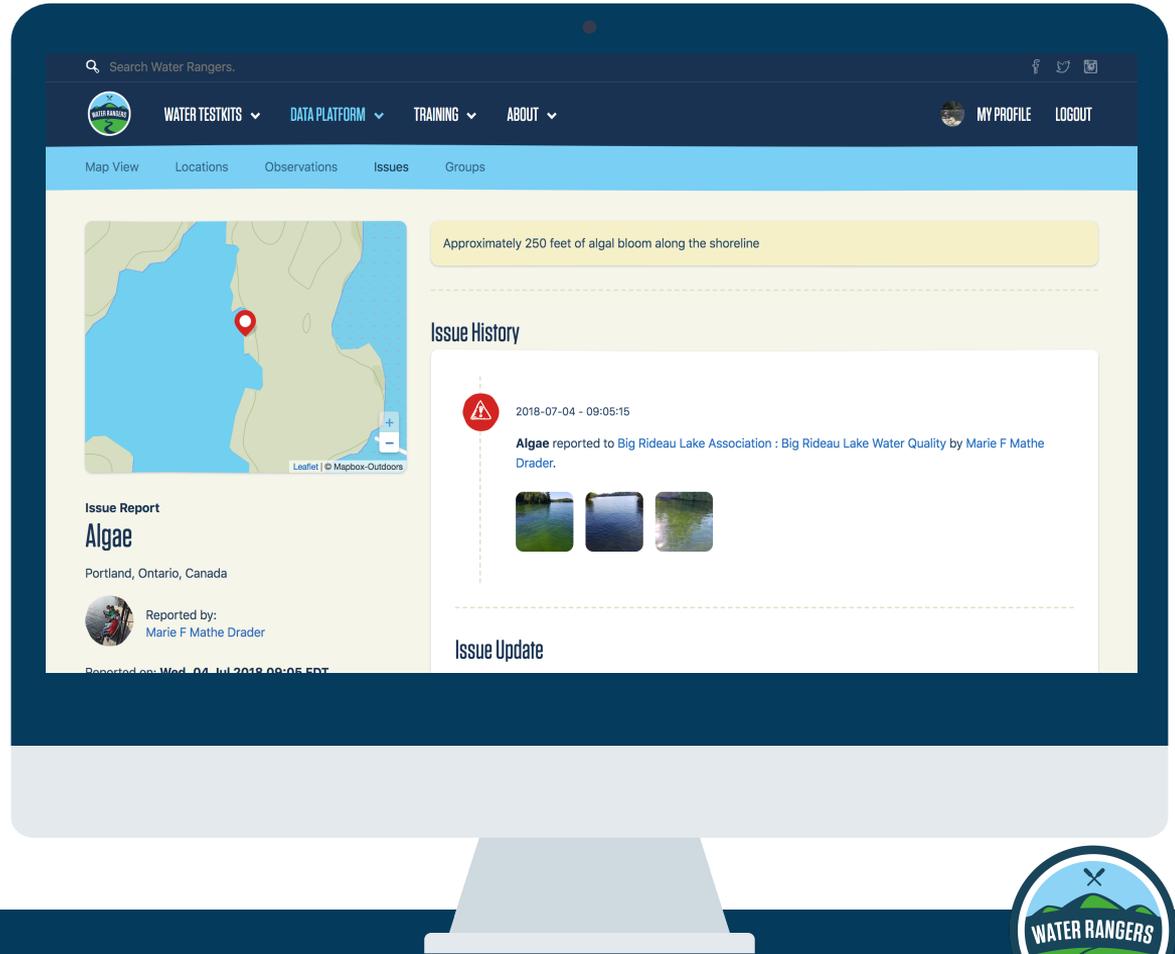
# 02 Incident report

Now, check out this Water Rangers Issue Report of an algae bloom on Big Rideau

**Make a hypothesis:** do you think this issue occurred on the North or South shore of the lake? Why?



*Revise your picture with what you learned!*



# 03 Share with your class

All our pictures probably look a bit different. Some of our hypotheses may be very different! Scientists learn by sharing with each other, combining ideas, and debating.

**Share your pictures of algae blooms and come to a consensus on where you think the bloom occurred.**



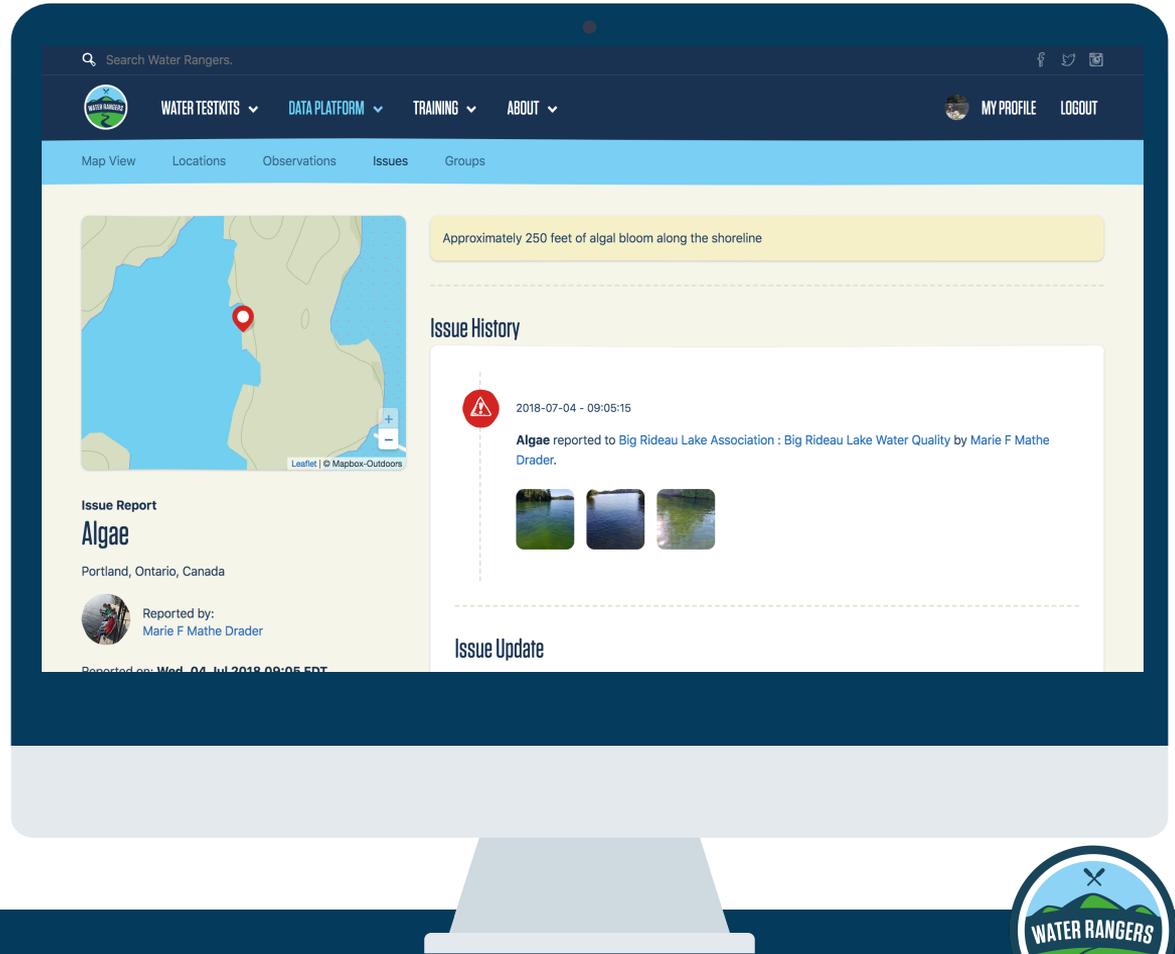
# 04 Check the map

Zoom out on the map on the left-hand side of the incident report to see where the bloom occurred. Does it fit your hypothesis?

**Discuss why or why not.**



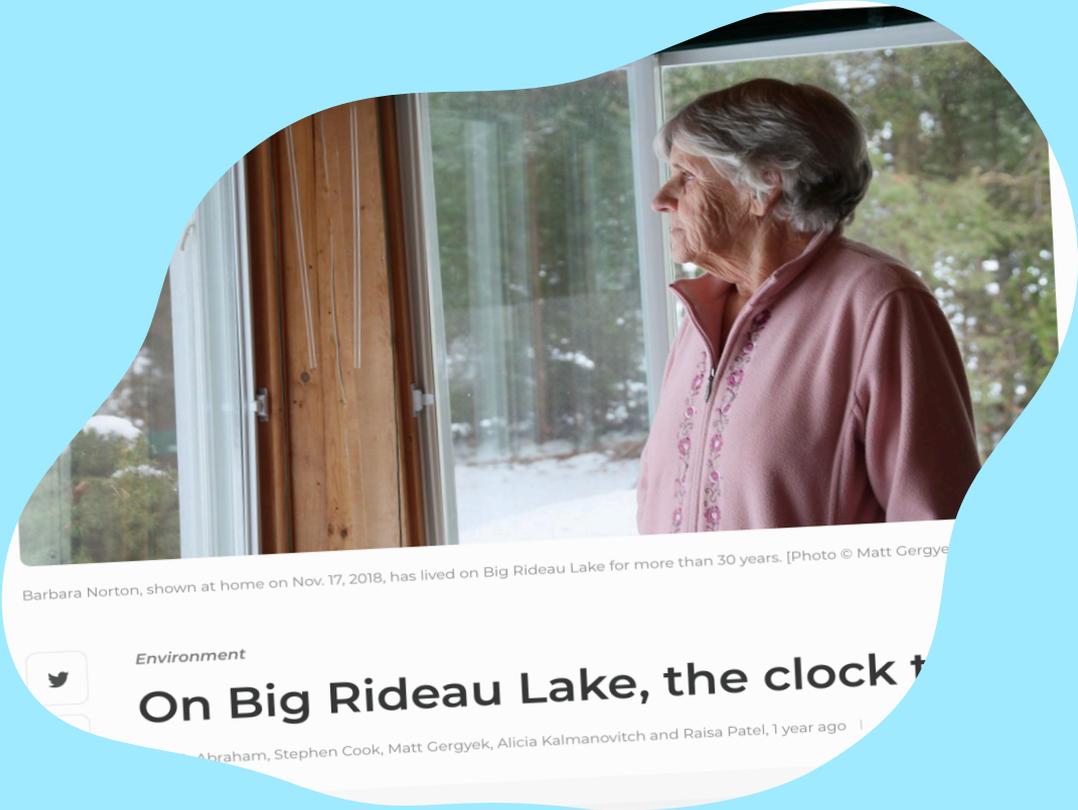
*Revise your picture with what you learned!*



# 05

## Reach further

How do *people* affect how runoff drives the water quality of Big Rideau? How might that change in the future? **Read this article** to find out about issues of development, land cover change, and phosphorus on Big Rideau and explore **social-ecological connections**.



Barbara Norton, shown at home on Nov. 17, 2018, has lived on Big Rideau Lake for more than 30 years. [Photo © Matt Gergye]

Environment

### On Big Rideau Lake, the clock t

Abraham, Stephen Cook, Matt Gergyek, Alicia Kalmanovitch and Raisa Patel, 1 year ago |





# Good work!

Do you have any questions?

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