



# Gybe

## Know Your Water.

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### CASE STUDY Drinking Water Utility

Keeping water safe,  
as water quality becomes  
increasingly complex and uncertain.

#### Where

Detroit Reservoir & Geren Island Drinking Water Treatment Plant, Oregon.

#### Why

A range of changes, including deforestation, wildfires, weather changes, and increased excess nutrient runoff, are increasing the complexity and uncertainty of the water quality conditions in the source water supply for the city. The prevalence of harmful algal blooms, excess sediments and new contaminants is on the rise. This raises the complexity of water monitoring, which has expanded upstream (beyond the intake points), covering increasingly large areas of the watershed.

The City of Salem is using GybeMaps™ to monitor changes at key points within the system continuously, and across all arms of the reservoir.

#### Customer Benefit

The City of Salem is using GybeMaps™ to increase the information density of key data collected by more than 10x, with only a 7% increase in monitoring costs. The delay from observation to notification is reduced from multiple days (for water samples + lab testing) to 1 hour.

**GybeMaps™ offers their water quality and operations managers peace of mind: issues developing in previously-unmonitored parts of the reservoir are now detected sooner, allowing them to shift away from reactive management when a change is detected, towards plan ahead more proactively.**

#### What's Next

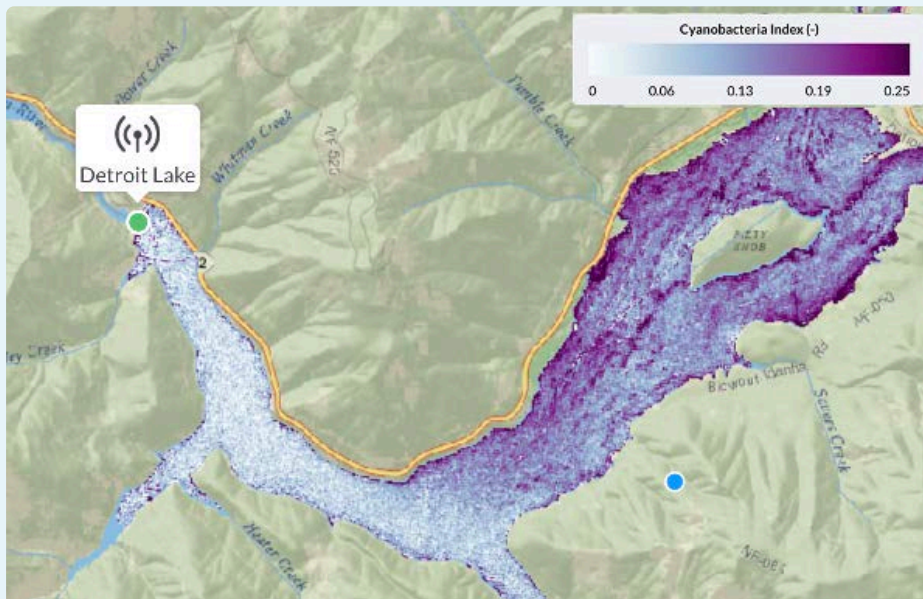
Development and implementation of GybeMaps™ automated reports, to help expedite communication with the City's partner organizations.

#### Sensor Data Performance

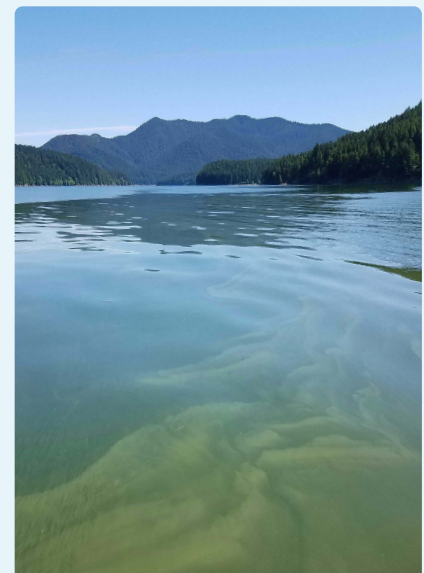
- 📶 2 sensors installed
- Geren Island sensor: uptime 90% over 2.5 years
- Detroit Lake Sensor: uptime 75% over 1 year

#### Satellite Data Performance

- 📡 - 346 datamaps generated per parameter (for 5 parameters)
- Detected downward trend for Chlorophyll-a concentration of 1 mg/m<sup>3</sup> per year



The City of Salem uses GybeMaps™ to track changes in water quality levels throughout the watershed.



Algal blooms are increasingly common at Detroit Lake and around the world.