VISION H_2O

Water Quality Report - Tedish

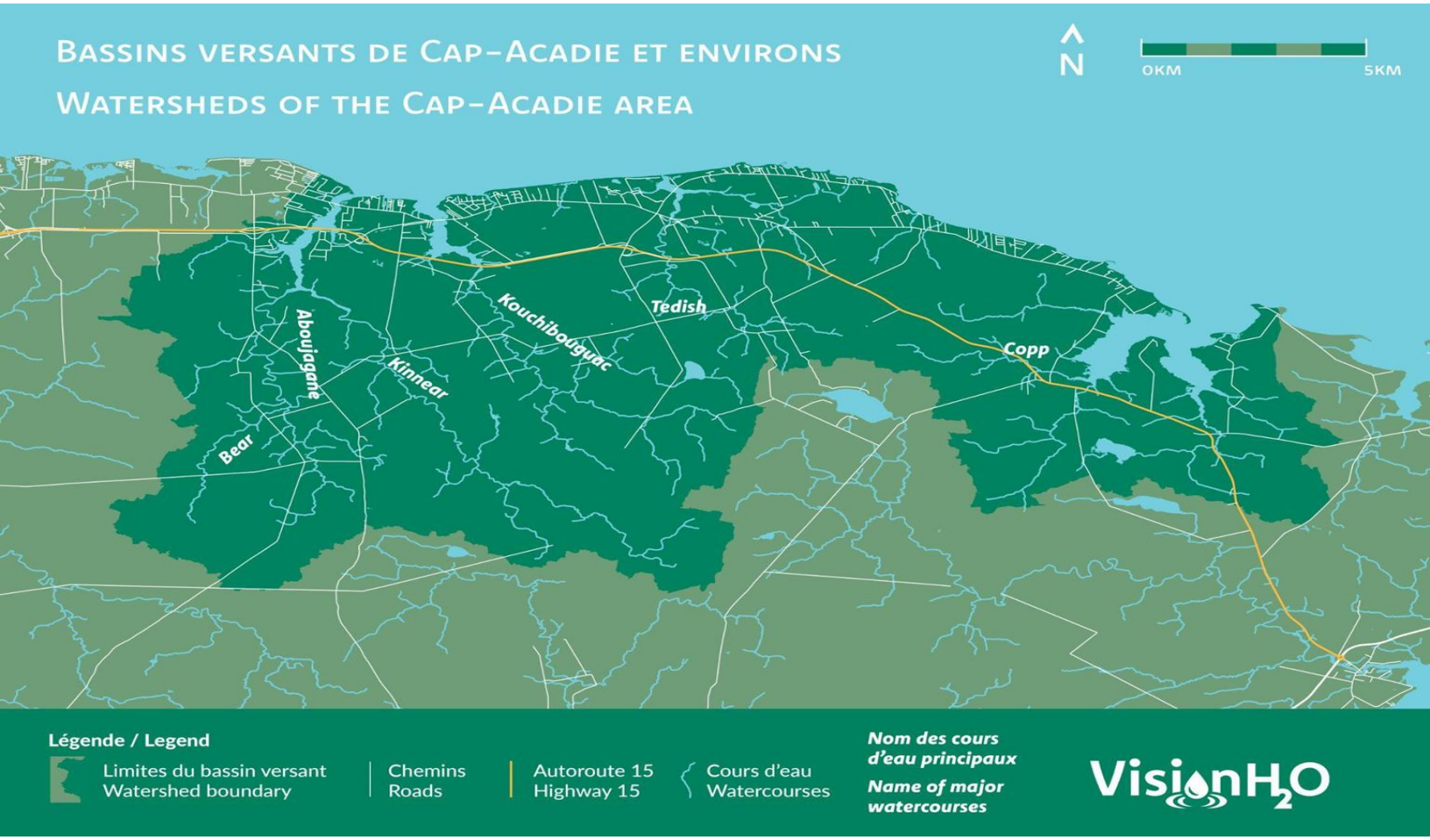
2025 SEASON

OUR ORGANIZATION

Since 2003, Vision H_2O is actively involved in several projects aimed at preserving the integrity of our local environment. As a watershed organization, the group works from an integrated water resource management approach in collaboration with various stakeholders in the region. Education and awareness of the importance of maintaining a healthy environment are at the heart of the organization.

OUR WATERSHED

The Cap-Acadie watershed stretches along some 70 km of coastline, from Cap-Bimet to Johnson's Point (Shemogue). Covering an area of over 320 km², the watershed includes the Aboujagane, Kinnear, Kouchibouguac and Tedish rivers, as well as several streams and other bodies of water, including lakes.



WHAT DO WE MEASURE?

Water Temperature

Water needs to be cold enough for some species (like salmon and trout) to survive.

Dissolved Oxygen

Ecosystems need a minimum amount of oxygen in the water to support healthy aquatic life.

E. Coli

Escherichia coli is a species of bacteria commonly found in the lower intestines of mammal species. *E. coli* levels are often used to detect fecal contamination in water.

pH

This measures how acidic/basic the water is- neutral levels are best for fish. Changes to the natural pH might impact the nutrients or toxins in the water.

Dissolved Solids

Dissolved solids can be anything from organic material, to minerals, to pollutants. Too many dissolved solids harm aquatic life and may indicate contaminated runoff.

Metals

Metals enter water from natural weathering of rocks and soils, and from human activities such as mining and industry. Even at low levels, these metals can harm aquatic life, affecting growth and survival.

Nutrients

While some nutrients are healthy, too many nutrients (like phosphorus and nitrogen) can cause algae and harm ecosystems. Nutrients often come from manure and fertilizer in runoff.

THE WATER QUALITY INDEX

Using the Canadian Council of Ministers of the Environment water quality guidelines, the Water Quality Index (WQI) combines multiple parameters into a single value that summarizes water quality at a site. It is calculated based on:

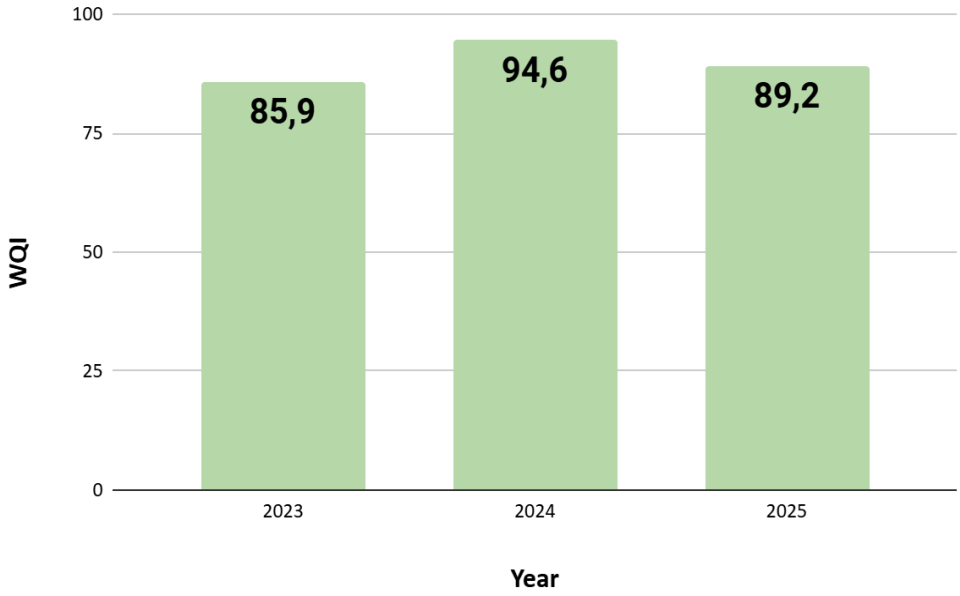
- the number of parameters that exceed guidelines,
- the number of times guidelines are exceeded,
- and the amount by which they are exceeded.

For an accurate WQI, a site is required to have 4 samples per year with at least 4 variables measured.

OUR WATER QUALITY INDEX SCORES

The WQI was calculated using: ammonia, arsenic, chloride, copper, dissolved oxygen, iron, nitrate, pH, phosphorus, turbidity, and zinc. These parameters are the same ones used by the NB Department of Environment and Local Government.

95-100	Absence of threat Almost pristine
80-94	Minor degree of threat Usually desirable levels
65-79	Occasional threat Sometimes desirable
45-64	Frequent threat Often not desirable
0-44	Almost constant threat Usually not desirable



FAILED TESTS

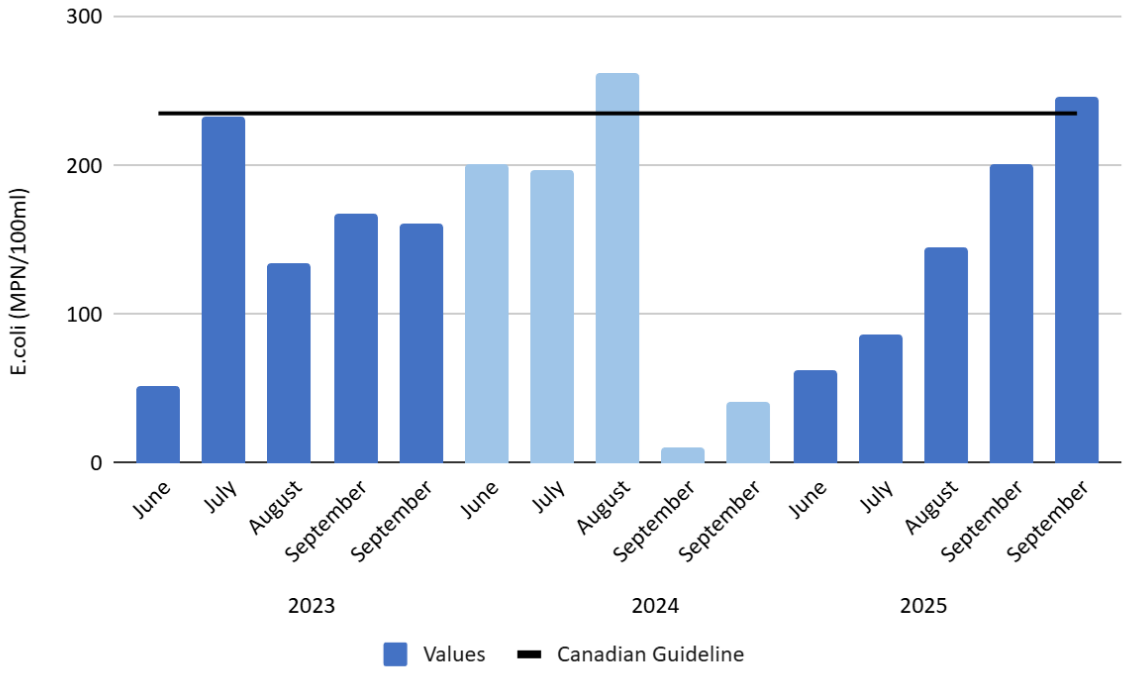
The table on the left lists the parameters that surpassed CCME water quality guidelines each year, along with the percentage of samples that reported these exceedances.

High levels of iron is to be expected, as New Brunswick sites typically contain high levels of iron due to its geological makeup.

Year	Failed Tests
2023	Iron (80%), Phosphorus (80%)
2024	Phosphorus (20%)
2025	-

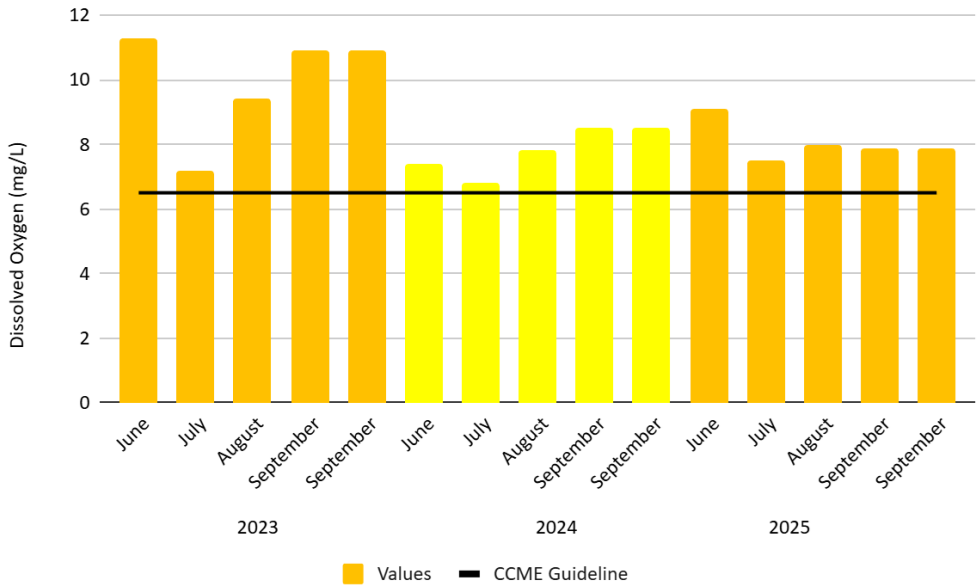
E. COLI

In the last three years, this site has recorded *E. coli* two times the levels exceeding the 235 MPN/100 mL Canadian Recreational Water Quality guideline. High *E. coli* levels typically indicate fecal contamination, posing risks to public health and aquatic ecosystems.



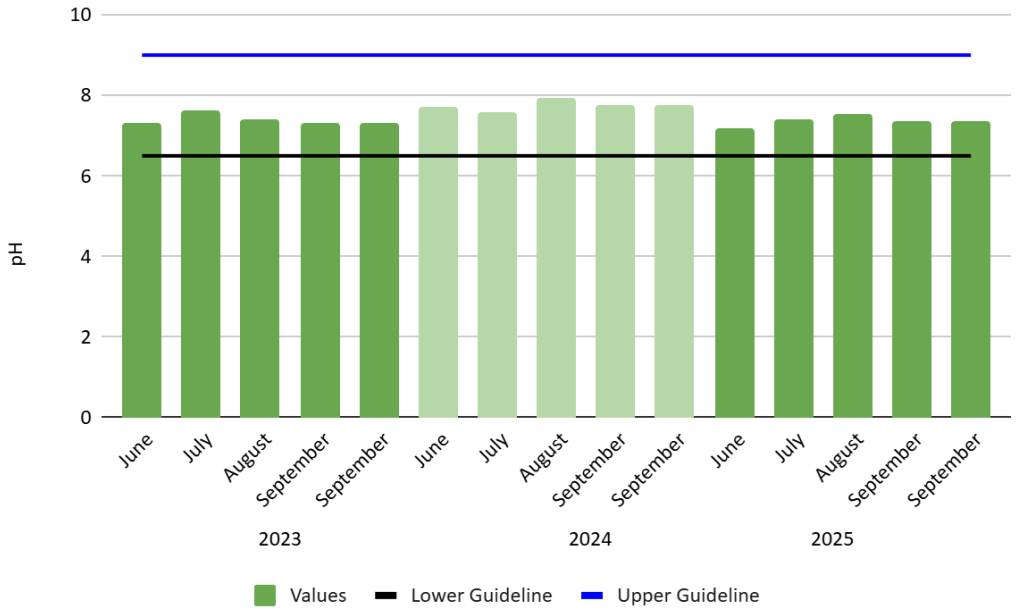
DISSOLVED OXYGEN

This site has recorded good dissolved oxygen levels which meet the NB provincial objective of 6.5 mg/L for the past three years.



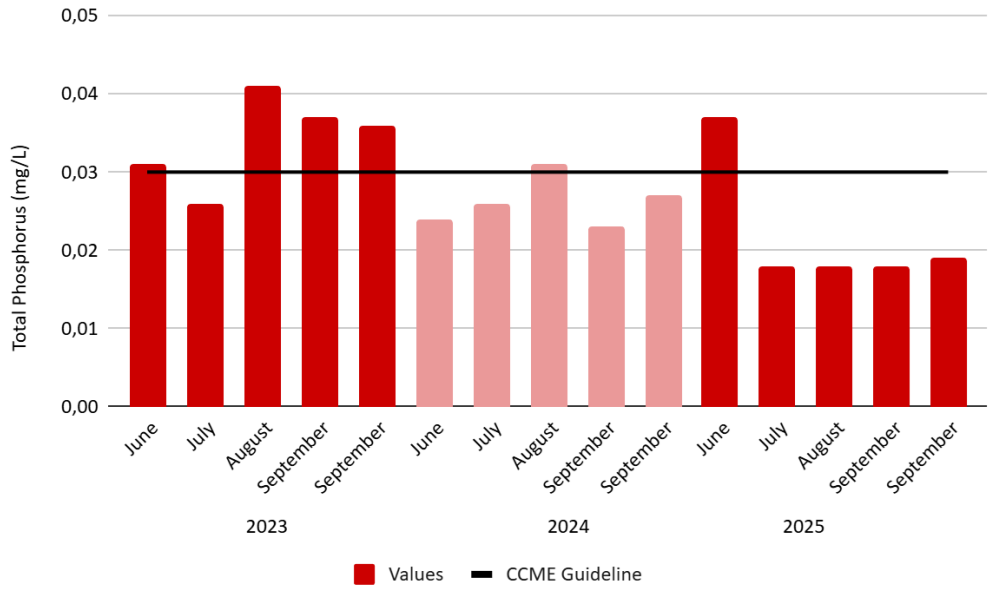
PH

This site has no values below the CCME water quality guideline for pH of 6.5-9.0 for the past three years. Deviations in pH levels in rivers can disrupt the growth of aquatic plants and animals, subsequently affecting the overall health and balance of aquatic ecosystems.



TOTAL PHOSPHORUS

This site has surpassed the CCME total phosphorus water quality guideline of 0.03 mg/L six times in the past three years. Increased phosphorus levels in rivers boost the growth of algae and aquatic plants, subsequently reducing the dissolved oxygen available to aquatic life.



Acknowledgements

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New Nouveau Brunswick
Your Environmental Trust Fund at Work
Votre Fonds en fiducie pour l'environnement au travail