

At-Capacity Cold Water Lakes

LAKE TROUT FACT SHEET

Lake Trout depend on deep, cold water lakes and rely on very specific conditions for water health-oxygen levels to maintain life.

Only ~1%
of Ontario's
lakes contain
Lake Trout.

What does 'at capacity' mean?

A lake trout lake is considered 'at capacity' for shoreline development if measured oxygen is below or predicted to fall below the dissolved oxygen criterion.

To safeguard the water quality of the lake, it is generally recommended to avoid new or more intense development within 300 meters of the waterbody.

Jewel Lake Trout

A unique native strain of lake trout that has adapted to a narrow range of local conditions in the Bancroft Area. This sensitive species is an excellent indicator of aquatic ecosystem health and will help sustain healthy lake trout populations into the future.



7 cold water lake trout lakes are 'at capacity' for development in the Municipality of Hastings Highlands:

1. Baptiste Lake
2. Big Mink Lake
3. Buck Lake
4. Diamond Lake
5. Kamanisseg Lake
6. Lake St Peter
7. Purdy Lake

Fast Facts

- The minimum dissolved oxygen concentration necessary to sustain a lake trout population is 7 mg/L¹.
- Lakes have a finite capacity to accommodate development and thus, land use changes can have detrimental effects on water quality and habitat.
- Lake trout lakes are especially vulnerable to the impacts of human activities including habitat destruction, introduced invasive species, septic system leaks, and overdevelopment.

Oligotrophic Lakes

The Lake Trout is the only major, native sport fish species in Ontario that is adapted to oligotrophic lakes. Oligotrophic lakes have low nutrient levels, high dissolved oxygen, and deep areas with very cold water.

Shoreline developments result in increased lake nutrient inputs which promotes excessive algal and plant growth, depletes dissolved oxygen levels, and degrades water quality. Special protection is required for lake trout lakes and their lake trout populations due to their high sensitivity to disturbance.

¹<https://www.ontario.ca/document/lakeshore-capacity-assessment-handbook-protecting-water-quality-inland-lakes>

Created by:



Funded by:



TD Friends of the Environment Foundation