



Lake Characteristic: Trophic Status – Oligotrophic

Description

These are lakes with low concentrations of nutrients (total phosphorus < 15 µg/L) resulting in generally low biomass of algae. They generally have the highest water clarity and high oxygen concentrations in the hypolimnion and are not likely to have low winter oxygen concentrations under the ice.

General Condition of Feature

This habitat is considered 95% in good to excellent condition, 5% in fair condition, and 0% in degraded to very degraded condition.

Associated Species of Greatest Conservation Need

FISH

- shortjaw cisco (*Coregonus zenithicus*)
- slimy sculpin (*Cottus cognatus*)

Associated Threats

POLLUTION

- Altered nutrient inflows: Eutrophication; Nutrient loading
- Altered sediment loads: Sediment loading

Conservation Actions Needed (Threats addressed)

LAND, WATER & SPECIES MANAGEMENT

- Maintain or establish riparian buffers of at least 50 ft., but 500 ft. or wider maximizes conservation benefits (riparian modifications)
- Protect existing natural wetlands and rehabilitate degraded wetlands (altered nutrient inflows)
- Survey loadings of sediments within watershed and develop strategies to reduce identified problems (altered sediment loads)

LAW & POLICY

- Encourage townships to separate combined sewer systems (altered nutrient inflows)
- Enforce the use of sediment barriers and best management practices during road siting, construction, and maintenance (altered sediment loads)
- Upgrade septic systems (altered nutrient inflows)
- Use best management practices (variety of threats)
- Work with local governments to develop and refine planning and zoning regulations and ordinances that consider natural processes (variety of threats)
- Work with local officials on setback and buffer ordinances (variety of threats)

EDUCATION & AWARENESS

- Educate landowners about nutrient inputs and the importance of riparian buffers (altered nutrient inflows, riparian modifications)
- Educate the public on the use of and reasons for maintaining septic systems (altered nutrient inflows)

Research and Survey Needs

- Inventory erosion sites and conduct remediation activities
- Survey nutrient loading and develop strategies to reduce identified problems

Monitoring

- Dissolved oxygen
- Effluent outflows: municipal wastewater treatment plants, septic systems
- Nutrients
- Sediment loadings
- Wetland modification