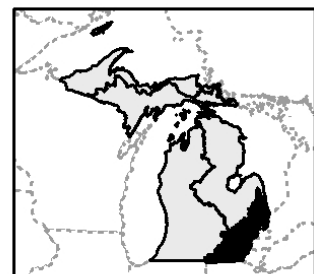


## Lake Characteristic: Stratified

No Data



0 10 20 40 Kilometers

0 5 10 20 Miles



## Lake Characteristic: Stratified

### Description

The development of discrete vertical layers of water with different water temperature resulting in two thermal habitats in the lake: (1) warm surface water that is always well oxygenated and (2) cold bottom waters that can have low to high oxygen concentrations. Lakes that are not stratified (unstratified) are generally shallow (< 2 m average depth), characterized by frequent complete mixing from top to bottom, and high oxygen levels throughout. Unstratified lakes generally can occur in one of two states. The first is characterized by high nutrients, high wind resuspension, no rooted plants, and turbid water; and the second is characterized by low to medium nutrients, low wind resuspension, rooted plants dominant, and clear water.

### General Condition of Feature

This habitat is considered 30% in good to excellent condition, 35% in fair condition, and 35% in degraded to very degraded condition.

### Associated Species of Greatest Conservation Need

#### *FISH*

- cisco or lake herring (*Coregonus artedii*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Altered hydrologic regimes: Modification of lake levels (low threat)

#### *POLLUTION*

- Altered nutrient inflows: Surface runoff - nutrients
- Urban, municipal, and industrial pollution: Surface runoff – contaminants

#### *HABITAT CONVERSION*

- Dams: (low threat)

#### *BIOLOGICAL INTERACTIONS*

- Invasive plants and animals: Zebra mussels filtering phytoplankton/zooplankton used by associated species

### Conservation Actions Needed (Threats addressed)

#### *LAND, WATER & SPECIES MANAGEMENT*

- Maintain or establish riparian buffers to at least 50 ft. (altered hydrologic regimes, altered nutrient inflows)

#### *LAW & POLICY*

- Reduce effluent inflows (Urban, municipal, and industrial pollution)
- Enforce permits controlling effluent discharges (Urban, municipal, and industrial pollution)

#### *CAPACITY BUILDING*

- Support watershed councils and regional conservation groups (general)

### Research and Survey Needs

- Research alternative methods for dealing with urban runoff
- Determine ways of decreasing imperviousness in a watershed
- Determine and document effective methods of communicating with the public and their stewardship role (reduce pesticide use, proper oil disposal, etc)

### Monitoring

- Effluent discharges: waste water treatment plants, septic systems, industrial
- Riparian buffer modification
- Watershed and regional councils and their needs