

Enemy Swim Preservation Association

State of the Lake

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Prairie Coteau Watershed Project

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Physical Characteristics of Enemy Swim Lake

- Maximum Depth: 26 feet
- Mean Depth: 16 feet
- Lake Volume: 33,792 acre-ft
- Surface Area: 2,146 acres
- Shoreline Length: 11.8 miles
- Watershed Acres: 24,774 acres

Introduction

Enemy Swim is one of the most popular lakes in the northeast corner of the state, known for its water clarity, panfish and bass fishing opportunities and other recreational activities. Water quality data has been collected from 1991 through present day. Chemical parameters that have been collected are ammonia nitrogen, nitrate nitrogen, total dissolved phosphorus, total phosphorus, total Kjeldahl nitrogen, total suspended solids, and chlorophyll A. Along with the chemical parameters, Secchi disk readings to measure water clarity, dissolved oxygen (DO), pH, and water temperatures are recorded.

All data collected is used to determine the trophic state index (TSI) of the lake. TSI is a standard measure or means for calculating the trophic status or productivity of a lake. More specifically, it is the total weight of living algae (algae biomass) in a waterbody at a specific location and time. Three variables, chlorophyll a, Secchi depth, and total phosphorus independently estimate algal biomass.



Figure 1. Watershed Map of Enemy Swim Lake