

Pike Bay (Chassell Bay) Invasive Watermilfoil Assessment

Chassell Township, Houghton County, MI

2022

Submitted To:
Chassell Township Board

Submitted By:

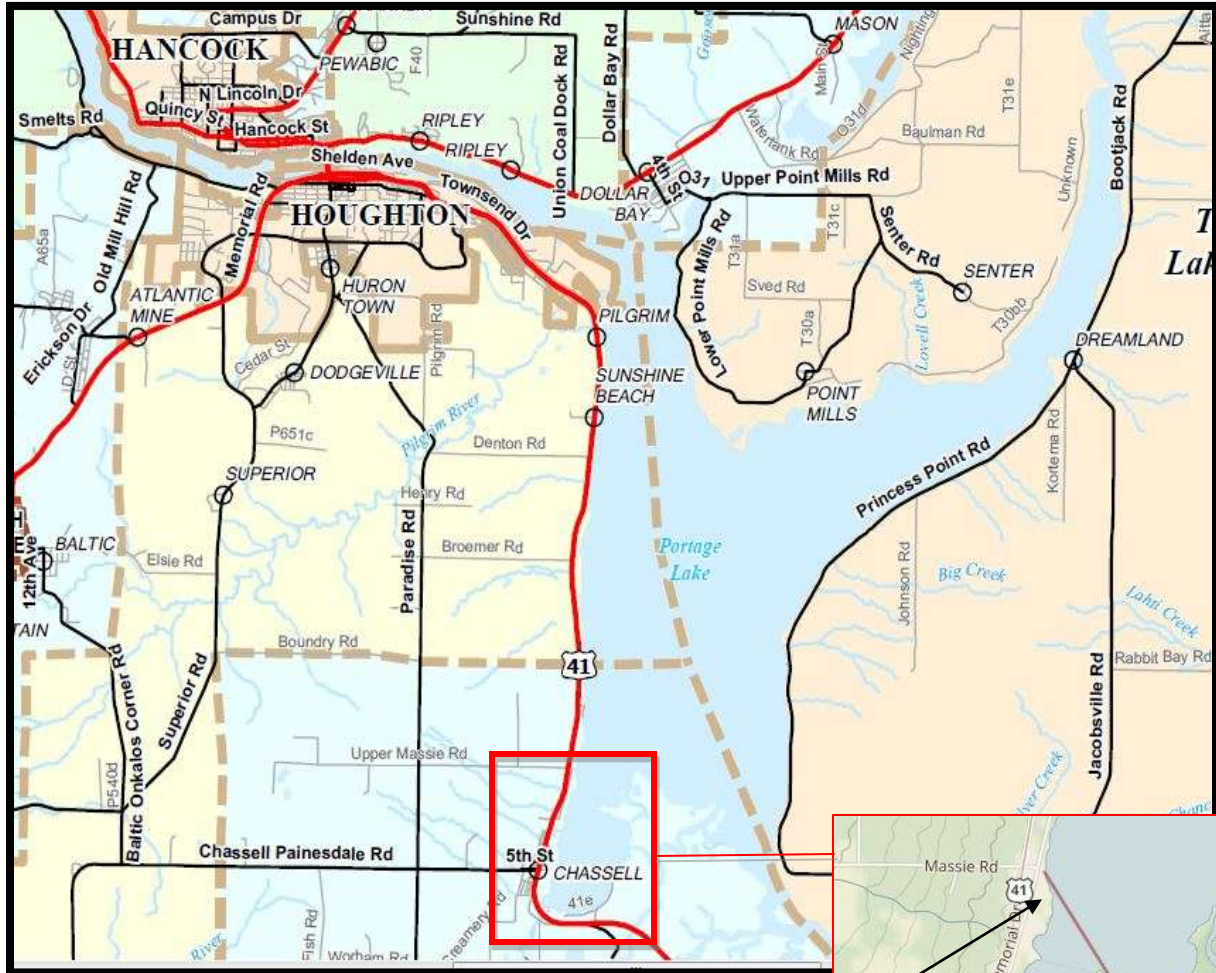
Many Waters, LLC
2527 Lake Ottawa Road
Iron River, MI, 49935

Contact: Bill Artwich; billartwich@gmail.com, 906.367.3206
Barb Gajewski; barb.manywaters@outlook.com, 906.284.2863

Date: 01/11/2023

PROJECT OVERVIEW

Pike Bay is a secluded yet connected bay of Portage Lake located in Chassell Township, Houghton County, MI. Riparian ownership of Pike Bay includes Chassell Township, private riparian's and the Michigan Department of Natural Resources (MDNR). This survey includes Pike Bay and waters adjacent to Chassell Township along the western shore of Portage Lake north to Massie Road.



Northern extent of survey scope



ASSESSMENT METHODS

The 2022 assessment methods repeated the meander survey completed in previous years (2020 & 2021). Meander surveys systematically zigzag across the shallow water regions of a lake searching for a target species, in this case invasive watermilfoil. These types of assessments are qualitative in nature, meaning information collected uses best judgment to describe the condition of the target AIS rather than collecting measured data used for quantitative analysis. Smaller sites are geo-referenced with a GPS point and extent is determined by visually estimating coverage in foot-circumference. This is an observed estimate of exact extent, not footprint. On average, these sites are less than a 0.10 of an acre in size. Larger sites, typically greater than a 0.10 of an acre in size, are circumnavigated and extent in acres is calculated and represented by a polygon. Plant abundance or density for each site is estimated on a five-part scale from sparse to dense.

On September 28th 2022, a meander survey focused on identifying sites of invasive watermilfoil (Eurasian watermilfoil and hybrid watermilfoil combined) within Pike Bay and along the western shore north to Massie Road. Weather reported partly cloudy skies, light northwest winds, and 55° F surface water temperatures at the beginning of the day. Water clarity was excellent.

ASSESSMENT FINDINGS

A substantial increase in invasive watermilfoil was detected in 2022 compared to 2021, with ~34 acres versus ~13 acres detected respectfully (Table 1). Most notable increases occurred along Centennial Park (west side) and the southeastern (Half Moon) regions of the lake. Whereas most notable decreases occurred at the mouth of the Pike River, where denser small yet contiguous beds of EWM detected in 2021, appear to have declined and replaced with native waterweed (*Elodea* sp.)

EWM bed (grey polygon) located adjacent to Centennial Park



Figure 1: Invasive watermilfoil acreage and abundance (point based and polygon based mapping combined) 2020 - 2022 – Pike Bay, Chassell Township, MI.

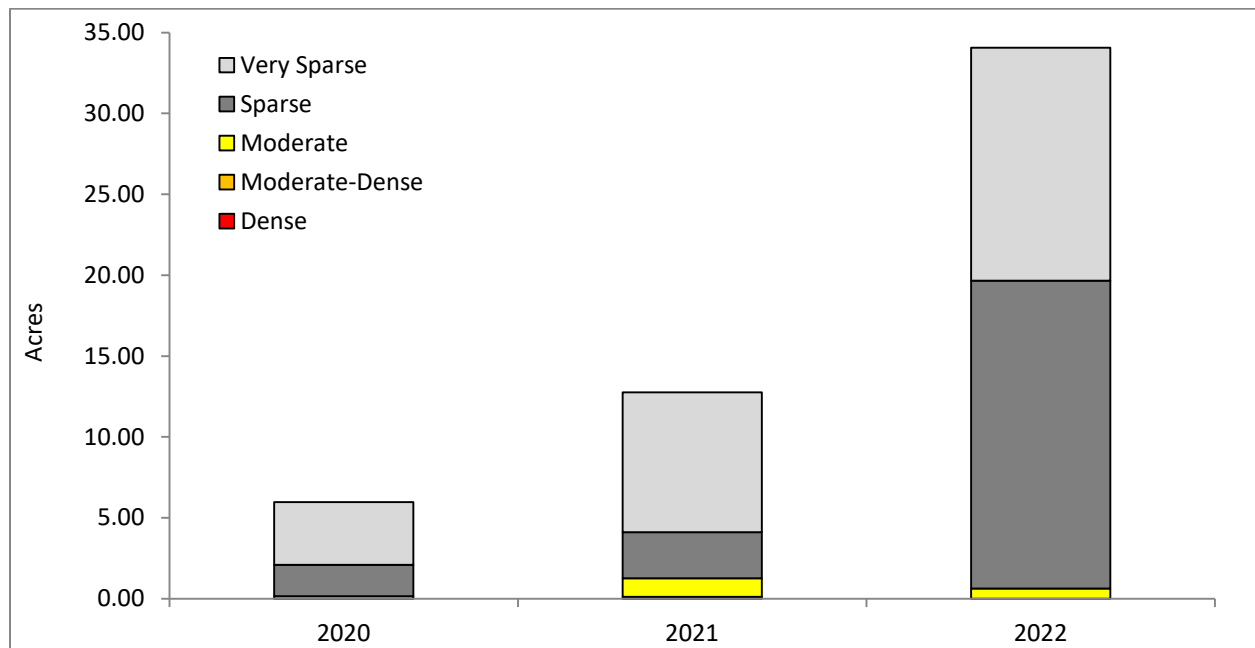
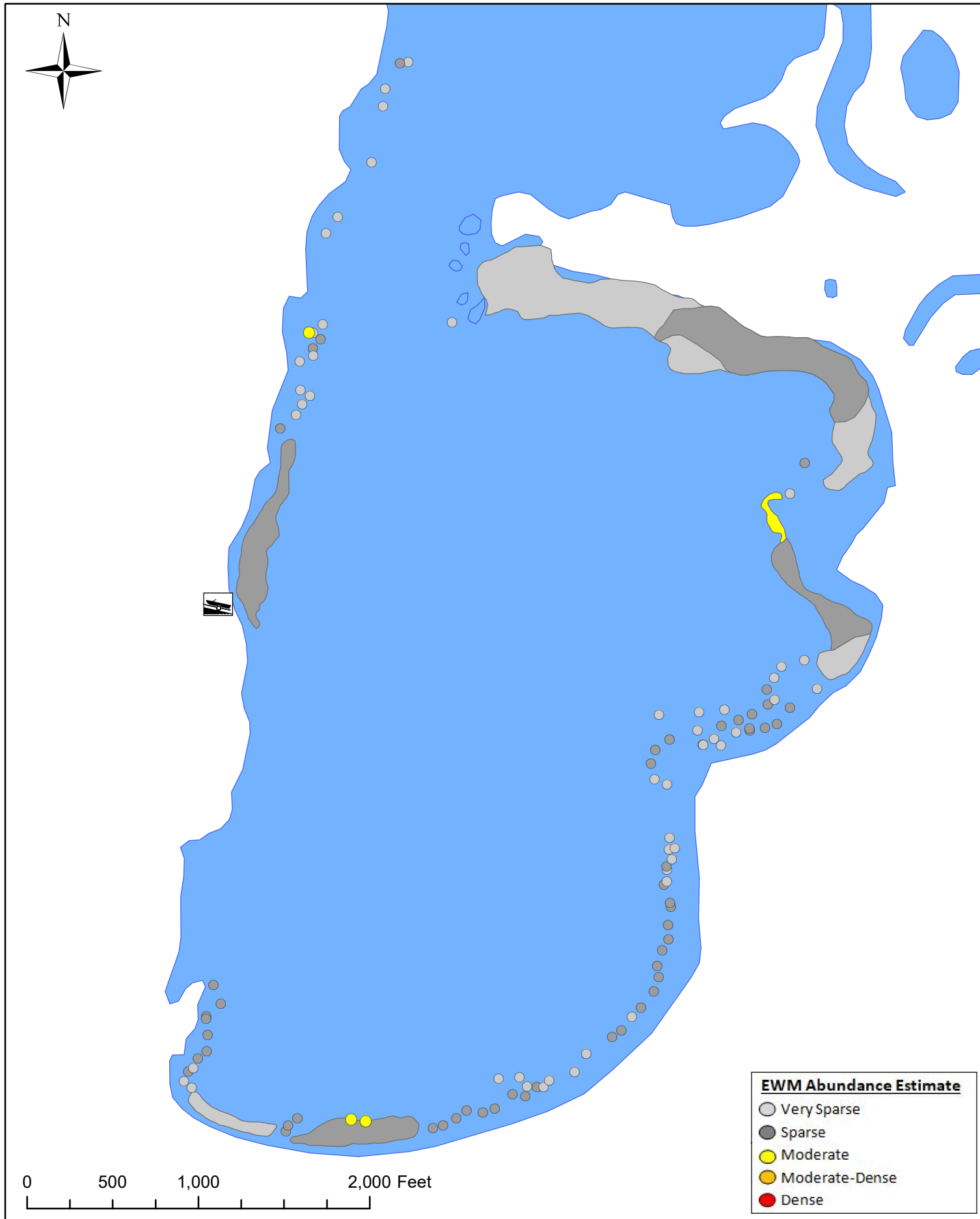


Table 1: Invasive watermilfoil acreage (point based and polygon based mapping combined) and abundance 2020 - 2022 – Pike Bay, Chassell Township, MI.

	2020	2021	2022
Dense	0.00	0.00	0.00
Moderate-Dense	0.00	0.12	0.00
Moderate	0.15	1.15	0.63
Sparse	1.95	2.84	19.03
Very Sparse	3.86	8.66	14.42
TOTAL (acres)	5.96	12.76	34.08



Lake: Pike Bay, Portage Waterway - Houghton Co., MI
Map Date & Creator: 01/11/23, Many Waters, LLC
Survey Date: 09/28/22
Source: HWM-Many Waters, Lak_polygons_200403
File: Chassell_2022_HWM

**Pike Bay Invasive Milfoil Survey
Chassell Township, Houghton County, MI
2022**