

Chassell Bay Invasive Watermilfoil Assessment

Chassell Township, Houghton County, MI

2021

Submitted To:
Chassell Township Board

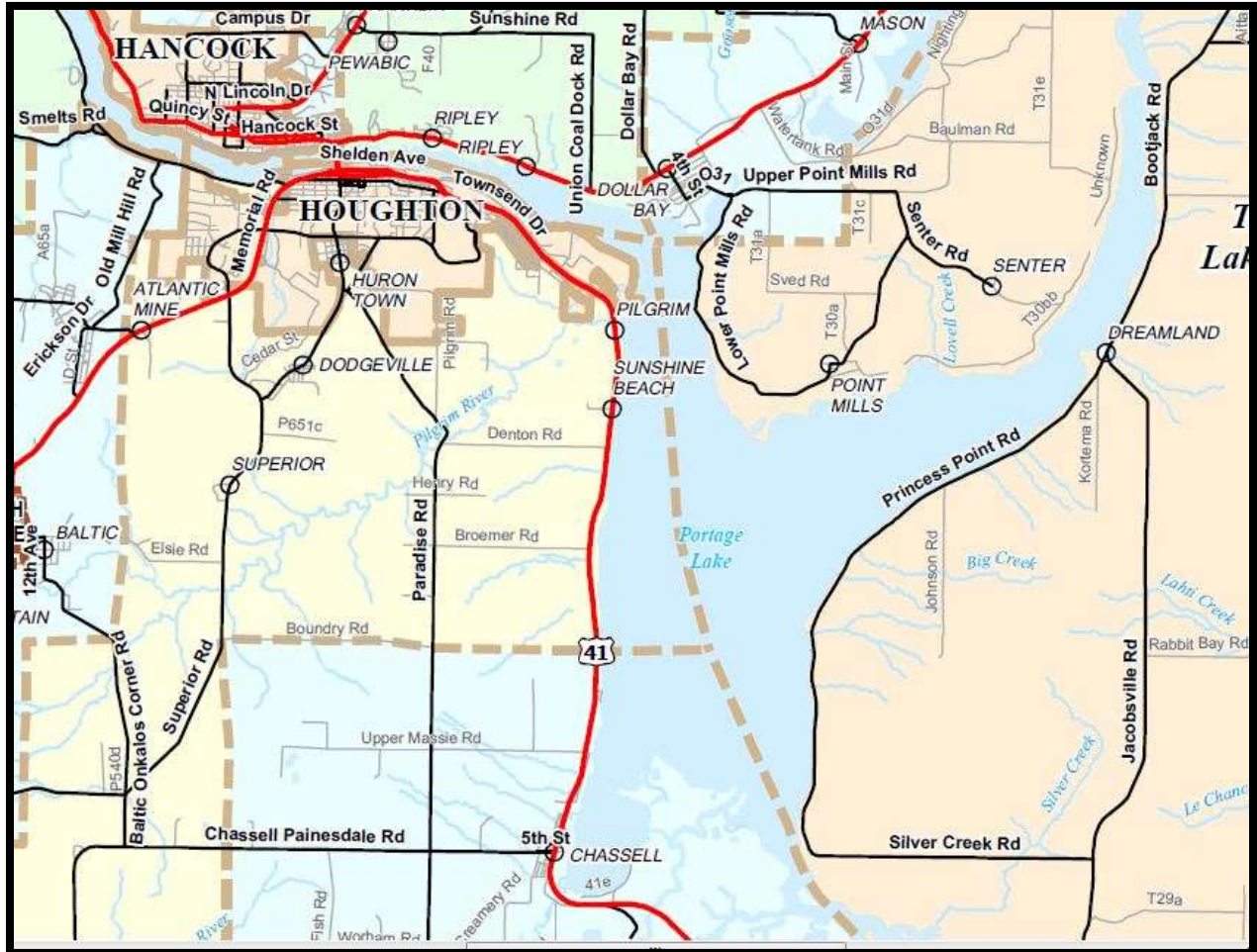
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Date: 03/07/2022

PROJECT OVERVIEW

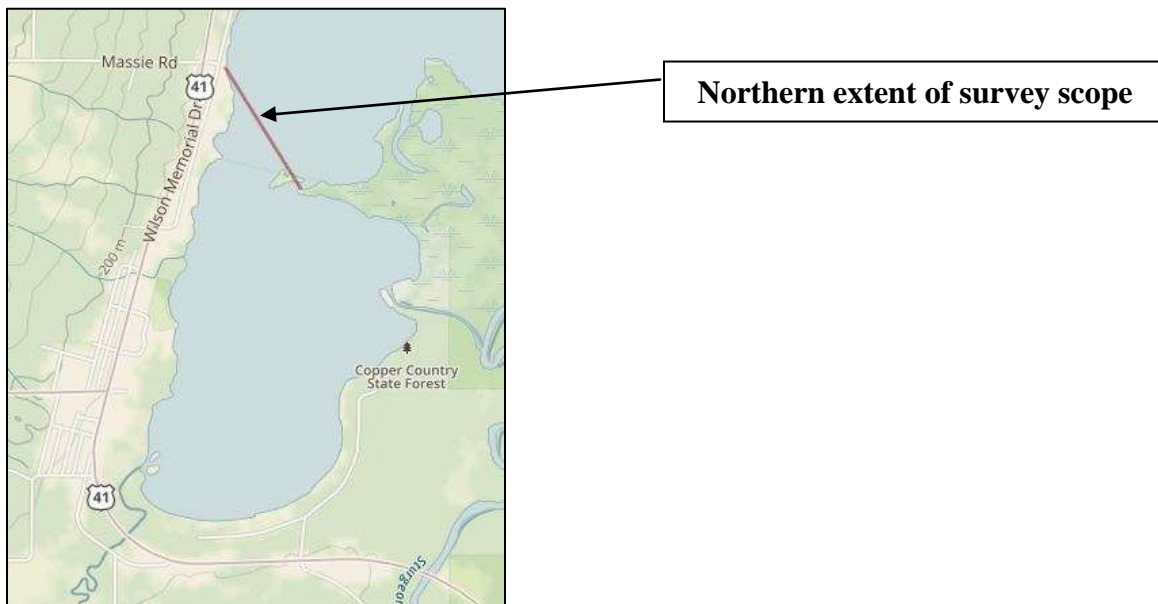
Pike Bay is a secluded yet connected bay of Portage Lake located in Chassell Township, Houghton County, MI. Riparian ownership of Pike Bay comprises of Chassell Township, private riparian's and the Michigan Department of Natural Resources (MDNR). This survey includes Pike Bay and waters adjacent to Chassell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



ASSESSMENT METHODS

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 July 9th, 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 sunny skies, light south wind, and 68.80° surface water temperatures at the beginning of the day. Water traffic was very light due to Strawberry Festival and the access site to Pike Bay being close. The Sturgeon River Slough access site was used to access Pike Bay.



ASSESSMENT FINDINGS

Similar to 2020, the majority of invasive watermilfoil detected consisted of sparse to very sparse locations, with the majority of locations along the wetland complex to the northeast and at the entrance of the Pike River. The remaining sites along the southeastern portion of the bay (Half Moon Beach vicinity) consisted of highly scattered invasive milfoil, most sites consisting of single plants. The assessment paralleled the log pilings north of the Pike River inlet, however, did not traverse in and out of these pilings. A total of 12.76 acres of invasive milfoil was identified. The change from 2020 to 2021 accounting for the majority of this increase is along

the northeast end where in 2020 EWM locations were point based, and in 2021, EWM locations were continuous enough to be mapped with polygons. Fewer EWM locations were detected along the southeast shore (Half Moon Beach) in 2021 than in 2020. Very little floating invasive watermilfoil fragments were observed during survey efforts. A draft copy of the survey findings were shared via email on July 18th to Chassell Bay representatives.

Figure 1: Invasive watermilfoil acreage and abundance (point based and polygon based mapping combined) 2020 & 2021 – Pike Bay, Chassell Township, MI.

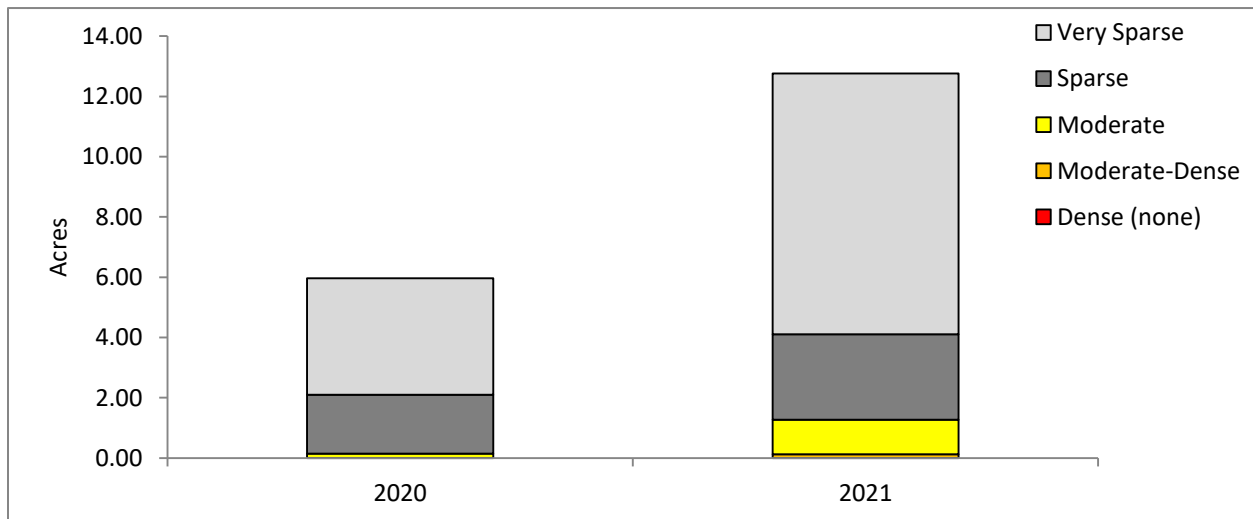
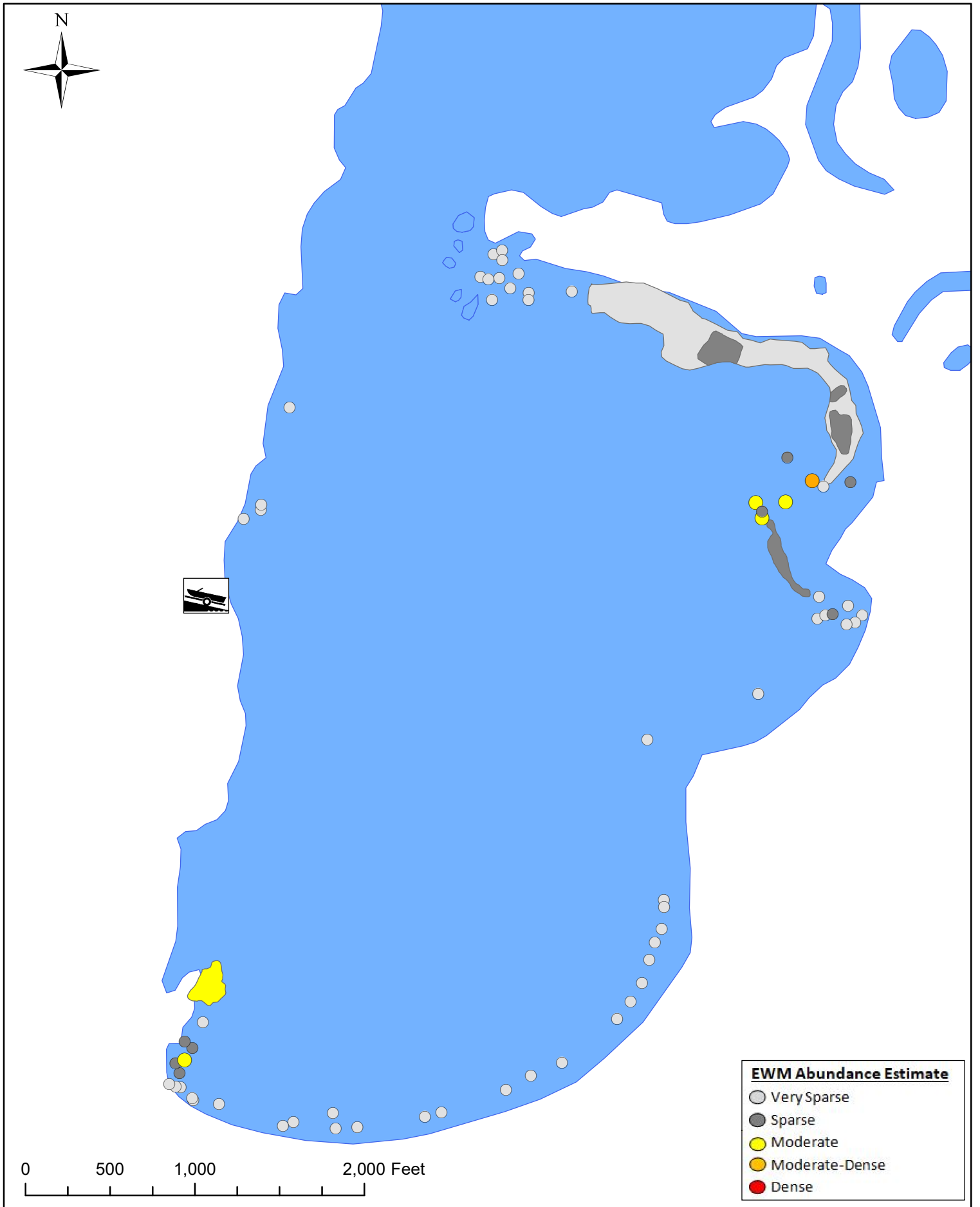


Table 1: Invasive watermilfoil acreage (point based and polygon based mapping combined) and abundance 2020 & 2021 – Pike Bay, Chassell Township, MI.

	2020	2021
Dense (none)	0.00	0.00
Moderate-Dense	0.00	0.12
Moderate	0.15	1.15
Sparse	1.95	2.84
Very Sparse	3.86	8.66
TOTAL	5.96	12.76



Lake: Pike Bay, Portage Waterway - Houghton Co., MI
 Map Date & Creator: 07.17.2021, Many Waters, LLC
 Survey Date: 7.09.2021
 Source: HWM-Many Waters, Lak_polygons_200403
 File: Chassell_2021_HWM

**Pike Bay Invasive Milfoil Survey
 Chassell Township, Houghton County, MI
 2021**