Project Type: AIS_GRANT – Aquatic Invasive Early Detection and Response
Project ID: AIRR-133-13
Project Sponsor: Town of Barnes, Bayfield County, Wisconsin

Summary: Middle Eau Claire Lake

The Town Board of the Town of Barnes contracted Matthew S. Berg, Research Biologist of Endangered Resource Services, LLC. to perform plant surveys on Middle Eau Claire Lake on an annual basis through the present 2020. The surveys and findings have been provided to the Wisconsin DNR by Matthew Berg, himself. Costs associated with this activity have been included each year with the Request for Partial Payment filed by the Town of Barnes.

The Town of Barnes continues to strongly support the Shoreline Monitoring and Boat Landing Monitoring on Middle Eau Claire Lake and ensured the monitoring continued throughout the term of the grant. Middle Eau Claire Lake Shoreline Monitoring and hand-pulling of Curly-leaf Pondweed detailed hours, equipment hours and expenses have been included annually with the Request for Partial Payment filed by the Town of Barnes.

The harvesting of plants by the BAISS pontoon has shown promise in the ability to assist in controlling the population of aquatic plants in Middle Eau Claire Lake, but areas need more direct attention rather than attempting to address all areas in one season. Due to the Covid-19 Pandemic, the start of the BAISS harvesting was delayed until mid-June. The Town hired two certified-divers in 2020, and new to the program, the first few days were introduction to Curly-leaf Pondweed and the use of the harvester. Late start, new staff, new method for tracking, and windy summer days resulted in less time spent on the water in 2020 than previous years, but considered successful due to the amount of AIS removed.

Along with the data provided to the Wisconsin DNR by Mathew Beg, Endangered Resource Services, the Town of Barnes is providing additional data from BAISS operations with this project summary.

CLP Mapping 2019

CLP Mapping 2020

Waste Bin:

Contractor 42-gal bag is clamped to this waste bin. The bags have small holes to drain water only.

Bags are considered 'full' when contents reach 2nd bar from pontoon floor.

Example of collection:

Wagon holds 9 bags.

Bags are 3 mil 42 gallon

Each bag estimated at 3.11 cubic feet.

Aquatic Invasive Species is disposed at brush site owned by Town of Barnes.

Grid System Tracking:
Previous years used individual GPS markings to identify plant populations. Early in training of new divers and new volunteers, it was found to be difficult to understand the tracking as there was no indication of how much plant population was in the GPS area or what had been done previously in the GPS area.

Using a grid system to incorporate the individual GPS markings, but using grid boundaries for divers to track where they are when underwater and searching for plants allows more understanding and tracking of the removal process.

Purpose of grid system developed by Gus Gustafson, AIS Committee Member:

- Allow for more organized plant removal.
- Increase ability to quantify the amount of aquatic plants removed in specific areas.
- Allow for more complete coverage of target area, as divers can reach up to 100' in any direction of grid points. Moving BAISS from grid corner to grid corner and middle of grid, allows overlap of area for more complete removal.
- Allows for organized visual inspection by divers for follow-up after removal. Based on GPS readings at corners of Grid MG1, divers will be able to cover same area within grid where CLP was removed in 2020 to assess regrowth of plant population. Once former areas have regrowth removed, BAISS operations will continue to the next grid. This will allow for better understanding of how fast the plant regrows and whether suction harvesting is working. We will have the potential to tell if grids have to be revisited every year or every other year, allowing more complete monitoring of the lake. If plant resurgence can be mitigated on a grid by grid basis, it is hoped that monitoring year over year will be enough to contain the Curly-leaf pondweed population.
- The Grid is identified by four corners of red circles. The Name of the grid is identified by white circle with an X, using first letter of lake (MG1 = Middle Grid 1). Grid size in 2020 for Middle Eau Claire MG1 was 94,374.7 square feet.

BAISS crew Volunteer Hours 2020
Middle Eau Claire Lake

Project	DATE	NAME	WORKED PERFORMED	HOURS WORKED	MILEAGE	Grid/WP	Num. bags
Middle Eau Claire Lake	6/29/2020	Gerald Gustafson	Deckhand	3	20		
Middle Eau Claire Lake	6/30/2020	Ted Eastland	Deckhand	6	20		
Middle Eau Claire Lake	7/1/2020	Gerald Gustafson	Deckhand	6	20		
Middle Eau Claire Lake	7/1/2020	Lea Culliton	Deckhand	3	2		
Middle Eau Claire Lake	7/2/2020	Gerald Gustafson	Deckhand	6	20		
Middle Eau Claire Lake	7/2/2020	Mike Ertel	Deckhand	3	2		
Middle Eau Claire Lake	7/6/2020	Diane Menard	Deckhand	2	6		
Middle Eau Claire Lake	7/7/2020	Ted Eastland	Deckhand	7	26		
Middle Eau Claire Lake	7/7/2020	Tom Friden	Deckhand	3	26		
			Hours Worked	**39**			
					142		
				Tot. Miles			

Bags Removed

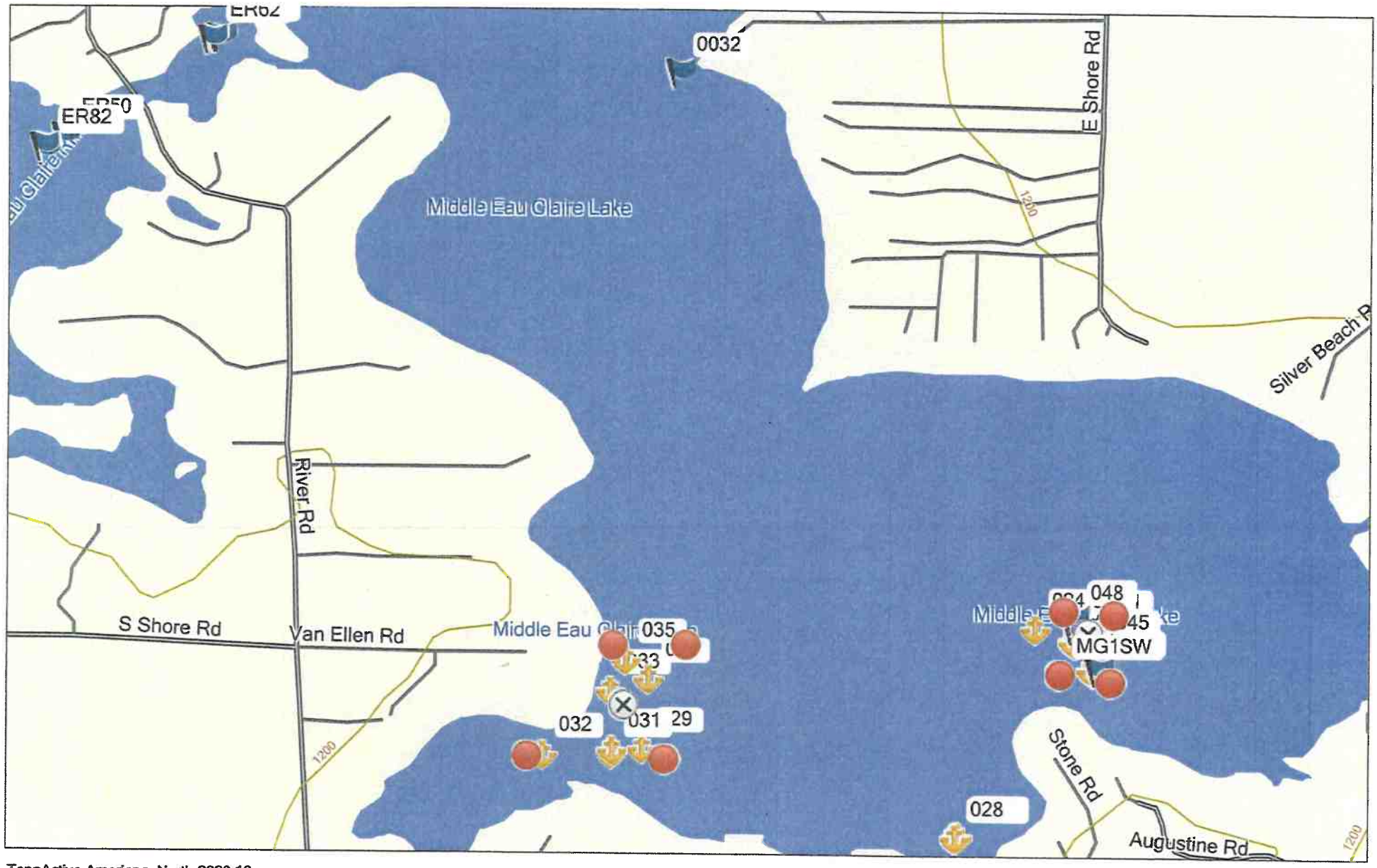
Middle Eau Claire Lake	6/30/2020	MG1	1
Middle Eau Claire Lake	7/1/2020	MG1	1
Middle Eau Claire Lake	7/2/2020	MG1	1
Middle Eau Claire Lake	7/7/2020	ER	3.5
		Total bags	**6.5**

VOLUNTEER HOURS

Lake	Date	Name	Work Description	Hours	Mileage
Middle Eau Claire Lake	6/25/2020	Gerald Gustafson	Cleaned and launch BAISS pontoon	3.5	
Middle Eau Claire Lake	6/25/2020	Rick Mattila	Cleaned and launch BAISS pontoon	3.5	25
Middle Eau Claire Lake	6/26/2020	Gerald Gustafson	Administration	2.0	
Middle Eau Claire Lake	6/29/2020	Gerald Gustafson	Service BAISS and Dispose of AIS weeds	1.5	
Middle Eau Claire Lake	6/30/2020	Gerald Gustafson	Service BAISS and Dispose of AIS weeds	1.5	
Middle Eau Claire Lake	6/30/2020	Gerald Gustafson	Pickup gas for BAISS	1.0	15
Middle Eau Claire Lake	7/1/2020	Gerald Gustafson	Service BAISS and Dispose of AIS weeds	1.5	
Middle Eau Claire Lake	7/4/2020	Gerald Gustafson	Administration	2.0	
Middle Eau Claire Lake	7/2/2020	Gerald Gustafson	Service BAISS and Dispose of AIS weeds	1.5	
Middle Eau Claire Lake	7/7/2020	Gerald Gustafson	Service BAISS and Dispose of AIS weeds	1.5	
Middle Eau Claire Lake	7/7/2020	Gerald Gustafson	Pickup gas for BAISS	1.0	15
Middle Eau Claire Lake	7/11/2020	Gerald Gustafson	Administration	2.0	
			Hours Worked	**22.5**	
				Tot. Miles	**55.0**

Middle Eau Claire Lake Grid 1 (MG1)

Eau Claire River (ER)

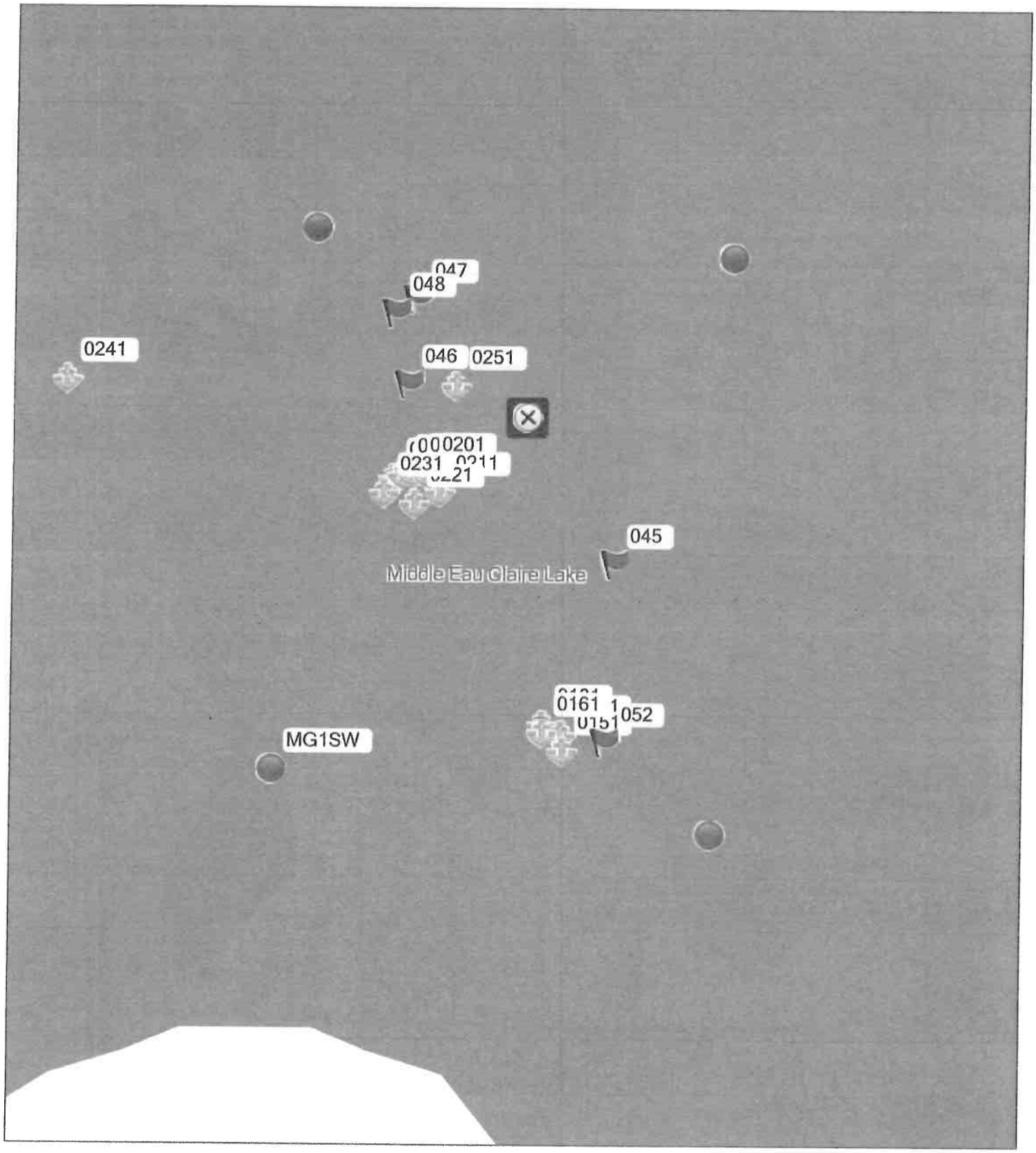


TopoActive Americas, North 2020.10

0 mi 0.1 mi 0.2 mi 0.3 mi 0.4 mi

M2020

GARMIN.



TopoActive Americas, North 2020.10

0 ft 60 ft 120 ft 180 ft 240 ft

M2020

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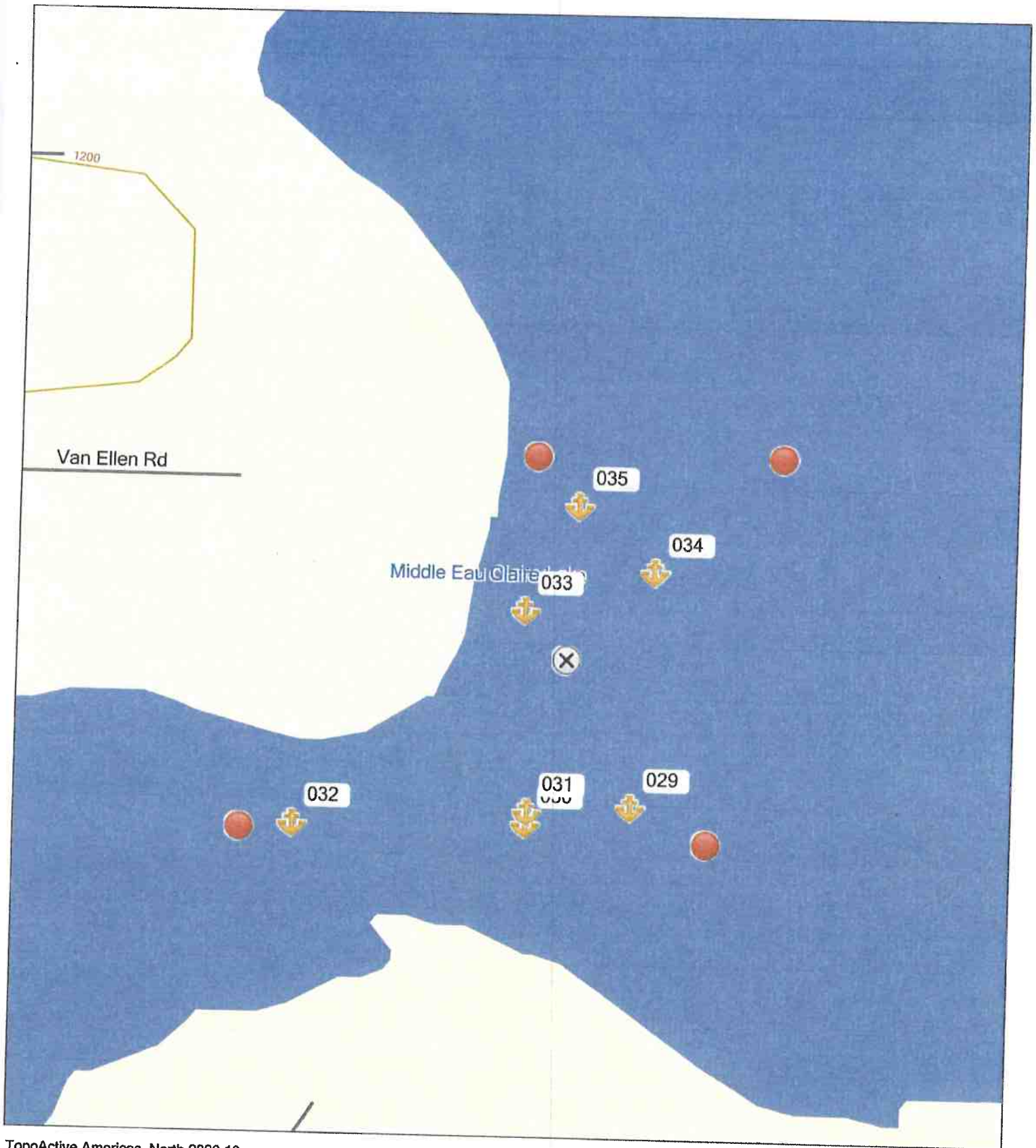

TopoActive Americas, North 2020.10

M2020

GARMIN.