

**2019 Annual Report on Implementation of the 2000 Consent Decree
for 1836 Treaty-Ceded Waters of the Great Lakes**

Prepared for:

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May 2020

Table of Contents

	Page
Preface	3
<u>Fisheries</u>	3
I. General Information	3
A. Large-mesh gill-net retirement	3
B. Report from Modeling Subcommittee and modeling process description.....	4
C. Model estimates used during negotiation	6
II. Harvest Limits and TAE's (Total Allowable Effort)	7
A. Lake Trout	7
B. Lake Whitefish.....	8
III. Harvest and Effort Reporting.....	10
A. State-licensed commercial and recreational fishing	10
1. Lake Trout.....	10
2. Lake Whitefish.....	12
B. Tribal commercial and subsistence fishing.....	13
1. Lake Trout.....	13
2. Lake Whitefish.....	14
3. Walleye	15
4. Yellow Perch.....	15
5. Chinook and Coho salmon.....	16
6. Subsistence Fishing.....	17
IV. Fisheries Contacts.....	20
<u>Law Enforcement</u>	21
I. Introduction and Staffing.....	21
II. Equipment/Maritime Activity	22
III. Enforcement - Complaints and Violations.....	22
IV. Aquatic Invasive Species and Aquatic Disease	28
V. Training, Education, and Public Outreach	30
VI. Assistance to Other Agencies and Districts.....	34
VII. Law Enforcement Contacts	37

Lake Trout Management Units..... 38
Lake Whitefish Management Units..... 39

Preface

This report provides detailed information regarding the implementation of the 2000 Consent Decree in the 1836 Treaty-ceded waters of the Great Lakes during 2019, as required by the September 27, 2001 Memorandum of Understanding between the State of Michigan, Department of Natural Resources (MDNR) and the Michigan United Conservation Clubs, Inc., Michigan Fisheries Resource Conservation Coalition, and Bay de Noc Great Lakes Sportfishermen, Inc.

FISHERIES

I. General Information

A. Large-mesh gill-net retirement

To reduce the amount of large-mesh gill net fished by tribal fishers, the Consent Decree called for the Sault Ste. Marie Tribe to remove at least 14 million feet of large-mesh gill-net effort from lakes Michigan and Huron by 2003. Removal of large-mesh gill-net effort by other tribes also counted towards this commitment. The amount of gill net retired was to be based on a comparison with the average effort during the base years 1993 through 1998 (Table 1). Gill-net retirement has been accomplished through the trap-net conversion program and other methods.

The removal of large-mesh gill-net effort in lakes Huron and Michigan was successfully completed by 2003 when tribal fishers used approximately 25.5 million feet less than the 1993-1998 average. Large-mesh gill-net effort had increased during 2003-2015, but the amount of large-mesh gill-net effort fished has since declined and the amount fished in 2019 was more than 25 million feet less than the 1993-1998 average (Table 1), primarily due to continued reductions in lakes Michigan and Huron.

Table 1. Large-mesh gill-net effort (1,000s ft) in the 1836 Treaty-ceded waters of the Great Lakes during base years 1993 to 1998 and preliminary^a effort in 2019.

Lake	Management Unit	Effort		Change ^b
		1993-98	2019	
Michigan	MM-123	17,912	6,622	(11,290)
	MM-4	1,794	592	(1,202)
	MM-5	240	4	(236)
Huron	MH-1	16,470	6,960	(9,510)
	MH-2	6	0	(6)
Superior	MI-6	780	981	201
	MI-7	2,028	699	(1,329)
	MI-8	6,578	4,217	(2,361)
Totals		45,808	20,075	(25,733)

^a 2019 effort preliminary as of March 3, 2020.

^b Change in effort from the average during the base years 1993-1998.

B. Report from Modeling Subcommittee and modeling process description

The Modeling Subcommittee (MSC) of the Technical Fisheries Committee (TFC) prepares an annual report entitled “Status of Lake Trout and Lake Whitefish Populations in the 1836 Treaty-Ceded Waters of Lakes Superior, Huron, and Michigan, with Recommended Yield and Effort Levels” (referred to as the Status of the Stocks Report). The report detailing populations and harvest limits for fishing year 2019 was completed in August 2019. This and all previous versions are available on the 2000 Consent Decree page of the MDNR’s Tribal Coordination Unit (TCU) website:

https://www.michigan.gov/dnr/0,4570,7-350-79136_79236_84834_84838---,00.html

Statistical catch-at-age (SCAA) models are used to describe population status of Lake Trout and Lake Whitefish and to recommend harvest limits for each species. Where sufficient information exists, models are developed for the stocks in each defined Management Unit using data from both agency surveys as well as commercial and recreational fisheries. The modeling process begins by estimating parameters that describe each of the Lake Trout and Lake Whitefish stocks over time. The agreement between model predictions and observations is measured by statistical likelihood and the set of model parameters that minimizes the difference between the observed and predicted values is considered the best estimate. The model produces age-specific

abundance and mortality estimates for each year that data are available, which are then used to project the population forward through the next fishing season by applying management targets set forth in the Consent Decree, such as target mortality rates and spawning stock biomass, to produce the recommended harvest levels.

All fish populations are regulated by three key rates: growth, mortality, and recruitment. Growth is described using either raw mean length- or weight-at-age data or is estimated using well-established regression models that assume that growth slows as fish approach a maximum size. Mortality is estimated from age structure data by examining the catch (at age) of individual cohorts (fish hatched in a given year) over time. Total mortality is comprised of fishing and natural mortality. Fishing mortality results from recreational, subsistence, and commercial harvest, as well as from mortality associated with capture by hooking or netting for fish that are not otherwise retained. Harvest is calculated annually for each fishery through either direct reporting, wholesale reporting, or interviews (creel surveys). Natural mortality is comprised of losses due to old age, disease, and predation. Natural mortality is generally estimated from an equation that relates the growth parameters of Lake Trout and Lake Whitefish to water temperature; however, in recent years the MSC is evaluating alternative means to estimate this parameter. In a special case, mortality associated with sea lamprey attacks is estimated in a separate modeling process using observed wounds and the assumed probability of surviving an attack. Finally, recruitment is the process of reproduction and growth to a certain size class that is beyond some initial period of high mortality. Recruitment may also imply the entry of individuals of legal size into a fishery. Most exploited fisheries demonstrate variable recruitment due to an assortment of abiotic or biotic conditions. Recruitment variability can be measured by assessing the relative abundance of a given age class using a standard effort, location, and time of year. For example, managers may use the relative abundance of age-5 fish in spring gill-net surveys as an index of year-class strength. In the case of a fishery that relies almost entirely on stocking (e.g., Lake Trout in Lake Michigan), recruitment to fisheries, though still variable due to differences in post-stocking survival, is less uncertain than instances where recruitment is governed by natural processes.

Currently, in Lake Michigan, Lake Trout recruitment is defined as the number of yearlings stocked or migrating into an area less those migrating out of the area, though natural reproduction of Lake Trout has increased in recent years and future recruitment modeling processes may need to be reevaluated, as they were for Lake Trout in Lake Huron, where recruitment is now estimated

for both naturally reproduced and stocked fish using the proportion of wild fish captured in surveys, commercial nets, and recreational fishing gear. For fully wild stocks, such as Lake Trout in Lake Superior and all Lake Whitefish stocks, recruitment is estimated from either 1) a stock-recruit relationship which describes how the number of young fish (recruits) relates to the number of spawning adults that produced them; or 2) annual deviations from an assumed average recruitment level estimated from the catch-at-age data.

After model estimates of abundance and mortality have been obtained, a projection model is used to obtain harvest limits for the next fishing season. Harvest limits are established so as not to exceed target mortality rates set forth in the Consent Decree and are derived by applying fishery multipliers to the fishing mortality rates estimated in the last year of the model until the projected rates match the mortality and allocation targets described in the Decree. These rates are then applied to the age-specific abundance estimates to produce an estimate of the harvestable number at each age for the year. The harvestable numbers are then multiplied by age-specific weights to obtain a total harvest limit, in pounds of fish, for each Party. The target mortality rates are either specified to achieve a maximum rate for the most vulnerable age (Lake Whitefish) or, for Lake Trout, to achieve a desired amount of “spawning stock biomass per recruit”: the amount of spawning biomass that an average recruit is expected to produce in its lifetime given mortality rates and maturity schedules. This provision is designed to ensure that there is an adequate amount of spawning stock per recruit and that more than one age class is contributing considerably to the spawning population. A more extensive and technical description of the entire modeling process is contained in the *Stock Assessment Models* section of the 2012 Status of the Stocks Report (this section was removed from the 2013 and subsequent Status of the Stocks Report).

C. Model estimates used during negotiation

During the final stages of negotiations in 1999, model estimates of harvest limits and total allowable effort were projected under presumed likely scenarios for the commercial and recreational fisheries over the life of the Consent Decree. For Lake Trout, the projections were separated into a phase-in period (where applicable) and a rehabilitation or sustainable management period. Phase-in periods were intended to allow for a more gradual transition to target mortality rates and final allocation percentages. For numerous reasons, many of these projections were not accurate and the fisheries operates under harvest limits and regulations that differ considerably

from the projections. These projections for Lake Trout and Lake Whitefish can be found in the appendices of past implementation reports, which are posted on the TCU website here: https://www.michigan.gov/dnr/0,4570,7-350-79136_79236_84834_84838---,00.html

II. Harvest Limits and TAE's (Total Allowable Effort)

A. Lake trout

As required by the Consent Decree, the MSC calculates annual harvest and effort limits for Lake Trout and provides these recommendations to the TFC. After reviewing the recommendations, the TFC must approve harvest and effort limits by April 30 of each year to be submitted to the Parties for final approval. In 2019, stipulations to the Consent Decree set harvest limits at some minimum level in units MM-123, MM-4, MM-5 and MH-1. In MM-123, the parties agreed to a stipulation in May 2017 that set harvest limits through 2020. The MM-4 and MM-5 stipulations have been in place since the mid-2000s and were the result of high levels of sea lamprey-induced mortality being experienced at the time. With such high sea lamprey-induced mortality, fisheries would have had to be severely limited if the “fully-phased” mortality targets were used to establish limits at the time. Recent sea lamprey induced mortality rates have been well below the rates experienced when the stipulations were established; however, the parties have not decided to change the stipulated harvest levels. In the case of MM-5, the 2019 model-derived limit exceeded the stipulated limit. For unit MH-1, after nearly two years of debate, the Parties agreed in September 2019 to establish a stipulated harvest limit for the 2019 and 2020 fishing seasons, partly in response to uncertainty in the model estimates of abundance. The stipulated limits for 2019 were 513,991 lb for the Tribes and 54,720 lb for the State.

During the 2018 fishing season, the State recreational fisheries in MM-4 and MH-1 exceeded the established harvest limits for Lake Trout, resulting in the need for the State to take management action to reduce harvest during the 2019 season to accommodate penalties that were to be applied to the State's 2019 limits in these areas (see Section III.A.1).

The Consent Decree includes a provision that harvest limits in fully-phased units should not deviate more than 15% from the previous year's limit unless all the Parties agree a greater change is appropriate (referred to as the “15% rule”). In 2019, the model-generated harvest limits for units MI-5, MI-7, MH-2 and MM-67 deviated more than 15% from the 2018 limits and the actual 2019 limits were established by utilizing this 15% rule. A map of the Lake Trout management units is

provided at the end of this document (Figure 1), and the 2019 Lake Trout harvest and effort limits for each management unit are provided in Table 2.

Table 2. Model-generated harvest limits (HL, pounds), actual harvest limits and total allowable effort (TAE, linear feet of gill net) for Lake Trout, by management unit, in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season (NA = not applicable).

Lake	Unit	Model HL		Final HL		Tribal TAE
		State	Tribal	State	Tribal	
Michigan	MM-123 ^a	50,263	452,828	80,000	550,000	7,893,000
	MM-4 ^{a,b}	58,647	71,679	61,539	109,961	1,023,000
	MM-5 ^c	67,262	44,950	67,262	44,950	290,000
	MM-67 ^d	175,209	19,468	176,115	19,568	NA
Huron	MH-1 ^{a,b}	42,984	315,217	54,720	513,991	13,817,000
	MH-2 ^d	266,129	14,007	180,604	9,506	NA
Superior	MI-5 ^d	108,513	5,711	137,444	7,234	NA
	MI-6	107,904	107,904	107,904	107,904	2,971,000
	MI-7 ^d	42,097	98,226	44,098	102,895	9,480,000

^a Final harvest limits resulted from stipulations to amend the Consent Decree.

^b Final harvest limits reflect application of State penalty in 2019

^c Final Harvest limits from model after comparison with stipulated limits.

^d TFC invoked the 15% rule, limiting the change to 15% from the prior year's limit

B. Lake Whitefish

As required by the Consent Decree, the MSC calculates annual Lake Whitefish harvest limits for management units where the allocation of lake whitefish is shared between the State and the Tribes and provides these recommendations to the TFC. For each whitefish management unit that is not shared, the tribes set a harvest regulation guideline (HRG) in accordance with their Tribal Management Plan. The MSC also generates model-based recommendations that are considered during the HRG-setting process for the non-shared units. After reviewing and discussing recommended harvest limits for Lake Whitefish, the TFC submits these harvest limits to the Parties for final approval by December 1, with the limits becoming effective the following year. The TFC reached consensus on harvest limits for all shared whitefish management units for the 2019 fishing season. A map of lake whitefish management units is provided at the end of this document (Figure 2), and the 2019 lake whitefish harvest limits for each management unit are provided in Table 3.

The MSC was able to generate model recommended harvest limits in all shared units and most non-shared units. The Leland/Frankfort unit (WFM-06) and the Muskegon unit (WFM-08) have been managed with constant harvest limits since 2011 and 2013, respectively. In 2017, these limits were substantially reduced, which was reflective of lower Lake Whitefish recruitment throughout Lake Michigan, and these lower limits remained in place for 2019. In non-shared units, the final tribal HRG was set either at or below the model limit in all units except WFS-08 (Brimley). The MSC does not calculate recommended harvest limits in WFM-07 and WFS-06 due to limited fishery data. The 2019 HRG for WFM-07 was unchanged from 2018 while the 2019 HRG for WFS-06 was reduced by 17% from the 2018 HRG.

Table 3. Final harvest limits or Harvest Regulation Guideline (lb) for Lake Whitefish, by management unit, in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season (NA = not available).

Lake	Unit	Final State HL	Final Tribal HL	Model Limit Tribal	Final Tribal HRG
Michigan	WFM-01 ^a	200,000	1,977,000		
	WFM-02			985,000	271,725
	WFM-03			988,000	600,300
	WFM-04			460,000	320,400
	WFM-05			352,200	264,150
	WFM-06 ^b	37,500	87,500		
	WFM-07			NA	250,000
	WFM-08 ^c	225,000	275,000		
Huron	(H01-H04 Combined)			446,000	379,900
	WFH-05			394,000	394,000
Superior	WFS-04 ^a	11,800	106,200		
	WFS-05 ^a	32,300	169,400		
	WFS-06			NA	210,000
	WFS-07			571,000	571,000
	WFS-08			87,000	221,025

^a Harvest limits based on model.

^b Harvest limits from conditional constant catch policy. Model limits were 119,700 Tribal and 51,300 State.

^c Harvest limits from conditional constant catch policy. Model limits were 422,400 Tribal and 345,600 State.

III. Harvest and Effort Reporting

A. State-licensed commercial and recreational fishing

1. Lake Trout

Lake trout harvest by the State of Michigan consists entirely of harvest by sport anglers. The harvest limits and reported harvest in Lake Superior represent lean Lake Trout only. Throwback mortality from the state recreational fishery (Lake Trout caught by hook and line that are returned to the water and subsequently die; 41% of released fish) was also estimated for each management unit and added to the weight of Lake Trout harvested for comparison to harvest limits.

Lake Trout harvest by sport anglers in 2019 was below harvest limits in all management units in 1836 treaty waters. The management actions taken in MH-1 (reduced bag from 3 fish to 2 fish during 2019) and MM-4 (reduced bag from 2 fish to 1 fish during 2019) were sufficient to reduce harvest below the penalty-reduced limits in these areas. The stipulation for MH-1 that was signed by the Parties in 2019 did not include a provision to produce a combined harvest limit for units MH-1 and MH-2 – a concept repeatedly proposed by the State given that these two units are assessed as a single stock. State-licensed recreational harvest of primary species and total recreational fishery effort is provided in Table 4.

Table 4. Total effort, number, and weight (pounds) of estimated State-licensed recreational harvest for both creel and charter anglers, by Lake Trout management unit in 1836 Treaty-ceded waters of the Great Lakes during the 2019 fishing season.

Lake	Management Unit	Total effort (angler hours)	Lake trout ^a		Walleye		Yellow perch		Chinook salmon		Coho salmon	
			Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
Michigan	MM-123	263,349	7,211	57,679	13,418	25,494	73,079	29,232	2,366	37,619	53	260
	MM-4	163,308	8,246	47,574	7	13	25,732	10,293	1,678	26,680	638	3,126
	MM-5	55,126	7,543	55,350	0	0	0	0	3,022	48,050	1,353	6,630
	MM-67	508,204	21,558	147,119	2,776	5,274	3,446	1,378	31,088	494,299	4,141	20,291
Subtotal		989,987	44,558	307,722	16,201	30,782	102,257	40,903	38,154	606,649	6,185	30,307
Huron	MH-1	162,969	6,316	38,915	1,625	3,900	23,214	9,286	1,971	22,667	42	130
	MH-2	47,720	7,896	60,367	3,663	8,791	0	0	297	3,416	58	180
Subtotal		210,689	14,212	99,282	5,288	12,691	23,214	9,286	2,268	26,082	100	310
Superior	MI-5 ^b	40,756	6,009	26,684	0	0	0	0	272	1,224	3,106	6,212
	MI-6	46,569	6,360	30,931	0	0	171	51	411	1,850	7,247	14,494
	MI-7	20,134	2,032	10,364	0	0	0	0	19	86	1,403	2,806
Subtotal		107,459	14,401	67,979	0	0	171	51	702	3,159	11,756	23,512
Grand Total		1,308,135	73,171	474,983	21,489	43,473	125,642	50,240	41,124	635,890	18,041	54,129

^a Weight of Lake Trout harvest shown in the table includes hooking mortality. Lake Superior Lake Trout number and weight do not include Siscowets.

^b Includes recreational harvest from entire unit; harvest from 1842 Treaty-ceded area was not removed.

2. Lake Whitefish

Lake whitefish harvest by state-licensed commercial fishers was below the harvest limit in all shared Lake Whitefish management units in 1836 Treaty waters. Values reported in Table 5 includes harvest and effort associated with the principal gear used to target Lake Whitefish in the unit, in most cases trap nets. Catch of Lake Whitefish from small-mesh gill nets targeting chubs in 1836 treaty waters, minimal in most years, was zero in 2019.

The largest monitored recreational fishery for whitefish historically occurred in the Grand Traverse Bay area (WFM-05). In 2011, the recreational harvest from Grand Marais (WFS-06) exceeded that from Grand Traverse Bay for the first time and that pattern has continued each year since. Recreational harvest of whitefish was estimated to be 294 fish in Grand Traverse Bay and 13,081 fish in Grand Marais during 2019. The other area where recreational harvest of whitefish is common is Munising, but only an estimated 332 fish were harvested there during 2019. As part of a special study, a recreational creel was conducted at Muskegon (WFM-08) during 2019 and the resulting harvest estimate (5,915 fish) was second only to the Grand Marais. The State does not estimate targeted recreational effort for Lake Whitefish in these management units.

Table 5. Summary of state-licensed commercial Lake Whitefish harvest (pounds) and effort by Lake Whitefish management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season.

Lake	Unit	Harvest	Effort ^a
Michigan	WFM-01	20,733	17
	WFM-06	12,251	100
	WFM-08	75,492	303
Subtotal		108,476	420
Superior	WFS-04 ^b	10,925	29
	WFS-05	33,637	219
Subtotal		44,562	248
Grand total		153,038	668

^a A purse seine is the principal gear type used by the state-licensed fisher to target whitefish in WFM-01 and effort represents the number of seine hauls. In all other units, fishing effort represents the number of trap-net lifts.

^b Includes 1836 waters only.

B. Tribal commercial and subsistence fishing

Data in this section are as reported to the MDNR from the Chippewa Ottawa Resource Authority (CORA). The harvest values for 2019 are considered preliminary. In 2015, Sault Tribe and the Grand Traverse Band removed the fisher identification numbers from their harvest data that is shared with the State and Federal governments. The claim was that the State and Federal government had violated a confidentiality clause of the Consent Decree. The State disagreed with that position as these identification numbers are specifically required by the Consent Decree to identify fishers from one year to the next. Despite numerous efforts by the State to find common ground with the Tribes to allow for reinstatement of the identification numbers, they continue to be withheld. Their removal prevents the State from 1) evaluating patterns in the fishery, 2) conducting detailed analysis on harvest at the level of the individual fisher, and 3) comparing tribal catch reports to wholesale reports.

1. Lake trout

In contrast to previous years, there were no bag limits in place for Lake Trout in tribal gill-net fisheries conducted in 1836 treaty waters, so the values in Table 6 below represent landed harvest only. Tribal harvest of Lake Trout was below established harvest limits in all management units.

Table 6. Summary of preliminary tribal commercial harvest (pounds) of lean Lake Trout by management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season. Gill-net harvest includes that from small-mesh and large-mesh gill nets.

Lake	Unit	Trap-net harvest	Gill-net harvest	Total harvest
Michigan	MM-123	0	481,691	481,691
	MM-4	1,039	83,306	84,345
	MM-5	0	78	78
	MM-67	0	0	0
Lake total		1,039	565,075	566,115
Huron	MH-1	1,175	200,522	201,697
	MH-2	0	0	0
Lake total		1,175	200,522	201,697
Superior	MI-5	0	0	0
	MI-6	0	35,842	35,842
	MI-7	0	10,012	10,012
	MI-8	1,507	44,744	46,250
Lake total		1,507	90,597	92,104
Grand total		3,721	856,194	859,915

2. Lake Whitefish

Lake whitefish harvest by Tribal commercial fishers was below the approved harvest limit or HRG in all management units in 2019. In management units that are not shared, the tribes manage the fishery in accordance with the Tribal Plan and no penalty is incurred for overharvest. In shared zones, overharvest penalties are incurred if a party exceeds the harvest limit by greater than 25%, although this provision of the Decree has never been triggered. In WFM-01, the Little Traverse Bay Bands licensed a fisher to conduct a gill-net assessment fishery in Big Bay de Noc. This effort began in 2017 and is permitted through the end of the current Consent Decree. The fisher is limited to 6,000 ft of gill net per day and is subject to onboard monitoring by tribal personnel for biological data collection. Summaries of these efforts are periodically provided to the TFC.

Table 7. Summary of preliminary tribal commercial Lake Whitefish harvest (pounds) and targeted effort (trap-net lifts or 1,000 feet of large-mesh gill net) by management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season. Minor harvest from small-mesh gill nets is included in gill-net harvest, but not effort.

Lake	Unit	Trap Nets		Gill nets		Total harvest
		Harvest	Effort	Harvest	Effort	
Michigan	WFM-01	245,690	1,855	15,191	138	260,881
	WFM-02	34,275	144	45,509	1,896	79,784
	WFM-03	22,196	334	128,324	2,684	150,521
	WFM-04	8,132	87	30,877	1,036	39,010
	WFM-05	1,044	21	9,051	1,456	10,094
	WFM-06	0	0	23	4	23
	WFM-07	0	0	0	0	0
	WFM-08	0	0	0	0	0
Lake totals		311,337	2,441	228,975	7,214	540,313
Huron	Northern	83,600	757	85,162	5,460	168,762
	WFH-05	24,099	30	0	0	24,099
Lake totals		107,699	787	85,162	5,460	192,861
Superior	WFS-04	0	0	0	0	0
	WFS-05	0	0	33,767	981	33,767
	WFS-06	0	0	2,396	99	2,396
	WFS-07	133,734	1,074	183,354	3,830	317,088
	WFS-08	45,583	414	38,437	987	84,020
Lake totals		179,318	1,488	257,954	5,897	437,272
Grand totals		598,354	4,716	572,091	18,571	1,170,445

3. Walleye

Targeted commercial fishing for walleye is permitted in and around Grand Traverse Bay and the Manitou Islands, in northeastern Lake Michigan (Naubinway to Gros Cap), and around St. Martin’s Bay and the Les Cheneaux Islands in Lake Huron. There are gear, season, depth, size, and area restrictions on the various walleye fisheries, though no harvest limits for the fishing season are set forth in the Consent Decree. In August 2018, the Consent Decree Parties agreed to a stipulation that allowed higher daily bag limits for walleye in particular grids and time periods in all three lakes. The specifics of the stipulation can be reviewed from the TCU website: https://www.michigan.gov/dnr/0,4570,7-350-79136_79236_84834_84838-463908--,00.html

Walleye are occasionally harvested as incidental catch; thus, sometimes there is harvest with no effort listed for a unit because the fishers were targeting other species. As is typically the case, the largest reported walleye harvest in 2019 occurred in Lake Huron unit MH-1 (36,770 pounds).

Table 8. Summary of preliminary tribal commercial walleye harvest (pounds) and targeted effort (trap-net lifts or 1,000 feet of small or large mesh gill net) by management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season.

Lake	Unit	Trap nets		Gill nets		Total harvest
		Harvest	Effort	Harvest	Effort	
Michigan	MM-123	0	0	4,009	27	4,009
	MM-4	121	0	1,093	5	1,214
	MM-5	0	0	11	0	11
Lake totals		121	0	5,113	33	5,234
Huron	MH-1	445	0	36,770	1,149	37,215
Superior	MI-7	0	0	15	0	15
	MI-8	56	0	2,163	77	2,219
Lake totals		56	0	2,178	77	2,234
Grand totals		622	0	44,061	1,258	44,683

4. Yellow perch

Commercial fisheries for yellow perch exist in Lake Michigan around Grand Traverse Bay and the Manitou Islands, around the Beaver Islands, and near the northeastern shore. A yellow perch fishery also exists in Lake Huron around the Les Cheneaux Islands. These fisheries have gear,

depth, area, season, and size restrictions; though no harvest limits for the fishing season are set forth in the Consent Decree. The largest yellow perch harvest in 2019 was in MH-1 where 20,595 pounds were reported (Table 9). Yellow perch are occasionally harvested as incidental catch, which is why there may be harvest, but no effort, listed for a unit because the fishers were targeting other species.

Table 9. Summary of preliminary tribal commercial yellow perch harvest (pounds) and targeted effort (trap-net lifts or 1,000 feet of large-mesh and small-mesh gill net) by management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season.

Lake		Trap nets		Gill nets		Total
		Harvest	Effort	Harvest	Effort	Harvest
Michigan	MM-123	0	0	4,050	452	4,050
	MM-4	0	0	1,797	68	1,797
Lake totals		0	0	5,847	520	5,847
Huron	MH-1	0	0	20,595	1,246	20,595
Superior	MI-8	0	0	6	0	6
Grand totals		0	0	26,448	1,767	26,448

5. Chinook and Coho salmon

Tribal commercial fisheries for salmon exist in northeastern Lake Michigan near shore from McGulpin Point south to Seven Mile Point, around the tip of the Leelanau Peninsula, and in Suttons Bay. Fisheries in northern Lake Huron exist in St Martin Bay, and near shore from Cordwood Point to Hammond Bay Harbor light. There is no target fishery for salmon in Lake Superior, but gill-net fishers can harvest these species as incidental catch. Fishing is restricted by season, gear, depth, and area; though no harvest limits are set. As in most years, the targeted Chinook salmon fishery in MH-1 dominated the harvest in 2019 (Table 10). In recent years, Coho salmon have been primarily harvested from Lake Superior, and in 2019 Coho salmon harvest was limited to the 1,198 pounds reported for unit MI-8, the lowest value observed in recent years.

Table 10. Summary of preliminary Tribal commercial Chinook salmon harvest (pounds) and targeted effort (trap-net or 1,000 feet of gill net) by management unit in 1836 Treaty-ceded waters of the Great Lakes for the 2019 fishing season.

Lake	Unit	Trap nets		Gill nets		Total harvest
		Harvest	Effort	Harvest	Effort	
Michigan	MM-123	0	0	671	5	671
	MM-4	20	0	2,217	7	2,237
Lake Total		20	0	2,888	12	2,908
Huron	MH-1	0	0	96,263	1,500	96,263
Superior	MI-7	0	0	5	0	5
	MI-8	0	0	438	0	438
Lake Total		0	0	443	0	443
Grand totals		20	0	99,595	1,512	99,615

6. Subsistence fishing

Subsistence fishing as defined in the Consent Decree means taking fish for personal or family consumption and not for sale or trade. Tribal subsistence fishing is allowed in all 1836 Treaty-ceded waters with some exceptions. These exceptions include 1) no gill nets in Lake Trout refuges; 2) no nets within 100 yards of a break wall or pier; 3) no nets within a 0.3-mile radius of certain stream mouths (listed in section IV.C.8 of the Consent Decree); 4) no prevention of fish passage into and out of streams that flow into 1836 Treaty waters; 5) no gill nets or walleye possession in portions of the Bays de Noc during March 1 - May 15; and 6) no gill nets within 50 feet of other gill nets. Fishers are limited to 100 pounds aggregate catch of all species in possession, and catch may not be sold or traded. Subsistence fishers may use impoundment gear, hooks, spears, seines, dip nets, and gill nets. Gill netting is limited to one 300-ft or smaller net per vessel, per day, though in the St. Marys River a gill net may not exceed 100 ft. All subsistence gear must be marked clearly with floats and Tribal identification numbers. Tribal fishers must obtain subsistence licenses issued from their respective Tribe and a permit is required when subsistence fishing with a gill net or impoundment net. The Consent Decree states that MDNR is to be provided with copies of all subsistence licenses and permits and that data from the subsistence harvest reports of Tribal fishers shall be compiled by CORA and provided to the Parties within six (6) months. Preliminary data for 2019 has been reported by the tribes for subsistence gill netting (Table 11), but, as of this writing, not other gear types (Table 12).

Table 11. Summary of preliminary tribal subsistence harvest, by species (round pounds), with gill nets for each management unit^a for the 2019 fishing season.

Statistical District	MH-1	MM-123	MM-7	MS-4	MS-5	MS-6	St Marys River	Grand Total
Atlantic salmon	11	0	0	0	0	0	142	153
Bass	6	241	0	2	0	0	28	277
Bowfin	0	11	0	0	0	0	0	11
Brook trout	0	0	0	1	0	0	0	1
Brown trout	37	32	28	86	37	9	1,294	1,522
Bullhead	0	8	0	0	0	0	0	8
Burbot	0	166	0	4	0	0	4	174
Carp	0	53	0	30	60	0	6	149
Catfish	0	1	0	0	0	0	0	1
Cisco	209	14	0	18	0	9	182	432
Lake trout	614	539	47	306	0	33	0	1,539
Menominee	185	8	0	5	14	4	0	217
Northern pike	217	1,344	0	5	0	44	1,157	2,767
Rainbow trout	0	32	0	47	0	0	27	106
Salmon	379	120	0	1,276	496	278	140	2,689
Smelt	21	0	0	0	0	57	0	78
Splake	58	32	0	142	0	0	0	232
Steelhead	0	977	205	95	150	24	7	1,456
Sucker	311	30	0	87	39	4	14	486
Sunfish	0	41	0	0	0	0	0	41
Walleye	170	4,613	6	75	0	77	1,949	6,889
Whitefish	22	481	0	352	573	162	300	1,889
Yellow perch	399	5,170	0	10	0	0	629	6,209
TOTAL	2,640	13,910	286	2,541	1,368	703	5,877	27,324
Gill net lifted (ft)	12,300	111,730	1,200	6,348	2,100	9,950	7,052	150,680

^a Totals for Lake Superior were provided by statistical district instead of management area. District MS-4 includes the ports of Marquette and Munising, MS-5 includes Grand Marais and Little Lake, and district MS-6 includes Whitefish Bay, Brimley and Sault Ste Marie.

Table 12. Summary of tribal subsistence harvest (round pounds) via snagging, traditional hook and line, tip-ups, dip nets, and spears (combined) for each management unit by species for the 2019 fishing season.

Species / Unit	MH-1	MI-5	MI-6	MI-7	MI-8	MM-123	MM-5	MM-6	SMR	Total
Data Not Provided										
Atlantic salmon										
Bass										
Brook trout										
Brown trout										
Bullhead										
Burbot										
Catfish										
Cisco										
Lake trout										
Menominee										
Northern pike										
Rainbow trout										
Salmon										
Splake										
Steelhead										
Walleye										
Whitefish										
Yellow Perch										
Total										

IV. Fisheries Contacts for 2000 Consent Decree

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LAW ENFORCEMENT

I. Introduction and Staffing

The Great Lakes Enforcement Unit (GLEU) is housed within the Michigan Department of Natural Resources (MDNR) Law Enforcement Division (LED). The Unit is tasked with the monitoring and enforcement of aquatic species commercialization within the state as well as other Great Lakes protection issues. Areas of oversight include:

- 2000 Consent Decree
- State commercial fishery
- The wholesale fish industry
- Michigan's bait industry (wholesale, retail, and harvesters)
- Transportation and commercialization of aquatic invasive species
- Coastal zone management
- General marine enforcement

The 2000 Consent Decree details the allocation, management, and regulation of fishing in 1836 Treaty waters. The Decree also establishes a Law Enforcement Committee (LEC) as the primary body for consultation and collaboration on enforcement issues pertaining to the fishery in 1836 Treaty Waters of the Great Lakes. The LEC is composed of the chief law enforcement officer or designee of each tribe and the chief law enforcement officer or designee of the MDNR.

Under the Decree, each of the Tribes and the State shall commit one position as available to work with a mutual-aid enforcement team pool each year. The team shall engage in group patrols at least eight times per year, and those patrols are scheduled by the LEC. The LEC is required to meet four times a year with the first meeting taking place in January where each agency's annual summary report is reviewed.

In 2018, GLEU was staffed by six Commercial Fish Specialists (CFS), two Commercial Fish Investigators (CFI), and two 2nd/Lt. Unit Supervisors. Promotions occurred during the summer of 2019 and the Great Lakes Enforcement Unit currently is staffed by nine Commercial Fish Specialists, two Commercial Fish Investigators, and two 2nd/Lt. Unit Supervisors.

II. Equipment/Maritime Activity

During the 2019 season, the Great Lakes Enforcement Unit's vessels logged 609 sea service hours. A total of 131 patrols were conducted along with an additional 10 patrols on vessels from outside of the Unit. A total of 7,071 gallons of fuel was purchased for a total cost of \$23,709.

The Unit's larger vessels and specialized equipment has always been an asset to the local districts and in 2019 our officers were requested to render enforcement and security assistance at the following maritime events:

- Operation Northern Strike
- "Port Huron Float Down" on the St. Clair River
- Boyne Thunder Run (Marine poker run) at Charlevoix
- Menominee Waterfront Festival Fireworks display
- Hot Boat Weekend Hardy Dam on Muskegon River
- Mackinaw City Fireworks display
- Labor Day Mackinac Bridge Walk
- Engineers Day at Sault Ste. Marie Locks

In 2019, GLEU received a new trailer-able Great Lakes commercial fishing enforcement vessel. The project had been put out for bids in 2018 and the contract was won by Pacific Boats of Marysville, Washington. Officers from GLEU worked extensively on providing specifications for the vessel to make it a highly mobile, maneuverable and effective commercial fishing enforcement patrol vessel. The new patrol vessel measures 34 feet in length with a 10-foot beam. It is outfitted with dual 350 hp Mercury Verado outboards, state of the art electronics and a net lifter. The vessel is currently deployed in the Upper Peninsula at Escanaba.

III. Enforcement – Complaints and Violations

In 2019, Law Enforcement Division investigated 39 commercial fishery-related complaints. Fifteen concerned 1836 Treaty fishing, one concerned 1842 Treaty fishing and 23 concerned state commercial fishing. Within the state commercial fishery, 2,179 contacts were made, 264 inspections were conducted, 5 citations were issued and 34 warnings were given. Within the tribal fishery, 418 contacts were made, 192 inspections were conducted, 2 citations were issued, and 3 warnings were given. In addition, 2 referrals were made to tribal officers for follow up.

Table 13. 2019 summary of LED actions regarding State commercial fishing activities

	Contacts	Complaints		Inspections	Arrests	Warnings	
		Delinquent Reporting	Other			Delinquent Reporting	Other
Bait Dealers	23	3	0	9	0	0	3
State Commercial	1,962	1	18	230	5	1	8
Wholesale	194	1	0	25	0	20	2

Table 14. 2019 summary of LED actions regarding Great Lakes Tribal fishing activities.

	Contacts	Complaints	Inspections	Arrests	Warnings	Referrals
1836 Treaty Area	406	15	187	2	3	1
1842 Treaty Area	12	1	5	0	0	1

GLEU complaints, violations and activities of note related to the 1836 Treaty-ceded territory of the Great Lakes include the following:

- GLEU was notified by Fisheries Division about a potentially unlicensed wholesaler. A GLEU officer contacted the large food and liquor supplier who was unaware of the wholesale license requirement. A warning was issued. The wholesaler applied for a license and is reporting electronically as well as supplying their past purchase reports.
- While moving PB-5 from Ludington to Mackinaw City, GLEU officers overheard a mayday call over the marine radio of a boat on fire with 5 people onboard. The captain of the boat in distress started to give coordinates of their location; however, halfway through the radio transmission the captain stated smoke was filling the cabin and communication ended. Officers were able to make contact with the USCG and with the assistance of another GLEU officer, who was monitoring Emmet County's dispatch, coordinates were given with the location of 6 miles south east of Beaver Island. Officers responded to the distressed vessel, which was 17 miles from their location. The USCG, who was nearby, made contact prior to the arrival of PB-5. The captain was able to put out the fire prior to the arrival of help. All aboard were uninjured and the USCG towed the damaged vessel to Charlevoix.

- Officers from GLEU conducted a net patrol in the Mackinac Straits. During the patrol they encountered a large platform causing a significant navigational hazard. The obstruction was cleared from the area.
- A GLEU officer and a D-2 officer responded to a complaint of an unmarked net near Little Lake on Lake Superior. The complainant became entangled in a net while fishing on Lake Superior near Little Lake. The fisherman was able to pull the net to the surface and tied a life vest to the net and recorded its GPS location. Officers were able to locate the net reported by the complainant. Officers spent the next 3.5 hours lifting the roughly 1500' gill net. The net appeared to have been in the water for several months, if not more, as there were numerous rotting fish that had to be cut from the net. In total, 338 rotten fish were cut from the net, with an estimated weight per fish of 3lb per fish adds up to more than 1000lb of rotten fish, primarily whitefish. No identifiers were located on the net and the investigation continues as to whom the net belongs.
- Officers from GLEU and D-1 conducted a patrol on Lake Superior in the Marquette area. The D-1 officer had received a complaint of an abandoned gill net that anglers had been occasionally hooking with their lines in the 1842 Treaty area. The officers located the net in approximately 150 feet of water. It appeared the gill net was tangled on the bottom and only rising up about 5 feet. The information was turned over to GLIFWC along with the offer of assistance for the removal of the net.
- GLEU officers participated in side-scan sonar training in the Alpena area. During the training, officers encountered a boat with 3 fishers that were experiencing engine troubles in high winds and very rough seas. Officer were able to safely tow the boat and occupants to Thunder bay.
- GLEU officers pulled approximately 1,200 feet of abandoned gill net from Spectacle Reef in Northern Lake Huron. The net was reported to GLEU from a recreational fisherman, and contained whitefish, lake trout, burbot, and several species of diving birds.
- An investigator from GLEU sorted through archived unit annual reports, case briefs, RAP complaints, and monthly summaries to compile data on lost, abandoned, or illegal net pulls over the duration of the 2000 Consent Decree. GLEU (originally designated as the Commercial Fish Enforcement Unit) has overseen the lifting of at least 27 trap nets and over 180,000 feet (34 miles) of gill net in the last 20 years.

- A GLEU officer responded to a complaint of a sport fisherman that became entangled in a net in Lake Huron in the Detour area. Several nets marked in compliance were found and several nets were also marked improperly. No contact information for the complainant was available so the officer was unable to determine which net the fishermen became entangled in. The commercial fisherman who had improperly marked nets was contacted. The commercial fisher advised he had a letter from the USCG Commander of the Port advising him that they didn't want him marking nets in the shipping channel. The fisherman provided this letter to GLEU. Follow up will be with USCG as well as Sault Tribe Law Enforcement regarding unmarked king anchors in the shipping channel.
- GLEU received information from a local dive shop owner in Menominee of a gill net hooked on the wreck "Home" which is a schooner that sank off the coast of the U.P. near Seul Choix Pt. in the 1800s. Efforts were coordinated with the divers to remove the net. GLEU officers conducted a net removing effort with divers utilizing the 30' Pacific patrol vessel. The divers ran a line from the net to the officers and then cut the net free of the wreck. Officers pulled approximately 2,000 feet of gill net. The Wardens show film crew were also involved and took footage of the operation for a future episode. Approximately 200 lb (66 fish) of whitefish, lake trout, and burbot were removed from the net. This was the fifth lift performed by the 30' Pacific boat since it joined the fleet approximately one year ago.
- GLEU officers responded to the Whitefish Bay area in reference to a complaint involving a fisherman who became entangled in a commercial fishing net. Officers inspected numerous nets in the area and found they were properly marked according to 2000 Consent Decree regulations. It is believed that the fisherman mistakenly identified a trap net as a gill net and tried to go around the end. Instead of going around the end of a gill net, the angler pulled his fishing gear through a trap net lead, losing all four of his cannon balls.
- A GLEU officer investigated a complaint of a Wisconsin commercial fishing net that was placed across the state line into Michigan waters. It was determined that the net and its lead were actually located in Wisconsin waters; however, the king anchor and its staff was located several hundred yards into Michigan waters. While investigating the complaint, the officer observed several boats almost hit the staff float which was dark in color and marked with a small black flag. The Wisconsin commercial fisher was contacted. The commercial fisher stated that he was told by a Wisconsin warden that it was ok to place the king anchor and its staff in Michigan

because the net itself was still in Wisconsin, despite the fact that the staff markings did not follow Michigan regulations and the fisher was not licensed in Michigan. The Wisconsin warden was contacted who confirmed that he had told the fisher that he could place the king anchor across the border and into Michigan waters. The GLEU officer investigating the complaint advised both the fisher and the warden that the king anchor and its staff would need to be moved back across the state line into Wisconsin.

- GLEU officers received a complaint of a sport fisher becoming entangled in an unmarked net while fishing near Detour. The officers conducted a patrol of the area and located an unmarked king anchor where the entanglement occurred. The commercial fisher was cited for this violation previously, but the charge was dismissed by the Sault Ste. Marie Tribal prosecutor. The fisher had a letter from the United States Coast Guard indicating that he was not allowed to put net markings in the shipping channel.
- A GLEU officer received 3 different complaints of fishermen getting their gear entangled in a net in the Detour area. GLEU partnered with Bay Mills Conservation and was able to locate the unmarked net using a grapple. Officers were then able to lift the nearly 2000' of gillnet using of the gill net lifter on the one year old Pacific patrol vessel. Roughly 12 fishing lures were located in the net, some of the lure's hooks were nearly rusted off indicating the net had been there for several years. No identifiers were found on the lost net.
- GLEU was in contact with GLIFWC officers regarding a ghost net that is located near White Rocks in Lake Superior off the Presque Isle shoreline in Marquette County. GLIFWC officers attempted to pull the net and were unable to do so. Future plans of lifting the net with better equipment are in the process dependent on availability and weather conditions. A "Veteran's Fishing Day" was scheduled for August 24th, sponsored by the South Shore Fishing Association, and over 70 vessels were confirmed to fish in the area of the ghost net. GLEU contacted board members from South Shore and informed them of the net location so the information could be forwarded to boat captains in hopes to prevent maritime problems during the event.
- GLEU officers followed up on a net entanglement complaint in Northern Lake Huron. The officers were able to successfully grapple for the net. An underwater camera was used to identify the extremely heavy net as a trap net. The net was marked with a buoy and contact was made with Chippewa Ottawa Resources Authority for trap net removal.

- GLEU officers responded to St. James Harbor on Beaver Island to check on a complaint of a net set in an area that was closed to commercial perch fishing. Upon arrival, the officers located the net and determined about ¼ mile was in the closure and ¼ mile was outside the closure. The officers were able to locate the fishermen from the Sault Ste. Marie Band at a different location on Lake Michigan pulling another net that was full of Lake Trout. During the contact it was determined that this was the same fisherman who had set the net in the closure. It was also determined that it was the same company (different fisherman) who set in the same closure last year around the same time. This fisherman was cited for fishing in the closed area.
- An on the water patrol of the Big Bay De Noc area was conducted by GLEU officers. A Sault tribal commercial fisherman was contacted who was moving his trap nets from deep water into the shallower waters of the bay in preparation for the movement of whitefish into Big Bay De Noc as the waters cool down. The officers also located a tribal trap net that had a substantial amount of loose line trailing on the surface of the water. A portion of the line actually became entangled in the prop of one of the outboards of the patrol vessel. Upon contacting an uncle of the commercial fisher, the officers learned that the trap net had broken loose from its anchors and had been rolled and severely damaged in a recent storm. The fisher did not have the necessary gear on board to repair the net when it was checked earlier that same day. The officers coiled and tied the loose line such that it no longer represented a boating hazard.
- GLEU officers investigated a net entanglement complaint. The complainant, a charter captain, advised that he fouled his prop in what he believed to be some excess anchor line coming from a buoy, while on a fishing charter. He was able to use his other motor to get to an area marina where they had to lift the vessel out of the water to cut the access line out of the prop. Officers responded to the scene two days after the entanglement and were unable to locate any nets. Nets that were located in the area throughout the summer months had been previously checked by officers and they were all in compliance with required markings.
- GLEU partnered with Grand Traverse Bay Band of Ottawa and Chippewa Indians to observe a net lift of an abandoned trap net behind Mackinac Island. This is the 5th net removed in the area in the last 18 months. No identifiers were located on the net, but it is believed to have been left by a fisherman that suddenly quit fishing and left the area 5-6 years ago. The net was located when a fisherman became entangled in it.

- GLEU advised Fisheries Division of the disposition of a case involving a state commercial fisher that had overharvested approximately 40,000 lb of whitefish between two of his four licenses in 2018. The fisher had been cited for the violations. The fisher pled guilty and paid a total of \$620 in fines and court costs under the “current” 1929 commercial fishing statute. Since the 1929 commercial fishing statute does not provide for restitution on the illegal whitefish catch and the fisher was able to market the catch and received substantial financial gain before the violation was determined, Fisheries Division “docked” the fisher’s 2019 quota by the amount of the 2018 overage. The fisher was unhappy and questioned Fisheries Division’s authority to determine and assign quota. Fisheries Division personnel requested information regarding the fisher’s statements during the investigation process.
- A GLEU officer assisted D-7 with group patrol after dark on the White Lake channel and the Muskegon channel for illegal fishing pertaining to the whitefish run. Several officers were undercover, and several officers were in uniform waiting for suspects to leave. There are numerous complaints every year of whitefish being taken illegally (foul hooked) off the channel walls in Muskegon County. Many fishermen were observed and contacted. Several tickets were issued.
- A GLEU officer was driving through Muskegon County when a refrigerated van passed him with a company name that sounded like a fish wholesaler. The officer did not recognize the name of the company, so he researched the business and then visited the owner. He discovered that the business had been operating for seventeen years in Muskegon County. The owner thought that he did not have to be licensed through the State since his inventory came from outside of Michigan. The owner was educated on the law and is now in compliance.

IV. Aquatic Invasive Species and Aquatic Disease

Preventing the spread of Aquatic Invasive Species such as Asian Carp, and fish diseases such as Viral Hemorrhagic Septicemia (VHSv) continue to be a topic of importance to the state, tribal, and federal governmental units around the Great Lakes region. Both of these threaten Michigan’s fishery populations and could have very detrimental effects on commercial and recreational fishing.

The GLEU represents LED as a member agency of the Asian Carp Task Force coordinated by the United States Fish and Wildlife Service. The task force is comprised of state, federal and

provincial law enforcement agencies cooperating to enforce regulations pertaining to the sale and movement of Asian Carp. This exchange of information and combined enforcement efforts has enhanced LED’s ability to detect, interdict and prosecute for violations of transporting and marketing the fish. The GLEU provides training to other law enforcement agencies as well as outreach programs for the public in regards the identification, detection and interdiction of Asian Carp and other invasive species.

Table 15. 2019 summary of LED actions regarding Aquatic Invasive Species.

	Contacts	Complaints	Inspections	Arrests	Warnings	Presentations	Trainings
Aquatic Invasive Species	4,955	7	43	4	263	7	4

The GLEU is the LED’s primary enforcement unit responsible for the monitoring of potential vectors that may spread invasive species/disease, as well as handling complaints concerning them. As part of this proactive involvement GLEU Officers have been involved in the following activities related to the 1836 Treaty-ceded territory of the Great Lakes:

- GLEU officers participated in a statewide “Clean Boats, Clean Water” initiative to educate the public on ability of aquatic invasive species to be transported throughout the state on recreational boating equipment. Education on AIS regulations were also conducted during the initiative. A statewide total of 2,976 officer hours were spent on the program.
- A GLEU and D-4 officer conducted minnow inspections at local bait dealers in Grand Traverse County. They are following up on one business that had not secured a license yet for 2019. There were no other violations.
- GLEU received a complaint from a D-4 officer regarding an unknown organism in the wiggler tray at a bait retailer in Traverse City. A GLEU officer followed up with the retailer who had already sold out of that particular tray of wigglers but had just received a new shipment of wigglers. An inspection was conducted of existing bait inventory; however, the officer did not find anything out of the ordinary. The bait wholesaler that had sold the bait to the retailer was contacted. The bait wholesaler reported that it is not uncommon to have juvenile lamprey or blood worms mixed in with the wigglers based on where they are dug from. The wholesaler said the lamprey usually die in a

short time when they are in the trays. The fisherman who bought the wigglers originally brought the sample in to the DNR fish biologist who identified the creatures as native lamprey.

- Access sites at Paradise Lake and Douglas Lake were worked by a GLEU officer as part of the statewide AIS landing blitz, partnering with volunteers from the Paradise Lake Association, Paradise Lake Improvement Board, and Douglas Lake Improvement Association to educate boaters about AIS laws.
- GLEU officers spent two AIS-focused days in Lansing and Grand Rapids. Included was the monthly AIS Core Team meeting, where various project updates were presented and stakeholder outreach was discussed. That afternoon, spot inspections on potential AIS vectors in the food markets of Grand Rapids were conducted, with no violations found.
- GLEU officers participated in the Great Lakes Panel on Aquatic Nuisance Species presented by the Great Lakes Commission. The meeting lasted two days at NOAA in Ann Arbor and was widely attended by states and provinces from the Great Lakes basin.

V. Training, Education, and Public Outreach

Training, education and public outreach efforts conducted by unit officers includes the following (only activities pertinent to the 1836 Treaty-ceded territory of the Great Lakes are included):

- GLEU members attended the annual Michigan Fish Producers Association meeting in Traverse City. Training in electronic reporting was conducted for the industry.
- GLEU supervision conducted a radio interview with a reporter from Ann Arbor regarding tribal cultural sensitivity training that is conducted for department officers as well as how officers handle situations involving tribal members engaged in treaty hunting and fishing rights.
- A GLEU officer and a D-1 officer attended a UP Whitetails meeting in Menominee. The officers fielded a Q & A session of about an hour, with questions ranging from CWD, wolves, commercial fishing and aquatic invasive species.
- A Free Fishing Weekend youth event sponsored in part by Emmet County Parks and Recreation, Friends of Oden Fish Hatchery, and Michigan Wholesale Bait was attended by a GLEU officer. Over 200 attendees braved the deep snow and enjoyed the sunshine. Assistance was given by the officer in setting up gear and fishing sites as well as answering various questions.

- A GLEU officer attended an area 4-3 meeting to update on any GLEU topics. Officers were updated on potential future positions, tribal fishing activity in that work area as well as new AIS laws that will be taking effect in March and how CO's need to be aware of it.
- A public meeting was attended by GLEU, D-3 and D-4 officers in addition to Fisheries Division staff regarding the changes to Lake Trout regulations in MM-4 due to the State harvesting beyond its limit in 2018. There were about 140 people in attendance.
- A GLEU officer and D-4 officer were guest speakers regarding wildlife conservation for two groups of Boy Scouts at a Merit Badge workshop in Traverse City. Wildlife conservation and the importance of obtaining Eagle Scout for job interviews, etc. were discussed. Scouts from all over Michigan were in attendance.
- The GLEU 2018 Annual Report was presented at a D3 district meeting by GLEU officers. The officers also presented information about recent changes in AIS-related laws.
- GLEU officers with PCOs and FTOs in D5, providing information on PCO training tasks related to commercial fishing and crayfish and mussels, as well as providing general information about GLEU operations, and discussing new AIS-related boating and organisms-in-trade laws.
- GLEU officers attended the Lake Superior Citizen Fishery Advisory Committee meeting in Marquette. GLEU gave a presentation on GLEU's 2018 highlights and updated the attendees on the status of prosecutions and sentencing for individuals and businesses that were caught during the USFWS undercover operation "Fishing For Funds", which focused on both tribal and state illegal commercial fishing and wholesale activity. To date there has been a total of 21 convictions, 7 in tribal court and 14 in federal court. More than \$1.6 million dollars in restitution has been ordered in the case so far. More prosecutions and sentencings are expected.
- GLEU assisted D-2 officers with a recruiting presentation at LSSU. The officers covered the hiring and training process, benefits of employment and what an officer does. After the presentation students were able to ask questions.
- A D-1 District meeting in Marquette was attended by GLEU officers. GLEU gave a presentation of GLEU's 2018 annual highlights and an update on the Federal operation "Fishing For Funds"; GLEU also gave a presentation on the 2007 Inland Tribal Fishing and Hunting Decree.
- GLEU was contacted by the Tribal Coordination Unit within Fisheries Division to provide assistance to a professor from MSU with a research study on commercial fishing.

- GLEU officers presented at the department's Creel Clerk Training in Boyne City. The officers gave an overview of the GLEU, LED and how to be a good reporter of criminal activity.
- Members of GLEU attending a mapping training in St. Ignace. The training instructed members how to use the mapping program that was recently developed by GLEU and the Resource Assessment Section of Forest Resources Division. The training covered both the desktop and iPhone-based mapping software.
- GLEU officers attended a two-day side scan sonar training held in Alpena. The training was instructed by Robert Clerkin, a representative of Klein Marine Systems, and focused on the setup and deployment of the Klein 3900 side scan sonar. LED currently has five of the Klein 3900 side scan sonar units: GLEU is assigned two of the units and three others are assigned to various districts in the state. Time was spent locating various targets (shipwrecks, cables, submerged manikins to simulate drowning victims, etc.) and interpreting images obtained from the side scan unit. Mr. Clerkin stressed the importance of constant training with the side scan units to become proficient and recommended that each assigned operator train with them a minimum of 3 full days each month of the open water season to maintain proficiency and not lose perishable skills.
- GLEU gave a presentation at the Sault Ste Marie Tribe of Chippewa Indians Police Jr. Camp. The officer discussed the roles of a conservation officer, the hiring process and took questions from 43 attendees between the ages of 10-15 who were interested in a career in law enforcement.
- GLEU gave a presentation to the M & M Sportfishing club in Menominee. The presentation consisted of GLEU's 2018 Annual Report and topics specifically requested by the club members including AIS, the commercial fish law rewrite, and 2020 Consent Decree negotiations. The presentation was originally supposed to last 30 minutes; however, other club business was tabled at the request of the club members so the officer could address several additional topics on which club members wanted information. The presentation and Q&A session lasted almost 2 hours.
- A DNR Conservation Law Class for the Northern Michigan University Public Safety Police Academy Recruit Class was taught by a GLEU officer. Information was provided on the role conservation officers play in the law enforcement community, the training process to become a conservation officer, and answered several fish and game questions including commercial fishing questions on the Great Lakes.

- Officers from GLEU attended the Great Lakes Fishery commission law enforcement meeting in Windsor Ontario. A collaboration of law enforcement efforts in and around the great lakes were discussed.
- A GLEU officer assisted District 1 by doing an interview with the TV-3 Marquette News Channel for hunting safety tips and harvesting antlerless deer in proper DMUS during the 2019 archery season.
- The Northern Michigan University Fisheries & Wildlife Student Group was attended by a GLEU officer who gave a presentation on the role conservation officers play in natural resource protection. The presentation was well attended, and several of the attendees were starting the application process for the upcoming recruit school selection process.
- The annual Northern Great Lakes Fur Harvesters Convention in Kinross was attended by a GLEU officer. This organization is a strong supporter of DNR-LED, including an annual financial contribution that allows an officer to attend the Fur Takers of America Trapper's College in Indiana. The officer gave a general presentation and a Q&A period for youth at the event and assisted in building pine marten nesting boxes with interested youth. He also answered miscellaneous questions throughout the day and gave a demonstration on coyote trapping techniques.
- A GLEU officer led a presentation at Northern Michigan University to approximately 110 college students about the law enforcement role conservation officers play and the responsibilities of the position pertaining to natural resource protection.
- A presentation for the youngsters at a local Gladstone school was given by a GLEU officer. A fur kit was brought in and the topics of helmet use and PFD usage were discussed.
- A GLEU officer participated in an annual "Hunter's Breakfast" held at the local community building in the town of Garden. The breakfast is put on by the American Legion; many hunting and fishing questions were fielded by the officer while at the event.

Education efforts and meetings attended by Unit officers also include the following:

- Lakes Huron, Michigan, Superior, Erie & St. Clair Citizen Fishery Advisory Committees
- Various Law Division District Meetings
- Michigan Fish Producers Association
- "Clean Boats, Clean Waters" Aquatic Invasive Species Initiative

- Quarterly Chippewa-Ottawa Resource Authority (CORA) Law Enforcement Committee LEC meetings
- Michigan Aquaculture Association
- Various United States Coast Guard meetings
- Ports & Waterways Safety Assessment (PASWA) meeting
- 2020 Core Team meetings
- Counter Unmanned Aerial Surveillance meeting
- Various elementary, junior high, high school and college/university presentations
- Mason/Oceana County Water Safety Coalition
- U.P. Boat, Sport & RV Rec Show
- Citizens Waterfowl Advisory Committee
- Great Lakes Fisheries Commission (GLFC) Law Enforcement Committee (LEC) meeting
- Various local sport fishing and sportsmen clubs across the state

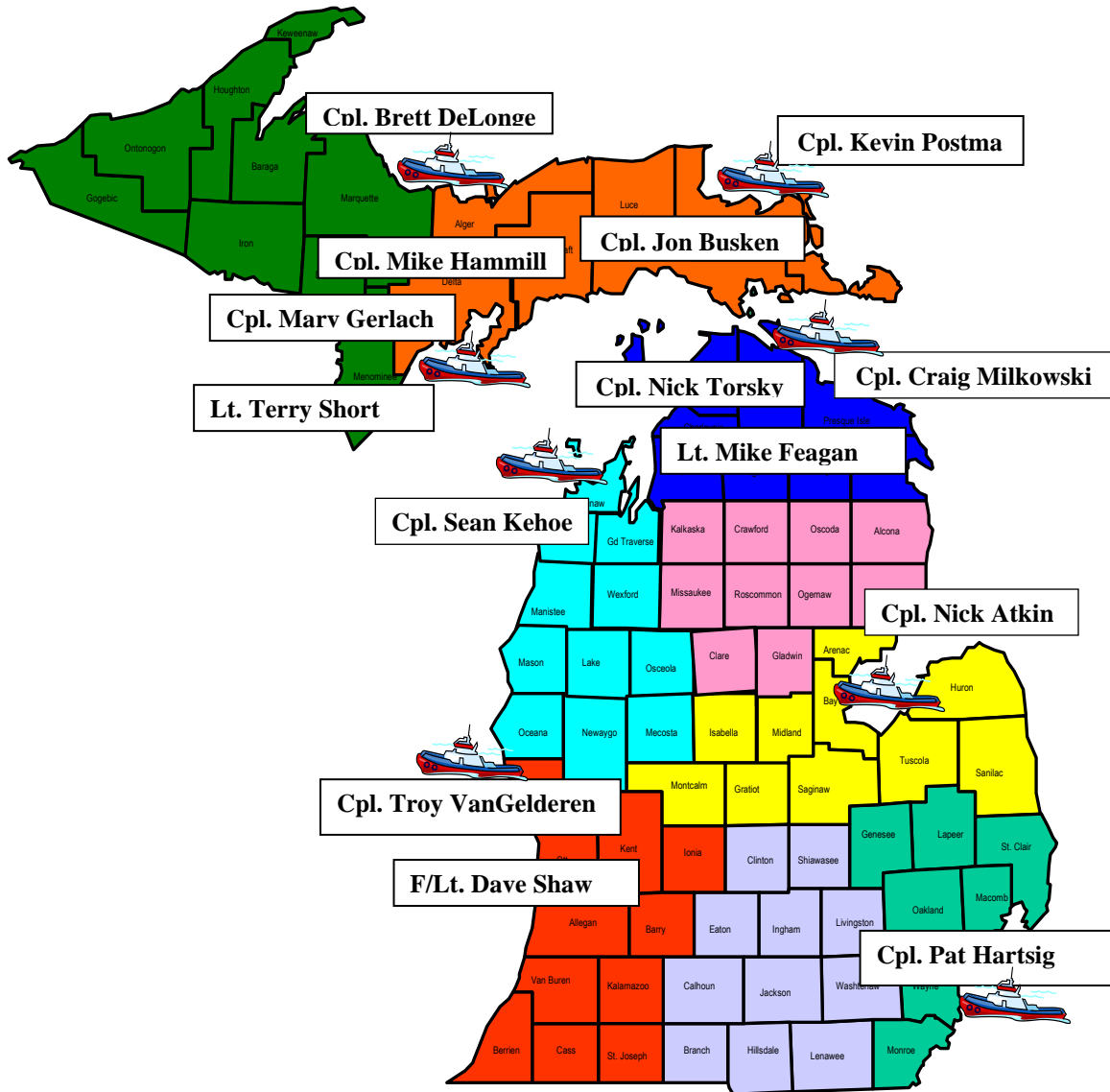
VI. Assistance to Other Agencies and Districts

The GLEU often works with officers from other agencies and jurisdictions as well as providing assistance to Conservation Officers from local Districts. Examples of this from 2019 include the following:

- GLEU officers assisted approximately 48 FBI agents from Michigan in an on-water boarding training of SS Badger in Ludington. The training was a mock terrorist takeover of the car ferry and PB-5 was utilized to transport tactical agents to the ferry where 6 groups of 6-8 agents boarded ship to regain control of the vessel from the terrorist. The lead instructor was very pleased with our vessel and its capabilities and stated they would like to include us in future maritime training.
- A GLEU officer participated in a joint patrol along with Conservation Officers from Sault Tribe, Bay Mills and Little Traverse Bay Bands of Odawa Indians. The patrol focused on ice fishing activity on Munuscong Bay during an ice fishing tournament. Due to extremely cold temperatures participation in the event was lower than normal. In all 54 state licensed fishermen and 12 tribally licensed fishermen were contacted.
- GLEU coordinated communication within Law Enforcement Division, as well as with Fisheries Division, the U.S. Forest Service, and commercial bait harvesters regarding the commercial take of wigglers on the Big Sable and Pere Marquette Rivers. A recent change in enforcement policy by members of USFS law enforcement has affected the ability of commercial harvesters to operate within their state-issued licenses. Fisheries Division and Law Enforcement Division have requested intervention from DNR executive on this issue.

- GLEU partnered with Sault Tribe and Bay Mills Conservation Officers to observe the removal of a trap net east of Mackinac Island. A tribal commercial fisherman was contracted by CORA to remove an abandoned trap net that had been reported to GLEU by recreational fisherman who had become entangled in it. This was the 4th trap net to have been removed in the past year and believed to be the last. In this instance the fisherman removing the net on contract advised that the net was actually his that he had lost 7 years ago. The commercial fisherman from Sault Tribe advised that he recognized the net because of its anchors, remarking to officer's that he had made the anchors. The net was removed, and CORA was made aware of the ownership of the net.
- A GLEU officer was contacted by the United States Coast Guard Investigative Service Sault Ste. Marie office. The Coast Guard responded to a complaint of a group of individuals trying to sink a vessel in Raber Bay over the July 4th holiday weekend. Contact with the group revealed they were attempting to sink the vessel to create fish reef. The GLEU officer and an agent from the Coast Guard interviewed a suspect and obtained a confession on attempting to sink the vessel and removing the MC numbers to hamper investigators tying the vessel to an owner. GLEU officers searched Raber Bay for additional sunken vessels but found none. GLEU is working with EGLE on charging the individual.
- Officers from GLEU and D-3 took part in 2019 Operation Northern Strike. Patrol vessels from District 3, along with Michigan State Police, Alpena County, Cheboygan County, and U.S. Customs and Border Patrol, provided mock targets on Northern Lake Huron for U.S. military air assets, including A-10 Warthogs, UH-60 helicopters, B-52 bombers, and MQ-9 Reaper drones.

Michigan Department of Natural Resources Great Lakes Enforcement Unit



VII. Law Enforcement Contacts (as of May 5, 2020)

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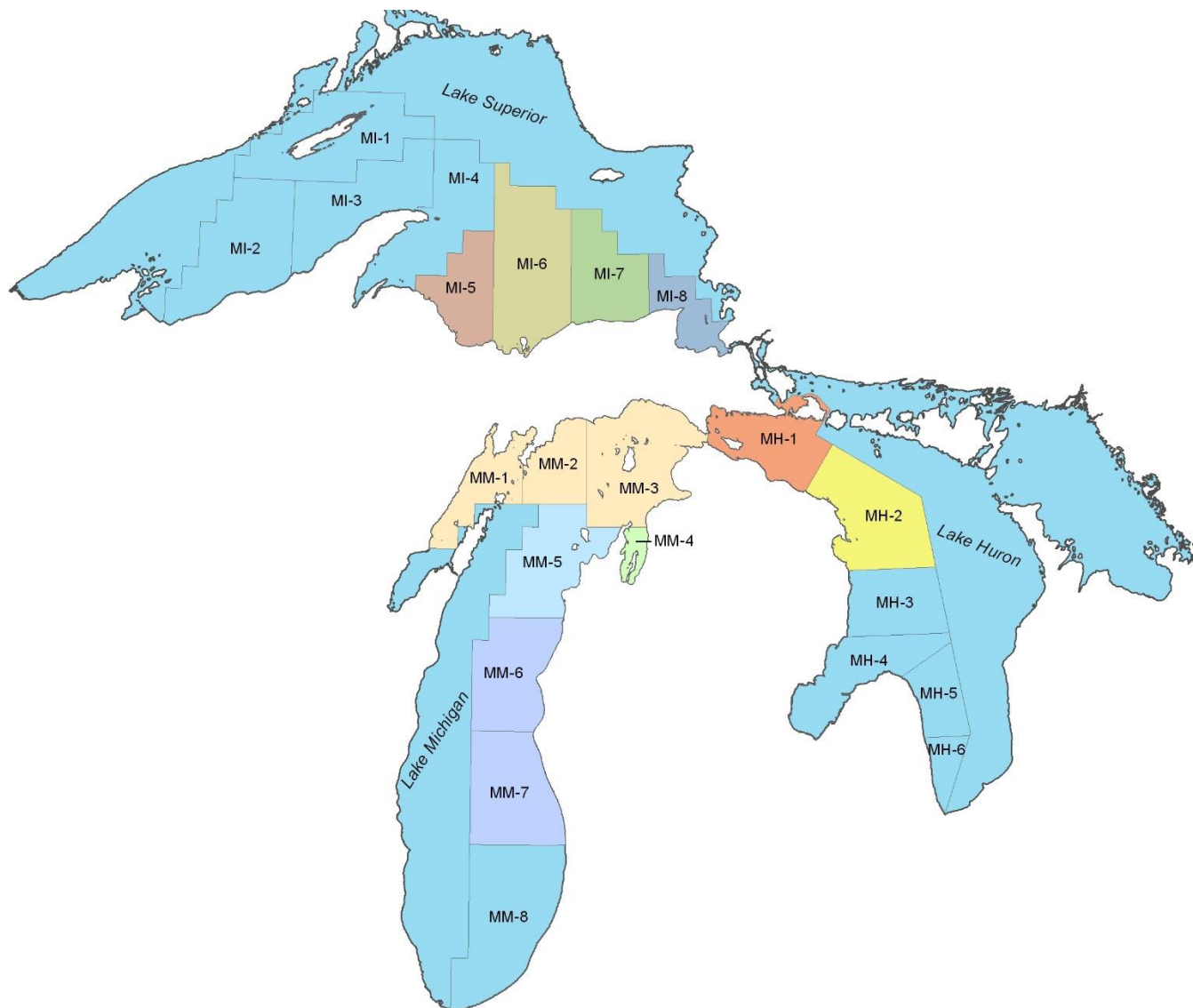


Figure 1. Lake Trout Management Units for Lakes Superior, Michigan and Huron.

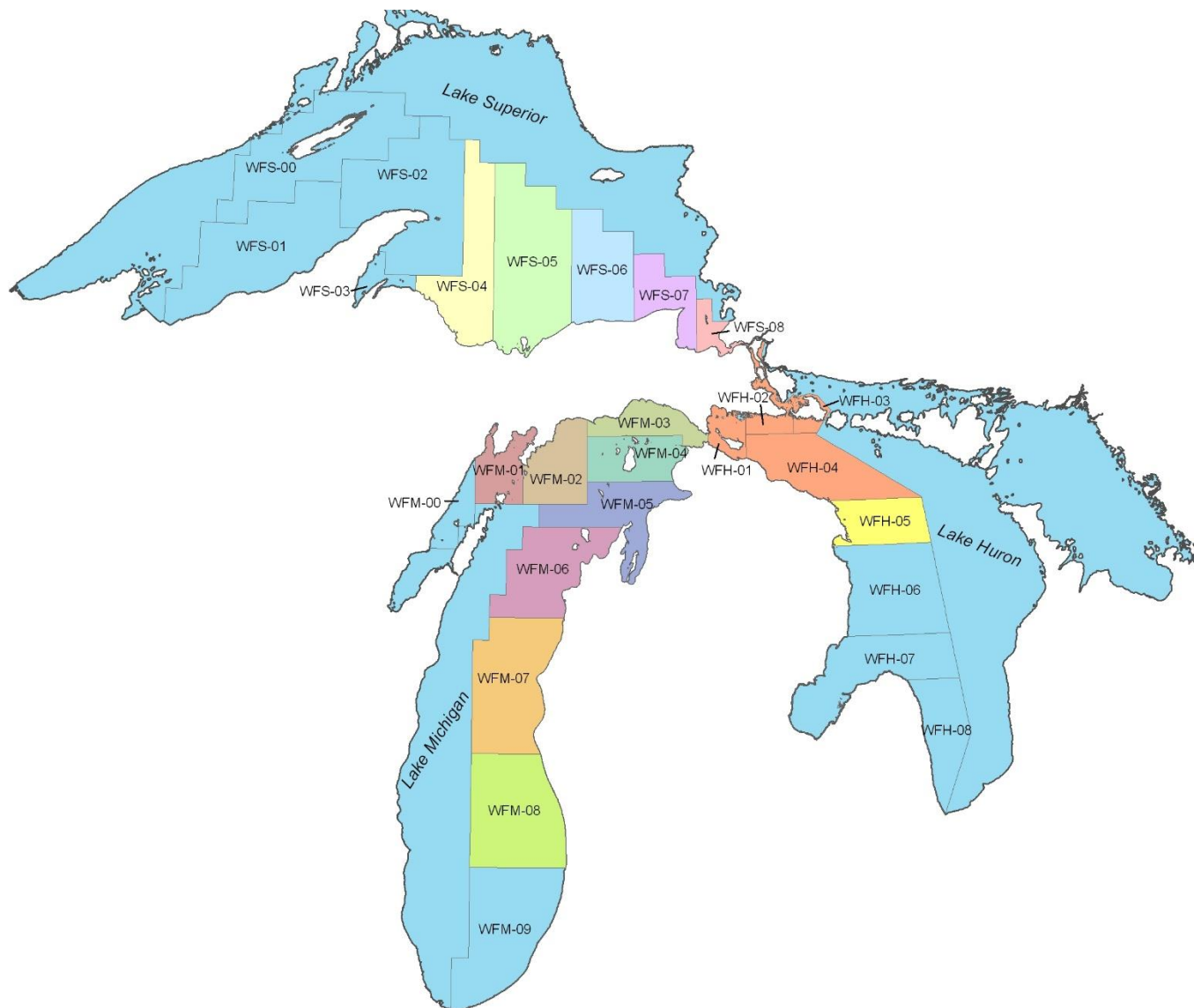


Figure 2. Lake Whitefish Management Units for Lakes Superior, Michigan and Huron.