

SEA LAMPREY CONTROL IN THE GREAT LAKES 2025

ANNUAL REPORT TO
THE GREAT LAKES FISHERY COMMISSION



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Cover: Daniel Kochanski (left) and Jamie Criger (right), U.S. Fish and Wildlife Service, conducting sea lamprey control activities on the St. Marys River.

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EXECUTIVE SUMMARY

This report summarizes sea lamprey control operations conducted by Fisheries and Oceans Canada and the United States Fish and Wildlife Service in the Great Lakes during 2025, which were consistent with those prescribed in the Great Lakes Sea Lamprey Control Plan (2011) to achieve sea lamprey abundance and marking targets. Lampricide treatments were conducted on 93 tributaries and 17 lentic areas. Seventy-three barriers (48 purpose-built, 25 modified to serve as a sea lamprey barrier) were operated to block sea lamprey migration. Larval assessment crews surveyed 468 Great Lakes tributaries and 56 lentic areas to assess control effectiveness, plan future lampricide treatments, and establish the capacity of streams to produce sea lampreys. Assessment traps were operated in 29 tributaries across the Great Lakes to estimate the index of adult sea lamprey abundance in each Great Lake.

Indices of adult sea lamprey abundance were evaluated relative to fish community objectives for each of the lakes. In Lake Superior, the index of adult abundance was estimated to be 40,610 (95% CI: 34,835 – 46,385), which is greater than the index target of 10,421. In Lake Michigan, the index of adult abundance was estimated to be 21,273 (95% CI: 20,398 – 22,148), which is greater than the target of 20,526. In Lake Huron, the index of adult abundance was estimated to be 44,591 (95% CI: 41,671 – 47,511), which is greater than the target of 31,274. In Lake Erie, the index of adult abundance was estimated to be 803 (95% CI: 739 – 867), which is less than the target of 3,263. In Lake Ontario, the index of adult abundance was estimated to be 11,584 (95% CI: 10,648 – 12,520), which is less than the target of 14,065.

INTRODUCTION

The sea lamprey (*Petromyzon marinus*) is a destructive, invasive species in the Great Lakes that contributed to the collapse of lake trout (*Salvelinus namaycush*) and other native species in the mid-20th century and continues to impede efforts to restore and rehabilitate the fish community. Sea lampreys subsist on the blood and body fluids of large-bodied fish. It is estimated that about half of sea lamprey attacks result in the death of their prey and up to 18 kg (40 lbs) of fish production is lost to every sea lamprey that reaches adulthood. The Sea Lamprey Control Program (SLCP) is administered by the Great Lakes Fishery Commission (GLFC; Commission) and implemented by two control agents: the United States Fish and Wildlife Service (USFWS; Service) and Fisheries and Oceans Canada (DFO; Department). The SLCP is a critical component of fisheries management in the Great Lakes because it facilitates the rehabilitation of important fish stocks by significantly reducing sea lamprey-induced mortality.

As part of *A Joint Strategic Plan for Management of Great Lakes Fisheries*, the lake committees developed fish community objectives for each of the Great Lakes. The fish community objectives include goals for the SLCP that, if achieved, should help establish and maintain self-sustaining stocks of lake trout and other salmonids by minimizing sea lamprey impacts on these stocks. This report outlines the program's efforts during 2025 to meet these goals.

FISH COMMUNITY OBJECTIVES

Each lake committee has identified qualitative goals for sea lamprey control, which are published in lake-specific fish community objectives. During 2004, each lake committee agreed to explicit sea lamprey suppression targets designed to meet their fish community objectives. In lakes Superior, Michigan and Erie, the targets were developed from a consecutive five-year period when sea lamprey marking rates were closest to 5.0 A1-A3 marks per 100 lake trout >532 mm, considered to represent a tolerable annual rate of sea lamprey induced lake trout mortality. A target of adult sea lamprey abundance was calculated for each lake from the average index of abundance over the same five-year period. Similarly, a target was developed for Lake Ontario from the estimated average sea lamprey abundance over a five-year period when marking rates were closest to 2.0 A1 marks per 100 lake trout >431 mm. In Lake Huron, the abundance target was calculated as 25% of the estimated average during the consecutive five-year period with the lowest sea lamprey marking rate prior to the completion of the fish community objectives (1989–1993).

The annual performance of the SLCP is evaluated by comparing lake-specific adult sea lamprey abundance indices and lake trout marking rates against established targets. Adult sea lamprey abundance indices are estimated by the Service and Department by tallying mark-recapture estimates from a sub-set of streams within each lake that were selected based on a consistent trapping history and reliable sea lamprey spawning runs. Lake trout marking rates are assessed and collected by member agencies that comprise the lake committees and their technical committees.

Lake Superior

The Lake Superior Committee established the following goal for sea lamprey control in Lake Superior:

- *Suppress sea lampreys to population levels that cause only insignificant mortality on adult lake trout.*

Sea lamprey control supports fish community objectives for lake trout and other species:

- *Achieve and maintain genetically diverse self-sustaining populations of lake trout that are similar to those found in the lake prior to 1940, with lean lake trout being the dominant form in nearshore waters, siscowet lake trout the dominant form in offshore waters, and humper lake trout a common form in eastern waters and around Isle Royale.*
- *Maintain self-sustaining populations of lake whitefish within the range of abundance observed during 1990-1999.*

The adult index target for Lake Superior of 10,421 sea lamprey was estimated as the mean of annual index values during the five-year period, 1994-1998, when marking rates were closest to 5.0 marks per 100 lake trout >532 mm (5.2 A1-A3 marks per 100 fish >532 mm). The 2025 index of adult abundance for Lake Superior was 40,610 (95% CI: 34,835 – 46,385), which is greater than the index target. The number of A1-A3 marks on lake trout from spring assessments in 2024 was 8.1 marks per 100 lake trout >532 mm. The spring 2025 assessment data is being compiled.

Lake Michigan

The Lake Michigan Committee established the following goal for sea lamprey control in Lake Michigan:

- *Suppress sea lamprey abundance to allow the achievement of other fish community objectives.*

Sea lamprey control can have a direct effect on objectives for lake trout and other salmonines:

- *Establish self-sustaining lake trout populations.*
- *Establish a diverse salmonine community capable of sustaining an annual harvest of 2.7 to 6.8 million kilograms (6 to 15 million pounds), of which 20-25% is lake trout.*

The adult index target for Lake Michigan of 20,526 sea lamprey was estimated as the mean of indices during the five-year period, 2016-2021, when marking rates were closest to 5.0 marks per 100 lake trout >532 mm (3.5 A1-A3 marks per 100 fish >532 mm). The 2025 index of adult abundance for Lake Michigan was 21,273 (95% CI: 20,398 – 22,148), which is greater than the index target. The number of A1-A3 marks on lake trout from fall assessments in 2024 was 2.8 marks per 100 lake trout >532 mm. The fall 2025 assessment data is being compiled.

Lake Huron

The Lake Huron Committee established the following specific goals for sea lamprey control in Lake Huron:

- *Reduce sea lamprey abundance to allow the achievement of other fish community objectives.*
- *Obtain a 75% reduction in parasitic-phase sea lampreys by the year 2000 and a 90% reduction by the year 2010 from present levels.*

The sea lamprey objective supports the other fish community objectives, specifically the salmonine objective:

- *Establish a diverse salmonine community that can sustain an annual harvest of 2.4 million kg, with lake trout the dominant species and anadromous (stream-spawning) species also having a prominent place.*

The adult index target for Lake Huron of 31,274 sea lamprey was estimated as 0.25 times the mean of indices during the five-year period of lowest sea lamprey abundance prior to the publication of the fish community objectives (1989-1993). Unlike the other Great Lakes, this target was not based on observed consecutive years of marking rates that resulted in a tolerable annual lake trout mortality rate. The 2025 index of adult abundance in Lake Huron was estimated to be 44,591 (95% CI: 41,671 – 47,511), which is greater than the index target. The number of A1- A3 marks on lake trout from spring assessments in 2024 was 6.1 marks per 100 lake trout >532 mm. The spring 2025 assessment data is being compiled.

Lake Erie

The Lake Erie Committee established the following goal and indicator of success for sea lamprey control in Lake Erie:

- *Suppress abundance of sea lamprey to levels that will not impede achievement of any fish community objective, especially for cold-water species of low abundance.*
- *Reduce sea lamprey abundance to levels specified in the sea lamprey management plan administered by the Commission.*

The lake trout management plan for rehabilitation of self-sustaining stocks in the eastern basin of Lake Erie prescribed a maximum annual mortality of less than 40% to permit the establishment and maintenance of suitable stocks of spawning adults. Mortality was to be controlled through management of fishery exploitation and continued suppression of sea lamprey.

The adult index target for Lake Erie of 3,263 sea lamprey was estimated as the mean of indices during the five-year period, 1991-1995, when marking rates were closest to 5.0 marks per 100 lake trout >532 mm (4.4 A1-A3 marks per 100 fish >532 mm). The 2025 index of adult abundance in Lake Erie was estimated to be 803 (95% CI: 739 – 867), which is less than the index target. The number of A1-A3 marks on lake trout from fall assessments in 2024 was 15.8 marks per 100 lake trout >532 mm. The fall 2025 assessment data is being compiled.

Lake Ontario

The Lake Ontario Committee established the following goal and indicators of success for sea lamprey control in Lake Ontario:

- *Control sea lamprey—suppress abundance of sea lamprey to levels that will not impede achievement of objectives for lake trout and other fish.*
- *Spawning-phase adult sea lamprey abundance in Lake Ontario tributaries below targets identified in the sea lamprey management plan.*
- *Number of A1 marks on lake trout and other species below targets.*

The Lake Ontario Committee recognized that continued control of sea lamprey is necessary for lake trout rehabilitation and stated a specific objective for sea lamprey:

- *Control sea lampreys so that fresh wounding rates (A1) of lake trout larger than 431 mm is less than 2.0 marks/100 fish.*

This objective is intended to maintain the annual lake trout survival rate of 60% or greater to support a spawning stock of 0.5 to 1.0 million adults of multiple year classes. Along with sea lamprey control, angler and commercial exploitation will also be controlled so that annual harvest does not exceed 120,000 fish in the near term.

The target for Lake Ontario sea lamprey abundance is calculated using A1 marks exclusively, which have been more consistently recorded on Lake Ontario. The target-marking rate of less than 2.0 A1 marks per 100 lake trout was explicitly identified as producing tolerable mortality in the lake trout rehabilitation plan.

The adult index target for Lake Ontario of 14,065 sea lamprey was estimated as the mean of indices during the five-year period, 1993-1997, when marking rates were closest to 2.0 marks per 100 lake trout >431 mm (1.6 A1 marks per fish >431 mm). The 2025 index of adult abundance in Lake Ontario was estimated to be 11,584 (95% CI: 10,648 – 12,520), which is less than the index target. The number of A1 marks on lake trout from fall assessments in 2024 was 2.6 marks per 100 lake trout >431 mm. The fall 2025 assessment data is being compiled.

LARVAL CONTROL

Tributaries harboring larval sea lamprey are treated periodically with lampricides to eliminate or reduce larval populations before they recruit to the lake as feeding juveniles. During stream treatments, Department and Service control units administer and analyze several lampricide formulations including 3-trifluoromethyl-4-nitrophenol (TFM) or TFM mixed with Bayluscide (20% emulsifiable concentrate; EC). Specialized equipment and techniques are employed to maintain lampricide concentrations at levels that eliminate approximately 93% of resident sea lamprey larvae while minimizing risk to non-target organisms. To control larval populations that inhabit lentic areas and interconnecting waterways, field crews apply a bottom-release formulation of lampricide, granular Bayluscide 3.2% (gB), which is 75% effective on average.

Reporting to the SLCB, the Lampricide Control Task Force (LCTF) was established by the Commission during December 1995 and charged to improve the efficiency of lampricide control, maximize sea lamprey killed in stream and lentic treatments (while minimizing lampricide use, costs, and impacts on aquatic ecosystems), and define lampricide control options for near and long-term stream selection and target setting. Progress on SLCB charges during 2025 is presented in the LCTF section of this report.

During 2025, lampricide treatments were conducted on 93 tributaries and 17 lentic areas of the Great Lakes (Table 1). The time series of control effort metrics are presented in Figure 1.

Table 1. Summary of lampricide applications in tributaries of the Great Lakes in 2025.

Lake	Number of Streams	Number of Lentic Areas	Discharge (m ³ /s)	Distance Treated (km)	TFM (kg) ^{1,2}	Bayluscide (kg) ^{1,3}
Superior	30	9	106	673	10,894	265
Michigan	26	3	119	1,158	25,485	305
Huron	19	4	58	216	12,729	1,014
Erie	6	0	35	267	9,361	1
Ontario	12	1	31	236	6,844	34
Total	93	17	349	2,550	65,313	1,619

¹Lampricide quantities are reported in kg of active ingredient, ²Includes solid formulation of TFM, ³Includes 3.2% gB applied to lentic areas

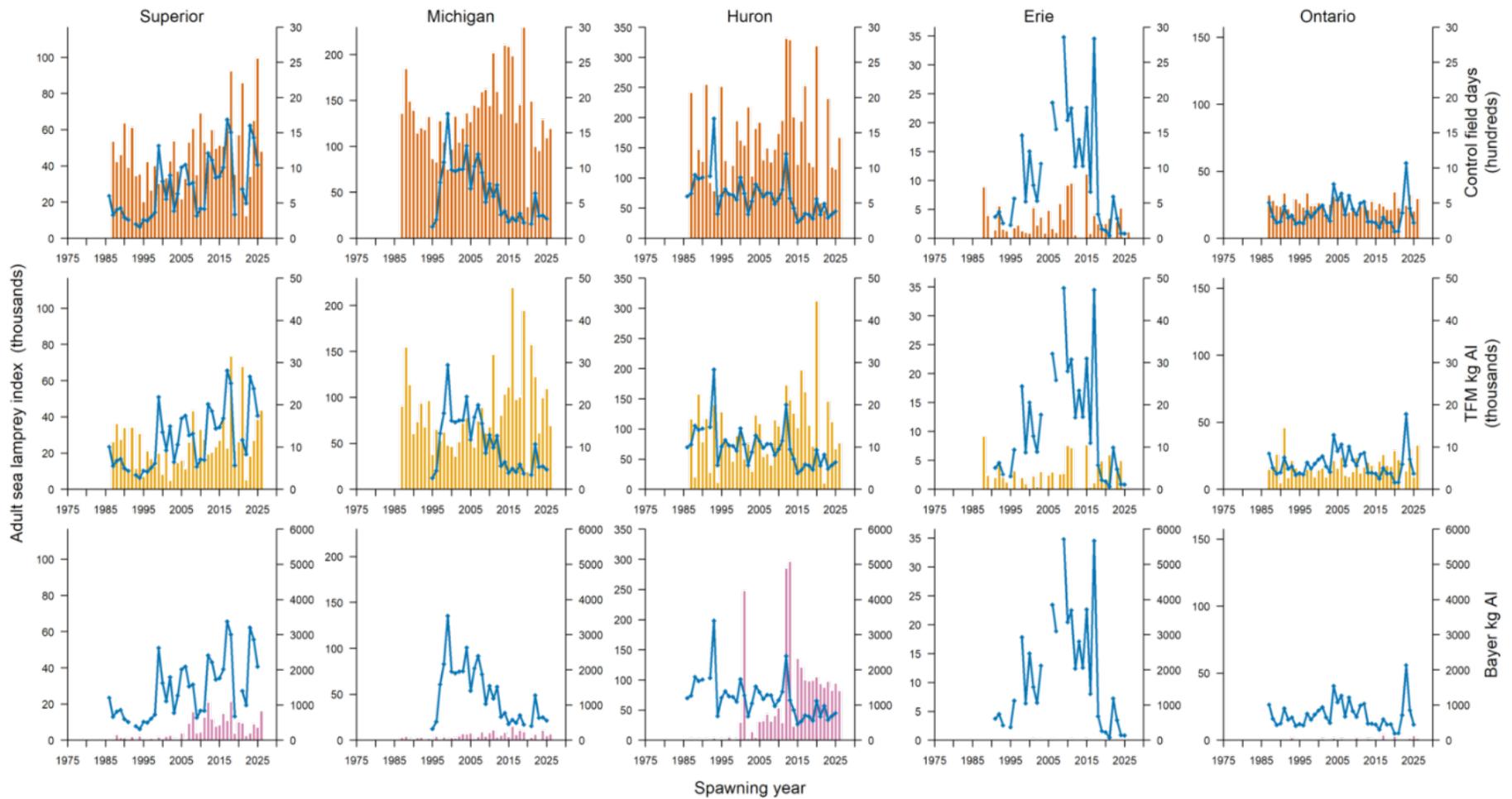


Figure 1. Row 1: Number of control field days (orange bars). Row 2: TFM used (kg active ingredient, yellow bars). Row 3: Bayluscide used (kg active ingredient, purple bars). All rows: Index of adult sea lampreys is shown with blue lines. All metrics plotted against the sea lamprey spawning year. Control metrics are offset by two years, e.g., control applied during 2006 is plotted on the 2008 spawning year - the year the treatment effect would first be observed in the adult sea lamprey population.

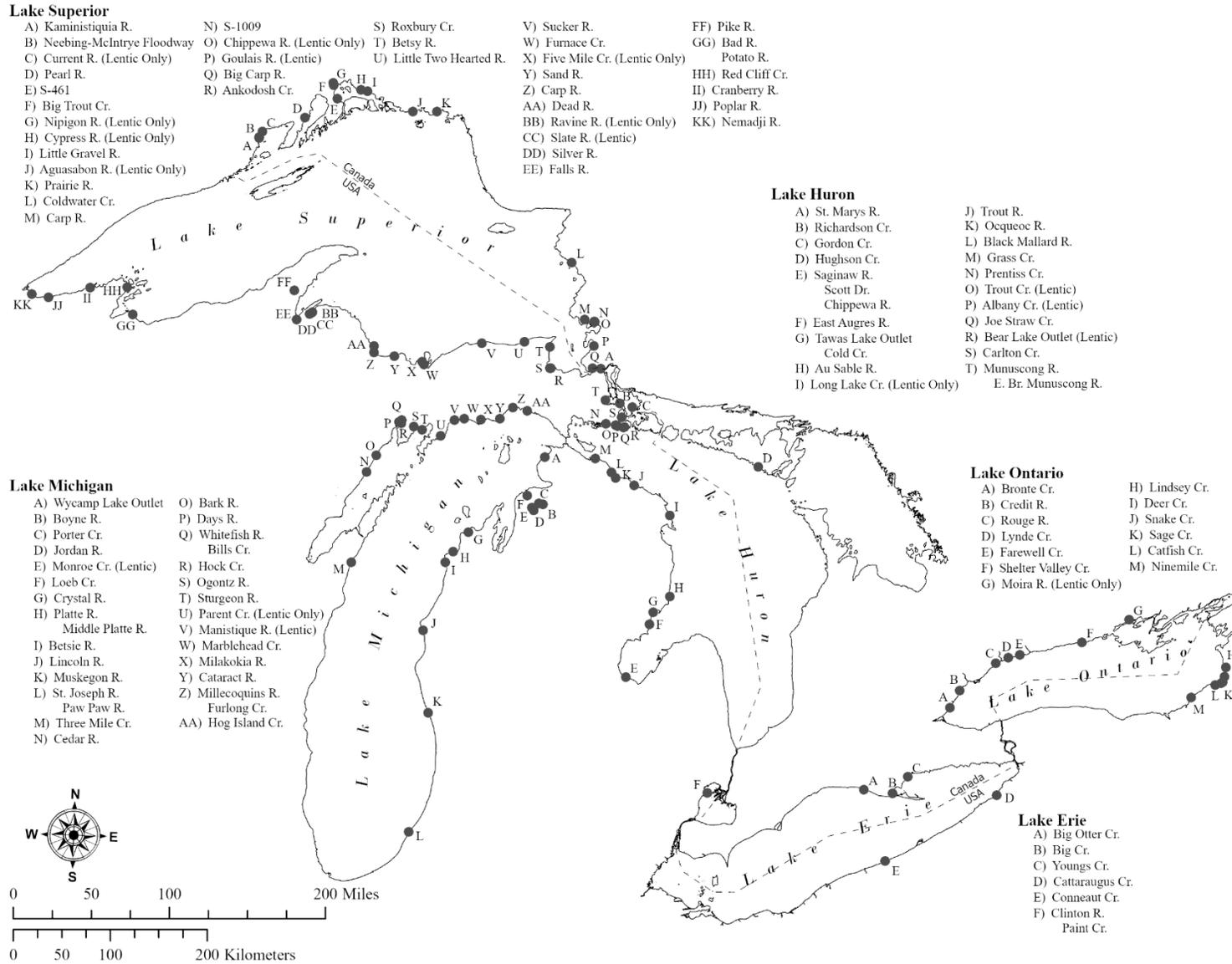


Figure 2. Location of tributaries treated with lampricides during 2025.

Lake Superior

Lake Superior has 1,566 tributaries (833 Canada, 733 U.S.). One hundred seventy-five tributaries (60 Canada, 115 U.S.) have records of larval sea lamprey production. Of these, 132 tributaries (45 Canada, 87 U.S.) have been treated with lampricides at least once during 2016-2025. Sixty-two tributaries (26 Canada, 36 U.S.) are treated every 3-5 years. Details on lampricide applications to Lake Superior tributaries and lentic areas during 2025 and tributary locations are found in Table 2 and Figure 2, respectively.

- Lampricide treatments were conducted in 30 tributaries (12 Canada, 18 U.S.) and 9 lentic areas (6 Canada, 3 U.S.).
- The Pike River (Houghton County) was treated for the first time and was challenging to treat due to the presence of numerous beaver dams.
- The Potato River, tributary to the Bad River, was treated to eliminate residual larvae from the 2024 treatment. The abundance of springs and backwaters in the Potato River makes it difficult to achieve an effective treatment. During 2025, stream discharge was favorable, concentrations were lethal throughout the treatment extent, and an extensive amount of effort went into secondary applications.
- The Red Cliff Creek treatment was complicated by low stream discharge and extensive beaver activity but was effective overall.
- The Nemadji River was treated under historically low stream discharge. Due to insufficient stream discharge and remote access, the treatment was ineffective in the South Fork Nemadji River, including the Net River. The South Fork will be treated again in 2026.
- The Kaministiquia River and tributaries (7) were treated over a three-month period (July to September).
- High densities of large sea lamprey larvae and juveniles were observed during treatments of the Kaministiquia, Pike, Potato, Carp, Nemadji, and Dead rivers and Roxbury Creek.
- Unnamed stream S-461 was treated for the first time. Sea lamprey larvae and a juvenile were observed about 60 meters downstream of the application site. This treatment was challenging due to remote access by water.
- The upper section of the Big Carp River was not treated due to low stream discharge.

Table 2. Details on the application of lampricides to tributaries and lentic areas of Lake Superior during 2025 (letter in parentheses corresponds to location of stream in Figure 2). Lampricide quantities are reported as kg of active ingredient.

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Canada							
Kaministiquia R. (A)	Sep-24	43.9	126.0	3360.5	5.2	27.5	0.3
Neebing-McIntyre Floodway (B)	Jul-18	1.9	26.0	368.2	1.3	---	0.1
Current R. (C)							
Lentic	Aug-08	---	---	---	---	---	48.4
Pearl R. (D)	Jun-23	1.2	1.9	186.0	0.8	---	0.0
S-461 (E)	Aug-20	0.1	1.1	14.4	---	---	---
Big Trout Cr. (F)	Jun-20	1.7	15.7	241.8	---	---	---
Nipigon R. (G)							
Lentic	Aug-10	---	---	---	---	---	11.6
Cypress R. (H)							
Lentic	Aug-07	---	---	---	---	---	33.1
Little Gravel R. (I)	Jun-24	1.5	6.1	109.7	0.4	---	0.1
Aguasabon R. (J)							
Lentic	Aug-06	---	---	---	---	---	7.4
Prairie R. (K)	Jul-10	3.1	4.0	610.7	---	---	0.1
Coldwater Cr. (L)	Jul-10	0.1	1.9	40.4	---	---	---
Carp R. (M)	Jul-16	1.0	8.2	63.1	2.6	---	0.1
S-1009 (N)	Jul-17	0.0	0.4	0.6	0.0	---	---
Chippewa R. (O)							
Lentic	Jul-25	---	---	---	---	---	36.7
Goulais R. (P)	Jul-10	27.8	115.6	1957.7	3.0	---	0.7
Lentic	Jul-29	---	---	---	---	---	17.2
Big Carp R. (Q)	Jul-25	0.2	10.4	24.8	0.4	---	0.0
Total (Canada)		82.5	317.3	6,977.9	13.7	27.5	155.8
United States							
Ankodosh Cr. (R)	Jul-19	0.3	1.8	69.8	---	---	---
Roxbury Cr. (S)	Jul-22	0.2	3.5	32.4	---	---	---

Table 2. Continued

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Betsy R. (T)	Jul-20	2.1	16.4	133.1	0.4	---	---
Little Two Hearted R. (U)	Jul-22	0.9	22.2	94.1	---	---	---
Sucker R. (V)	Jul-19	2.1	13.0	307.2	0.4	---	---
Furnace Cr. (W)	Sep-18	0.1	0.8	15.3	---	---	---
Five Mile Cr. (X)							
Lentic	Jul-08	---	---	---	---	---	7.4
Sand R. (Y)	Jul-02	0.5	13.0	109.4	0.7	---	---
Carp R. (Z)	Aug-27	1.4	8.9	285.1	2.6	---	---
Dead R. (AA)	Jul-09	5.5	1.9	328.1	---	---	---
Ravine R. (BB)							
Lentic	Sep-02	---	---	---	---	---	52.7
Slate R. (CC)	Sep-03	0.4	1.0	46.8	---	---	---
Lentic	Oct-01	---	---	---	---	---	22.0
Silver R. (DD)	Sep-04	4.0	6.4	334.1	1.3	---	---
Falls R. (EE)	Sep-03	2.4	0.5	326.7	---	---	---
Pike R. (FF)	Aug-28	0.2	9.5	43.9	0.5	---	---
Bad R. (GG)							
Potato R.	Jun-22	0.9	22.9	289.3	2.6	---	---
Red Cliff Cr. (HH)	Jun-25	0.0	5.3	12.3	0.2	---	---
Cranberry R. (II)	Jun-21	0.7	10.8	87.2	0.3	---	---
Poplar R. (JJ)	Jun-10	0.2	25.1	89.2	1.7	---	---
Nemadji R. (KK)	Sep-27	1.4	193.0	1283.7	4.5	---	---
Total (United States)		23.3	356.0	3,887.7	15.2	0.0	82.1
Total for Lake		105.8	673.3	10,865.6	28.9	27.5	237.9

¹Stream discharges of <0.05 are recorded as 0.0, ²Granular Bayluscide amounts less than <0.05 are recorded as 0.0

Lake Michigan

Lake Michigan has 511 tributaries. One hundred twenty-nine tributaries have records of larval sea lamprey production, and of these, 77 tributaries have been treated with lampricides at least once during 2016-2025. Thirty-two tributaries are treated every 3-5 years. Details on lampricide applications to Lake Michigan tributaries and lentic areas during 2025 and tributary locations are found in Table 3 and Figure 2, respectively.

- Lampricide treatments were completed in 26 tributaries and 3 lentic areas.
- The lentic area offshore from Parent Creek was treated for the first time.
- The Bark River and Bills Creek (Whitefish River; Supplemental Control [SupCon] study stream) were treated in 2025 after ineffective treatments in 2024. Numerous residual larvae greater than 100 mm were observed in both systems during the 2024 treatments.
- The Cedar River and Marblehead Creek were successfully treated after being deferred in 2024.
- A bioassay was conducted during the early spring treatment of the Cedar River to evaluate the effects of seasonality on larval sea lamprey sensitivity.
- Department and Service personnel collaborated to treat just under 483 km of the Manistique River. A portion of the upper West Branch was not treated due to low stream discharge and will be rescheduled for 2026.
- High densities of large sea lamprey larvae and transformers were observed during treatments of the Cedar and Manistique rivers and Furlong and Bills creeks.
- Department and Service personnel treated the Muskegon River with cooperation from the Little River Band of Ottawa Indians (LRBOI), Michigan Department of Natural Resources (MIDNR), and Consumers Energy.

Table 3. Details on the application of lampricides to tributaries and lentic areas of Lake Michigan during 2025 (letter in parentheses corresponds to location of stream in Figure 2). Lampricide quantities are reported as kg of active ingredient.

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Wycamp Lake Outlet (A)	Aug-08	0.5	2.3	81.9	---	---	---
Boyne R. (B)	Jul-31	2.7	6.4	850.9	6.4	---	---
Porter Cr. (C)	Jul-09	0.4	1.9	116.6	---	---	---
Jordan R. (D)	Aug-2	4.8	36.7	1691.6	13.4	8.0	---
Monroe Cr. (E)	Aug-11	0.2	1.0	64.0	0.2	---	---
Lentic	Aug -06	---	---	---	---	---	2.5
Loeb Cr. (F)	Aug-09	---	3.2	8.2	---	---	---
Crystal R. (G)	Jul-21	1.1	9.5	394.4	0.6	---	---
Platte R. (H)							
Middle Platte R.	Jul-17	3.5	2.3	700.8	---	9.2	---
Betsie R. (I)	Jul-20	7.4	20.4	1221.0	6.2	12.3	---
Lincoln R. (J)	Jul-09	1.1	19.6	436.1	0.6	---	---
Muskegon R. (K)	Aug-15	37.9	132.0	7768.5	29.1	93.3	---
St. Joseph R. (L)							
Paw Paw R.	Sep-27	7.0	95.0	2317.8	2.1	---	---
Three Mile Cr. (M)	Apr-16	0.2	2.7	71.3	0.3	---	---
Cedar R. (N)	May-11	14.2	95.0	3016.1	4.7	---	---
Bark R. (O)	May-23	0.7	33.3	244.3	3.8	---	---
Days R. (P)	Aug-19	0.2	6.8	68.3	0.6	---	---
Whitefish R. (Q)							
Bills Cr.	May-09	0.9	10.6	50.6	1.3	---	---
Hock Cr. (R)	May-14	0.1	0.8	17.9	---	---	---
Ogontz R. (S)	May-28	0.1	17.2	22.3	0.6	---	---
Sturgeon R. (T)	Aug-15	2.3	86.9	559.0	4.8	---	---
Parent Cr. (U)							
Lentic	Aug-14	---	---	---	---	---	36.7
Manistique R. (V)	Sep-11	32.6	523.0	5143.7	14.1	24.6	---
Lentic	Oct-14	---	---	---	---	---	118.8
Marblehead Cr. (W)	May-27	0.2	3.7	18.1	---	---	---
Milakokia R. (X)	Oct-09	0.5	22.5	336.9	0.6	---	---

Table 3. Continued

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Cataract R. (Y)	Oct-12	0.1	2.6	24.1	---	---	---
Millecoquins R. (Z)							
Furlong Cr.	Jun-22	0.5	12.7	108.1	2.3	---	---
Hog Island Cr. (AA)	Jun-20	0.1	9.5	59.0	1.7	---	---
Total for Lake		119.3	1,157.6	25,391.5	93.4	147.4	158.0

¹Stream discharges of <0.05 are recorded as 0.0, ²Granular Bayluscide amounts less than <0.05 are recorded as 0.0

Lake Huron

Lake Huron has 1,761 tributaries (1,334 Canada, 427 U.S.). One hundred thirty tributaries (61 Canada, 69 U.S.) have records of larval sea lamprey production. Of these, 78 tributaries (37 Canada, 41 U.S.) have been treated with lampricide at least once during 2016-2025. Forty-eight tributaries (26 Canada, 22 U.S.) are treated every 3-5 years. Details on lampricide applications to Lake Huron tributaries and lentic areas during 2025 and tributary locations are found in Table 4 and Figure 2, respectively.

- Lampricide treatments were completed in 19 tributaries (4 Canada, 15 U.S.) and in 4 lentic areas (0 Canada, 4 U.S.).
- Long Lake Outlet, a SupCon stream, was treated with gB for the first time. During treatment, staff coordinated closely with Hammond Bay Biological Station (HBBS) and collected high densities of sea lamprey larvae for research purposes.
- Albany Creek was treated upstream of the seasonal sea lamprey barrier for the first time since 2001.
- Twelve (8 Canada, 4 U.S.) lampricide treatments were deferred in 2025. All have been re-scheduled for treatment in 2026 except for the Shebeshekong River.
 - Shawanaga Landing Creek, Bighead River lentic, Bighead, Shebeshekong, Nottawasaga (mainstream), Nottawasaga (Pine), and Naiscoot rivers were not completed in 2025 to allow for continued dialogue with First Nation communities.
 - The Naiscoot River, Nottawasaga River (including Pine) and Bighead River lentic have been deferred for five, four and three consecutive years, respectively.
- Beaver Dam Creek, Charlotte River, and Elm Creek (Echo River) were not treated due to low stream discharge.
- The Shiawassee and Cass rivers, tributaries to the Saginaw River, were deferred due to elevated stream discharge.
- High densities of large sea lamprey larvae and juveniles were observed during the Trout River treatment.
- Two hundred ninety-four hectares of the St. Marys River were treated with gB. Seventy-three hectares (5 plots) were re-treated to address potential residuals.

Table 4. Details on the application of lampricides to tributaries and lentic areas of Lake Huron during 2025 (letter in parentheses corresponds to location of stream in Figure 2). Lampricide quantities are reported as kg of active ingredient.

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
<u>Canada</u>							
St. Marys R. (A)	Jul-23	---	---	---	---	---	828.4
Richardson Cr. (B)	Jun-18	0.1	2.9	44.7	---	---	---
Gordon Cr. (C)	May-14	0.0	1.4	1.8	---	---	---
Hughson Cr. (D)	Jun-04	0.1	2.9	52.8	0.2	---	0.0
Total (Canada)		0.2	7.2	99.3	0.2	---	828.4
<u>United States</u>							
Saginaw R. (E)							
Scott Dr.	Jun-21	0.7	4.5	145.3	2.1	---	---
Chippewa R.	May-24	11.4	109.4	5061.5	1.5	---	22.7
East Au Gres R. (F)	Jun-24	2.0	28.2	460.2	---	---	---
Tawas Lake Outlet (G)							
Cold Cr.	Jun-05	0.2	4.0	42.3	0.4	---	---
Au Sable R. (H)	Aug-27	38.5	20.1	5658.7	3.0	68.8	---
Long Lake Cr. (I)							
Lentic	Jul-01	---	---	---	---	---	4.3
Trout R. (J)	Jul-08	0.7	1.9	153.9	---	---	---
Ocqueoc R. (K)	Jul-09	2.5	5.6	675.0	3.7	---	---
Black Mallard R. (L)	Jul-10	0.2	2.7	40.4	0.2	---	---
Grass Cr. (M)	Aug-07	0.0	0.2	3.7	---	---	---
Prentiss Cr. (N)	May-25	0.2	7.4	86.7	1.8	---	---
Trout Cr. (O)	Sep-11	0.0	1.6	5.8	0.1	---	---
Lentic	Jun-08	---	---	---	---	---	34.9
Albany Cr. (P)	Sep-11	0.2	8.9	95.9	1.0	---	---
Lentic	Jun-06	---	---	---	---	---	36.7
Joe Straw Cr. (Q)	May-27	0.0	0.6	4.5	---	---	---
Bear Lake Outlet (R)	Sep-16	0.1	1.3	11.6	0.2	---	---
Lentic	Jun-06	---	---	---	---	---	18.4
Carlton Cr. (S)	May-24	0.2	1.1	28.3	---	---	---

Table 4. Continued

Tributary	Date	Discharge (m ³ /s) ¹	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Munuscong R. (T)							
E. Br. Munuscong R.	May-23	0.5	11.6	140.8	1.3	---	---
Total (United States)		57.4	209.1	12,614.6	15.3	68.8	117.0
Total for Lake		57.6	216.3	12,713.9	15.5	68.8	945.4

¹Stream discharges of <0.05 are recorded as 0.0, ²Granular Bayluscide amounts less than <0.05 are recorded as 0.0

Lake Erie

Lake Erie has 842 tributaries (525 Canada, 317 U.S.). Thirty tributaries (11 Canada, 19 U.S.) have records of larval sea lamprey production. Of these, 14 tributaries (5 Canada, 9 U.S.) have been treated with lampricides at least once during 2016-2025. Seven tributaries (2 Canada, 5 U.S.) are treated every 3-5 years. Details on lampricide applications to Lake Erie tributaries during 2025 and tributary locations are found in Table 5 and figure 2, respectively.

- Lampricide treatments were conducted in six tributaries (3 Canada, 3 U.S.).
- Youngs Creek was added to the 2025 Treatment Schedule and treated as a geographically efficient tributary.
- Conneaut Creek was treated from the Ohio-Pennsylvania state line to the mouth.
- Close coordination with the Seneca Nation of Indians ensured successful treatment of Cattaraugus Creek.
- Paint Creek (Clinton River) was successfully treated for the second time in 2025, following the first treatment in 2015.

Table 5. Details on the application of lampricides to tributaries and lentic areas of Lake Erie during 2025 (letter in parentheses corresponds to location of stream in Figure 2). Lampricide quantities are reported as kg of active ingredient.

Tributary	Date	Discharge ¹ (m ³ /s)	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Canada							
Big Otter Cr. (A)	Oct-24	2.2	84.8	962.7	3.7	---	0.6
Big Cr. (B)	Jun-04	5.9	48.0	2098.9	2.7	---	0.2
Youngs Cr. (C)	Jun-03	0.8	0.4	197.6	---	---	---
Total (Canada)		8.9	133.2	3,259.2	6.4	---	0.8
United States							
Cattaraugus Cr. (D)	Apr-28	21.2	75.6	5506.8	0.2	---	---
Conneaut Cr. (E)	Apr-24	4.5	43.3	348.9	---	---	---
Clinton R. (F)							
Paint Cr.	Sep-03	0.5	14.5	237.8	1.5	---	---
Total (United States)		26.2	133.4	6,093.5	1.7	---	---
Total for Lake		35.1	266.6	9,352.7	8.1	---	0.8

¹Stream discharges of <0.05 are recorded as 0.0, ²Granular Bayluscide amounts less than <0.05 are recorded as 0.0

Lake Ontario

Lake Ontario has 659 tributaries (405 Canada, 254 U.S.). Sixty-six tributaries (31 Canada, 35 U.S.) have historical records of larval sea lamprey production, and of these, 37 tributaries (20 Canada, 17 U.S.) have been treated with lampricides at least once during 2016-2025. Twenty-seven tributaries (14 Canada, 13 U.S.) are treated every 3-5 years. Details on lampricide applications to Lake Ontario tributaries and lentic areas during 2025 and tributary locations are found in Table 6 and Figure 2, respectively.

- Lampricide applications were completed in 12 tributaries (6 Canada, 6 U.S.) and 1 lentic area (1 Canada, 0 U.S.).
- The mainstream Rouge River was treated in 2025 after being deferred in 2024 due to elevated stream discharge.
- Farewell and Shelter Valley creeks were added to the rank or stream selection list and treated as geographically efficient tributaries.
- Sage Creek was treated for the first time since 1978.
- Following deferral in 2024, the Little River (Fish Creek, Oswego River) was not treated in 2025 to allow for continued dialogue with concerned citizens from the community specifically regarding the application of lampricides, this system has been scheduled for treatment in 2026.

Table 6. Details on the application of lampricides to tributaries and lentic areas of Lake Ontario during 2025 (letter in parentheses corresponds to location of stream in Figure 2). Lampricide quantities are reported as kg of active ingredient.

Tributary	Date	Discharge ¹ (m ³ /s)	Distance Treated (km)	Liquid TFM (kg)	Solid TFM (kg)	Emulsifiable Concentrate Bayluscide (kg)	Granular Bayluscide (kg) ²
Canada							
Bronte Cr. (A)	May-27	3.6	44.4	1657.7	0.8	---	0.4
Credit R. (B)	May-30	12.2	40.3	2098.6	0.8	20.4	0.2
Rouge R. (C)	May-29	2.7	22.4	767.3	0.4	---	0.0
Lynde Cr. (D)	May-05	0.8	29.4	277.3	1.7	---	0.1
Farewell Cr. (E)	May-26	1.8	6.2	468.9	---	---	0.0
Shelter Valley Cr. (F)	Jun-16	1.0	14.6	392.4	---	---	---
Moira R. (G)							
Lentic	May-24	---	---	---	---	---	11.6
Total (Canada)		22.1	157.3	5,662.2	3.7	20.4	12.3
United States							
Lindsey Cr. (H)	May-01	1.2	17.7	180.3	---	---	0.3
Deer Cr. (I)	Apr-28	1.7	12.4	162.2	---	---	0.1
Snake Cr. (J)	Apr-29	0.3	12.5	104.4	---	---	0.0
Sage Cr. (K)	May-02	0.6	11.2	184.5	0.4	---	0.1
Catfish Cr. (L)	May-03	1.7	5.4	173.0	---	---	0.1
Ninemile Cr. (M)	May-05	3.1	19.7	369.3	3.7	---	0.3
Total (United States)		8.6	78.9	1,173.7	4.1	---	0.9
Total for Lake		30.7	236.2	6,835.9	7.8	20.4	13.2

¹Stream discharges of <0.05 are recorded as 0.0, ²Granular Bayluscide amounts less than <0.05 are recorded as 0.0

ADULT CONTROL

Barriers

The sea lamprey barrier program priorities are:

1. Operate and maintain existing sea lamprey barriers that were built or modified by the SLCP.
2. Ensure sea lamprey migration is blocked at important barrier sites not operated or maintained by the SLCP.
3. Construct new structures in streams where they:
 - a. Provide control where other options are impossible, excessively expensive, or ineffective.
 - b. Provide a cost-effective alternative to lampricide control.
 - c. Improve cost-effective control in conjunction with attractant and repellent based control, trapping, and lampricide treatments.
 - d. Where structures are compatible with a system's watershed plan.

Reporting to the SLCB, the Barrier Task Force (BTF) was established by the Commission during April 1991 to coordinate efforts of the Service, Department, and U.S. Army Corps of Engineers (USACE) on the construction, operation, and maintenance of sea lamprey barriers. Progress on SLCB charges during 2025 is presented in the BTF section of this report.

The Commission has invested in 73 barriers in the Great Lakes basin (Figure 3). Of these, 48 were purpose-built as sea lamprey barriers and 25 were constructed for other purposes but have been modified to block sea lamprey migrations.

Data gathered during field visits to assess the status of other U.S. dams and structures were recorded in the SLCP's Barrier Inventory and Project Selection System (BIPSS) database and may be used to: 1) select barrier projects; 2) monitor inspection frequency; 3) schedule upstream larval assessments; 4) assess the effects of barrier removal or modifications on sea lamprey populations; or 5) identify structures that are important in controlling sea lamprey.

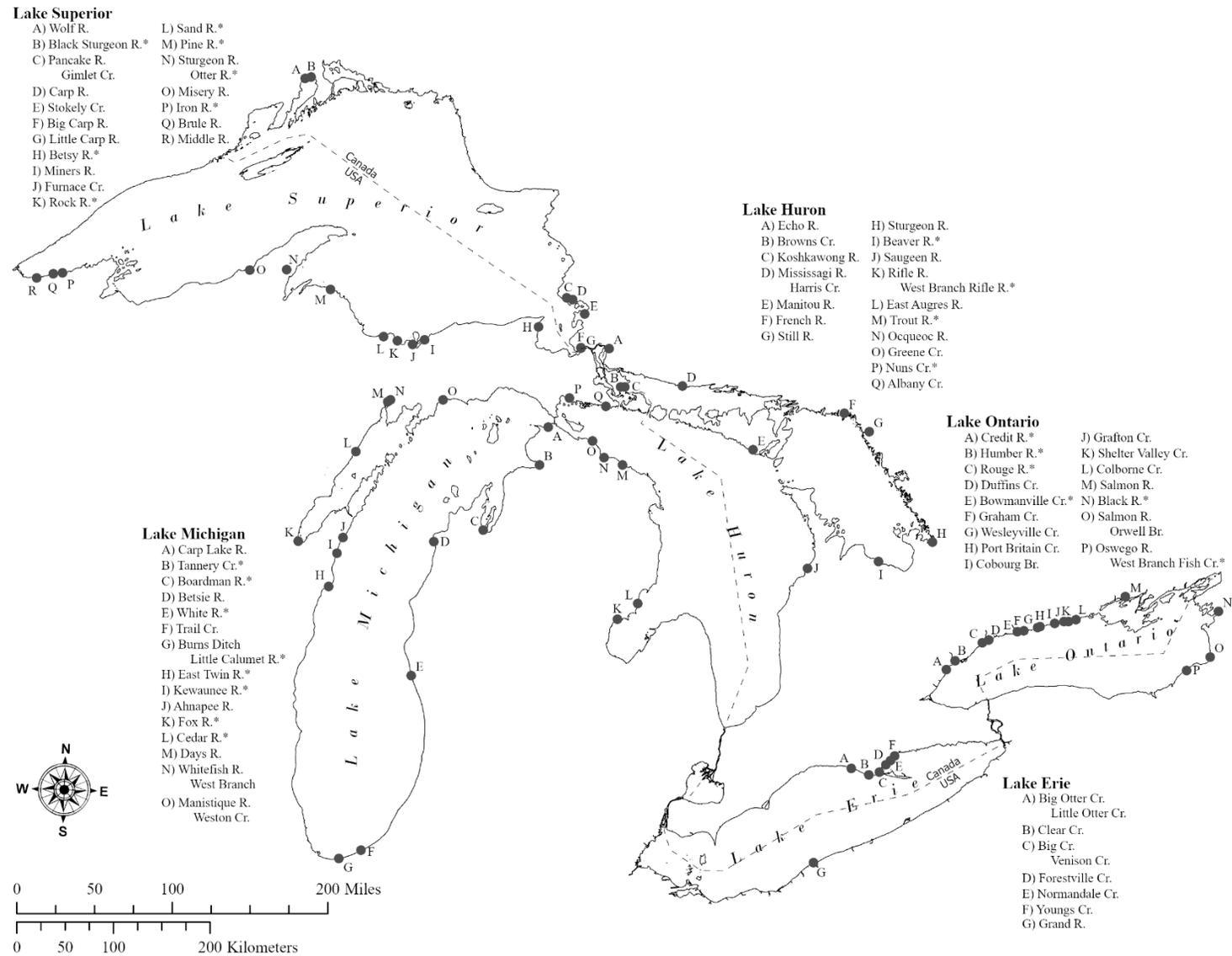


Figure 3. Locations of tributaries with sea lamprey barriers. An asterisk (*) indicates structures that have been modified or constructed by others to prevent the upstream migration of sea lamprey.

Lake Superior

The Commission has invested in 18 barriers on Lake Superior (Figure 3). Of these, 11 were purpose-built as sea lamprey barriers and seven were constructed for other purposes but have been modified to block sea lamprey migrations.

Barrier Inventory and Project Selection System

- No barriers were inspected in the Lake Superior watershed during 2025. Inspections to lowermost barriers important to the SLCP will be added to a rotation in 2026. Data collected will be used to evaluate sea lamprey blocking potential and update the BIPSS.

Operation and Maintenance

- Routine maintenance, spring start-up, and safety inspections were performed on eight barriers (6 Canada, 2 U.S.).

Ensure Blockage to Sea Lamprey Migration

- Brule River – Operational and safety upgrades have been identified for the Brule River fishway and sea lamprey barrier and include the installation of safety railings, bar grating over bays, slide head gate, and portable actuators to increase safety and functionality of the barrier and fishway. Estimated costs for the upgrades are being developed to use during bid solicitation.
- Middle River – Structural and hydraulic evaluations of the sea lamprey barrier have determined many of the elements are at the end of their functional life expectancy. Barrier replacement recommendations and budget estimates are currently under review.
- Misery River – Differential movement between the concrete and steel sheet pile resulted in cracking through the concrete abutment. Repairs to limit spread and deterioration of the concrete are planned for 2026.
- Sand River – Hydraulic modelling of the dam is being completed to determine if reasonable alterations can be made to prevent upstream escapement of sea lamprey during unfavorable stream discharge conditions. Discussion with the MIDNR will continue in 2026 aimed at identifying a solution to prevent escapement.
- Salmon Trout River – Preliminary designs have been completed for two Stanton Township owned dams that would prevent sea lampreys from reaching upstream spawning habitat and reduce Township liability.
- Partner agencies were consulted to ensure sea lamprey blockage at 23 barrier sites in 14 streams during 2025 (Table 7).

Table 7. Status of concurrence requests for barrier removals, replacements, or fish passage projects in Lake Superior tributaries during 2025.

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Beaver Lake Cr.	Lowney Cr.	TU ¹	Lowney Creek Dams 1 & 3	Concur	Ineffective barrier
Beaver Lake Cr.	Lowney Cr.	TU ¹	Lowney Creek Dams 4 & 5	Concur	Ineffective barrier
Beaver Lake Cr.	Lowney Cr.	TU ¹	Lowney Creek off Channel Dam	Concur	Ineffective barrier
Black R.	Black R.	MIDNR ²	Black R. Dam	Concur	Upstream of blocking barrier
Boston Cr.	Lily Cr.	TU ¹	Salo Rd. culvert	Concur	Ineffective barrier
Brule R.	Rocky Run	TU ¹	Highway H culvert	Concur	Upstream of blocking barrier
Dead R.	Connors Cr.	TU ¹	County Rd. AAP culvert	Concur	Upstream of blocking barrier
Eliza Cr.	Eliza Cr.	EHT ³	6 th St. culvert	Concur	Upstream of blocking barrier
Eliza Cr.	Eliza Cr.	EHT ³	Pine St. culvert	Concur	Upstream of blocking barrier
Falls R.	Trib to Daults Cr.	LTC ⁴	Kayramo Rd. culvert	Concur	Upstream of blocking barrier
Huron R.	Trib to W. Br. Huron R.	LTC ⁴	Ravine R. Rd. culvert	Concur	Low chance of infestation
Pikes Cr.	Pikes Cr.	TU ¹	Jammer Hill Rd. culvert	Concur	Low chance of infestation
Ravine R.	Trib to Ravine R.	LTC ⁴	Allwood Rd. culvert #1	Concur	Low chance of infestation
Ravine R.	Trib to Ravine R.	LTC ⁴	Allwood Rd. culvert #2	Concur	Low chance of infestation
Ravine R.	Ravine R.	LTC ⁴	Ravine R. Rd. culvert	Concur	Low chance of infestation
Ravine R.	Trib to Ravine R.	LTC ⁴	Unnamed Rd. culvert	Concur	Limited upstream potential
Silver R.	Trib to Pages Cr.	TU ¹	Arvon Rd. culvert	Concur	Limited upstream potential
Silver R.	Trib to Silver R.	LTC ⁴	Dakota Farm Rd. culvert	Concur	Limited upstream potential
Sioux R.	Little Sioux R.	TU ¹	Little Sioux Rd. culvert	Concur	Ineffective barrier
Slate R.	Trib to Slate R.	TU ¹	Allwood Rd. culvert	Concur	Limited upstream potential
Slate R.	Slate R.	TU ¹	Graham Rd. culvert	Concur	Upstream of blocking barrier
St. Louis R.	Berry Cr.	NSSWCD ⁵	Breda Rd. culvert	Concur	Upstream of blocking barrier
St. Louis R.	Berry Cr.	NSSWCD ⁵	Hypo Creek Rd. culvert	Concur	Upstream of blocking barrier

¹Trout Unlimited, ²Michigan Department of Natural Resources, ³Eagle Harbor Township, ⁴Lyme Timber Company, ⁵North St. Louis Soil and Water Conservation District

New Construction

- Bad River – The Service continued to work with the Mashkiiziibii (Bad River) Natural Resources Department to pursue the feasibility of constructing a sea lamprey barrier within the Bad River watershed. A feasibility study to identify potential locations and design alternatives for a seasonal sea lamprey barrier on the Potato River is planned for 2026.
- Sucker River – Free span bridge construction on the H-58 road crossing of the Sucker River (Grand Marias, MI) to improve stream connectivity is finished. The permitting process for constructing a new seasonal sea lamprey barrier approximately 20 miles upstream of the bridge is nearing completion and construction is expected to begin during summer 2026.
- Ontonagon River – The Service continued to model site conditions in Newholm Creek, a tributary to the East Branch Ontonagon River, to determine if the preferred location is suitable for construction of an effective sea lamprey barrier.
- Stokely Creek – Water flowing around the barrier through an old diversion channel has rendered the barrier ineffective. Remediation options will be explored in 2026.
- Big Carp River – The inflatable barrier, trap walls, and cofferdam components need repair. Remediation options will be explored in 2026.

Lake Michigan

The Commission has invested in 15 barriers on Lake Michigan (Figure 3). Of these, seven were purpose-built as sea lamprey control barriers and eight were constructed for other purposes but have been modified to block sea lamprey migrations.

Barrier Inventory and Project Selection System

- Field crews inspected 11 structures in the Lake Michigan watershed during 2025. Inspections to lowermost barriers important to the SLCP will be added to a rotation in 2026. Data collected will be used to evaluate sea lamprey blocking potential and update the BIPSS.

Operation and Maintenance

- Routine maintenance, spring start-up, and a safety inspection were performed on one barrier.

Ensure Blockage to Sea Lamprey Migration

- Boardman-Ottaway River – The selective, bi-directional fish passage experimental research facility (FishPass) is through Phase 1 with the completion of the arc-labyrinth weir. Phase 2 began with the construction of the 400-foot fish sorting channel and installation of a sheet pile cofferdam on the north side of the river.
- Grand River – Work continued for the 6th Street Dam project. The Environmental Impact Statement (EIS) is moving forward led by consultants from the engineering firm WSP. A public meeting to share updated project alternatives and seek feedback is planned for early

2026. Construction activities in the lower reach are tentatively scheduled to begin in June 2026.

- Swan Creek (Kalamazoo River) – Swan Creek Dam is currently the lowermost sea lamprey barrier and is pending removal. The Service, GLFC, and MIDNR are reviewing design plans to rebuild the Highbanks Dam on Swan Creek, which is four miles downstream of the Swan Creek Dam.
- White River – A feasibility study of barrier alternatives for the Hesperia Dam is near completion with the Village of Hesperia tentatively selecting a full rebuild of the dam. The new structure will blend seasonal fish passage and sea lamprey blockage up to a 25-year flood event.
- Partner agencies were consulted to ensure blockage at 51 barrier sites in 18 streams (Table 8).

Table 8. Status of concurrence requests for barrier removals, replacements, or fish passage projects in Lake Michigan tributaries during 2025.

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Bear R.	N. Springbrook Cr.	TOTM ¹	Chandler Hill Rd. culvert #1	Concur	Upstream of blocking barrier
Bear R.	N. Springbrook Cr.	TOTM ¹	Chandler Hill Rd. culvert #2	Concur	Upstream of blocking barrier
Burns Ditch	Little Calumet R.	AGL ²	I-94 Expressway culverts	Concur	Ineffective barrier
Burns Ditch	Little Calumet R.	AGL ²	MLK Drive culverts	Concur	Ineffective barrier
Burns Ditch	Little Calumet R.	AGL ²	Railroad culverts	Concur	Ineffective barrier
Burns Ditch	Little Calumet R.	AGL ²	Unnamed Rd. culverts	Concur	Ineffective barrier
Cooper Cr.	Cooper Cr.	TU ³	Cooper Cr. Rd. culvert #1	Concur	Ineffective barrier
Cooper Cr.	Cooper Cr.	TU ³	Cooper Cr. Rd. culvert #2	Concur	Ineffective barrier
Escanaba R.	Little W. Br. Escanaba R.	LTC ⁴	North Camp Rd. bridge	Concur	Upstream of blocking barrier
Flower Cr.	Flower Cr.	MCD ⁵	Flower Rd. culvert	Concur	Ineffective barrier
Flower Cr.	Flower Cr.	MCD ⁵	Lehman Rd. culvert	Concur	Ineffective barrier
Grand R.	Maple R.	DT ⁶	Elsie Dam	Concur	Ineffective barrier
Kalamazoo R.	N. Br. Kalamazoo R.	CA ⁷	Kalamazoo R. dam removals	Concur	Upstream of blocking barrier
Kalamazoo R.	Swan Cr.	MIDNR ⁸	Swan Creek Dam	Concur	New barrier
Little Flower Cr.	Little Flower Cr.	MCD ⁵	Lamos Rd. culvert	Concur	Ineffective barrier
Little Flower Cr.	Little Flower Cr.	MCD ⁵	Meinert Park Pines Campground culvert	Concur	Ineffective barrier
Little Flower Cr.	Little Flower Cr.	MCD ⁵	Meinert Park Rd. culvert	Concur	Ineffective barrier

Table 8. Continued

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Manistee R.	Coe Cr.	CRA ⁹	10 Mile Rd. culvert #1	Concur	Upstream of blocking barrier
Manistee R.	Dyer Cr.	CRA ⁹	10 Mile Rd. culvert #2	Concur	Upstream of blocking barrier
Manistee R.	Trib to Pine R.	CRA ⁹	Lincoln Hills Rd. culvert #1	Concur	Upstream of blocking barrier
Manistee R.	Trib to Pine R.	CRA ⁹	Lincoln Hills Rd. culvert #2	Concur	Upstream of blocking barrier
Manistee R.	Bear Cr.	TU ³	Leffew Rd. culvert	Concur	Ineffective barrier
Manistee R.	Big Cannon Cr.	TU ³	Cannon Bridge Rd. culvert	Concur	Upstream of blocking barrier
Manistee R.	Big Cannon Cr.	TU ³	Naples Rd. culvert	Concur	Upstream of blocking barrier
Manistee R.	Little Manistee R.	TU ³	Johnson Bridge	Concur	Ineffective barrier
Manistee R.	Syers Cr.	TU ³	N. Partridge Ln. culvert	Concur	Limited upstream potential
Menominee R.	Wagner Cr.	CLPOA ¹⁰	Low head Dam #1	Concur	Upstream of blocking barrier
Menominee R.	Wagner Cr.	CLPOA ¹⁰	Low head Dam #2	Concur	Upstream of blocking barrier
Menominee R.	Wagner Cr.	CLPOA ¹⁰	Low head Dam #3	Concur	Upstream of blocking barrier
Menominee R.	Wagner Cr.	CLPOA ¹⁰	Low head Dam #4	Concur	Upstream of blocking barrier
Menominee R.	Dishno Cr.	LTC ⁴	Dishno Rd. culvert	Concur	Upstream of blocking barrier
Menominee R.	Hendricks Cr.	LTC ⁴	Goodman Grade Rd. culvert	Concur	Upstream of blocking barrier
Menominee R.	Nelligan Cr.	LTC ⁴	Nelligan Lake Rd. culvert	Concur	Upstream of blocking barrier
Menominee R.	Paint Cr.	LTC ⁴	Unnamed Rd. culvert	Concur	Upstream of blocking barrier
Menominee R.	Iron R.	TU ³	Wild River Rd. culvert	Concur	Upstream of blocking barrier
Milwaukee R.	N. Br. Milwaukee R.	MR ¹¹	Cascade Mill Pond Dam	Concur	Upstream of blocking barrier
Milwaukee R.	N. Br. Milwaukee R.	MR ¹¹	Gooseville Dam	Concur	Upstream of blocking barrier
Mitchell Cr.	Mitchell Cr.	WCGTB ¹²	TART trail culvert	Concur	Ineffective barrier
Muskegon R.	Mitchell Cr.	CBR ¹³	N. Michigan Ave culvert	Concur	Upstream of blocking barrier
Muskegon R.	Little Muskegon R.	MRWA ¹⁴	Rustford Dam	Concur	Upstream of blocking barrier
Paw Paw R.	Sand Cr.	KC ¹⁵	N. 6 th St. culvert	Concur	Upstream of blocking barrier
Pere Marquette R.	Baldwin R.	CRA ⁹	Baldwin Hatchery Dam	Conditional	New barrier

Table 8. Continued

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Pere Marquette R.	Middle Br. Pere Marquette R.	TU ³	Forman Rd. culvert	Concur	Ineffective barrier
Platte R.	Trib to Platte R.	CRA ⁹	Bixler Rd. dams	Concur	Low chance of infestation
Platte R.	Platte R.	MIDNR ⁸	Hatchery detention pond	Concur	Low chance of infestation
St. Joseph R.	Nottawa Cr.	CCD ¹⁶	Athens Dam	Concur	Upstream of blocking barrier
White R.	Bear Cr.	TU ³	128th Ave culvert	Concur	Limited upstream potential
White R.	Bear Cr.	TU ³	Arthur Rd. culvert	Concur	Ineffective barrier
White R.	Flinton Cr.	TU ³	N. Spruce St. culvert	Concur	Upstream barrier conditional
White R.	Mena Cr.	TU ³	W. 4 Mile Rd. culvert	Concur	Upstream barrier conditional
White R.	White R.	VH ¹⁷	Hesperia Dam	Concur	Repair

¹Tip of the Mitt, ²Audubon Great Lakes, ³Trout Unlimited, ⁴Lyme Timber Company, ⁵Muskegon Conservation District, ⁶Duplain Township, ⁷City of Albion, ⁸Michigan Department of Natural Resources, ⁹Conservation Resource Alliance, ¹⁰Chigaugon Lake Property Owners Association, ¹¹Milwaukee Riverkeeper, ¹²The Watershed Center Grand Traverse Bay, ¹³City of Big Rapids, ¹⁴Muskegon River Watershed Assembly, ¹⁵Kalamazoo County, ¹⁶Calhoun Conservation District, ¹⁷Village of Hesperia

New Construction

- Manistique River – The GLFC is in the process of selecting a design firm for the Manistique River sea lamprey barrier project with design activities planned for 2026. The GLFC continues to work with the City of Manistique to relocate their municipal waterline which currently spans the existing dam. Construction bids have been secured for directionally boring the waterline under the river and tentatively planned for spring/summer 2026.
- Little Manistee River – Construction on the Little Manistee River weir will be completed during February 2026, improving the existing spillway and installing a permanent sea lamprey trap. Improvements to the weir will help block sea lampreys by diverting more flow over the new spillway during high spring discharge maintaining an 18” drop from the weir crest to the tailwater.
- Pere Marquette River (Baldwin River) – The Service continued to work with the Village of Baldwin, MIDNR and Conservation Resource Alliance on identifying options for replacing the failing Baldwin River Hatchery Dam with a sea lamprey barrier. The SLCP has tentatively selected an arc-labyrinth style seasonal barrier which would be constructed near the location of the current dam. Construction is tentatively planned for 2027.

Lake Huron

The Commission has invested in 17 barriers on Lake Huron (Figure 3). Of these, 13 were purpose-built as sea lamprey barriers and four were constructed for other purposes but have been modified to block sea lamprey migrations.

Barrier Inventory and Project Selection System

- Field crews inspected one structure in the Lake Huron watershed during 2025. Inspections to lowermost barrier important to the SLCP will be added to a rotation in 2026. Data collected will be used to evaluate sea lamprey blocking potential and update the BIPSS.

Operation and Maintenance

- Routine maintenance, spring start-up, and safety inspections were performed on nine barriers (5 Canada, 4 U.S.).
- Ocqueoc River – The combination low-head/electrical barrier in the Ocqueoc River was operated April 4 - July 15, 2025, to prevent sea lamprey passage during elevated stream discharge. During that period, the electrical barrier was activated four times for a total of 18 days (432 hours).

Ensure Blockage to Sea Lamprey Migration

- Nunns Creek – The Service has partnered with the Sault Ste. Marie Tribe of Chippewa Indians to renovate the Nunns Creek sea lamprey barrier. The tribe continues to research ways to expand their hatchery’s rearing capabilities and identify additional funding opportunities. Base mapping using light detection and ranging (LiDAR) remote sensing technology has been completed to record current conditions of the barrier and surrounding area.
- Saginaw River (Cass River) – A draft feasibility study has been completed for Caro Dam on the Cass River. The study focused on an array of alternatives from dam rehabilitation to removal and is currently under review by project partners.
- Partner agencies were consulted to ensure blockage at 14 barrier sites in 5 tributaries (Table 9).

Table 9. Status of concurrence requests for barrier removals, replacements, or fish passage projects in Lake Huron tributaries during 2025.

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Au Sable R.	Middle Br. Big Cr.	TU ¹	Big Creek Dam	Concur	Upstream of blocking barrier
Au Sable R.	Hoppy Cr.	TU ¹	Kings Corner Rd. culvert	Concur	Upstream of blocking barrier
Au Sable R.	Ninemile Cr.	TU ¹	S. River Rd. culvert	Concur	Upstream of blocking barrier
Cheboygan R.	Black R.	MIDNR ²	Kleber Dam	Concur	Upstream of blocking barrier
Cheboygan R.	Black R.	MIDNR ²	Towner Dam	Concur	Upstream of blocking barrier
Rifle R.	Rifle Cr.	HP ³	Fisk Dam	Concur	Upstream of blocking barrier
Saginaw R.	Shiawassee R.	CCT ⁴	Brick Plant Causeway removals	Concur	Minimal upstream potential

Table 9. Continued

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Thunder Bay R.	Fuller Cr.	MIDNR ²	East Fish Lake Outlet Dam	Concur	Upstream of blocking barrier
Thunder Bay R.	Fuller Cr.	MIDNR ²	Fuller Cr. culvert #1	Concur	Upstream of blocking barrier
Thunder Bay R.	Fuller Cr.	MIDNR ²	Fuller Cr. culvert #2	Concur	Upstream of blocking barrier
Thunder Bay R.	Hunt Cr.	MIDNR ²	Hunt Cr. culvert #1	Concur	Upstream of blocking barrier
Thunder Bay R.	Hunt Cr.	MIDNR ²	Hunt Cr. culvert #2	Concur	Upstream of blocking barrier
Thunder Bay R.	Hunt Cr.	MIDNR ²	L-shaped Diversion removal	Concur	Upstream of blocking barrier
Thunder Bay R.	Hunt Cr.	MIDNR ²	Residence Dam	Concur	Upstream of blocking barrier

¹Trout Unlimited, ²Michigan Department of Natural Resources, ³Huron Pines, ⁴Caledonia Charter Township

Lake Erie

The Commission has invested in seven purpose-built sea lamprey barriers on Lake Erie (Figure 3).

Barrier Inventory and Project Selection System

- No barriers were inspected in the Lake Erie watershed during 2025. Inspections of lowermost barrier important to the SLCP will be added to a rotation in 2026. Data collected will be used to evaluate sea lamprey blocking potential and update the BIPSS.

Operation and Maintenance

- Routine maintenance, spring start-up, and safety inspections were performed on seven barriers (7 Canada, 0 U.S.).
- Field engineering, fabrication, and installation of a water intake deflector screen was completed at Little Otter Creek Dam.

Ensure Blockage to Sea Lamprey Migration

- Chagrin River (East Branch Chagrin) – The Service continued working with engineering firm Davey Resource Group to modify the Kirtland Country Club Dam. Modifications include decreasing the barrier height and adding a low flow channel for improved sediment transport while maintaining an 18” drop from the weir crest to the tailwater during the sea lamprey spawning migration.
- Clinton River – The GLFC continued working with Oakland County Parks to purchase property upstream of the Yates Mill Dam for river channel modifications alleviating future bypass channel formation around the dam. Project partners plan to have a permittable project for construction by winter 2026.

- Huron River – The engineering firm Geotechnical Engineers Inc. (GEI) has completed a feasibility study for the Flat Rock & Huroc dams fish passage project. The Huron Clinton Metroparks Authority (HMCA) will recommend partial removal of the Flat Rock Dam and construction of rock arch rapids to maintain the upstream impoundment to its Board of Directors. The Service, GLFC, GEI, and HMCA will continue discussions to ensure sea lamprey infrastructure is considered to allow for a rapid response should the river become infested with sea lampreys.
- Grand River – The Service continued to identify solutions focused on repairing nappe vibration spoilers that have fallen from the face of the Harpersfield Dam. The spoilers are important for reducing the harmonic vibration generated by the dam disrupting neighboring landowners. Repairs are tentatively planned during summer 2026.
- Partner agencies were consulted to ensure blockage at two barrier sites in two tributaries (Table 10).

Table 10. Status of concurrence requests for barrier removals, replacements, or fish passage projects in Lake Erie tributaries during 2025.

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Bunce Cr.	Bunce Cr.	FSCR ¹	Bunce Cr. fish passage	Concur	Low chance of infestation
Clinton R.	W. Br. Stony Cr.	OCT ²	Unnamed Rd. culvert	Concur	Upstream of blocking barrier

¹Friends of the St. Clair River, ²Oakland Charter Township

New Construction

- Big Otter Creek - An existing barrier (Black Bridge site) in Tillsonburg, ON, has been identified for replacement. Feasibility work was completed in 2018 and at that time the project was deemed too costly; however, it is under consideration again as it would prevent upstream movement of sea lamprey and other aquatic invasive species, i.e. round goby. A location further downstream is also being assessed.
- Conneaut Creek – The USACE feasibility study was completed and identified a new seasonal barrier location and design for Conneaut Creek. The barrier would have reduced the number of stream miles requiring lampricide treatment, thereby limiting sensitive native species (mudpuppies, hellbenders, and Northern brook lamprey) to lampricide exposure. However, landowners near the preferred location did not approve of the project and the SLCP will not move forward to construction at this time.

Lake Ontario

The Commission has invested in 16 barriers on Lake Ontario (Figure 3). Of these, 10 were purpose-built as sea lamprey barriers and six were constructed for other purposes but have been modified to block sea lamprey migrations.

Barrier Inventory and Project Selection System

- No barriers were inspected in the Lake Ontario watershed during 2025. Inspections to lowermost barrier important to the SLCP will be added to a rotation in 2026. Data collected will be used to evaluate sea lamprey blocking potential and update the BIPSS.

Operation and Maintenance

- Routine maintenance, spring start-up, and safety inspections were performed on 11 barriers (10 Canada, 1 U.S.).
- The New York State Department of Environmental Conservation (NYSDEC), Department, and Service have agreed to alter the Orwell Brook seasonal barrier operation schedule to avoid dangerous ice and spring flooding with fall installation. Jumping fish species will continue to pass the barrier during the winter.

Ensure Blockage to Sea Lamprey Migration

- Partner agencies were consulted to ensure blockage at barriers for 16 sites in 2 tributaries during 2025 (Table 11).

Table 11. Status of concurrence requests for barrier removals, replacements, or fish passage projects in Lake Ontario tributaries during 2025.

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Genessee R.	Trout Brook	TU ¹	Murphy Rd. culvert	Concur	Upstream of blocking barrier
Genessee R.	Trout Brook	TU ¹	Safford Rd. culvert	Concur	Upstream of blocking barrier
Onondaga R.	Onondaga Cr.	OEI ²	Nichols Rd. culvert #2	Concur	Low chance of infestation
Onondaga R.	Onondaga Cr.	OEI ²	Tully Farms Rd. culvert #2	Concur	Low chance of infestation
Onondaga R.	Onondaga Cr.	OEI ²	Unnamed Rd. culvert #1	Concur	Low chance of infestation
Onondaga R.	Rattlesnake Gulf	OEI ²	Tully Farms Rd. culvert #1	Concur	Low chance of infestation
Onondaga R.	Trib to Onondaga Cr.	OEI ²	Solvay Rd. culvert #1	Concur	Low chance of infestation
Onondaga R.	Trib to Onondaga Cr.	OEI ²	Solvay Rd. culvert #2	Concur	Low chance of infestation
Onondaga R.	Trib to Onondaga Cr.	OEI ²	Unnamed Rd. culvert #2	Concur	Low chance of infestation
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Cedarvale Rd. culvert	Concur	Low chance of infestation
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Cornwall Rd. culvert	Concur	Low chance of infestation
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Hogsback Rd. culvert	Concur	Low chance of infestation

Table 11. Continued

Mainstream	Tributary	Lead Agency	Project	SLCP Position	Comments
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Ironside Rd. culvert	Concur	Low chance of infestation
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Nichols Rd. culvert #1	Concur	Low chance of infestation
Onondaga R.	Trib to W. Br. Onondaga Cr.	OEI ²	Pleasant Valley Rd. culvert	Concur	Low chance of infestation
Onondaga R.	W. Br. Onondaga Cr.	OEI ²	Red Mill Rd. culvert	Concur	Low chance of infestation

¹Trout Unlimited, ²Onondaga Environmental Institute

New Construction

- Salmon River (Beaverdam Brook) – An alternatives analysis has identified that purposely perching a culvert on a small tributary upstream of the Salmon River Fish Hatchery is the most economical alternative for blocking sea lampreys. Preliminary hydraulic analysis has begun.
- South Sandy Creek – Project partners including the GLFC, Department, Service, and NYSDEC continued discussions to determine if repairs will be needed for Monitor Mills Dam. The dam collapsed in 2022, though sea lamprey infestation upstream of the dam has not occurred to date.
- Grindstone Creek – A feasibility study was completed identifying a preferred location for construction of a new sea lamprey barrier near Pulaski, NY. Barrier designs continue to be modified to address flooding concerns.
- West Branch Fish Creek – A feasibility study has begun to identify alternative actions for the McConnellsville Dam. The barrier does not block sea lampreys in its current condition and may need to be replaced.

Juvenile Trapping for Control

Out-migrating juvenile sea lamprey were trapped in seven tributaries of Lake Superior, one tributary of Lake Michigan, and two tributaries of Lake Huron from October to December (Table 12). Elver and fyke nets were deployed to mitigate escapement due to ineffective or deferred treatments, barrier escapement, and streams with large larvae present.

- The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and Keweenaw Bay Indian Community (KBIC) supported juvenile trapping efforts in multiple Lake Superior streams through cooperative agreements with the Service (Table 12).

Table 12. Sea lamprey catch from juvenile trapping during 2025.

Lake	Stream	Field Station	Juveniles
Superior	Bad R.*	GLIFWC ¹	2
Superior	Potato R. (Bad R.)*	GLIFWC ¹	0
Superior	Fish Cr.	GLIFWC ¹	0

Table 12. Continued

Lake	Stream	Field Station	Juveniles
Superior	Boston-Lily Cr.	KBIC ²	0
Superior	Little Iron R.	KBIC ²	0
Superior	Schlotz Cr.	KBIC ²	0
Superior	Five Mile Cr. (Lentic Treatment) *	USFWS ³	0
Michigan	Ford R.	USFWS ³	1
Huron	Indian R.	USGS ⁴	0
Huron	Cheboygan R.	USGS ⁴	0
Total			3

* Streams treated with lampricide in 2025, ¹ Great Lakes Indian Fish and Wildlife Commission, ² Keweenaw Bay Indian Community, ³ U.S. Fish and Wildlife Service, ⁴ U.S. Geological Survey

Supplemental Control

Supplemental controls are tactics that supplement the two primary sea lamprey control strategies, lampricides and sea lamprey barriers, by reducing reproduction and capturing transformed sea lamprey. During 2020, the Commission initiated a long-term study to evaluate supplemental control on up to 13 streams (Figure 4). Streams where traditional controls were less effective were selected as study streams so that if supplemental control deployments were effective, sea lamprey control would be improved. During December 2023, the Commission renewed its support for the study and the expanded supplemental control deployments proposed for 2024-2029.

Supplemental control deployments for each study stream are provided below, ordered by the year strategy was first deployed (Figure 5):

- Black Mallard River (Lake Huron) – Adult trapping paired with a seasonal electric sea lamprey barrier has been deployed since 2016. Larval recruitment has not been documented upstream of Black Mallard Lake since 2017, allowing a redirection of roughly \$150,000 in lampricide treatment effort away from the Black Mallard to other streams that are easier to treat with lampricide. Larval sea lamprey were detected upstream of the electrical barrier, but downstream of Black Mallard Lake, during 2024. That larval population was treated with lampricide during 2025 (2 km of stream) at a cost lower than a typical treatment of the entire Black Mallard River.
- Pigeon, Sturgeon, Maple rivers (Cheboygan River, Lake Huron) – Adult trapping paired with sterile male release occurred during 2017-2019. The sterilization facility was not operated in 2020 due to COVID-19 travel restrictions. Sterile males were released in 2021 (2,000), 2022 (3,325), 2023 (3,925), and 2024 (3,050), and 2025 (1,950). Since 2017, larval sea lamprey production has been lower during years sterile males were released, allowing a redirection of roughly \$600,000 in lampricide treatment to other control priorities. However, larval production has not been eliminated completely and lampricide treatments have occurred in the Pigeon River (2022, 2026 – planned), Sturgeon (2023), and Maple rivers (2024), emphasizing the point that supplemental controls are likely not a complete replacement for lampricides or barriers.
- Tawas Lake Outlet (Lake Huron) and Traverse River (Lake Superior) – Adult trapping enhanced with chemosensory cues was paired with sterile male release during 2024 and

2025. Larval sea lamprey assessments occurring August 2024 and 2025 found no evidence of sea lamprey recruitment during 2024 or 2025 in the Traverse River upstream of the traps. Larval assessment on Tawas Lake Outlet found evidence of recruitment in 2025, but not in 2024.

- Long Lake Outlet (Lake Huron) – Adult trapping paired with a seasonal electric sea lamprey barrier were deployed during 2024 and 2025. Larval sea lamprey recruitment was detected upstream of the seasonal electric barriers during 2024. Adjustments were made to the electrical barrier during fall 2024 and spring 2025 and no sea lamprey recruitment was detected after the 2025 spawning season.
- Cranberry River (Lake Superior) and Furlong Creek (Lake Michigan) – A seasonal electrical barrier paired with sterile male release was deployed for the first time during 2025. No sea lamprey recruitment was detected in Furlong Creek during 2025. Sea lamprey recruitment a few kilometers upstream of the barrier on the Cranberry River was detected during 2025.
- Bills Creek (Lake Michigan) – Adult trapping paired with sterile male release was deployed for the first time during 2025. No sea lamprey recruitment was detected upstream of the traps in August 2025.
- Root River and Crystal Creek (Lake Huron) – Planning and coordination is underway to deploy adult trapping paired with sterile male release for the first time during 2026.
- Potato River (Lake Superior) – Sterile males will be released starting 2026.

To assess the effectiveness of supplemental controls, adult, larval, and juvenile abundance has been assessed since 2020 in all study streams according to an adaptive assessment plan (Table 13). A novel aspect of the assessment work is the application of close-kin mark-recapture to characterize changes in sea lamprey recruitment and larval growth before and after application of supplemental controls.

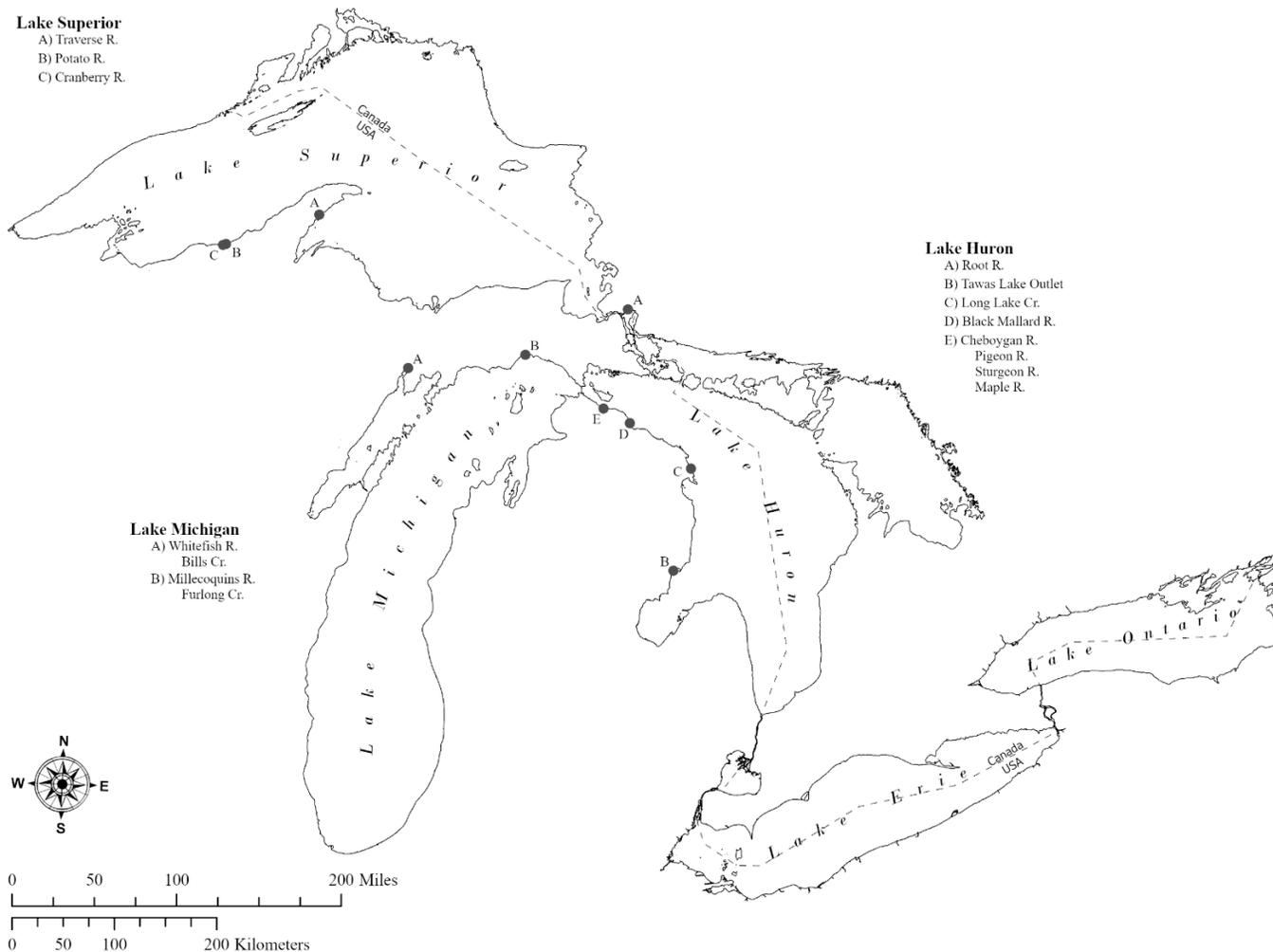


Figure 4. Location of streams where supplemental sea lamprey controls are likely to be tested and evaluated in an adaptive management framework. These streams regularly produce larval sea lamprey, are wadable, near cooperator field offices, and are places where larval production is difficult to control using barriers or lampricides. Furlong Creek is a tributary to the Millecoquins River. Bills Creek is a tributary to the Whitefish River. Crystal Creek is a tributary to the Root River.

Start Year	Stream	REMOVE	DIVERT	DISRUPT		Replicate
		50% effective trapping array	Seasonal electric barrier	Sterile males	Antagonist	
2017	Mallard	1, Physical	1			1
2024	Long Lake	1, Physical	1			2
2025	Furlong		1	100		1
2025	Cranberry		1	300		2
2024	Traverse	2, Chemosensory, Physical		600		1
2024	Silver	1, Chemosensory		100	1	2
2025	Bills	1, Physical		300		3
2026	Root	1, Physical		350		4
2026	Crystal	1, Physical		350		5
2017	Pigeon			650		1
2017	Sturgeon			650		2
2017	Maple			650		3
2026	Potato			300		4
Sum		8	4	4350	1	13

Figure 5. Commission approved supplemental control deployment portfolio highlighting the year supplemental controls will be deployed and if adult sea lamprey will be removed, diverted, or disrupted. Replicate number indicates the number of streams using the same combination of SupCon tactics. Alarm cue and 3kPZS are used as components of trapping systems that produce removal rates of 50% or more (Chemosensory). Physical tactics such as screens and rock ramps will be used to produce removal rates of 50% or more (Physical).

Table 13. Streams where adult sea lamprey abundance, larval sea lamprey, juvenile sea lamprey, and habitat were assessed during 2020-2025 to describe effectiveness of ongoing supplemental controls (streams in bold) or collect baseline conditions before application of additional supplemental controls.

Lake	Stream	Adult Abundance Range 2020-2025	Larval Surveys 2020-2025	Habitat Surveys 2020-2025	Larvae Captured 2020-2025	Juveniles Trapped 2020-2025	Last Lampricide Treatment	Next Expected Lampricide Treatment
Superior	Cranberry R.	22-667	113	56	3500	629	Oct-2024	Jun-2026
Superior	Potato R.	0-33	93	109	113	5	Jun-2021	Sep-2026
Superior	Traverse R.	72-500	88	24	672	163	Jun-2024	Jun-2027
Michigan	Furlong Cr.	24-233	118	83	33	178	Jun-2025	TBD
Michigan	Bills Cr.	14-336	92	74	766	41	May-2025	May-2027
Huron	Root R. and Crystal Cr.	47-84	186	79	2702	243	May-2024	May-2027
Huron	Tawas Lake Outlet	< 10	118	35	1475	0	Aug-2022	Aug-2026
Huron	Long Lake Outlet	37-464	102	22	1005	3	Aug-2021	Jul-2026
Huron	Black Mallard R.	51-102	119	35	114	64	July-2025	TBD
Huron	Sturgeon R.	0-60	198	7	459	7	Sep-2023	TBD
Huron	Pigeon R.	20-107	217	63	1468	71	Sep-2022	Sep-2026
Huron	Maple R.	< 20	13	110	287	345	May-2024	TBD
Total			1,457	697	12,594	1,749		

Sterile Male Release Technique

The Sterile Male Release Technique (SMRT) was discontinued in the St. Marys River in 2012 after being implemented during 1997-2011. Monitoring of embryo viability (proportion of embryos that were alive at stage 12 of development) continues to provide insight into the effectiveness of SMRT. The SLCB approved the discontinuation of annual nest surveys during their fall 2025 meeting based on recommendations from the SLCP. Sampling completed in 2025 will be the final year of data collection.

- In 2025, the mean embryo viability of 8 nests sampled was 74% (Figure 6).

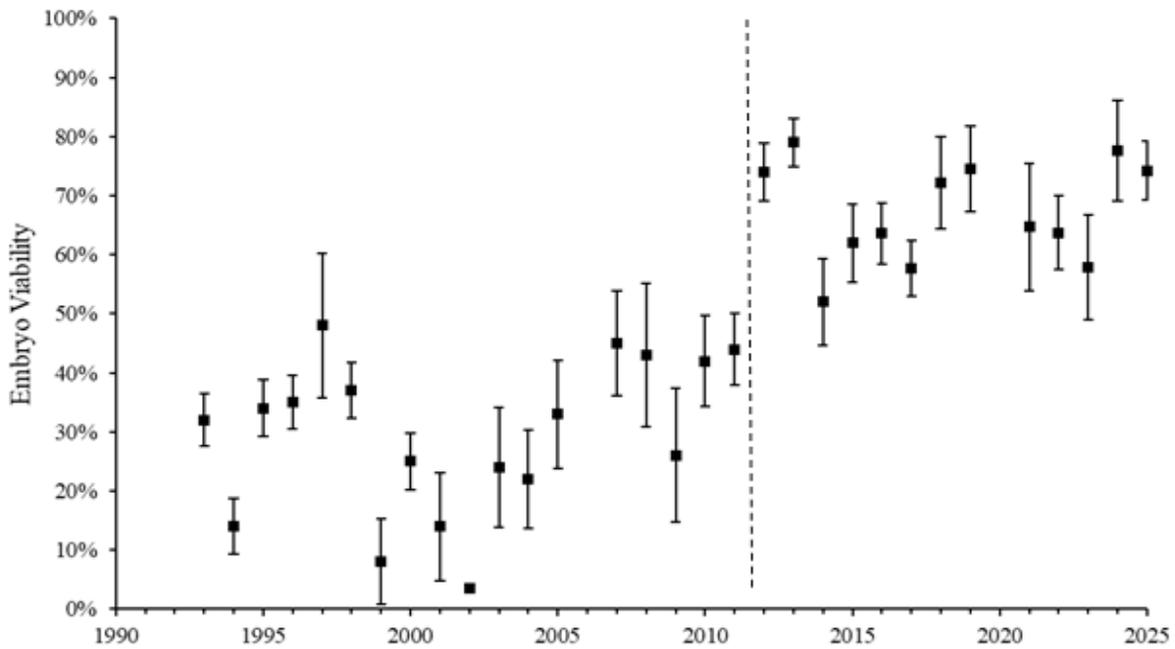


Figure 6. Mean annual embryo viability in the St. Marys River rapids during and after application of the sterile-male release technique (SMRT). The error bars represent SEs (not calculated for 2002 because only one sample was obtained). The vertical dashed line indicates the discontinuation of SMRT after 2011.

ASSESSMENT

The SLCP has three assessment metrics:

- Larval assessment, conducted by the Service and Department, determines the abundance and distribution of sea lamprey larvae in streams and lentic areas. These data are used to predict where larger larvae (over 100 mm) will likely be by the end of the growing season. These predictions are used to prioritize lampricide treatments for the following year.
- Juvenile assessment, undertaken by other fishery management agencies, evaluates the lake-specific rate of lake trout marking inflicted by sea lamprey. These time series data are used in conjunction with adult assessment data to assess the effectiveness of the SLCP for each lake. In addition, several indices of relative abundance of feeding juveniles are used in some lakes to monitor sea lamprey populations over time.

- Adult assessment, conducted by the Service and Department, annually estimates an index of adult sea lamprey abundance in each lake. Because this life stage is comprised of individuals that have either survived or avoided exposure to lampricides, the time series of adult abundance indices is the primary metric used to evaluate the effectiveness of the SLCP.

Reporting to the SLCB, the Larval Assessment Task Force (LATF) and the Trapping Task Force (TTF) were established by the Commission in 2012. The LATF is responsible for ranking or selecting streams and lentic areas for sea lamprey control options and evaluating the success of lampricide treatments through assessment of residual sea lamprey larvae. The TTF is responsible for optimizing trapping techniques for assessing adult sea lamprey populations and removing adults and juveniles. Task Force progress on SLCB charges during 2025 are presented in the LATF and TTF sections of this report.

Larval Assessment

Tributaries considered for lampricide treatment during 2026 were assessed during 2024 and 2025 to define the distribution and estimate the abundance and size structure of larval sea lamprey populations. Assessments were conducted with backpack electrofishing units in waters <0.8 m deep, while waters ≥ 0.8 m in depth were surveyed with gB or by deep-water electrofishing (DWEF). Additional surveys are used to define the distribution of sea lamprey within a stream, detect new populations, or evaluate lampricide treatments.

Lake Superior

- Larval assessments were conducted in 146 tributaries (57 Canada, 89 U.S.) and 25 lentic areas (6 Canada, 19 U.S.). The status of larval sea lamprey populations in historically infested Lake Superior tributaries and lentic areas is presented in Table 14.
- Surveys to estimate larval sea lamprey abundance were conducted in 11 tributaries (11 Canada, 0 U.S.) and 4 lentic areas (4 Canada, 0 U.S.).
- Surveys to detect the presence of new larval sea lamprey populations were conducted in 41 tributaries (20 Canada, 21 U.S.). One new population was discovered in Creek No. 27, a tributary to Munising Bay.
- Post-treatment assessments were conducted in 36 tributaries (10 Canada, 26 U.S.) and 9 lentic areas (4 Canada, 5 U.S.) to determine the effectiveness of lampricide treatments conducted during 2024 and 2025. Cranberry River and Red Cliff Creek are scheduled for treatment in 2026 based on residual populations following the most recent treatment. Anna River, Carp River and Eliza Creek lentic areas are planned for treatment in 2026 based on residual populations.
- Surveys to evaluate barrier effectiveness were conducted in 5 tributaries (1 Canada, and 4 U.S.). Sea lamprey infestations were not discovered upstream of their respective barriers.
- Larval assessment surveys were conducted in 39 (14 Canada, 25 U.S.) non-wadable areas using 69.32 kg active ingredient of 3.2% gB (27.44 kg Canada, 41.88 kg U.S.; Table 15). Increased survey effort was applied in Munising Bay in 2025. Larval sea lamprey were

collected in the lentic areas near the Miners River, Munising Falls Creek, Creek No. 27, and Tourist Park Creek. All sea lamprey from Munising Bay were preserved for genetic pedigree analysis.

Table 14. Status of larval sea lamprey in Lake Superior tributaries with a history of sea lamprey production.

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Canada			
East Davignon Cr.	May-72	Sep-23	May-72
West Davignon Cr.	Jun-14	Jul-24	Jun-23
Little Carp R.	May-23	Jun-24	Jun-22
Big Carp R.	Jul-25	Aug-25	Jun-24
Cranberry Cr.	Aug-22	Jul-25	Jul-25
Goulais R.	Jun-25	Sep-25	Sep-25
Goulais Bay	Jul-25	Aug-24	Aug-24
Boston's Cr.	Never	Oct-23	Aug-20
Horseshoe Cr.	Never	May-24	Aug-59
Havilland Cr.	Oct-19	Jul-25	Jul-25
Havilland Bay	Jun-15	Jun-21	Jun-21
Stokely Cr.	Jun-08	Jul-25	Jul-25
Havilland Bay	Aug-11	Jun-21	Jun-21
Tier Cr.	Never	Jul-23	Jun-61
Harmony R.	May-23	Jul-25	Jul-25
Batchawana Bay	Oct-22	Jul-21	Jul-21
Government Cr.	Never	Jun-25	Jun-12
Sawmill Cr.	May-23	Jul-25	May-24
Jones Landing Cr.	Never	May-24	Jun-66
Tiny Cr.	Never	Jun-25	Jun-25
Chippewa R.	Aug-22	Jul-25	Jul-25
Batchawana Bay	Jul-25	Sep-24	Sep-24
Unnamed (S-1009)	Jul-25	Jul-24	Jul-24
Unger Cr.	Jul-10	Sep-25	Jul-24
Batchawana R.	Jun-23	Jul-25	Jul-25
Batchawana Bay	Jun-24	Jul-25	Jul-25
Digby Cr.	Jun-13	Jul-23	Jul-19
Carp R.	Jul-25	Oct-25	Oct-25
Batchawana Bay	Jul-18	Jul-24	Jul-24
Pancake R.	May-23	Oct-25	Oct-25
Pancake Bay	Jun-19	Sep-24	Sep-24
Westman Cr.	Oct-23	Jul-25	Jul-23
Agawa R.	Jul-19	Jul-25	Jul-25
Agawa Bay	Oct-23	Aug-22	Aug-22
Sand R.	Sep-71	Jul-25	Jul-25
Baldhead R.	Never	Jul-25	Jul-25
Gargantua R.	Aug-23	Jun-24	Aug-21
Old Woman R.	Aug-23	Jun-24	Aug-22
Michipicoten R.	Aug-24	Jul-23	Jul-23
Michipicoten R. (Estuary)	Aug-19	Aug-21	Aug-21
Dog R.	Aug-63	Aug-22	Aug-22
White R.	Jul-16	Aug-22	Jul-15
Pic R.	Jul-24	Jul-25	Jul-23

Table 14. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Little Pic R.	Aug-22	Jul-25	Jul-25
Prairie R.	Jul-25	Jun-24	Jun-24
Steel R.	Aug-23	Jul-25	Jul-25
Aguasabon R.	Aug-25	Jun-24	Jun-24
Pays Plat R.	Jun-22	Aug-24	Aug-24
Pays Plat Bay	Never	Aug-18	Aug-16
Little Pays Plat Cr.	Jun-22	Aug-24	Aug-24
Gravel R.	Jul-23	Aug-24	Sep-22
Mountain Bay	Aug-24	Aug-25	Aug-25
Little Gravel R.	Jun-25	Jun-25	Jun-25
Mountain Bay	Aug-24	Aug-25	Aug-21
Little Cypress R.	Aug-14	Aug-24	Aug-17
Cypress Bay	Aug-16	Aug-15	Aug-15
Cypress R.	Jul-22	Jun-25	Jun-25
Cypress Bay	Aug-25	Aug-24	Aug-24
Jackpine R.	Never	Aug-25	Aug-23
Nipigon Bay	Sep-21	Aug-23	Aug-23
Jackfish R.	Jul-22	Aug-25	Aug-25
Nipigon Bay	Never	Aug-14	Aug-05
Nipigon R.			
Upper Nipigon R.	Aug-24	Aug-25	Aug-25
Maki Creek	Aug-24	Aug-23	Aug-23
Lake Helen lentic	Oct-22	Aug-25	Aug-25
Lower Nipigon R.	Aug-25	Aug-25	Aug-25
Lower Nipigon R. (Lentic)	Oct-22	Aug-25	Aug-25
Cash Cr.	Jul-23	Sep-24	Sep-24
Lake Helen (Lentic)	Oct-22	Aug-25	Aug-25
Polly Cr.	Jul-18	Aug-24	Aug-24
Polly Lake (Lentic)	Jul-87	Aug-17	Jul-90
Stillwater Cr.	Jul-23	Aug-24	Aug-24
Nipigon Bay	Oct-23	Aug-23	Aug-23
Big Trout Cr.	Jun-25	Jun-25	Aug-24
Nipigon Bay	Aug-24	Aug-23	Aug-23
Unnamed (S-461)	Aug-25	Aug-24	Aug-24
Otter Cove Cr.	Aug-23	Jul-25	Jul-25
Black Sturgeon R.	Aug-24	Aug-25	Aug-23
Black Bay	Never	Aug-21	Jul-04
Valley Cr.	Jun-72	Aug-25	Aug-71
Wolf R.	Jul-23	Aug-24	Aug-24
Black Bay	Aug-15	Aug-24	Aug-16
Coldwater Cr.	Jul-25	Aug-23	Aug-23
Black Bay	Aug-19	Aug-23	Aug-18
Pearl R.	Jun-25	Aug-24	Aug-24
D'Arcy Cr.	Jul-19	Aug-25	Aug-18
Black Bay	Jun-17	Aug-17	Aug-16
Blende Cr.	Jul-23	Aug-25	Aug-25
MacKenzie R.	Jul-23	Aug-24	Aug-24
MacKenzie Bay	Oct-24	Aug-25	Aug-25
Wild Goose Cr.	Jul-18	Aug-24	Aug-20

Table 14. Continued

<u>Tributary</u>	<u>Last Treated</u>	<u>Last Surveyed</u>	<u>Last Survey Showing Infestation</u>
Current R.			
Thunder Bay	Aug-25	Aug-24	Aug-24
Neebing-McIntyre FW	Jul-25	Aug-24	Aug-24
Kaministiquia R.	Jul-25	Aug-25	Aug-25
Slate R.	Jul-25	Aug-24	Aug-24
Corbett Cr.	Jul-25	Aug-24	Aug-24
Whitefish R.	Jul-25	Aug-24	Aug-24
Oliver Cr.	Jul-25	Aug-24	Aug-24
Jarvis R.	Jun-24	Aug-25	Aug-23
Cloud R.	Jun-24	Aug-25	Aug-25
Pine R.	Jul-18	Aug-25	Aug-17
Pigeon R.	Sep-22	Aug-25	Aug-25
Pigeon Bay	Aug-10	Sep-21	Sep-21
<u>United States</u>			
Waiska R.	Jul-07	Jul-24	Jun-18
West Branch	Jul-21	Oct-25	Oct-25
Sec. 11SW Cr.	Never	May-25	Jun-21
Pendills Cr.	Jul-12	Aug-25	Aug-25
Tahquamenon Bay	Never	Aug-24	Aug-24
Grants Cr.	Aug-24	May-25	May-25
Tahquamenon Bay	Sep-23	Aug-24	Aug-24
Halfaday Cr.	Jul-12	Aug-25	May-25
Tahquamenon Bay	Never	Sep-22	Jul-12
Mill Creek (Chippewa Co.)	Sep-23	Jul-24	Jun-22
Naomikong Cr.	Sep-23	May-24	Jun-22
Tahquamenon Bay	Never	Sep-23	Never
Ankodosh Cr.	Jul-25	Oct-25	Oct-25
Tahquamenon Bay	Jul-18	Aug-25	Aug-25
Roxbury Cr.	Jul-25	Oct-25	Aug-24
Tahquamenon Bay	Oct-23	Jul-24	Jul-24
Galloway Cr.	Oct-23	Oct-25	Oct-25
Tahquamenon Bay	Never	Aug-21	Aug-21
Tahquamenon R.	Sep-23	Aug-24	Jul-24
Betsy R.	Jul-25	Oct-25	Oct-24
Three Mile Cr.	Sep-23	Aug-24	May-22
Little Two Hearted R.	Jul-25	Oct-24	Oct-24
Two Hearted R.	Aug-23	Oct-24	Oct-24
Two Hearted (Lentic)	Never	Oct-25	Never
Dead Sucker R.	Aug-13	Jun-24	May-19
Sucker R.	Jul-25	Oct-25	Oct-25
Grand Marais Harbor	Never	Oct-23	Sep-18
Chipmunk Cr.	Sep-62	Jun-23	Sep-61
Carpenter Cr.	Aug-23	Jun-24	Jun-22
West Bay	Aug-23	Sep-24	Sep-24
Sable Cr.	Sep-23	Jun-24	Jun-24
Hurricane R.	Never	Jun-24	Aug-08
Sullivans Cr.	Sep-23	Jun-24	Jun-22
Seven Mile Cr.	Aug-23	Jun-24	Jun-22

Table 14. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Beaver Lake Cr.			
Beaver Lake Outlet	Jul-18	Jun-23	Aug-17
Lowney Cr.	Jul-24	Oct-24	Oct-24
Little Beaver Cr.	Aug-23	Jun-24	Jun-24
Arsenault Cr.	Aug-23	Jun-24	Jun-22
Beaver Lake	Never	Jun-24	Jun-24
Little Beaver Lake	Never	Jun-24	Jun-24
Mosquito R.	Jun-73	Jun-22	Oct-72
Miners R.			
Barrier downstream	Sep-23	Jun-24	Jun-21
Barrier upstream	Jul-13	Jul-25	May-12
Miners River (Lentic)	Never	Jul-25	Jul-25
Miners Lake (Lentic)	Jun-11	Sep-13	Sep-13
Munising Falls Cr.	Sep-64	Sep-24	Jun-14
Munising Falls Cr. (Lentic)	Never	Jul-25	Jul-25
Creek No. 27	Never	Jul-25	Jul-25
Creek No. 27 (Lentic)	Never	Jul-25	Jul-25
Anna R.	Jun-23	Jul-25	Jul-25
Munising Bay	Sep-24	Jul-25	Jul-25
Tourist Park Cr.	Never	Jul-25	Jul-10
Tourist Park Cr. (Lentic)	Never	Jul-25	Jul-25
Furnace Cr.			
Lower	Sep-25	Jul-25	Jul-25
Upper	Sep-10	Jul-23	Aug-09
Furnace Bay	Sep-24	Jul-25	Jun-25
Furnace Lake – Near Outlet	Never	Jul-20	May-12
Furnace Lake – Offshore			
Hanson Cr.	Never	Jul-17	Jul-09
Furnace Lake – Offshore			
Gongeau Cr.	Never	Jul-17	Jul-09
Five Mile Cr.	Jun-23	Sep-25	Sep-25
Five Mile Cr. (Lentic)	Jul-25	Sep-25	Sep-25
Au Train R.			
Lower	Sep-23	Jul-24	Oct-21
Upper	Sep-23	May-24	May-24
Au Train Lake	May-24	Jul-24	May-23
Rock R.	Jul-02	Jul-25	Aug-97
Deer Lake Cr.	Oct-23	Jun-24	Oct-23
Laughing Whitefish R.	Jun-23	Jul-25	May-25
Sand R.			
Below Dam	Jul-25	Sep-25	Jun-24
Above Dam	Jul-25	Sep-25	May-24
Chocolay R.	Jul-23	Oct-25	Sep-25
Carp R.	Aug-25	Oct-25	Oct-25
Carp R. (Lentic)	Aug-24	Jun-25	Jun-25
Dead R.	Jul-25	Sep-25	Sep-25
Presque Isle Harbor	Aug-22	Jul-25	Jul-25
Compeau Cr.	Never	Jun-24	Jun-12
Harlow Cr.	May-23	Sep-25	May-25

Table 14. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Little Garlic R.	Jul-24	Jul-25	Jul-25
Little Garlic R. (Lentic)	Jun-12	Jul-25	Jul-20
Garlic R.	Jul-24	Jul-25	May-25
Garlic R. (Lentic)	Never	Jul-23	Sep-05
Saux Head Lake	May-22	May-25	May-25
Iron R.	Jul-24	Jul-25	Jul-25
Salmon Trout R.	Aug-23	Jul-24	Jul-22
Pine R. (Marquette Co.)	Aug-23	Jul-24	Jul-22
Huron R.	Jun-23	Jun-25	Jun-25
Ravine R.	Aug-24	Jun-25	Jun-25
Huron Bay	Sep-25	Sep-24	Sep-24
Slate R.	Sep-25	Jun-25	Jul-22
Huron Bay	Oct-25	Sep-24	Sep-24
Silver R.	Aug-24	Jun-25	May-23
Huron Bay	Jul-24	Sep-24	Sep-24
Falls R.	Sep-25	Jun-25	Jun-25
L'anse Bay	May-24	Sep-24	Sep-24
Six Mile Cr.	Sep-18	Jun-25	Jun-17
L'anse Bay	Never	Jun-23	Jun-18
Little Carp R.	May-22	Sep-24	Jun-21
Keweenaw Bay	Never	Jun-23	Never
Kelsey Cr.	Never	May-23	Aug-16
Sturgeon R.	Sep-23	Jun-25	Jun-25
Pike River	Aug-25	Oct-24	Sep-30
Pilgrim R.	Aug-21	May-24	Sep-20
Trap Rock R.	Jun-23	Jun-25	Jun-25
Torch Lake	Jun-23	May-24	May-24
McCallum Cr.	Aug-63	Sep-21	May-94
Traverse R.	Jun-24	Jun-25	Jun-25
Little Gratiot R.	Jun-16	May-24	May-15
Eliza Cr.	Jun-24	Jun-25	Jun-25
Eagle Harbor	Jun-24	Jun-25	Jun-25
Gratiot R.	Jun-23	Jun-25	Jul-22
Smiths Cr.	May-64	Jun-25	May-64
Boston-Lily Cr.	Jun-23	Oct-25	Oct-25
Schlotz Cr.	Oct-21	Jun-25	Jun-25
Schlotz Cr. (Lentic)	Never	Jun-25	Jun-25
Salmon Trout R. (Houghton Co.)	Jun-23	Jun-25	Jun-25
Mud Lake Outlet	Sep-18	May-24	Aug-22
Hungarian Cr.	May-22	Jun-25	Jun-25
Torch Lake	May-22	Aug-22	Sep-21
Graveraet R.	May-23	Jun-25	Jun-25
Elm R.	Aug-16	Jun-25	Aug-21
Misery R.			
Barrier downstream	Jul-22	Sep-25	Sep-24
Barrier upstream	Aug-00	Sep-25	Sep-25
East Sleeping R.	Jul-22	Sep-25	Sep-25
West Sleeping R.	Sep-23	Aug-24	Jul-22
Firesteel R.	Aug-24	Jul-25	Jul-25

Table 14. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Flintsteel R.	May-23	Sep-25	Aug-21
Ontonagon R.	Sep-23	Oct-25	Oct-25
Potato R.	Jun-21	Oct-25	Sep-25
Floodwood R.	Never	Aug-22	Aug-85
Cranberry R. (Ontonagon Co.)	Oct-24	Jul-25	Jul-25
Mineral R.	Jul-22	Jul-25	Jul-25
Mineral R. (Lentic)	Never	Aug-19	Sep-11
Big Iron R.	Never	Aug-24	Jul-15
Little Iron R.	Jul-22	Oct-25	Oct-25
Union R.	May-64	Oct-25	Aug-62
Little Carp R.	Never	Jul-25	Jul-25
Black R.	Sep-21	Aug-25	Aug-25
Black River Harbor	Sep-19	Aug-24	Jul-19
Montreal R.	Jul-75	Sep-25	Jul-10
Washington Cr.	Jun-80	Jul-12	Sep-82
Bad R.	Jun-25	Nov-25	Nov-25
Fish Cr. (Eileen Twp)	May-22	Sep-25	Sep-25
Chequamegon Bay	Never	Aug-24	Aug-24
Sioux R.	Jul-19	Aug-25	Aug-25
Pikes Cr.	May-16	Aug-25	Aug-25
Red Cliff Cr.	May-22	Aug-25	Aug-25
Buffalo Bay	Never	Aug-11	Aug-03
Raspberry R.	May-16	Sep-25	Sep-15
Sand R. (Bayfield Co.)	Jun-25	Sep-25	Aug-25
Sand Bay	Aug-10	Jul-21	Aug-15
Cranberry R. (Bayfield Co.)	Jun-25	Sep-25	Aug-25
Iron R.			
Barrier downstream	Jun-23	Sep-25	Sep-25
Barrier upstream	Oct-64	Sep-24	Never
Reefer Cr	Oct-64	Jun-22	Jun-16
Fish Cr. (Orienta Twp)	Oct-64	Aug-23	Aug-63
Brule R.			
Barrier downstream	Jun-24	Aug-24	Aug-24
Barrier upstream	Jun-86	Aug-23	Sep-87
Brule R. (Lentic)	Never	Aug-24	Aug-22
Poplar R.	Jun-25	Sep-25	Sep-25
Middle R.			
Barrier downstream	Jun-24	Sep-24	Sep-24
Barrier upstream	Jun-24	Sep-24	Sep-24
Amnicon R.	Jun-23	Sep-25	Sep-25
Amnicon R. (Lentic)	Never	Aug-22	Aug-18
Nemadji R.	Sep-25	Oct-25	Oct-25
St. Louis R.	Sep-87	Sep-24	Aug-23
Lester R.	Never	Sep-24	Never
Lester R. (Lentic)	Never	Sep-24	Aug-23
Sucker R. (St. Louis Co.)	Never	Aug-22	Sep-89
Knife River	Jun-23	Sep-23	Sep-23
Knife R. (Lentic)	Aug-23	Aug-24	Aug-24
Stewart R.	Jun-24	Sep-24	Sep-24

Table 14. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Gooseberry R.	Jun-23	Sep-23	Aug-22
Gooseberry R. (Lentic)	Aug-23	Aug-24	Aug-22
Splitrock R.	Aug-76	Aug-22	Aug-21
Poplar R.	Jun-18	Aug-23	Aug-21
Poplar R. (Lentic)	Never	Aug-23	Never
Arrowhead R.	Jun-23	Sep-23	Sep-23

Table 15. Details on application of granular Bayluscide to tributaries and lentic areas of Lake Superior for larval assessment purposes during 2025.

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
Canada		
Batchawana R.	1.68	0.30
Black Sturgeon R.	0.84	0.15
Chippewa R.	1.68	0.30
D'Arcy Cr.	0.56	0.10
Gravel R.	1.40	0.25
Jackfish R.	0.56	0.10
Kaministiquia R.	3.64	0.65
Little Gravel R.	1.12	0.20
Little Pic R.	1.68	0.30
MacKenzie R.	1.68	0.30
Nipigon R.	9.24	1.65
Pic R.	1.12	0.20
Pigeon R.	1.68	0.30
Unger Cr.	0.56	0.10
Total (Canada)	27.44	4.90
United States		
Ankodosh Cr. (Lentic)	1.47	0.31
Two Hearted R. (Lentic)	0.49	0.10
Miners R. (Lentic)	2.20	0.47
Miners Falls Cr. (Lentic)	1.47	0.31
Creek No. 27 (Lentic)	0.73	0.16
Anna R. (Lentic)	3.43	0.73
Tourist Park Cr. (Lentic)	0.98	0.21
Echo Lake Cr. (Lentic)	2.20	0.47
Furnace Cr. (Lentic)	3.92	0.82
Five Mile Cr. (Lentic)	1.47	0.31
Au Train R. (Lentic)	1.47	0.31
Carp R. (Lentic)	1.47	0.31
Dead R.	1.47	0.31
Dead R. (Lentic)	2.20	0.47
Little Garlic R. (Lentic)	1.47	0.31
Garlic R. (Saux Head Lake)	1.47	0.31
Iron R. (Marquette Co.)	1.47	0.31
Traverse R. (Lentic)	1.47	0.31
Eliza Cr. (Lentic)	1.47	0.31
Schlotz Cr. (Lentic)	1.47	0.31

Table 15. Continued

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
Black River	2.20	0.47
Montreal R. (Lentic)	1.47	0.31
Iron R. (Bayfield Co.)	1.96	0.41
Amnicon R.	1.47	0.31
Nemadji R.	0.98	0.21
Total (United States)	41.88	8.86
Total for Lake	69.32	13.76

¹Lampricide quantities are reported in kg active ingredient

Lake Michigan

- Larval assessments were conducted in 97 tributaries and 13 lentic areas. The status of larval sea lamprey populations in historically infested Lake Michigan tributaries and lentic areas is presented in Table 16.
- Surveys to estimate larval sea lamprey abundance were conducted in four tributaries.
- Surveys to detect the presence of new larval sea lamprey populations were conducted in eight tributaries. No new infestations were identified.
- Post-treatment assessments were conducted in 28 tributaries and 1 lentic area to determine the effectiveness of lampricide treatments conducted during 2024 and 2025. The Ford River lentic, Black Creek (Sturgeon River, Delta County) and Bear Creek are planned for lampricide treatment in 2026 based on residual sea lampreys.
- Surveys to evaluate barrier effectiveness were conducted in 11 tributaries. Sea lampreys were found upstream of the barrier at Hesperia, MI, on the White River.
- Larval assessment surveys were conducted in 15 non-wadable areas using 25.47 kg active ingredient of 3.2% gB (Table 17).

Table 16. Status of larval sea lamprey in Lake Michigan tributaries with a history of sea lamprey production.

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Brevort R.			
Upper	Sep-24	Aug-25	Aug-23
Lower	Sep-24	Aug-25	May-23
Brevort Lake	May-21	May-22	Jun-19
Paquin Cr.	Jun-19	Aug-23	Sep-18
Paquin Cr. (Lentic)	Never	Sep-18	Sep-18
Davenport Cr.	Sep-13	May-25	May-25
Hog Island Cr.	Jun-25	Oct-25	Aug-24
Hog Island Cr. (Lentic)	Jun-07	Jul-21	Jul-18
Sucker R.	Jun-61	May-23	Jul-21
Black R.	Sep-24	May-25	May-25
Black R. (Lentic)	Jun-76	Sep-22	Aug-11
Mattix Cr.	Aug-15	May-23	Jun-14

Table 16. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Mile Cr.	May-17	Sep-25	Jul-25
Mile Cr. (Lentic)	Aug-68	Jun-18	Jun-08
Millecoquins R.	Jul-24	May-25	May-25
Furlong Cr.	Jun-25	Aug-25	Aug-25
Millecoquins Lake	Never	Jun-19	Jun-14
Rock R.	Jul-24	Oct-24	Oct-24
Crow R.	Jun-23	Oct-25	Oct-25
Cataract R.	Oct-25	Aug-24	Aug-24
Cataract R. (Lentic)	Never	Jul-23	Jul-23
Point Patterson Cr.	Jul-13	Oct-25	Oct-25
Hudson Cr.	Aug-19	Jun-25	Jun-25
Swan Cr.	Sep-24	May-25	Jun-23
Seiners Cr.	May-24	Aug-24	Aug-22
Milakokia R.	Oct-25	Aug-24	Aug-24
Seul Choix Bay	Never	Jul-19	Jul-80
Bulldog Cr.	Jun-13	Jun-23	Sep-13
Gulliver Lake Outlet	Sep-19	Oct-25	Sep-18
Marblehead Cr.	May-25	Sep-25	Sep-25
Marblehead Cr. (Lentic)	Never	Jun-23	Jun-23
Manistique R.	July-25	Jun-25	Jun-25
Inside Breakwalls	Oct-25	Oct-24	Oct-24
Outside Breakwalls	Oct-25	Jun-24	Jun-24
Southtown Cr.	Jul-13	Jun-23	Aug-12
Thompson Cr.	Jun-23	Jun-25	Jun-25
Johnson Cr.	Jun-13	Jun-25	Sep-12
Deadhorse Cr.	Sep-23	Jun-25	Jun-25
Deadhorse Cr. (Lentic)	Never	Jun-23	Oct-64
Gierke Cr.	Never	May-22	Jun-04
Bursaw Cr.	May-22	Aug-24	Aug-24
Bursaw Cr. (Lentic)	Never	Jul-11	Jul-11
Parent Cr.	Aug-17	Jun-25	Jun-25
Parent Cr. (Lentic)	Aug-25	Jun-24	Jun-24
Poodle Pete Cr.	Aug-17	Jun-25	Jun-25
Poodle Pete Cr. (Lentic)	Never	Jun-23	Jun-23
Valentine Cr.	May-21	Jun-25	Jul-19
Big Bay de Noc	Never	Sep-11	Aug-94
Little Fishdam R.	May-01	Jun-23	Jul-04
Big Fishdam R.	Apr-23	Sep-25	Sep-25
Sturgeon R.	Aug-25	Oct-25	Oct-25
Big Bay de Noc	Never	Jul-23	Aug-15
Ogontz R.	May-25	May-25	May-25
Big Bay de Noc	Sep-14	Jul-23	Jul-15
South Mino-kwe Cr.	May-24	Aug-24	Apr-24
Hock Cr.	May-25	Aug-25	Aug-24
Whitefish R.	May-24	Oct-24	Oct-24
Haymeadow Creek	May-24	Oct-25	Oct-25
Bills Cr.	May-25	Oct-25	Oct-25
Little Bay de Noc	Jun-83	Jul-23	Jul-11
Rapid R.	May-24	Oct-24	Oct-24

Table 16. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Little Bay de Noc	May-15	Jul-23	Jul-16
Tacoosh R.	Oct-14	Jul-23	Jul-14
Days R.			
Barrier downstream	Aug-25	Jul-25	Aug-24
Barrier upstream	Aug-17	May-23	Aug-17
Little Bay de Noc	Aug-14	Jul-23	Aug-13
Escanaba R.	Never	Jul-23	Jul-06
Portage Cr.	May-17	Aug-25	May-21
Portage Bay	Never	Aug-17	Aug-82
Ford R.	Jun-24	Aug-25	Aug-25
Green Bay	Jun-24	Aug-25	Aug-25
Sunnybrook Cr.	Apr-23	Jul-25	Jul-25
Bark R.	May-25	Jul-25	Oct-24
Green Bay	Never	Aug-24	Sep-98
Cedar R.	May-25	Aug-25	Oct-24
Green Bay	May-10	Jul-23	Jul-16
Sugar Cr.	May-21	Aug-25	Sep-21
Fowler Cr.	Never	Aug-25	Aug-25
Arthur Bay Cr.	May-21	Sep-23	Aug-25
Rochereau Cr.	Apr-63	Apr-23	Jul-62
Johnson Cr.	Apr-17	Sep-23	Aug-22
Bailey Cr.	May-23	Aug-25	Aug-25
Green Bay	Never	Aug-18	Aug-18
Beattie Cr.	May-19	Aug-25	Aug-25
Springer Cr.	May-23	Aug-25	Aug-25
Menominee R.	Jul-16	Jun-25	Jun-25
Green Bay	Jul-16	Jun-25	Sep-15
Little R.	Aug-77	May-21	Aug-77
Peshtigo R.	Sep-24	Aug-25	Aug-25
Oconto R.	May-24	Aug-25	Aug-25
Pensaukee R.	Nov-77	May-21	Sep-85
Suamico R.	Never	May-21	May-67
Ephraim Cr.	Apr-63	May-22	Apr-61
Hibbards Cr.	May-07	May-22	Oct-09
Whitefish Bay Cr.	May-16	Jun-24	Jun-15
Shivering Sands Cr.	Apr-12	Jun-24	May-14
Lily Bay Cr.	Apr-63	Jun-24	May-63
Bear Cr.	Sep-24	Jun-25	Jun-25
Door Co. 23 Cr.	May-19	Jun-25	Jun-25
Silver Cr.	Never	Jun-24	Jul-15
Ahnapee R.	Apr-64	Aug-24	Apr-64
Three Mile Cr.	Apr-25	Jun-25	Jun-24
Kewaunee R.			
Barrier downstream	May-75	Jun-25	May-98
Barrier upstream	May-75	Jun-25	Jun-24
Casco Cr.	May-14	May-22	Aug-14
East Twin R.	Apr-17	Jun-24	Jun-19
Fischer Cr.	May-87	May-22	May-87
French Farm Cr.	Never	Aug-25	Jun-10

Table 16. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Carp Lake Outlet	Jul-24	Aug-25	Sep-24
Big Stone Cr.	Sep-13	Aug-25	Aug-10
Big Sucker R.	Sep-13	Aug-25	Sep-13
Wycamp Lake Outlet	Aug-25	Sep-25	May-24
Bear R.	Never	Jul-25	Never
Bear R. (Lentic)	Jun-07	Aug-25	Jun-08
Horton Cr.	Jul-24	Aug-25	Aug-23
Horton Cr. (Lentic)	Jul-24	Sep-25	Sep-25
Boyne R.	Aug-25	Sep-25	Sep-25
Boyne R. (Lentic)	Jun-17	Sep-25	Sep-25
Porter Cr.	Jul-24	Sep-25	Oct-24
Porter Cr. (Lentic)	Jul-24	Sep-25	Oct-23
Jordan R.	Aug-25	Sep-25	Sep-25
Jordan R. (Lentic)	Jul-18	Oct-23	Jun-14
Monroe Cr.	Aug-25	Sep-25	Jul-24
Monroe Cr. (Lentic)	Aug-25	Jul-24	Jul-24
Loeb Cr.	Aug-13	Sep-25	Jul-24
McGeach Cr.	Oct-99	May-15	Jun-98
Elk Lake Outlet	Jun-17	Jun-24	Jun-23
Yuba Cr.	May-06	Jun-24	Aug-05
Acme Cr.	Aug-63	Jun-22	Jul-73
Mitchell Cr.	Jul-17	Aug-24	Aug-20
Boardman-Ottaway R. (lower)	Aug-15	Jun-25	Jun-25
Boardman-Ottaway R. (middle)	Aug-15	Jun-25	Sep-14
Boardman-Ottaway R. (Lentic)	Jun-17	Jul-24	Jul-24
Hospital-Ottaway Cr.	Jun-24	Jun-25	Jun-25
Leo Cr.	Never	Sep-24	Jul-95
Leland River (Lentic)	Never	Sep-25	Jun-13
Good Harbor Cr.	Jul-10	Jul-25	Sep-09
Crystal R.	Jul-25	Sep-25	Aug-24
Platte R. (upper)	Jun-24	Sep-25	Sep-25
Platte R. (middle)	Jul-25	Sep-25	Sep-24
Loon Lake (Lentic)	Sep-22	Sep-24	Sep-24
Platte R. (lower)	Jun-24	Sep-25	Apr-24
Betsie R.	Jul-25	Sep-25	Sep-25
Bowen Cr.	Jun-09	Sep-24	Oct-19
Big Manistee R.	Aug-23	Jul-25	Jul-25
Manistee R. (Lentic)	Never	Jul-24	Jul-08
Bear Cr.	Aug-23	Jul-25	Jul-25
Pine Cr.	Aug-23	Jul-25	Jul-25
L. Manistee R.	Jul-24	Sep-24	Sep-24
L. Manistee R. (Lentic)	Never	Jul-24	Jul-05
Gurney Cr.	Jun-16	Jun-25	Jun-25
Cooper Cr.	Jul-08	Oct-25	Oct-25
Lincoln R.	Jul-25	Jun-25	Jun-25
Pere Marquette R.	Aug-23	Oct-25	Oct-25
Bass Lake Outlet	Aug-78	Jul-24	Aug-75
Pentwater R. (N. Br.)	Jul-23	Jun-25	Jun-25
South Branch	Never	Jun-25	Jun-83

Table 16. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Lambricks Cr.	Sep-84	Jun-25	Sep-84
Stony Cr.	Oct-24	Jun-25	May-23
Flower Cr.	Jul-17	Oct-25	May-17
White R.	Jul-23	Oct-25	Oct-25
Duck Cr.	Jul-84	Jul-23	Aug-95
Muskegon R.	Aug-25	Jul-24	Jul-24
Brooks Cr.	Aug-25	Jun-25	Jun-25
Cedar Cr.	Oct-22	Jun-25	Jun-25
Bridgeton Cr.	Aug-25	Jun-25	Sep-21
Minnie Cr.	Aug-22	Jun-25	Sep-21
Bigelow Cr.	Aug-25	Jun-25	Jun-25
Big Bear Cr.	Aug-70	Jul-24	Aug-70
Mosquito Cr.	Jul-69	Jul-24	Jul-07
Black Cr.	Aug-08	Jul-24	Aug-08
Grand R.	Never	May-25	Never
Norris Cr.	Jun-17	Aug-22	Sep-16
Lowell Cr	Sep-65	May-25	Jun-65
Buck Cr.	Sep-65	May-24	Sep-65
Rush Cr.	Sep-65	Aug-22	Sep-62
Sand Cr.	Jun-07	May-24	Jun-07
Crockery Cr.	Jun-23	Sep-23	Apr-23
Bass R.	Aug-04	Aug-22	Sep-03
Rogue R.	Jun-23	May-25	Aug-22
Prairie Cr.	Aug-24	Sep-25	Sep-25
Pigeon R.	Oct-64	Sep-19	May-62
Pine Cr.	Oct-64	Sep-19	May-62
Gibson Cr.	Jul-84	Sep-22	Jun-83
Kalamazoo R.	Oct-65	Jun-25	Never
Bear Cr.	Oct-24	Jul-25	Aug-23
Sand Cr.	Sep-10	Jul-25	May-17
Mann Cr.	Jul-16	Jul-25	Sep-15
Rabbit R.	Sep-15	Jul-25	Jul-14
Swan Cr.	Jun-21	Jul-25	Oct-21
Allegan 3 Cr.	Sep-65	Jul-25	Jun-62
Allegan 4 Cr.	Oct-78	Jul-25	Jul-25
Allegan 5 Cr.	Sep-15	Jul-25	Jul-14
Black R.			
North Branch	Jun-77	Jul-25	May-21
Middle Branch	Jul-21	Jul-25	May-24
South Branch	May-17	Jul-25	May-21
Brandywine Cr.	Aug-85	Jul-25	Jul-25
Rogers Cr.	May-18	Sep-24	Jun-16
St. Joseph R.	Never	Jul-19	Never
Lemon Cr.	Oct-65	Jul-23	Jun-65
Pipestone Cr.	May-21	Oct-24	Jul-21
Meadow Dr.	Oct-65	Oct-24	Apr-62
Hickory Cr.	May-21	Jul-25	Sep-19
Farmers Cr.	May-21	Sep-24	Jul-23
Paw Paw R.	Sep-25	Jul-25	Sep-24

Table 16. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Blue Cr.	Oct-25	Jul-25	Sep-24
Mill Cr.	Sep-24	Sep-24	Jul-23
Brandywine Cr.	Sep-17	Sep-24	Jul-17
Brush Cr.	Sep-15	Sep-24	Jun-15
Hayden Cr.	Sep-21	Jul-25	Sep-24
Campbell Cr.	Sep-18	Sep-24	Sep-18
Ritter Cr.	Sep-17	Sep-24	Oct-16
Galien R. (N. Br.)	Jun-16	Sep-25	Sep-25
E. Br. & Dowling Cr.	Oct-10	Sep-25	Sep-09
S. Br. & Galena Cr.	Aug-21	Sep-25	Sep-25
Spring Cr.	Aug-21	Sep-25	May-16
S. Br. Spring Cr.	Aug-21	Sep-25	Sep-25
State Cr.	Apr-14	Sep-25	Sep-13
Trail Cr.	Apr-14	Sep-25	Aug-18
Donns Cr.	May-66	Sep-25	May-66
Burns Ditch	Jul-99	Sep-25	Oct-21
Little Calumet R.	Sep-24	Sep-25	Oct-23
Salt Cr.	May-18	Sep-25	Jun-19

Table 17. Details on application of granular Bayluscide to tributaries and lentic areas of Lake Michigan for larval assessment purposes during 2025.

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
Point Patterson Cr. (Lentic)	0.24	0.05
Hock Cr. (Lentic)	0.98	0.21
Ford R. (Lentic)	2.45	0.52
Menominee R.	3.43	0.73
Menominee R. (Lentic)	1.96	0.41
Peshtigo R.	0.98	0.21
Oconto R.	0.98	0.21
Oconto R. (Lentic)	1.96	0.41
Three Mile Cr.	0.98	0.21
Carp Lake R. (Lentic)	1.42	0.30
Bear R. (Lentic)	0.94	0.20
Horton Cr. (Lentic)	2.34	0.50
Boyne R. (Lentic)	1.42	0.30
Porter Cr. (Lentic)	0.94	0.20
Leland R. (Lentic)	0.94	0.20
Platte R. (Loon Lake)	2.34	0.50
Kalamazoo R.	1.17	0.25
Total for Lake	25.47	5.41

¹ Lampricide quantities are reported in kg of active ingredient.

Lake Huron

- Larval assessments were conducted in 101 tributaries (61 Canada, 40 U.S.) and 18 lentic areas (9 Canada, 9 U.S.). The status of larval sea lamprey populations in historically infested Lake Huron tributaries and lentic areas is presented in Table 18.

- Surveys to estimate larval sea lamprey abundance were conducted in 14 tributaries (12 Canada, 2 U.S.) and 4 lentic areas (4 Canada., 0 U.S.).
- Surveys to detect the presence of new larval sea lamprey populations were conducted in 21 tributaries (19 Canada, 2 U.S.). No new infestations were discovered.
- Post-treatment assessments were conducted in 24 tributaries (8 Canada, 16 U.S.) and 2 lentic areas (0 Canada, 2 U.S.) to determine the effectiveness of lampricide treatments conducted during 2024 and 2025. Watson Creek (Canada) is scheduled for treatment in 2026 based on residual sea lampreys.
- Surveys to evaluate barrier effectiveness were conducted in six tributaries (5 Canada, 1 U.S.). Sea lamprey infestations were not discovered upstream of their respective barriers.
- Larval sea lamprey surveys were conducted in the St. Marys River according to a stratified, systematic sampling design. Using a DWEF unit, 852 geo-referenced sites were sampled. The larval sea lamprey population in the St. Marys River was estimated to be 526,000 (95% CI: 220,000 – 830,000). The river population estimate methodology is currently under review.
- Larval assessments were conducted in 21 (12 Canada, 9 U.S.) non-wadable areas using 34.75 kg active ingredient of 3.2% gB (18.48 kg Canada, 16.27 kg U.S.; Table 19).

Table 18. Status of larval sea lamprey in Lake Huron tributaries with a history of sea lamprey production.

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Canada			
St. Marys R.	Jul-25	Aug-25	Aug-25
Whitefish Channel	May-24	Jul-25	Jul-25
Root R.	May-24	Oct-25	Jul-25
Garden R.	May-24	Jul-25	Jul-25
Maud & Driving Cr.	May-24	Jul-25	Jul-25
Echo R.			
Mainstream	Jul-24	Oct-25	Oct-23
Bar & Iron Cr.	Aug-20	Jul-25	Jul-25
Austin Cr.	Oct-23	Jun-25	Sep-23
Elm Cr.	May-13	Sep-24	Sep-24
Echo Lake	Sep-20	Jul-25	Jul-25
Solar Lake	Jul-87	Jul-06	May-90
Stuart Lake	Jul-80	May-90	May-90
Bar R.	Oct-11	Jul-25	Jul-10
Sucker Cr.	May-18	Jun-25	Sep-17
Sucker Cr. (Lentic)	Jul-84	Sep-16	Jun-13
Two Tree R.	May-15	Jun-25	Jun-25
Two Tree R. (Lentic)	Never	Aug-81	Aug-81
Richardson Cr.	Jun-25	Jul-25	Jul-16
Watson Cr.	May-24	Sep-25	Sep-25
Gordon Cr.	Jun-25	Jul-25	Jul-25
Gordon Cr. (Lentic)	Jul-84	Jul-24	Aug-91

Table 18. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Browns Cr.	May-23	Oct-25	Oct-25
Browns Cr. (Lentic)	Aug-87	Jul-24	Aug-91
Koshkawong R.	May-23	Jun-25	Jun-25
Koshkawong R. (Lentic)	Never	Jul-17	Aug-91
No Name (H-65)	May-22	Jul-25	Jul-25
No Name (H-68)	Jun-19	Jul-25	Jul-25
North Channel	Never	Apr-12	May-95
MacBeth Cr.	Jun-19	Oct-24	Jun-18
Thessalon R.			
Upper	Sept-18	Jun-24	Sep-17
Lower	Oct-22	Jul-25	Oct-24
Livingstone Cr.	May-22	Jul-25	Jul-25
Mississagi R.	Aug-23	Aug-25	Aug-25
Harris/Bolton Cr.	Aug-19	Jul-25	Jul-25
North Channel	Sep-24	Jul-25	Jul-25
Blind R.	May-84	Jul-25	Jun-05
Lauzon R.	May-23	Jul-25	Jul-22
North Channel	Jun-19	Jul-22	Jul-22
Spragge Cr.	Oct-95	Jul-24	Jun-98
No Name (H-114)	May-22	Jul-25	Jul-21
North Channel	Jun-15	Sep-18	Sep-14
Marcellus Cr.	Jun-13	Aug-23	Sep-11
Serpent R.			
Mainstream	Jun-21	Jul-25	Jul-25
Grassy Cr.	May-23	Jul-25	Oct-24
Spanish R.			
Mainstream	Sep-15	Jun-23	Jun-23
LaCloche Cr.	Oct-18	Jul-25	Sep-17
Birch/Beaudin Cr.	Oct-23	Jul-25	Sep-22
Aux Sables R.	Jul-24	Jun-23	Jun-23
Kagawong R.	Aug-67	Jul-24	Aug-16
Mudge Bay	Aug-87	Jun-19	Jun-15
Unnamed (H-267)	Apr-17	Jul-24	Sep-20
Silver Cr.	Sep-22	Jun-25	Jun-25
Floods Cr.	Sep-24	Aug-23	Aug-23
Sand Cr.	Sep-24	Aug-23	Aug-23
Mindemoya R.	Jun-24	Jun-25	Jun-25
Providence Bay	Jul-81	Jul-22	Jul-88
Timber Bay Cr.	Jun-24	Jun-25	Jun-25
Hughson Cr.	Jun-25	Jul-24	Jul-24
Manitou R.	Jun-24	Jun-25	Jun-23
Michael's Bay	Oct-20	Jun-25	Jun-25
Blue Jay Cr.	Sep-22	Jun-25	Jun-25
Blue Jay Cr. (Lentic)	Jun-18	Jun-25	Jun-25
Kaboni Cr.	Oct-78	Jul-24	Jul-78
Chikanishing R.	Jun-24	Jun-23	Jun-23
French R. System			
O.V. Channel	Jun-12	Jul-24	Sep-15
Wanapitei R.	Jun-11	Sep-25	Jul-24

Table 18. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Key R. (Nesbit Cr.)	Sep-72	May-24	Aug-73
Still R.	Jul-17	Jun-25	May-16
Byng Inlet	Jun-12	May-23	May-23
Magnetawan R.	Jul-22	Sep-25	May-24
Byng Inlet	Oct-24	May-23	May-23
Naiscoot R.	May-18	Sep-25	Sep-25
Shawanaga Landing Cr.	Never	Sep-25	Sep-25
Shebeshekong R.	Never	Sep-25	May-23
Boyne R.	Sep-18	Jun-25	May-18
Georgian Bay	Never	Jun-23	May-16
Musquash R.	Aug-13	Sep-25	Sep-25
Simcoe/Severn System	Never	Sep-25	May-19
Georgian Bay	Aug-18	Sep-25	May-19
Sturgeon R.	Apr-12	May-24	Sep-09
Sturgeon Bay	Never	May-14	Jun-99
Hog Cr.	Sep-78	Jun-22	Aug-78
Lafontaine Cr.	Jun-68	May-25	May-67
Nottawasaga R.			
Mainstream	Jul-21	May-25	Oct-21
Boyne R.	Jul-21	May-23	May-19
Bear Cr.	Jun-13	May-23	Apr-11
Pine R.	Jul-21	May-25	May-25
Marl Cr.	Apr-13	May-25	May-25
Pretty R.	May-72	May-24	May-72
Silver Cr.	Sep-82	Jun-23	Sep-82
Bighead R.	Jun-22	May-24	May-24
Bighead R. (Lentic)	Aug-18	May-22	May-22
Bothwells Cr.	Jun-79	May-25	Aug-83
Sydenham R.	Jun-72	May-25	Jul-71
Sauble R.	Jun-04	May-24	May-18
Saugeen R.	Jun-71	May-25	May-95
Bayfield R.	Jun-70	May-22	Sep-73
<u>United States</u>			
Mission Cr.	Never	Sep-23	Sep-23
Frechette Cr.	Never	Jul-24	Jul-81
Ermatinger Cr.	Never	Aug-25	Aug-25
Ditch Cr	Never	Aug-25	Sep-23
Charlotte R.	Oct-11	Jul-24	May-24
Beaver Dam Cr.	Never	Sep-23	Jun-22
Little Munuscong R.	Oct-21	Aug-25	Aug-25
Big Munuscong R.	May-25	Aug-25	May-24
Taylor Cr.	Sep-23	Aug-25	Aug-25
Gogomain R.	Jul-16	Aug-25	Jun-18
Carlton Cr.	May-25	Aug-25	Sep-23
Canoe Lake Outlet	May-70	Aug-25	May-69
Caribou Cr.	Oct-19	Aug-25	Aug-25
Caribou Cr. (Lentic)	May-18	Aug-25	Aug-25
Bear Lake Outlet	Jun-25	Aug-25	Aug-25

Table 18. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Bear Lake Outlet (Lentic)	Sep-25	Jul-24	Jul-24
Carr Cr.	Jun-13	Oct-24	May-23
Joe Straw Cr.	May-25	Aug-25	Aug-25
Saddle Cr.	Never	Jul-24	May-02
Huron Point Cr.	May-18	Aug-25	Aug-25
Albany Cr.			
Barrier downstream	Jun-25	Aug-25	May-23
Barrier upstream	Jun-25	Aug-25	Aug-23
Albany Bay	Sep-25	Jul-24	Jul-24
Trout Cr.	Jun-25	Aug-25	Aug-25
Trout Cr. (Lentic)	Sep-25	Jul-24	Jul-24
Beavertail Cr.	Jul-18	Jun-25	Jun-25
Prentiss Cr.	May-25	Aug-25	Aug-25
McKay Cr.	Jun-24	Jun-25	Jun-25
McKay Bay	Never	Jul-24	Jul-11
Flowers Cr.	Jun-13	May-23	May-11
Flowers Bay	Never	Jun-12	Jul-80
Ceville Cr.	Jul-16	May-23	Jul-15
Hessel Cr.	Sep-21	Jun-25	Jul-24
Steeles Cr.	Sep-21	Jul-24	Aug-19
Nunns Cr.			
Barrier downstream	Jul-16	Jul-24	May-14
Barrier upstream	Jul-16	May-19	Jun-15
St. Martin Bay	Never	Jul-23	Aug-87
Pine R.	Jun-24	Aug-25	Aug-25
St. Martin Bay	Jun-21	Jul-24	Jul-17
McCloud Cr.	Jul-15	Jul-24	May-17
St. Martin Bay	Never	Aug-15	Aug-15
Carp R.	Jul-24	Aug-25	Aug-25
St. Martin Bay	Jul-21	Aug-25	Aug-25
Martineau Cr.	Jul-16	May-23	May-17
Horseshoe Bay	Never	Aug-19	Sep-14
Hoban Cr.	Jun-12	Jul-24	May-11
266-20 Cr.	Aug-76	May-22	Sep-94
Beaugrand Cr.	Jun-16	Sep-24	Jul-15
Little Black R.	Oct-21	Sep-24	Sep-23
Cheboygan R.	Oct-83	Aug-23	Aug-23
Cheboygan R. (Lentic)	Never	Jun-19	Aug-93
Laperell Cr.	May-00	Aug-24	Sep-22
Meyers Cr.	Sep-23	Aug-24	Sep-22
Maple R.	May-24	Aug-24	Aug-24
Pigeon R.	Sep-22	Aug-24	Aug-24
Little Pigeon R.	Aug-12	Aug-24	Jun-10
Sturgeon R.	Sep-23	Aug-24	Sep-22
Sturgeon R. (Lentic)	Sep-23	Aug-24	Sep-22
Elliot Cr.	Oct-21	Sep-24	Sep-24
Duncan Bay	Never	Sep-22	Jul-12
Greene Cr.			
Barrier downstream	Sep-23	Oct-24	Jun-24

Table 18. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Barrier upstream	Jun-07	May-22	Jun-13
Grass Cr.	Aug-22	Oct-24	Sep-24
Mulligan Cr.	Jun-16	Oct-24	Jun-18
Mulligan Cr. (Lentic)	Never	Aug-21	Aug-16
Grace Cr.	Oct-18	Aug-24	Aug-24
Black Mallard Cr.	Jun-18	Aug-24	Aug-24
Lower			
Black Mallard Lake	Never	Jun-23	Jun-10
Upper	May-19	Aug-24	Aug-21
Seventeen Cr.	Jul-12	Oct-24	Jul-12
Ocqueoc R.			
Hammond Bay (Lentic)	Never	Jun-23	Aug-21
Barrier upstream	Jul-24	Sep-24	Jun-23
Barrier downstream	Aug-22	Sep-24	Sep-24
Johnny Cr.	Sep-70	Jun-23	Jun-23
Hammond Bay Cr. (Lentic)	Never	Jun-23	Sep-17
Schmidt Cr.			
Lower	Apr-23	Oct-24	May-22
Upper	May-08	Oct-24	May-08
Nagels Cr.	Never	Jul-21	Jun-09
Trout R.			
Barrier downstream	Oct-21	Aug-24	Aug-24
Barrier upstream	Oct-07	Oct-24	Jun-07
Swan R.	Jun-10	Oct-24	Jun-10
Grand Lake Outlet	Never	Jun-23	May-03
Middle Lake Outlet	Jun-67	Oct-23	Aug-66
Long Lake Outlet	Aug-21	Oct-24	Oct-24
Devils Lake (Lentic)	Never	Jun-24	Jun-24
Cranberry Cr.	Jun-13	Oct-23	Oct-11
Devils R.	Oct-14	Oct-24	Aug-13
Thunder Bay	Never	Jun-21	Aug-76
Black R.	Apr-23	Oct-24	Oct-24
Mill Cr.	Never	Aug-24	May-98
Au Sable R.	Aug-22	Aug-24	Aug-24
Au Sable. R (Lentic)	Aug-15	Sep-21	Sep-14
Pine R.	May-87	Sep-19	Sep-94
Tawas Lake Outlet	Jun-15	Aug-24	Jun-14
Cold Cr.	Aug-18	Aug-24	May-24
Sims Cr.	Jul-09	May-24	Aug-08
Grays Cr.	Sep-05	Aug-24	Jul-04
Silver Cr.	Aug-22	Aug-24	Aug-24
East AuGres R.	Oct-22	Sep-24	Sep-24
East AuGres R. (Lentic)	Never	Jun-22	Jun-86
AuGres R.	Sep-18	Sep-24	Jun-19
Rifle R.	Aug-24	May-24	Aug-24
Saginaw R.			
Shiawassee R.	May-21	Sep-24	May-24
Cass R.	Jun-22	Oct-24	Oct-24
Flint R.	Never	Jun-22	Jul-14

Table 18. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Armstrong Cr.	May-15	May-24	Jul-14
Tittabawassee R.	Jun-18	Aug-23	Aug-22
Sanford Dam upstream	Never	Sep-22	Sep-22
Black Creek	May-23	Jul-23	Aug-22
Molasses R.	May-23	Oct-24	Oct-24
Chippewa R.	May-23	Oct-24	Oct-24
Chippewa R. (Gravel pits)	May-23	Jun-24	Jun-24
Pine R.	Jun-22	Aug-24	Jul-23
Carroll Cr.	May-23	Aug-24	Aug-22
Big Salt R.	Jun-22	Aug-24	Oct-21
Rock Falls Cr.	Never	Jul-24	Jun-69
Elm Creek	Never	Jul-23	Jul-63
Cherry Cr.	Never	May-23	Jul-77
Mill Cr.	May-85	May-23	Sep-13

Table 19. Details on application of granular Bayluscide to tributaries and lentic areas of Lake Huron for larval assessment purposes during 2025.

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
Canada		
Blind R.	0.84	0.15
Blue Jay Cr.	1.12	0.20
Echo R.	1.68	0.30
French R.	1.12	0.20
Garden R.	0.84	0.15
Mississagi R.	5.04	0.90
Musquash R.	1.68	0.30
Root R.	0.84	0.15
Serpent R.	1.68	0.30
Simcoe/Severn System	1.68	0.30
St. Marys R.	1.12	0.20
Still R.	0.84	0.15
Total (Canada)	18.48	3.30
United States		
Carlton Cr. (Lentic)	0.98	0.21
Caribou Cr. (Lentic)	1.96	0.41
Huron Point Creek (Lentic)	0.98	0.21
Carp R. (Lentic)	2.45	0.52
Cheboygan R.	1.42	0.30
Ocqueoc R. (Lentic)	2.34	0.50
Long Lake Cr. (Devils Lake)	1.42	0.30
HBBS Cr. (Lentic)	0.94	0.20
Saginaw R. (Chippewa R.)	3.78	0.80
Total (United States)	16.27	3.45
Total for Lake	34.75	6.75

¹Lampicide quantities are reported in kg active ingredient.

Lake Erie

- Larval assessments were conducted in 40 tributaries (8 Canada, 32 U.S.). The status of larval sea lamprey in historically infested Lake Erie tributaries and lentic areas is presented in Table 20.
- Surveys to estimate larval sea lamprey abundance were conducted in one tributary (0 Canada, 1 U.S.) and no lentic areas.
- Surveys to detect the presence of new larval sea lamprey populations were conducted in 19 tributaries (3 Canada, 16 U.S.). No new infestations were found.
- Surveys to evaluate barrier effectiveness were conducted in Little Buffalo Creek, a tributary to the Buffalo River (U.S.). No sea lamprey larvae were found upstream of the barrier.
- Larval assessment surveys were conducted in five non-wadable areas of U.S. tributaries including the lower St. Clair River using 9.44 kg active ingredient of 3.2% gB (Table 21).

Table 20. Status of larval sea lamprey in Lake Erie tributaries with a history of sea lamprey production.

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
<u>Canada</u>			
East Cr.	Jun-87	Jun-22	Jun-13
Catfish Cr.	Apr-16	Jul-24	Apr-15
Bradley Cr.	Apr-16	Jul-24	Oct-15
Silver Cr.	May-18	Jul-23	Jun-17
Big Otter Cr.	Sep-21	Jul-24	Jul-24
South Otter Cr.	Aug-10	Jun-22	Aug-09
Clear Cr.	May-91	Jun-22	May-91
Big Cr.	Jul-21	Jul-24	Jul-24
Forestville Cr.	Aug-13	Jul-24	Jun-13
Normandale Cr.	Jun-87	Jul-21	Apr-08
Fishers Cr.	Jun-87	Jun-22	May-04
Young's Cr.	Aug-13	Jul-24	Jul-24
Ussher's Cr.	Never	Jul-21	Jun-17
<u>United States</u>			
Buffalo R.			
Buffalo Cr.	Apr-19	Sep-25	Sep-25
Cayuga Cr.	Apr-19	Sep-25	Jul-18
Cazenovia Cr.	Apr-19	Sep-25	Jul-18
Big Sister Cr.	Apr-15	Aug-24	Jun-14
Delaware Cr.	Jun-13	May-25	Jul-12
Cattaraugus Cr.	May-25	Sep-25	Sep-25
Lentic Lake Erie	Never	Aug-24	Aug-12
Halfway Br.	Oct-86	May-25	Jul-85
Canadaway Cr.	May-16	May-25	May-16
Chautauqua Cr.	Never	May-25	Jul-12

Table 20. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Crooked Cr.	Apr-19	Aug-25	Aug-25
Raccoon Cr.	May-22	Aug-25	Aug-25
Conneaut Cr.	Apr-25	Aug-25	Aug-24
Conneaut Harbour	Never	Sep-19	Jul-16
Wheeler Cr.	Never	Jul-19	Oct-87
Grand R.	Apr-22	Aug-25	Aug-25
Fairport Harbour	Never	Sep-19	Jun-87
Chagrin R.	Never	Aug-25	Sep-21
Huron R.	May-18	Jul-25	May-18
River Raisin	Never	Jun-24	Sep-23
<u>Lake St. Clair</u>			
St. Clair R.	Never	Jun-25	Jun-25
Black R.	Never	Jun-25	Jul-07
Mill Cr.	Never	Jun-25	Jun-25
Pine R.	Apr-88	Jul-24	Jun-16
Belle R.	Never	Jun-24	May-96
Clinton R.	Never	Jun-24	May-17
Paint Cr.	Sep-25	Apr-25	Apr-25

Table 21. Details on application of granular Bayluscide to tributaries and lentic areas of Lake Erie for larval assessment purposes during 2025.

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
<u>United States</u>		
Sandusky River (Lentic)	0.94	0.20
Muddy Creek (Lentic)	0.94	0.20
Portage River (Lentic)	0.94	0.20
Toussaint River (Lentic)	0.94	0.20
St. Clair River	5.68	1.20
Total (United States)	9.44	2.00
Total for Lake	9.44	2.00

¹Lampicide quantities are reported in kg active ingredient.

Lake Ontario

- Larval assessments were conducted in 84 tributaries (43 Canada, 41 U.S.). The status of larval sea lamprey populations in historically infested Lake Ontario tributaries and lentic areas is presented in Table 22.
- Surveys to estimate larval sea lamprey abundance were conducted in five tributaries (3 Canada, 2 U.S.).
- Surveys to detect new larval sea lamprey populations were conducted in 15 tributaries (12 Canada, 3 U.S.). No new infestations were found.
- Surveys to evaluate barrier effectiveness were conducted in 8 tributaries (3 Canada, 5 U.S.). Sea lampreys were found upstream of the dam on Catfish Creek (U.S.), prompting treatment

upstream of the barrier during spring 2025. Electrofishing and eDNA sampling were conducted upstream of the dam at Monitor Mills on South Sandy Creek (U.S.); no larval sea lamprey were detected by either sampling method, suggesting that spawning sea lamprey have not breached the deteriorated barrier.

- Larval assessment surveys were conducted in six (3 Canada, 3 U.S.) non-wadable areas using 6.87 kg active ingredient of 3.2% gB (3.08 kg Canada, 3.79 kg U.S.; Table 23).

Table 22. Status of larval sea lamprey in Lake Ontario tributaries with a history of sea lamprey production.

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Canada			
Niagara R.	Never	May-22	Jun-14
Ancaster Cr.	May-03	Jul-24	Jun-15
Grindstone Cr.	Never	Sep-25	Jun-14
Bronte Cr.	May-22	Sep-24	Sep-24
Sixteen Mile Cr.	Jun-82	Aug-23	May-05
Credit R.	May-25	Sep-25	Sep-25
Humber R.	Never	May-24	Never
Rouge R.	May-25	Jun-25	Oct-23
Little Rouge. R.	May-24	Sep-25	Sep-25
Petticoat Cr.	Sep-04	Aug-23	Jun-16
Duffins Cr.	Apr-24	Jun-25	Jun-25
Duffins Cr. (Lentic)	Never	Aug-15	Aug-15
Carruthers Cr.	Sep-76	Aug-23	Jul-78
Lynde Cr.	May-25	Apr-25	Sep-24
Oshawa Cr.	Apr-24	Jun-25	Jun-25
Oshawa Cr. (Lentic)	Never	Jul-13	Oct-81
Farewell Cr.	May-25	Jul-25	Sep-24
Bowmanville Cr.	Apr-24	Jun-25	Jun-25
Wilmot Cr.	Apr-24	Jun-25	Jun-25
Wilmot Cr. (Lentic)	Never	Aug-11	Aug-11
Graham Cr.	Aug-21	Jul-25	Jul-25
Wesleyville Cr.	Oct-02	Aug 23	May-04
Port Britain Cr.	Apr-19	May-24	Jun-21
Ganaraska R.	Never	Jul-25	May-25
Gage Cr.	May-71	Sep-25	Apr-71
Cobourg Br.	Oct-96	Jul-25	Jul-25
Covert Cr.	Jul-22	Sep-25	Jul-25
Grafton Cr.	Apr-24	May-25	Oct-23
Shelter Valley Cr.	Jun-25	Sep-25	Aug-24
Colborne Cr.	Apr-24	May-25	May-25
Salem Cr.	Apr-24	May-25	May-25
Proctor Cr.	Apr-24	May-25	Oct-23
Smithfield Cr.	Sep-86	Jul-25	May-86
Trent R. (Canal)	Sep-11	May-25	May-25
Mayhew Cr.	Jul-22	May-25	May-25
Moira R.	Jun-15	May-24	May-24
Salmon R.	Jun-16	May-24	May-24
Napanee R.	Never	May-25	Jul-15

Table 22. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
United States			
Black R.	Aug-24	May-25	May-25
Black R. (Lentic)	May-23	May-25	Aug-18
Stony Cr.	Sep-82	Jun-23	May-81
Sandy Cr.	Never	June-23	Apr-10
South Sandy Cr.	May-24	Apr-25	Apr-25
Skinner Cr.	Jun-24	Apr-25	Apr-25
Lindsey Cr.	May-25	Sep-25	Sept-25
Blind Cr.	May-76	May-23	Oct-75
Little Sandy Cr.	Jun-23	Jun-25	Jun-25
Little Sandy Cr. (Lentic)	Never	Aug-18	Aug-18
Deer Cr.	Apr-25	Sept-25	Aug-24
Salmon R.	Jun-23	Aug-25	Aug-25
Orwell Brook	Aug-21	Aug-25	Apr-14
Trout Brook	Jun-23	Aug-25	Aug-24
Altmar Cr.	Jun-23	Aug-25	Aug-25
Grindstone Cr.	May-23	Aug-25	Aug-25
Snake Cr.	Apr-25	Aug-25	Aug-25
Sage Cr.	May-25	Aug-25	Aug-25
Little Salmon R.	Jun-24	Apr-25	Apr-25
Butterfly Cr.	May-72	May-23	Jun-70
Catfish Cr.	May-25	Apr-25	Apr-25
Oswego R.			
Black Cr.	May-81	Apr-25	Apr-25
Big Bay Cr.	Sep-93	Aug-25	Aug-94
Scriba Cr.	May-19	Aug-24	Aug-24
Fish Cr.	Jun-23	Sep-25	Sep-25
Carpenter Br.	May-94	Aug-25	Aug-25
Putnam Br./Coldsprings Cr.	May-96	Aug-25	Aug-25
Hall Br.	Never	Aug-21	Aug-77
Crane Br.	Never	Aug-25	Jun-81
Owasco Outlet	Jun-19	Aug-25	Jul-22
Rice Cr.	May-72	May-23	Jun-70
Eight Mile Cr.	May-24	Apr-25	Apr-24
Nine Mile Cr.	May-25	Sep-25	Aug-24
Sterling Cr.	May-24	Apr-25	Apr-25
Unnamed Cr.	May-24	Apr-24	Apr-24
Blind Sodus Cr.	May-78	May-23	May-23
Red Cr.	Apr-18	Aug-25	May-23
Wolcott Cr.	May-79	Jun-23	Jun-23
Sodus Cr.	Apr-15	Aug-24	Jun-23
Forest Lawn Cr.	Never	Aug-25	Aug-25
Irondequoit Cr.	Never	Aug-25	Apr-09
Larkin Cr.	Never	Aug-25	May-07
Northrup Cr.	Never	Aug-25	Aug-78
Salmon Cr.	Apr-05	Aug-25	Aug-17
Sandy Cr.	Apr-14	Aug-25	Aug-14
Oak Orchard Cr.	Apr-14	Jun-23	Aug-14
Marsh Cr.	Apr-14	Jun-23	Aug-14

Table 22. Continued

Tributary	Last Treated	Last Surveyed	Last Survey Showing Infestation
Johnson Cr.	Apr-10	Jun-23	Jun-09
Third Cr.	May-72	Jun-23	Sep-72
First Cr.	May-95	Jun-23	Sep-94

Table 23. Details on application of granular Bayluscide to tributaries and lentic areas of Lake Ontario for larval assessment purposes during 2025.

Tributary	Bayluscide (kg) ¹	Area Surveyed (ha)
Canada		
Ganaraska R.	0.71	0.15
Trent R.	1.42	0.30
Napanee R.	0.95	0.20
Total (Canada)	3.08	0.65
United States		
Perch R.	0.95	0.20
Black R.	1.89	0.40
Black R.(Lentic)	0.95	0.20
Total (United States)	3.79	0.80
Total for Lake	6.87	1.45

¹Lampricide quantities are reported in kg active ingredient.

Juvenile Assessment

The juvenile life stage is assessed through the interpretation of marking rates caused by juvenile sea lamprey feeding on lake trout. Used in conjunction with adult sea lamprey abundance to annually evaluate the performance of the SLCP, marking rates on lake trout are contrasted against the target set for each lake. Marking rates on lake trout are estimated from fisheries assessments conducted by state, provincial, tribal, and federal fishery management agencies associated with each lake, and are updated when the data become available. These data provide a metric of the mortality inflicted on lake trout on a lake-wide basis.

Lake Superior

- Lake trout marking data for Lake Superior are provided by the MIDNR, Minnesota Department of Natural Resources (MNDNR), Wisconsin Department of Natural Resources (WIDNR), GLIFWC, Chippewa-Ottawa Resource Authority (CORA), KBIC, Grand Portage Band of Lake Superior Chippewa Indians, and the Ontario Ministry of Natural Resources (OMNR). Due to COVID-19 travel restrictions, lake trout marking data was not collected in 2020.
- Based on standardized spring assessment data, the marking rate during 2024 was 8.1 A1-A3 marks per 100 lake trout >532 mm, which is greater than the target of 5.0 marks per 100 fish (Figure 7). Spring assessment data from 2025 is being analyzed.

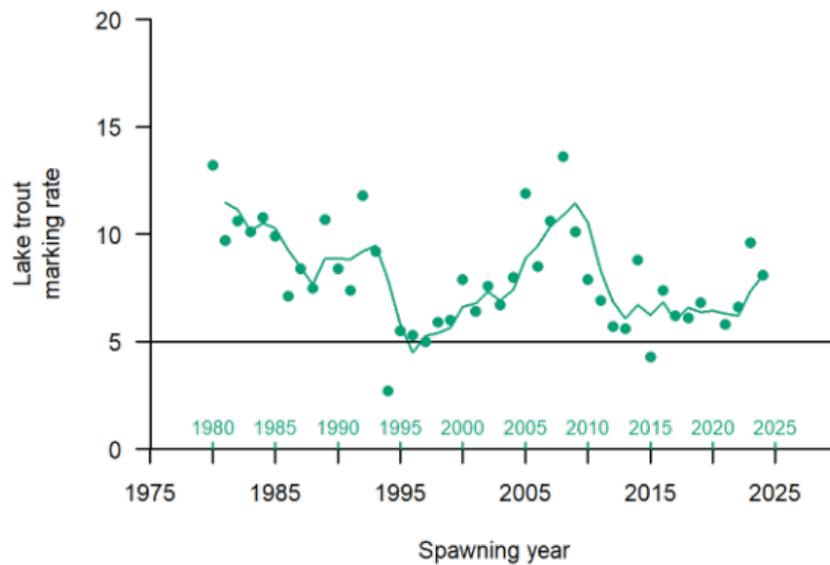


Figure 7. Number of A1-A3 marks per 100 lake trout >532 mm from standardized assessments on Lake Superior plotted against the sea lamprey spawning year, including the three-year moving average (line). The three-year average marking rate (spawning years 2022-2024) of 8.1 is greater than the target of 5.0 A1-A3 marks per 100 lake trout >532 mm (horizontal line). A second x-axis (green) shows the year the lake trout were sampled.

Lake Michigan

- Lake trout marking data for Lake Michigan are provided by MIDNR, WIDNR, Illinois Department of Natural Resources, Indiana Department of Natural Resources, CORA, Service, and United States Geological Survey (USGS).
- Based on standardized fall assessment data, the marking rate during 2024 was 2.8 A1-A3 marks per 100 lake trout >532 mm, which is less than the target of 5.0 marks per 100 fish (Figure 8). Fall assessment data from 2025 is being analyzed.

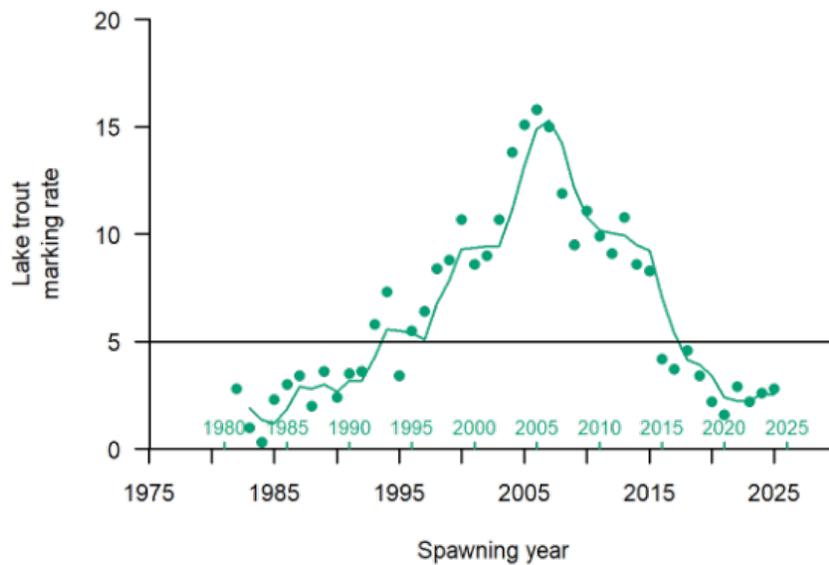


Figure 8. Number of A1-A3 marks per 100 lake trout >532 mm from standardized assessments on Lake Michigan during August-November plotted against the sea lamprey spawning year, including the three-year moving average (line). The three-year average marking rate (spawning years 2023-2025) of 2.5 met the target of 5.0 A1-A3 marks per 100 lake trout >532 mm (horizontal line). A second x-axis (green) shows the year the lake trout were sampled.

Lake Huron

- Lake trout marking data for Lake Huron are provided by the MIDNR, CORA, USGS, and OMNR.
- Based on standardized spring assessment data, the marking rate during 2024 was 6.1 A1-A3 marks per 100 lake trout >532 mm, which is greater than the target of 5.0 marks per 100 fish. Spring assessment data from 2025 is being analyzed. (Figure 9).

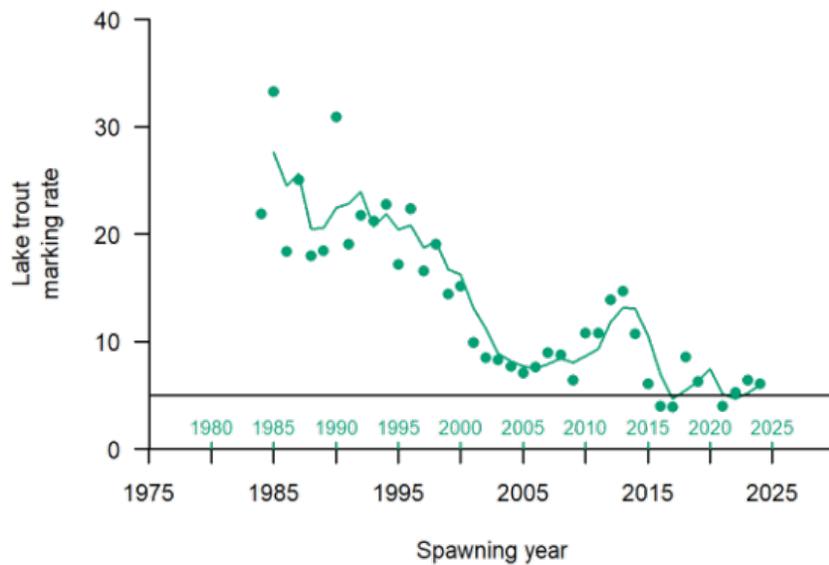


Figure 9. Number of A1-A3 marks per 100 lake trout >532 mm from standardized assessments on Lake Huron plotted against the sea lamprey spawning year, including the three-year moving average (line). The three-year average marking rate (spawning years 2022-2024) of 5.9 is greater than the target of 5.0 A1-A3 marks per 100 lake trout >532 mm (horizontal line). A second x-axis (green) shows the year the lake trout were sampled.

- Canadian commercial fisheries in northern Lake Huron continued to provide parasitic juvenile sea lamprey data in 2025, along with associated catch information including date, location, and host species. The total number of sea lamprey captured each year, along with effort data provided by commercial fishers to the OMNR, is used as an index of juvenile sea lamprey abundance in northern Lake Huron. The catch per unit effort data from 2025 has not been analyzed yet (Figure 10).

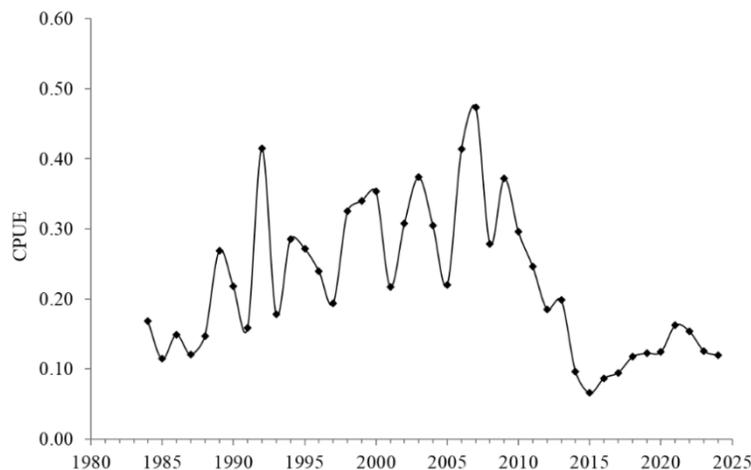


Figure 10. Northern Lake Huron commercial fisheries index showing catch per unit effort (number of parasitic juvenile sea lamprey per km of gillnet per night) for 1984-2024.

Lake Erie

- Lake trout marking data for Lake Erie are provided by the NYSDEC, Pennsylvania Fish and Boat Commission, USGS, and OMNR.
- Based on standardized fall assessment data, the marking rate during 2024 was 15.8 A1-A3 marks per 100 lake trout >532 mm, which is greater than the target of 5.0 marks per 100 fish. Fall assessment data from 2025 is being analyzed (Figure 11).

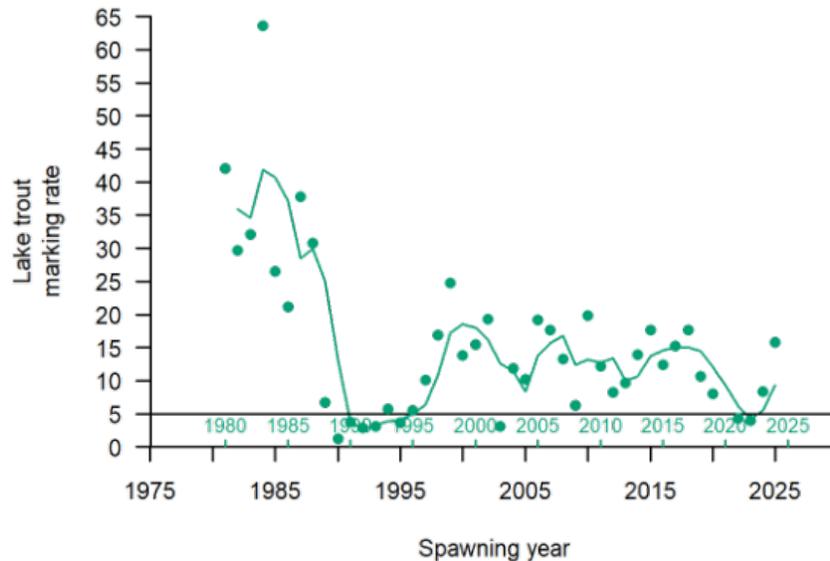


Figure 11. Number of A1-A3 marks per 100 lake trout >532 mm from standardized assessments on Lake Erie plotted against the sea lamprey spawning year, including the three-year moving average (line). The three-year average marking rate (spawning years 2023-2025) of 9.4 is greater than the target of 5.0 A1-A3 marks per 100 lake trout >532 mm (horizontal line). A second x-axis (green) shows the year the lake trout were sampled.

Lake Ontario

- Lake trout marking data for Lake Ontario are provided by USGS, OMNR, and NYSDEC.
- Based on standardized fall assessment data, the marking rate during 2024 was 2.6 A1 marks per 100 lake trout >431 mm which is greater than the target of 2.0 A1 marks per 100 lake trout target. Fall assessment data from 2025 is being analyzed (Figure 12).

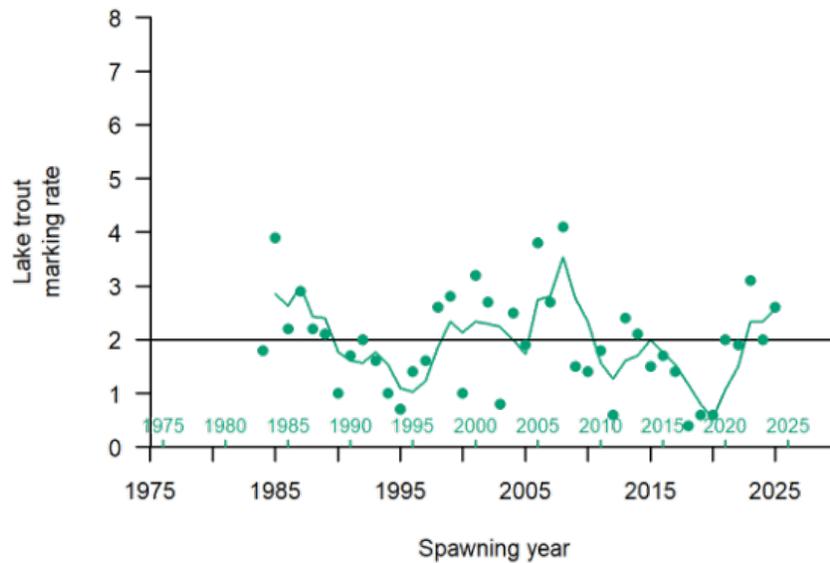


Figure 12. Number of A1 marks per 100 lake trout >431 mm from standardized assessments on Lake Ontario plotted against the sea lamprey spawning year, including the three-year moving average (line). The three-year average marking rate (spawning years 2023-2025) of 2.6 is greater than target of 2.0 A1 marks per 100 lake trout >431 mm (horizontal line). A second x-axis (green) shows the year the lake trout were surveyed.

Adult Assessment

Assessment traps used to intercept adult sea lampreys during the spawning migration are operated throughout the Great Lakes basin to remove sea lamprey from rivers, facilitate passage of native fish, and generate mark-recapture estimates of adult sea lamprey populations (Figure 13). An annual lake-wide index of adult sea lamprey abundance is derived by summing individual abundance estimates from assessment traps operated in a specific suite of streams (index streams) during spring and early summer. Stream-specific abundance estimates are derived using Petersen mark-recapture methods. In the absence of a stream-specific estimate due to an insufficient number of marked or recaptured sea lamprey, population abundance for that stream is estimated using a model based on trap efficiency and dynamics of abundance from other tributaries. The index targets are estimated as the mean of indices during a period within each lake when marking rate was considered acceptable or the percentage of the mean that would be deemed acceptable.

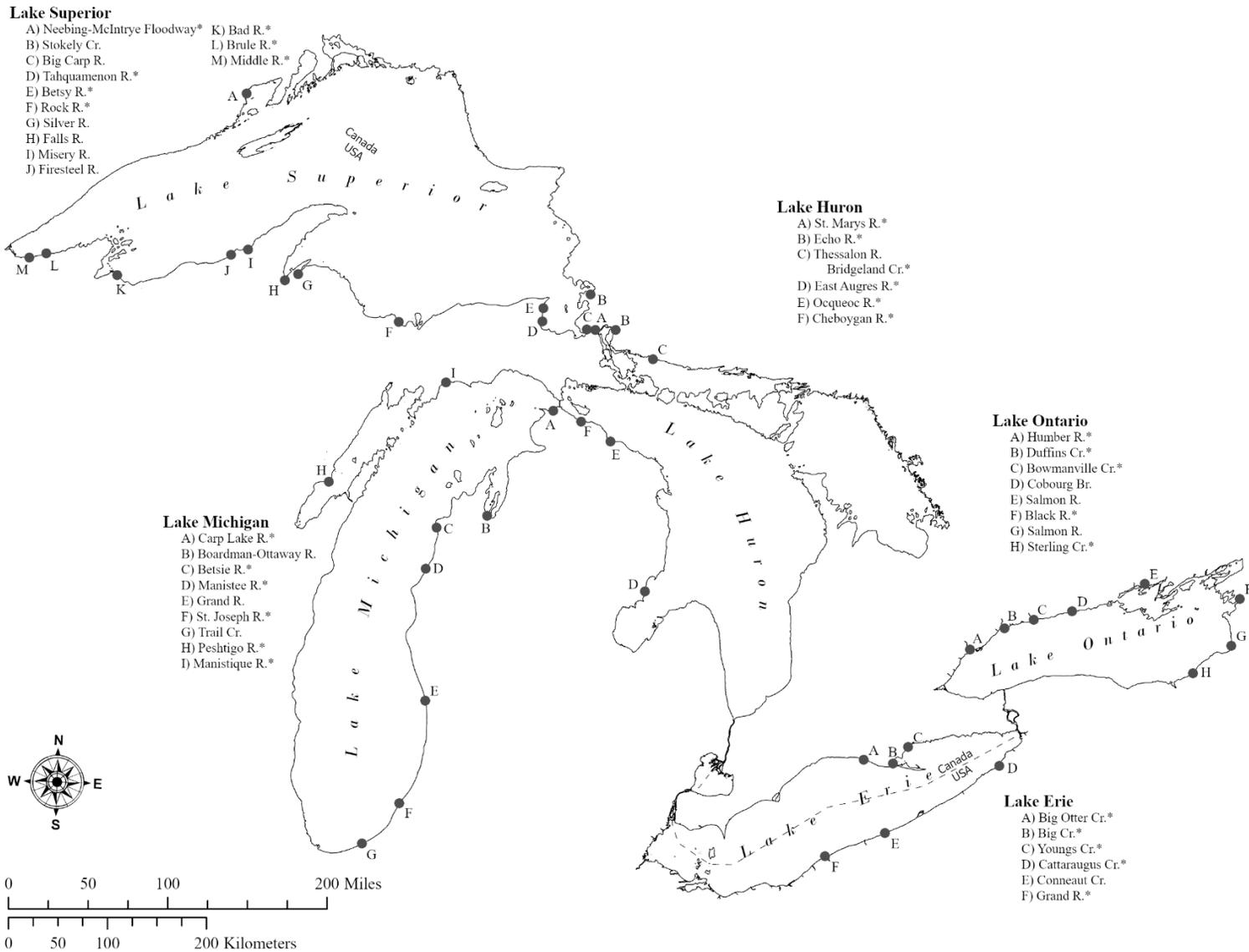


Figure 13. Locations of tributaries where assessment traps were operated during 2025. An asterisk (*) indicates index locations.

Lake Superior

- Adult sea lampreys (n=4,480) were captured in 13 tributaries during 2025, 7 of which were index locations (Table 24, Figure 13). Adult population estimates based on mark-recapture data were obtained from all seven index streams.
- The index of adult sea lamprey abundance was 40,610 (95% CI: 34,835 – 46,385), which is greater than the target of 10,421 (Figure 14).
- Adult sea lamprey migrations were assessed in the Bad, Brule, Falls, Firesteel, Middle, Misery, and Silver rivers through cooperative agreements with GLIFWC and KBIC.
- A barrier-integrated permanent trap on the Neebing River was operated for the first time in 2025 which improved trapping efficiency and operator safety.

Table 24. Information regarding adult sea lamprey captured in assessment traps or nets in tributaries of Lake Superior during 2025 (letter in parentheses corresponds to streams in Figure 13).

Tributary	Number Caught	Adult Estimate	Trap		Percent Males ²	Mean Length (mm)		Mean Weight (g)	
			Efficiency (%)	Number Sampled ¹		Males	Females	Males	Females
Canada									
Neebing R. (A)	32	39	81	26	35	461	451	218	211
Stokely Cr. (B) ³	51	---	---	51	39	479	467	250	239
Big Carp R. (C) ³	9	---	---	9	78	501	483	284	---
Total or Mean (Canada)	92	---	---	86	42	479	462	245	229
United States									
Tahquamenon R. (D)	2,233	16,134	13	79	76	467	476	230	242
Betsy R. (E)	612	2,492	24	63	67	463	461	234	242
Rock R. (F)	370	663	56	81	59	457	442	224	218
Silver R. (G) ³	4	---	---	---	---	---	---	---	---
Falls R. (H) ³	---	---	---	---	---	---	---	---	---
Misery R. (I) ³	263	---	---	---	---	---	---	---	---
Firesteel R. (J) ³	18	---	---	---	---	---	---	---	---
Bad R. (K)	697	18,494	3	8	---	---	436	---	188
Brule R. (L)	172	2,702	5	11	73	456	437	247	226
Middle R. (M)	19	86	18	3	33	415	379	194	126
Total or Mean (U.S.)	4,388	---	---	245	65	462	451	230	225
Total or Mean (for Lake)	4,480	---	---	331	59	465	456	233	226

¹The number of sea lamprey used to determine percent males, mean length, and mean weight, ²Gender was determined by using external characteristics, ³Not an index location

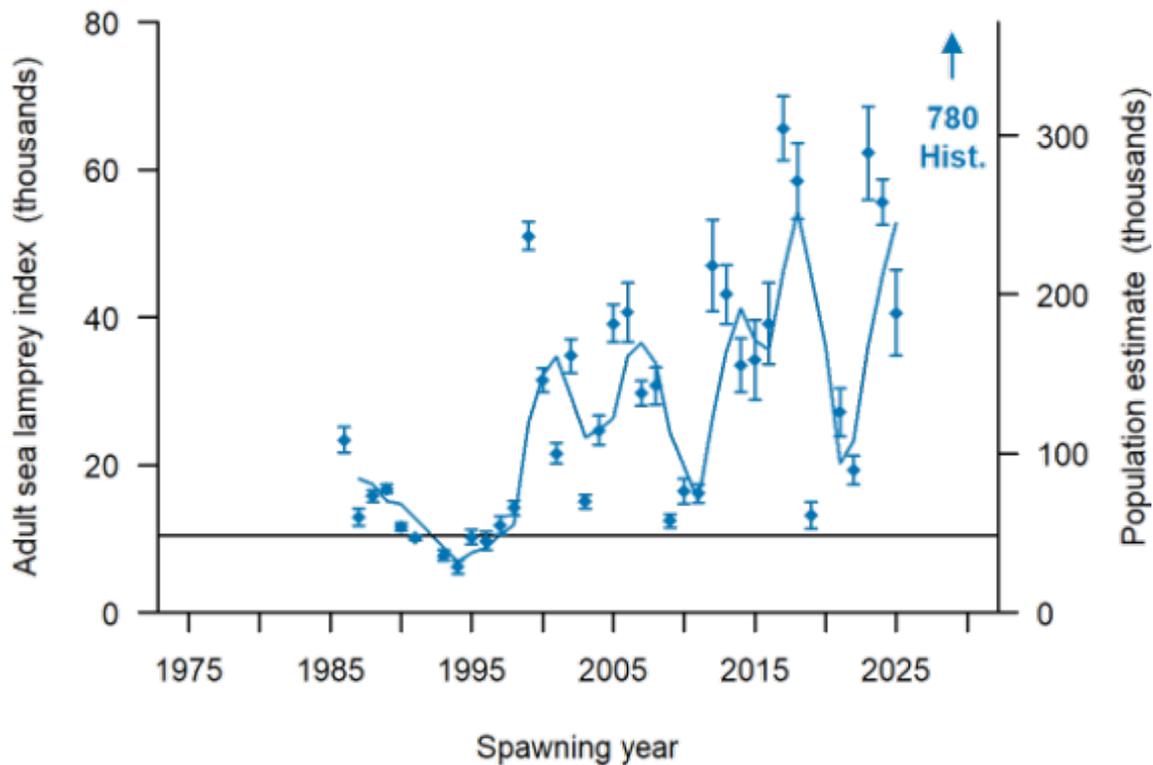


Figure 14. Index estimates with 95% confidence intervals (vertical bars) of adult sea lampreys in Lake Superior, including historic pre-control abundance (as a population estimate) and the three-year moving average (line). The population estimate scale (right vertical axis) is based on the index-to-PE conversion factor of 4.64. The adult index in 2025 was 40,610 with 95% confidence interval (34,835 – 46,385). The three-year (2023-2025) average of 52,809 was greater than the target of 10,000. The index target was estimated as the mean of indices during a period with acceptable marking rates (1994-1998).

Lake Michigan

- Adult sea lampreys (n=10,795) were captured in 9 tributaries during 2025, 6 of which were index locations (Table 25, Figure 13). Adult population estimates based on mark-recapture data were obtained from all six index streams.
- The index of adult sea lamprey abundance was 21,273 (95% CI: 20,398 – 22,148), which is greater than the target of 20,526 (Figure 15).
- Adult assessment traps set in the Grand River captured 119 sea lampreys resulting in a stream-wide population estimate of 835 lampreys. The 6th Street Dam trap site accounted for 99% of the total catch; with 1 lamprey captured in Norris Creek, a tributary located downstream of the dam.
- HBBS staff developed and deployed a sea lamprey trap at the existing MIDNR weir on the Boardman-Ottaway River. The Grand Traverse Band of Chippewa Indians in cooperation with the GLFC operated this trap to monitor the adult sea lamprey run capturing a total of 71 adult sea lampreys.

- Modifications to the entrances at the Big Manistee River trap site resulted in increased trapping efficiency in 2025. A total of 565 migrating adult sea lamprey were captured in 2025 with the reopened entrance capturing 38% of the total catch. Recapture rates improved from 3% in 2023 to 12% in 2025.
- The new Little Manistee River permanent trap is expected to be in operation for the 2026 sea lamprey spawning run.

Table 25. Information regarding adult sea lamprey captured in assessment traps or nets in tributaries of Lake Michigan during 2025 (letter in parentheses corresponds to stream in Figure 13).

Tributary	Number Caught	Adult Estimate	Trap		Percent Males ²	Mean Length (mm)		Mean Weight (g)	
			Efficiency (%)	Number Sampled ¹		Males	Females	Males	Females
Manistique R. (I)	6,403	7,876	74	197	47	500	503	273	293
Peshtigo R. (H)	1,784	2,902	61	101	51	516	512	286	294
Carp Lake Outlet (A)	1,232	3,009	40	51	51	483	491	237	254
Boardman-Ottaway R. (B) ³	71	256	27	10	60	501	497	358	325
Betsie R. (C)	193	746	24	24	54	503	512	265	303
Big Manistee R. (D)	565	4,732	12	39	46	495	487	282	274
Grand R. (E) ³	119	835	13	13	38	536	510	302	278
St. Joseph R. (F)	350	2,008	17	40	38	481	509	240	289
Trail Cr. (G) ³	78	---	---	---	---	---	---	---	---
Total or Mean (for Lake)	10,795	---	---	475	48	501	503	274	287

¹The number of sea lamprey used to determine percent males, mean length, and mean weight, ²Gender was determined by using external characteristics, ³Not an index location.

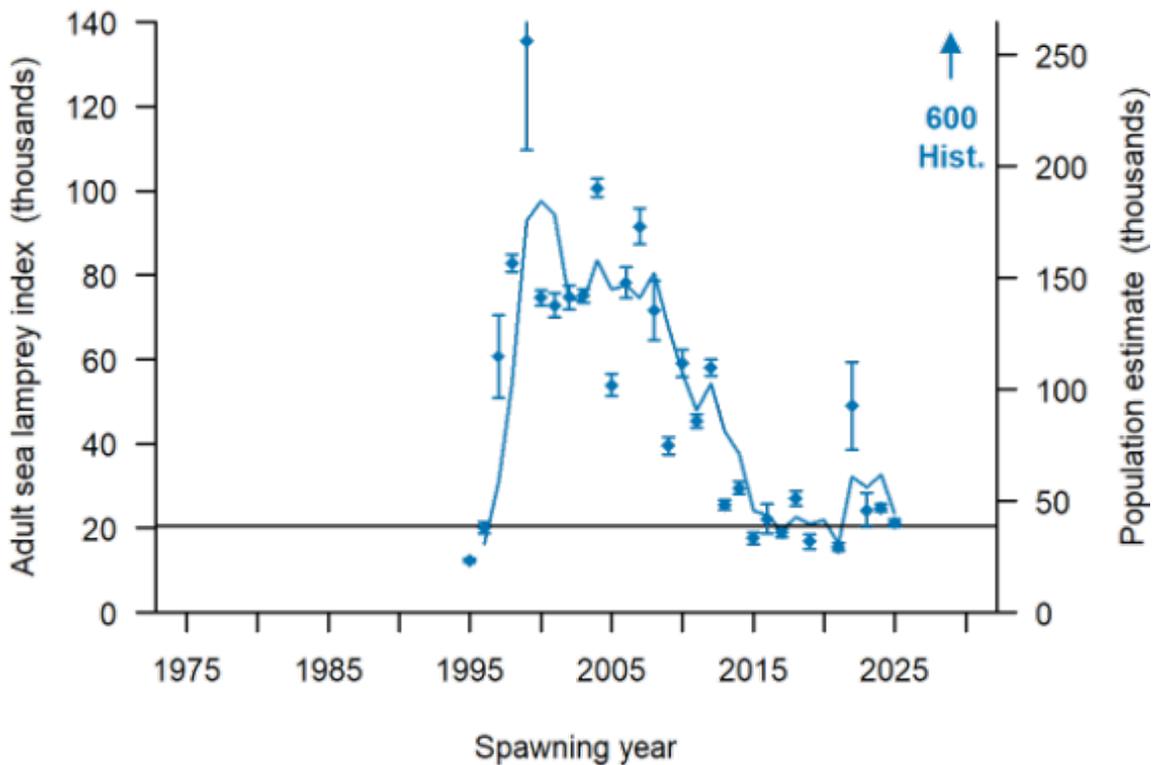


Figure 15. Index estimates with 95% confidence intervals (vertical bars) of adult sea lampreys in Lake Michigan, including historic pre-control abundance (as a population estimate) and the three-year moving average (line). The population estimate scale (right vertical axis) is based on the index-to-PE conversion factor of 1.89. The adult index in 2025 was 21,273 with 95% confidence interval (20,398 – 22,148). The three-year (2023-2025) average of 23,451 was greater than the target of 20,526. The index target was estimate as the mean of indices during a period with acceptable marking rates (2016-2021).

Lake Huron

- Adult sea lampreys (n=19,029) were trapped in 6 tributaries during 2025, all of which were index locations (Table 26, Figure 13). Adult population estimates were generated for all six index streams using mark-recapture data.
- The index of adult sea lamprey abundance was 44,591 (95% CI: 41,671 – 47,511), which is greater than the target of 31,274 (Figure 16).
- Design of a permanent sea lamprey trap on the U.S. side of the St. Marys River Compensating Works is nearly complete, and construction is tentatively planned for 2027.

Table 26. Information regarding adult sea lamprey captured in assessment traps or nets in tributaries of Lake Huron during 2025 (letter in parentheses corresponds to stream in Figure 13).

Tributary	Number Caught	Adult Estimate	Trap Efficiency (%)	Number Sampled ¹	Percent Males ²	Mean Length (mm)		Mean Weight (g)	
						Males	Females	Males	Females
Canada									
St. Marys R. (A)	2,109	5,435	38	64	53	504	512	274	293
Echo R. (B)	1,161	12,625	9	19	68	508	500	298	298
Thessalon R. (C)									
Bridgeland Cr.	3,296	4,720	69	177	48	481	493	247	284
Total or Mean (Canada)	6,566	---	---	260	51	490	498	259	286
United States									
Cheboygan R. (F)	9,275	11,504	81	282	49	501	501	267	270
Ocqueoc R. (E)	2,541	6,920	36	71	49	473	498	245	272
East Au Gres R. (D)	647	3,387	19	40	98	484	470	251	165
St. Marys R. (A)	(Canada ³)	(Canada ³)	(Canada ³)	---	---	---	---	---	---
Total or Mean (U.S.)	12,463	---	---	393	54	493	500	260	270
Total or Mean (for Lake)	19,029	---	---	653	53	492	499	259	277

¹The number of sea lamprey used to determine percent males, mean length, and mean weight, ²Gender was determined by using external characteristics, ³Catch data reported in the Canada section.

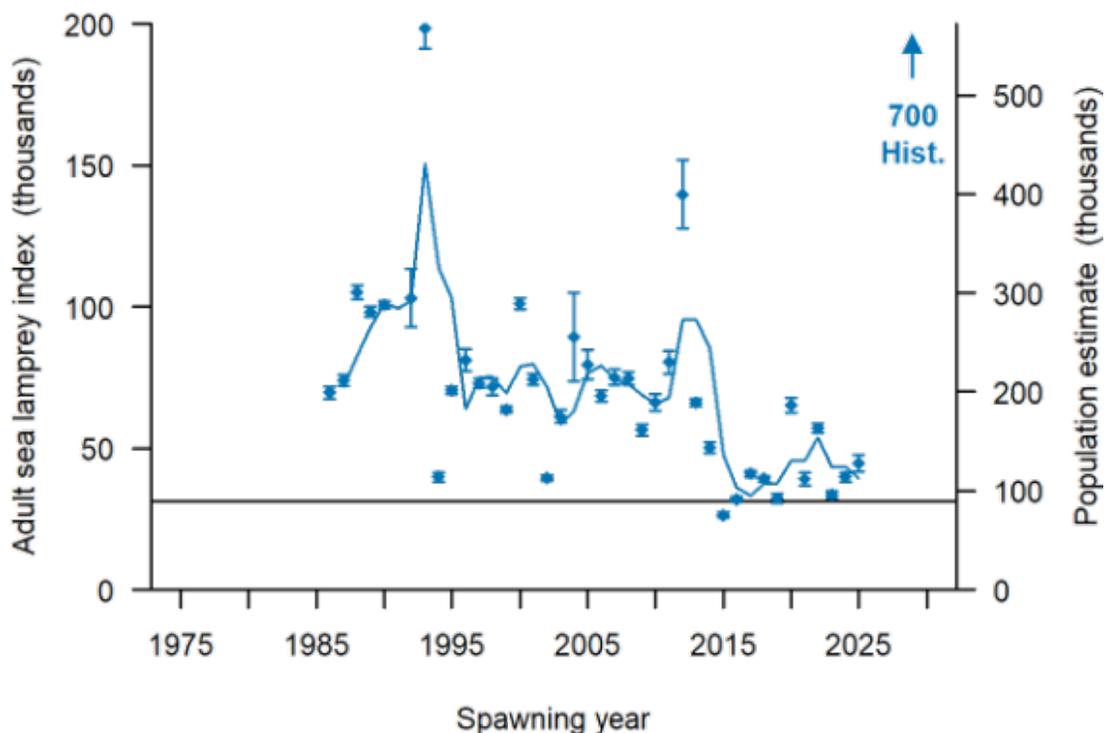


Figure 16. Index estimates with 95% confidence intervals (vertical bars) of adult sea lampreys in Lake Huron, including historic pre-control abundance (as a population estimate) and the three-year moving average (line). The population estimate scale (right vertical axis) is based on the index-to-PE conversion factor of 2.86. The adult index in 2025 was 44,591 with 95% confidence interval (41,671 – 47,511). The three-year (2023-2025) average of 39,372 was above the target of 31,274. The index target was estimated as 0.25 times the mean of indices (1989-1993).

Lake Erie

- Adult sea lampreys (n=247) were trapped in 5 index streams in 2025 (Table 27, Figure 13). Adult population estimates based on mark-recapture data were obtained from three index streams. The population estimate was modeled for Cattaraugus and Youngs creeks due to insufficient recaptures of marked sea lamprey.
- The index of adult sea lamprey abundance was 803 (95% CI: 739 – 867), which is less than the target of 3,263 (Figure 17).
- Fyke nets were deployed in Conneaut Creek during the spawning migration; one sea lamprey was captured. A seasonal electric barrier was operated from 2022 to 2025 to block sea lamprey from infesting the upper reaches of the creek. Larval sea lampreys have not been found upstream of the seasonal electric barrier since it was first deployed in 2022.

Table 27. Information regarding adult sea lamprey captured in assessment traps or nets in tributaries of Lake Erie during 2025 (letter in parentheses corresponds to stream in Figure 13).

Tributary	Number Caught	Adult Estimate	Trap		Percent Males ²	Mean Length (mm)		Mean Weight (g)	
			Efficiency (%)	Number Sampled ¹		Males	Females	Males	Females
Canada									
Big Otter Cr. (A)									
Little Otter Cr. ⁴	39	163	18	7	57	510	490	285	284
Big Cr. (B)	135	220	62	18	61	528	501	312	275
Young's Cr. (C) ⁴	4	---	---	2	50	534	510	210	253
Total or Mean (Canada)	178	---	---	27	59	524	499	299	275
United States									
Cattaraugus Cr. (D) ⁴	17	306	---	---	---	---	---	---	---
Grand R. (F)	51	111	45	23	74	519	522	319	311
Conneaut Cr. (E)	1	---	---	---	---	---	---	---	---
Total or Mean (U.S.)	69	---	---	23	74	519	522	319	311
Total or Mean (for Lake)	19,247	---	---	50	66	521	507	309	288

¹The number of sea lamprey used to determine percent males, mean length, and mean weight, ²Gender was determined by using external characteristics, ³Not an index location, ⁴ Model used for population estimate

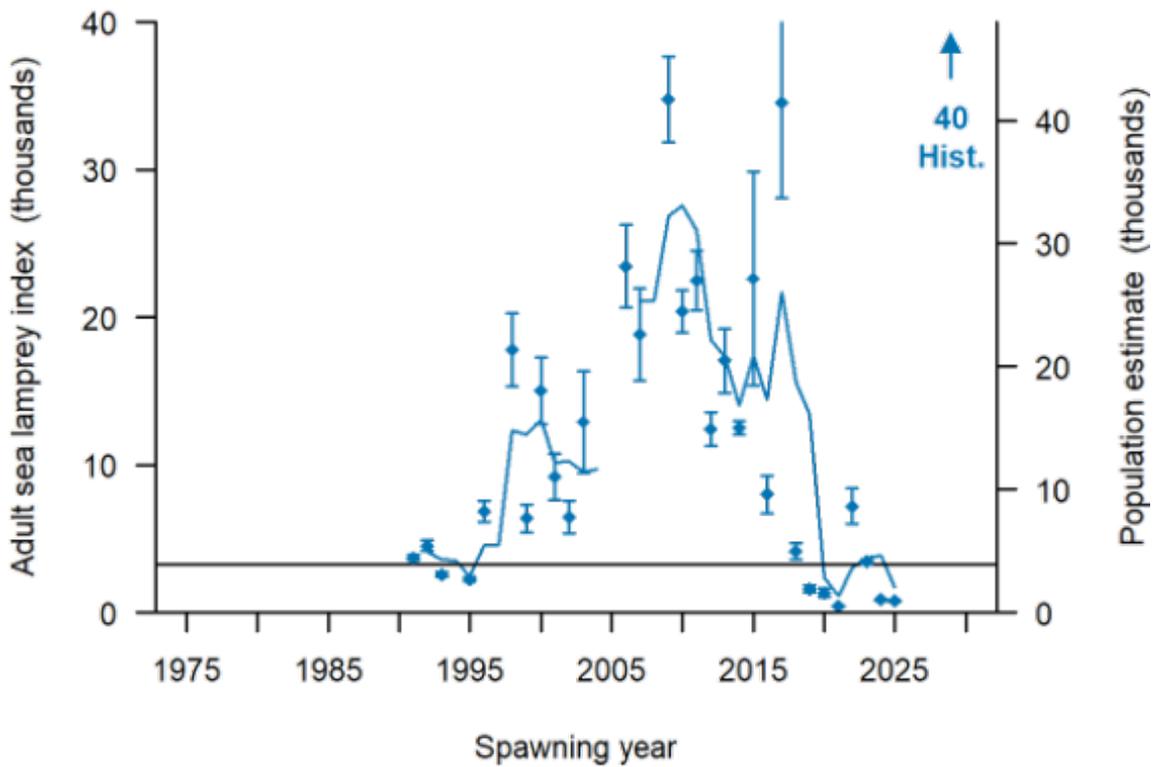


Figure 17. Index estimates with 95% confidence intervals (vertical bars) of adult sea lampreys in Lake Erie, including historic pre-control abundance (as a population estimate) and the three-year moving average (line). The population estimate scale (right vertical axis) is based on the index-to-PE conversion factor of 1.2. The adult index in 2025 was 803 with 95% confidence interval (739 – 867). The three-year (2023-2025) average of 1,709 was less than the target of 3,263. The index target was estimated as the mean of indices during a period with acceptable marking rates (1991-1995).

Lake Ontario

- Adult sea lampreys (n=4,636) were trapped in 5 index streams in 2025 (Table 28, Figure 13). Adult population estimates based on mark- recapture data were obtained from four index streams. The population estimate was modeled for Sterling Creek due to insufficient recaptures of marked sea lamprey.
- The index of adult sea lamprey abundance was 11,584 (95% CI: 10,648 – 12,520), which is less than the target of 14,065 (Figure 18).

Table 28. Information regarding adult sea lamprey captured in assessment traps or nets in tributaries of Lake Ontario during 2025 (letter in parentheses corresponds to stream in Figure 13).

Tributary	Number Caught	Adult Estimate	Trap	Number Sampled ¹	Percent Males ²	Mean Length (mm)		Mean Weight (g)	
			Efficiency (%)			Males	Females	Males	Females
Canada									
Humber R. (A)	2,777	4,286	65	113	69	501	485	290	280
Duffins Cr. (B)	200	1,804	10	9	78	506	539	266	396
Bowmanville Cr. (C)	381	862	44	75	53	497	513	285	319
Cobourg Cr. (D) ³	216	---	---	75	45	495	496	267	274
Salmon R. (E) ³	3	---	---	2	0	---	435	---	188
Total or Mean (Canada)	3,577	---	---	274	59	499	497	283	290
United States									
Black R. (F) ⁴	512	3,551	14	37	41	528	485	305	259
Salmon R.(G) Orwell Br. ³	518	2,563	19	21	81	499	505	282	320
Sterling Cr. (H) ⁴	29	---	---	---	---	---	---	---	---
Total or Mean (U.S.)	1,059	---	---	58	55	512	488	293	268
Total or Mean (for Lake)	4,636	---	---	321	58	501	496	284	286

¹The number of sea lamprey used to determine percent males, mean length, and mean weight, ²Gender was determined by using external characteristics, ³Not an index location, ⁴ Model used for population estimate

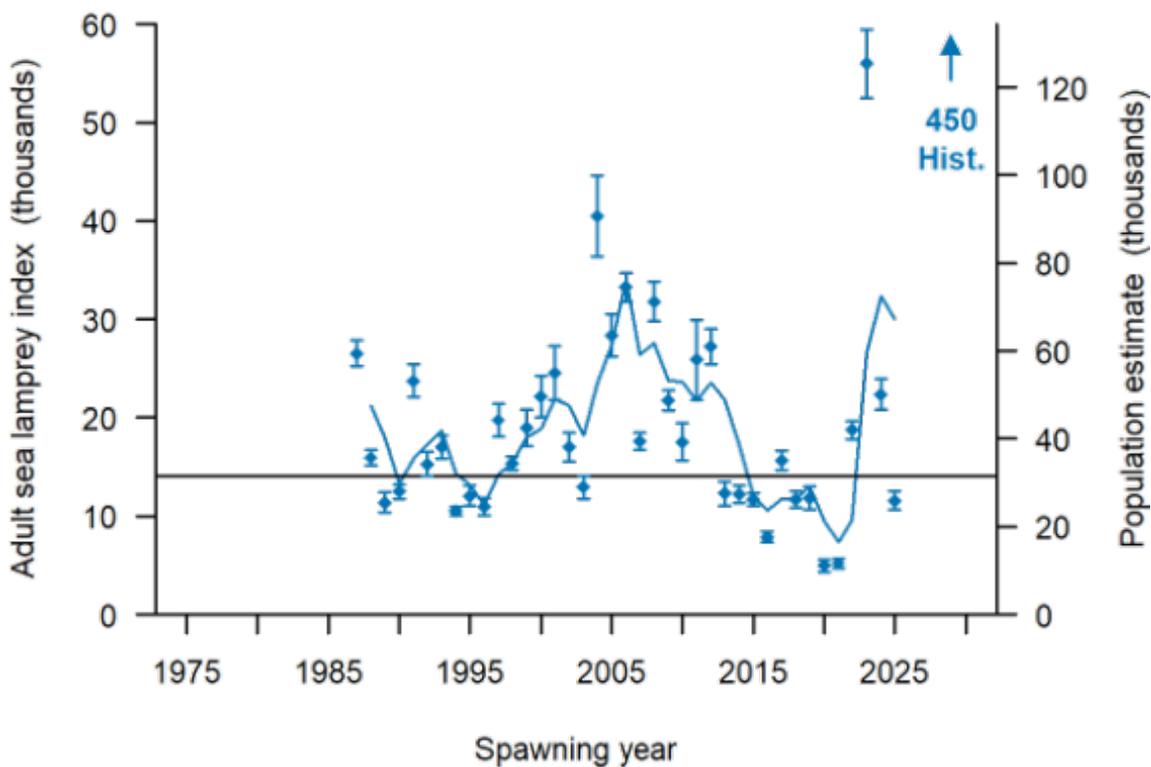


Figure 18. Index estimates with 95% confidence intervals (vertical bars) of adult sea lampreys in Lake Ontario, including historic pre-control abundance (as a population estimate) and the three-year moving average (line). The population estimate scale (right vertical axis) is based on the index-to-PE conversion factor of 2.24. The adult index in 2025 was 11,584 with 95% confidence interval (10,648 – 12,520). The three-year (2023-2025) average of 29,986 was greater than the target of 14,065. The index target was estimated as the mean of indices during a period with acceptable marking rates (1993-1997).

RISK MANAGEMENT AND ENVIRONMENTAL ASSESSMENT

The Risk Management (Service) and Environmental Assessment (Department) teams address environmental and non-target intersections with the implementation of the SLCP in the United States and Canada. This involves coordination with many federal, provincial, state and tribal agencies, Indigenous Peoples and others to minimize risk to non-target organisms.

Species at Risk Act (Canada)

Section 73 of the Species at Risk Act enables the competent minister to issue permits for activities that may affect threatened and endangered species provided that (a) all alternatives have been considered, (b) all feasible measures have been taken to minimize the impact on the species and its critical habitat, and (c) the activity will not jeopardize the survival or recovery of the species. During 2025, the Department was issued a permit for lampricide applications in 28 waterbodies that overlapped with the known occurrence of the following species at risk:

Threatened

- Black Redhorse (*Moxostoma duquesnei*)
- Eastern Sand Darter (*Ammocrypta pellucida*; Lake Ontario populations)
- Pugnose Shiner (*Notropis anogenus*)
- Silver Shiner (*Notropis photogenis*)

Endangered

- Channel Darter (*Percina copelandi*; Lake Erie/Ontario populations)
- Lake Chubsucker (*Erimyzon sucetta*)
- Redside Dace (*Clinostomus elongatus*)
- Shortnose Cisco (*Coregonus reighardi*)
- Hickorynut Mussel (*Obovaria olivaria*)

Monitoring for non-target organisms was conducted during and immediately after each lampricide application. No species at risk were observed.

Endangered Species Act (U.S.)

Section 7 of the Endangered Species Act (ESA) requires that all federal agencies consult with the Service's Ecological Services (ES) to ensure that actions that are federally funded, authorized, permitted, or otherwise carried out will not jeopardize the continued existence of any federally listed (threatened, endangered, proposed, candidate) species or adversely modify designated critical habitat.

Annual Reviews

Endangered species reviews are conducted annually with ES to assess the potential risk of proposed lampricide applications to federally listed species and develop procedures to protect and avoid disturbance.

During 2025, the following ES offices reviewed the effect of scheduled lampricide applications to listed species within their jurisdiction. Concurrence with proposed conservation measures and determinations of "no effect", "may affect, but not likely to adversely affect", or "not likely to jeopardize candidate or proposed species/critical habitat" was received by:

- Michigan Ecological Services Field Office
- Minnesota-Wisconsin Ecological Services Field Office
- New York Ecological Services Field Office
- Ohio Ecological Services Field Office
- Pennsylvania Ecological Services Field Office

Programmatic Review

Due to the broad scope of the SLCP, consultation under Section 7 of the ESA involves several states, many listed species, and hundreds of streams. To streamline the consultation process and add predictability for project planning, an informal, draft, SLCP-wide (programmatic) Section 7 review was prepared in coordination with the East Lansing Field Office and submitted to the Service's Midwest Region ES Program for consideration during 2007. The programmatic review

evaluates all SLCP activities, identifies potential impacts to protected species and critical habitats, and specifies conservation measures to eliminate or minimize disturbance. No further action has been taken on the review due to limited staffing within the ES Program.

State-Listed Species (U.S.)

Annual Reviews

Reviews are conducted annually with state agencies to fulfill regulatory permit requirements, assess the potential risk to state-listed (threatened, endangered, special concern) species, and develop procedures that protect and avoid disturbance.

During 2025, the following state regulatory offices reviewed listed species within their jurisdiction and issued permits to conduct lampricide applications:

- MIDNR
- MNDNR
- WIDNR
- New York Department of Environmental Protection
- Ohio Environmental Protection Agency (OHEPA)
- Pennsylvania Department of Environmental Protection

Field Protocols (U.S.)

Field protocols are reviewed and revised annually to protect and avoid disturbance to federally and state-listed species located near scheduled SLCP activities. The protocols provide information on each species, their known locations, and detailed conservation measures:

- Protocol to protect and avoid disturbance to federal and state-listed endangered, threatened, candidate, proposed, and special concern species, and critical and proposed critical habitats in or near Great Lakes streams scheduled for lampricide treatments and gB assessments in the United States during 2025.

During 2025, 19 federally listed species, 4 proposed species, 2 critical habitats, and the de-listed bald eagle (*Haliaeetus leucocephalus*) were identified in the protocols.

National Environmental Policy Act (U.S.)

Title I and Section 102 of the National Environmental Policy Act (NEPA) requires U.S. federal agencies to incorporate environmental considerations in their planning and decision making, which includes the details of the environmental impact of, and alternatives to, major federal actions significantly affecting the environment. During 2025, NEPA was required for cooperative agreements for the following actions:

- Conducting lampricide treatment of the Bad (Potato) River
- Assessing adult sea lampreys with traps on the following streams:
 - Brule River (Lake Superior)
 - Middle River (Lake Superior)

- Bad River (Lake Superior)
- Cranberry River (Lake Superior)
- Potato River (Lake Superior)
- Boardman-Ottaway River (Lake Michigan)
- Traverse River (Lake Michigan)
- St. Marys River (Lake Huron)
- Cattaraugus Creek (Lake Erie)

Federal Insecticide, Fungicide and Rodenticide Act (U.S.)

Adverse incident reports are prepared to comply with the U.S. Environmental Protection Agency’s (USEPA) June 16, 1998, ruling of Section 6(a)(2) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This section of FIFRA requires pesticide registrants to report unreasonable adverse effects of their products to the USEPA. The Service and Department must report unreasonable adverse effects on humans, domestic animals, fish, wildlife, plants, other non-target organisms, water, and damage to property. Adverse incident reports are required with the observed mortality of a single federally listed threatened, endangered, or candidate species, and with observed mortalities of ≥ 50 non-schooling or $\geq 1,000$ schooling fish of any non-target species or taxa during a lampricide application (Table 29).

Table 29. Summary of 6(a)(2) adverse incident reports submitted to the U.S. Environmental Protection Agency during 2025.

Lake	Stream	Species	Number	Comments
Erie	Conneaut Creek ¹	Stonecat, <i>Noturus flavus</i>	54	Sensitive species, diel pH shift
Erie	Cattaraugus Creek ¹	Stonecat, <i>Noturus flavus</i>	107	Sensitive species
Erie	Big Otter Creek ¹	White Sucker, <i>Catostomus commersonii</i>	51	Sensitive species, pH suppression
		Stonecat, <i>Noturus flavus</i>	67	
Michigan	Cedar River ¹	Mudpuppy, <i>Necturus maculosus</i>	175	Sensitive species
Michigan	Marblehead Creek ¹	Longnose Dace, <i>Rhinichthys cataractae</i>	72	Spawning sensitivity
Michigan	Crystal River ¹	Mudpuppy, <i>Necturus maculosus</i>	125	Sensitive species
Michigan	Boyne River ¹	Mayfly larvae, <i>Hexagenia limbata</i>	350	Sensitive species
Michigan	Manistique River ²	Mudpuppy, <i>Necturus maculosus</i>	60	Sensitive species
Superior	Nemadji River ¹	Stonecat, <i>Noturus flavus</i>	100	Sensitive species

¹TFM, ²TFM/niclosamide

Studies and Fieldwork (U.S. and Canada)

Non-target Surveys (Treatment)

Conneaut Creek (Ohio): The Service and the OHEPA participated in non-target mortality surveys led by the Ohio Department of Natural Resources (OHDNR) during the Conneaut Creek lampricide treatment (April 23-25). A standardized non-target sampling protocol was developed by OHDNR to meet their project objectives and communicated to all staff and volunteers assisting with collection. Approximately 11,500 m of stream were surveyed over 78.25 staff hours, collecting 135 non-target specimens, primarily stonecats (*Noturus flavus*; n=54) and mudpuppies (*Necturus maculosus*; n=49). Mudpuppies were sent to Ohio State University’s

Museum of Biological Diversity for further analysis of glochidia. All specimens collected during post-treatment surveys will be stored as a voucher collection at the Cleveland Museum of Natural History. Additionally, mussels were observed post-treatment with an extended foot, but the foot retracted after the lampricide cleared demonstrating recovery.

Muskegon River (Michigan): The Service participated in a partner-led (LRBOI) multi-agency effort (Grand Valley State University [GVSU], USFWS Green Bay Fish and Wildlife Conservation Office [GBFWCO], MIDNR) to collect young-of-the-year (YOY) lake sturgeon (*Acipenser fulvescens*) before and during the Muskegon River lampricide treatment (August 12-19). Spotlight surveys were completed with 4-5 boats each night, resulting in the capture of 40 YOY lake sturgeon (total length = 135–213 mm). After each sampling event fish were transferred to a LRBOI holding tank where they were radio-tagged for a habitat suitability study to be completed by GVSU graduate students. Fish were released on August 20 near the collection site.

Non-target Surveys (Barriers)

The Environmental Assessment Unit sampled four Lake Ontario watersheds in New York (South Sandy Creek, Salmon River; Beaver Dam Brook, Little Salmon River and Grindstone Creek) that are being considered for new low-head sea lamprey barriers. The purpose of this sampling is to determine whether there are threatened, endangered, or vulnerable fish species in the watersheds prior to proceeding with barrier planning. No species at risk were found during 2025.

Streams with purpose-built low-head barriers are sampled cyclically by the Environmental Assessment Unit to track long-term changes in fish community composition. Sampling was conducted upstream and downstream of barriers on streams in Lake Ontario (9), Lake Huron (2) and Lake Superior (3).

Toxicity Tests

Salamander Mussel: The salamander mussel (*Simpsonaias ambigua*) was proposed for federal listing as an endangered species on August 22, 2023. The mussel is extant in routinely treated sections of Conneaut Creek (Ohio and Pennsylvania), but toxicity to TFM is unknown for this species. Furthermore, salamander mussels are the only species in the genus *Simpsonaias*; there is no suitable surrogate species to test. The USGS–Upper Midwest Environmental Sciences Center (UMESC) has conducted tests to determine TFM toxicity to larval (glochidia), as well as spring- and fall-reared juvenile salamander mussels. However, sub-adult (2-5 months old) and adult (individuals ≥ 15 mm in length) toxicity testing is necessary to complete the study and is pending propagation at Genoa National Fish Hatchery (Wisconsin).

Echo River Reproduction Study

The Environmental Assessment Unit in collaboration with Garden River First Nation, Fisheries and Oceans Ecosystem Sciences Division, and MNR initiated a multi-year study focused on reproduction, abundance, movement and habitat use of native migratory fish species related to the low-head sea lamprey barrier on the Upper Echo River (Algoma, ON).

- An acoustic receiver array was deployed in the system and 11 walleye (*Sander vitreus*) and 11 redhorse spp. (*Moxostoma spp*) were acoustically tagged in 2025; tagging will continue in 2026.
- Mark-recapture methodology is being used to develop abundance estimates for the upper Echo River; 13 walleye and 385 redhorse spp. were marked to inform estimates for 2025; estimates are planned to continue throughout the duration of the study period.
- Driftnetting for larval walleye occurred at index sites above and below the barrier and will continue throughout the duration of the study period.
- Habitat Suitability Index development began in September 2025 and will continue in 2026.

TASK FORCE REPORTS

The Commission has four task forces (Lampricide Control, Barrier, Larval Assessment and Trapping). The task forces include agents with expertise in specific program areas, researchers and academics, outside experts, Lake Committee representatives, Commission staff, and other experts as needed. The task forces report to the SLCB, which established their terms of reference and works with them to recommend program direction and funding to the Commission.

The following sections report the purpose, membership, and progress on objectives charged to each task force by the SLCB. Information in parentheses refers to Goals (G) and Strategies (S) from the GLFC Vision 2021-2025 (<https://www.glfc.org/pubs/misc/StrategicVision2021.pdf>), or Objectives (Obj) for the Task Force, found in Terms of Reference.

Lampricide Control Task Force

Purpose:

Maximize the number of sea lamprey killed in individual streams and lentic areas while minimizing costs and impacts on aquatic ecosystems.

2025 Membership

Lori Criger (Chair), Cheryl Kaye, Chris Gagnon, Benson Solomon, Lauren Freitas, Chris Eilers, (Service); Bruce Morrison, Shawn Robertson, Christine Boston, Fraser Neave (Department); Nick Schloesser, Emma Wickert, Daniel Hall, Sean Lewandoski (USGS); Michael Wilkie (Wilfred Laurier University); Mike Siefkes, Ted Treska, Chris Freiburger (Commission Secretariat).

Progress towards task force objectives and goals described in the Commission Vision:

Field Season Accomplishments (G:1, S:1; Obj:1,2,4)

- 88/100 stream treatments were completed.
 - Superior: 29/30; Michigan: 26/26; Huron: 18/29; Erie: 6/6; Ontario: 9/9
 - Two additional Lake Ontario streams were added to the rank or stream selection list as geographically efficient tributaries.
 - A total of 12 streams in their entirety have been deferred until 2026.
- 18/19 lentic treatments were completed.
 - Superior: 9/9; Michigan: 4/4; Huron: 4/5; Erie: 0/0; Ontario: 1/1
 - One lentic plot has been deferred until 2026.

- St. Marys River
 - A total of 305 ha of high-density larval habitat was scheduled for treatment with gB. A few areas could not be treated due to shallow water or obstructions. The total area treated was 294 ha which included 73 ha (5 plots) that were re-treated to address potential residuals.
 - Department and Service staff collaborated to increase efficiency and completed the treatments in a two-week period.

Measure effectiveness of lampricide applications (G:1, S:3; Obj:2)

- Lampricide analysis and water chemistry data from treatments completed in 2025 were/are to be reviewed to identify potential areas that did not receive lethal lampricide concentrations during stream treatments. Information is provided to larval assessment to help guide treatment evaluation survey effort.
- Bioassays were conducted on new systems or select streams where there is concern about the presence of sensitive species or that lampricide concentrations may not be effective late in the season due to elevated water temperatures and/or seasonality effects.
 - The Cedar River (Menominee Co) is a lake sturgeon rearing stream. Future treatment restrictions (time of year) are anticipated if YOY lake sturgeon are detected in the stream. Stream conditions (discharge and water chemistries) for treating the Cedar River are optimal in the spring. Stream-side toxicity tests were conducted in early May to determine the minimum lethal concentration (MLC) for larval sea lampreys. Test results indicated that MLC was lower than predicted, likely due to spring condition factor of larvae. A lower MLC would allow for a spring treatment at lower concentrations in consideration of YOY lake sturgeon presence.
- Granular Bayluscide Workgroup
 - Issue: Control agents expressed concern about the efficacy of gB (estimated at 75%).
 - Key questions:
 - 1) What is the field efficacy of gB?
 - 2) What abiotic and biotic factors affect gB?
 - Status:
 - Workgroup formed to identify specific research needs and potential field studies.
 - Workshop held in December 2024 to identify internal research capacity and solicit participation from external researchers.
 - UMESC has begun running experiments to measuring the aqueous solubility and pKa of niclosamide and Bayluscide at multiple pH and temperature conditions. This fundamental data will help better understand and model the bioavailability of the active ingredient for gB applications.
 - UMESC is developing a research plan for experiments that will test the length of time it takes for varying concentrations of Bayluscide to kill larval sea lamprey. This will establish the exposure dose required to kill sea lamprey and inform potential changes to application rates or formulation composition.
- Prediction Chart Expansion
 - Issue: Data to predict MLC in very low or very high water chemistries were not available.
 - Status:
 - UMESC completed tests to expand both the lower and the upper ends of the prediction chart.

- To model and revise the chart as precisely as possible, additional data were collected during 2025 to fill in gaps in the chart where the original regressions were extrapolated. A review of the data and potential modeling options were presented at the 25-02 SLCB meeting.
- The revised table will include all the data that was collected with a high level of confidence (even pH/alkalinity combinations that are rarely observed in natural environments). This will allow treatment supervisors to be more confident when selecting concentrations or deciding when conditions are suitable to treat.
- Next steps: The expanded chart will include pHs that were not in the chart developed by Bills et al. (2003), therefore additional LC25 values for brown trout will need to be calculated. UMESC will request brown trout to complete these tests during 2026.

Evaluate environmental effects of lampricides (Obj:5)

- Sensitive Species – Internal Communication
 - LCTF includes a standing agenda item to discuss species-specific toxicity at each winter meeting. These discussions help the task force become more familiar with available research, identify research gaps, and reach consensus on the sensitivity of specific species. Mudpuppies were highlighted at the 25-01 meeting. Additional discussion about how to best document mudpuppy mortality during lampricide treatments occurred at the 25-02 meeting. The sensitivity of mussels will be discussed at the 26-01 meeting.
- Salamander Mussel
 - Proposed for federal listing in August 2023 and is extant in Conneaut Creek (PA/OH).
 - Biological assessment suggests that TFM treatments are not likely to affect the salamander mussel. The Service’s ES concurred and supported the 2025 treatment at a concentration ratio of <1.3xMLC.
 - The salamander mussel is the only species in its genus. Therefore, there is no suitable surrogate mussel species to test glochidia, juvenile, and adult life stages.
 - Toxicity tests (2024/2025) indicated that glochidia were not affected by exposure to TFM; however, over a 24-hr exposure there was some mortality of juveniles within the concentration range that TFM would be applied during treatment.
 - During 2025, additional tests were conducted to determine the acute toxicity of TFM to juveniles at 12, 24, 48, and 96-hr exposures. Preliminary data suggest that there could be some sensitivity at management level doses.
 - Program Risk (2024) is funding Genoa Fish Hatchery to raise salamander mussels to adults (~2 years; 2025 – 2027). UMESC will test the acute toxicity of TFM to adults during 2027.
- Save Our Sturgeon – Muskegon River
 - The Service’s Risk Management Team (RMT) partnered with LRBOI (lead agency), Service’s GBFWCO, and MIDNR to collect YOY lake sturgeon before and during the Muskegon River lampricide treatment (August 12-19).
 - A total of 40 YOY lake sturgeon were collected and relocated to a holding facility.
 - 39 lake sturgeon were radio-tagged (one was too small) for a habitat suitability study that will be completed by two GVSU graduate students.
 - 32 lake sturgeon were released where they were collected after the lampricide had cleared (some mortality occurred during the tagging/holding process).
 - No lake sturgeon were observed during post-treatment surveys.

- Conneaut Creek: Non-Target Surveys
 - The RMT collaborated with the OHDNR and OHEPA to conduct non-target mortality surveys before, during, and after the Conneaut Creek lampricide treatment (April 23-25).
 - Concentration ratios were restricted to 1.3×MLC due to the presence of the salamander mussel. About 7 miles of stream were surveyed. A total of 86 six fish were collected. Overall, non-target mortality was minimal. Of the fish collected, 63% were stonecats which are known to be sensitive to lampricide. Additionally, 49 dead mudpuppies were collected and sent to Ohio State University Museum of Biological Diversity for analysis.
- Wild Rice
 - Federally recognized tribes and Canadian indigenous communities have expressed concern regarding the effects of lampricide on wild rice. Specifically, do lampricides affect seed germination and if the plant uptakes TFM will there be residue in the seed at the time of harvest?
 - In cooperation with the Bad River Band, wild rice was exposed to lampricide during the 2024 treatment of the Bad River. The study examined whether seeds for next year's seed bank potentially absorbed TFM during the treatment.
 - Concurrently, UMESC began conducting a lab experiment to examine TFM uptake and depuration. Samples of fresh (green) rice were exposed to four TFM concentrations, 0, 1.25, 2.5, and 5.0 mg/L, which represent 0.0, 0.5, 1.0, and 2.0xMLC for 12 hours.
 - Some samples were transferred to clean water after exposure and depuration of TFM was assessed over 24 and 72 hours.

Lampricide production and inventory

- Control agents used the TFM/niclosamide mixture in several stream treatments during 2025 to lessen TFM usage.
- The LCTF continues to support UMESC in the development of a liquid niclosamide formulation that is safer and more suitable for field application.
 - Studies comparing the toxicity of the emulsifiable concentrate (EC; current formulation) to that of a suspension concentrate (SC; new formulation) have been conducted at UMESC. Results were published.
 - A field test was conducted in October 2024 to examine feasibility for application with existing equipment, compatibility with TFM, and ease of cleanup.
 - Product improved ease of application and cleanup, and its increased solubility seemed to improve quality of analysis.
 - Following the field test, an Open File Report was submitted to USGS Publishing Network.
 - Next steps: UMESC will meet with USEPA to discuss registration requirements.
- Liquid TFM
 - Weylchem USA will no longer produce TFM due to changes in the global economic climate. Weylchem USA is working with the GLFC to potentially move TFM production to one of their European manufacturing facilities. If production is moved to Europe, registration amendments will be needed in both Canada and the U.S. before the TFM can be used for sea lamprey control. Timelines for European TFM production and the requisite registration amendments to use the TFM are uncertain but will likely require a couple of years to complete. Weylchem TFM already in inventory is currently only approved for use in the U.S. but Canadian approval is expected to be completed in 2026.
 - Iofina TFM is currently dependent on ingredients from China and therefore subject to high tariff rates. To reduce the costly impacts of tariffs, Iofina and the GLFC are

exploring sourcing ingredients from other countries not subject to high tariff rates. Changing ingredients or other variables in the manufacturing process require amendments to the TFM registration in both Canada and the U.S. Analyses associated with the new ingredients required for registration amendments are currently underway. Timelines for TFM registration amendment approval are uncertain but will likely require a couple of years to complete. Iofina TFM made from ingredients from China and approved for use in Canada and the U.S. will remain available until production and registration approval of TFM made with new ingredients are complete.

- TFM Bars
 - Issue: The current TFM bar formulation contains a surfactant (F-38) that is only produced in China and may become unavailable. UMESC is working to develop an F-38 free formulation.
 - Approximately 50 prototypes with 12 different surfactants have been tested at multiple temperatures in the lab to determine how well the test bars dissolve compared to label specifications. If the bar takes too long to dissolve (>10 hrs), it may delay registration. Preliminary results look promising.
 - Agents are maintaining a two-year supply of TFM bars to prepare for potential disruption in production.

Support research and technical assistance projects in the Lampricide Theme (G:2, Obj: 8,9)

- Continue to support the RMT with studies that evaluate the risk of lampricides to non-target species.
- Continue to support Wilkie et al. and Schueller et al. as they examine temperature and seasonality effects on lampricide efficacy.
- Continue to support and assist with development of research in the lampricide theme area including but not limited to next generation lampricides, lampricide resistance, and species-specific sensitivity to lampricides.

Larval Assessment Task Force

The task force was established in 2012 and combined some objectives from the LATF and the Larval Assessment Work Group (LAWG).

Purpose:

Rank or select streams and lentic areas for sea lamprey control options and evaluate success of lampricide treatments through assessment of residual larvae.

2025 Membership

Fraser Neave (Chair); Gale Bravener, and Lexi Sumner (Department); Lori Criger, Aaron Jubar, and Becca Philipps (Service); John Hume (Michigan State University, MSU); Chris Cahill (Quantitative Fisheries Center, MSU); Sean Lewandoski (USGS); Carrie Baker, Chris Freiburger, Mike Siefkes, and Ted Treska (Commission Secretariat).

Progress towards task force objectives and goals described in the Commission Vision:

Identify all sources of larval sea lampreys (G:1; S:2; Obj:1)

- Detection and distribution surveys were conducted in 2025. Field crews delineated infested areas and recommended application points for streams being considered for treatment in 2026.
- One new sea lamprey producing tributary was found in Lake Superior (Creek No 27 near Munising) and it is expected to be selected for treatment in 2026. Black Creek, an Oswego River tributary (Lake Ontario) was found to be infested by sea lamprey for the first time in over twenty years.
- Sea lamprey larvae were detected above a barrier on Catfish Creek (Lake Ontario), necessitating treatment from above the barrier in 2025.
- Due to staffing re-allocation from Larval Assessment to Lampricide Control, larval field work in Marquette and Ludington was significantly reduced. Marquette field days decreased by over 40% compared to a typical season. Isle Royale detection surveys were postponed.
- Surveys in Munising Bay (Lake Superior) delineated a sea lamprey population extending beyond previously known locations. This lentic area is selected for potential treatment in 2026.
- Monitoring surveys on the U.S. side of the St. Clair River were completed.

Measure the efficacy of lampricide applications (G:1; S:3; Obj:1)

- Post-treatment assessments were conducted on streams treated during 2024 and early 2025.
- Post-treatment surveys completed in Watson Creek (Lake Huron) resulted in this stream being scheduled for treatment for the second time in three years.

Refine existing protocols for larval assessment and develop new methods (G:2; S:3; Obj:2,3,4)

- Ludington staff developed an early iteration of a simplified Empirical Stream Treatment Ranking (ESTR) application. This tool compiles Department and Service data and is used to select Great Lakes tributaries for lampricide treatments.
- The LAWG was tasked with reviewing the wadable and non-wadable protocols, which will be completed by a subset of larval staff from each office.
- An alternative spatial-based model for estimating the St. Marys River larval sea lamprey population has been undertaken by Task Force members.
- Both electrofishing and eDNA sampling were conducted above the dam at Monitor Mills on South Sandy Creek on Lake Ontario. No sea lamprey were detected by either sampling method.
- Geographically efficient tributaries are those that failed to make the initial cutoff in the annual treatment list but are scheduled to be treated based on several criteria (geographical proximity and larval population characteristics). Task Force members requested some minor refinements of these criteria, and a change to how lampricide control staff days are accounted for. Staff days for these streams will continue to be discounted in the annual treatment list but included in all other reporting.
- Larval Assessment staff from Marquette, Ludington, and Sault Ste. Marie assisted with larval and habitat surveys on streams that are part of SupCon.
- Larval Assessment staff collected >6,000 sea lamprey larvae to support a variety of GLFC-funded research projects during the spring and summer.

Rank or select streams and lentic areas for lampricide control (G:2; S:4; Obj:1)

- Ranking surveys, distribution surveys, and where required, habitat assessments were conducted for all streams identified as candidates for treatment in 2026.

Barrier Task Force

Purpose:

Coordinate efforts of the Department, Service, and USACE to construct, operate, and maintain sea lamprey barriers.

2025 Membership

Matt Symbal (Chair), Pete Hrodey, Kevin Mann (Service); Bruce Morrison, Nathan Coombs, and Tom Pratt (Department); Kevin Meyer and Carl Platz (USACE); Jessica Mistak (MIDNR); David Gonder (MNR); Chris Holbrook and Ted Castro-Santos (USGS); Dan Zielinski (Commission); Carrie Baker, Chris Freiburger, Mike Siefkes, and Ted Treska (Commission Secretariat).

Progress towards task force objectives and goals described in the Commission Vision:

Goal 1: Suppress sea lamprey populations to target levels.

Strategy 5: Construct and maintain a network of barriers to limit sea lamprey access to spawning habitats.

Construction, Monitoring, and Maintenance Activities of Sea Lamprey Barriers:

- Infrastructure Funding:
 - The SLCP has allocated \$9.4M in infrastructure projects for fiscal year 2025. The group is preparing for a few budget scenarios, one being a \$600,000 cut to the fiscal year 2025 U.S. allocation or increased allocation totaling either \$7M or \$13M for fiscal year 2026. Final allocation will be determined in December 2025. Budget planning to determine how to allocate the funding is underway. (G:1, S:5)
- Construction:
 - The SLCP agents are involved in over 71 sea lamprey barrier projects ranging from feasibility to construction. With the increased workload for managing these projects the agents are considering options to increase capacity. (G:1, S:5)
- Monitoring:
 - The GLFC continues to develop its Geomorphology Program through the development of survey protocols, purchase of survey grade GPS systems for data collection, and completion of stream geomorphology surveys around select sea lamprey barriers. (G:1, S:5)
 - Members remain engaged in monitoring the status for relicensing Consumers Energy hydro-dams throughout Michigan. Around the time of the BTF meeting, Consumers Energy announced the sale of their Michigan dams to a company that will continue to use the facilities to generate electricity. (G:1, S:5)
 - Service staff reviewed 73 fish passage project proposals to determine implications to the SLCP should the projects receive funding. (G:1, S:5)

- The EIS process has restarted for the Grand River 6th Dam project. This process involves evaluating alternatives for a new sea lamprey barrier. Construction for this project is not expected to occur until 2028-29. (G:1, S:5)
- A survey is being designed to understand the changes in species composition and habitat when a sea lamprey barrier is removed. The survey will be focused on the Trout River (Rogers City, MI) as the dam on this stream is likely to be removed in 2027. (G:1, S:5)
- Maintenance:
 - SLCP agents continue to complete routine maintenance, inspection, and repair of sea lamprey barriers. (G:1, S:5)
- Ensuring Sea Lamprey Blockage at Barriers:
 - The Department and Service continue to work on 15 projects to limit sea lamprey infestation in Great Lakes tributaries. (G:1, S:5)

Sea Lamprey Barrier Project Prioritization:

- The SLCP has identified 465 dams important to blocking sea lamprey and have ranked these dams based on nine sea lamprey specific metrics; including treatment cost, distance treated, structure condition, and hazard ratings. Highest ranked barriers are to be presumably best to fund for rehabilitation, construction, or maintenance. A sensitivity analysis of this modeling project will be pursued. Once finalized the ranked list will be used to develop an asset management plan of barriers for the SLCP. A draft list has been presented to Lake Technical Committees for feedback. (G:1, S:5)
- The Department is experiencing operational failures, flooding, and structural issues with their purpose-built barriers identifying the need to advocate for and secure funding for these dams. Big Carp River and Stokely Creek are the priority dams needing work and will become risks for the SLCP if not maintained or repaired. (G:1, S:5)
- The task force discussed how the SLCP Barrier Program prioritized list may overlap with fishery management and environmental priorities. Overlaps could facilitate joint actions between SLCP and other agencies. Aligning priorities can help leverage funding opportunities, streamline permitting, and build broader support for projects. (G:1, S:5)

Sea Lamprey Barrier Program and Policy:

- The task force completed a comprehensive review of the revised GLFC Sea Lamprey Barrier Policy. The updated version softens the language, better reflects program growth, acknowledges new scientific understanding, and improves communication with partners. Members will investigate merger of this policy with that of the Council of Great Lakes Fishery Agencies, which has similar policies. Once finalized the document will be public facing to facilitate interagency collaboration. (G:1, S:5)
- The task force will be investigating how to complete a dam safety program review including external audits and risk assessments to improve the SLCP's effectiveness. They will work with Department of Environment, Great Lakes and Energy Dam Safety and the Association of State Dam Safety Officials to determine a process and next steps. (G:1, S:5)

Goal 2: Increase the effectiveness and efficiency of sea lamprey control to further reduce sea lamprey populations in each Great Lake.

Strategy 4: Implement integrated sea lamprey control strategies for each lake and evaluate their effectiveness.

Sea Lamprey Barrier Research:

- Members of the task force have re-engaged the Michigan Stream Team. This team is an unofficial group of state and federal staff whose goal is to address stream related issues, share information, and collaborate on projects. The group is focused on science and training rather than regulatory or policy issues. The team reports to the Council of Lakes Committee. (G:2, S4)
- Phase 1 construction of FishPass is complete and Phase 2 has begun which is focused on demolition of spillway and installation of new facilities. An operation and maintenance agreement was carried out among key stakeholders outlining responsibilities for the new infrastructure. Research projects continue at the site while construction is being completed. (G:2, S4)

Plans for 2026:

Goal 1: Suppress sea lamprey populations to target levels.

Strategy 5: Construct and maintain a network of barriers to limit sea lamprey access to spawning habitats.

- Continue managing over 70 sea lamprey barrier projects for the SLCP and prioritize future barrier projects.
- Identify, coordinate, and plan for priority Great Lakes Fishery and Ecosystem Restoration barrier projects with the USACE.
- Deliver barrier program operation and maintenance.
- Periodically inspect existing, purpose built, and modified barriers to ensure blockage to spawning habitat.
- Conduct electrofishing and habitat assessment upstream of barriers of concern to quantify potential infestation risk; barrier inspections will be completed at locations not currently represented in the barrier database.

Goal 2: Increase the effectiveness and efficiency of sea lamprey control to further reduce sea lamprey populations in each Great Lake.

Strategy 4: Implement integrated sea lamprey control strategies for each lake and evaluate their effectiveness.

- Barrier Task Force members, participants, and control agents will participate in alarm cue research in the Ocqueoc River (Lake Huron) and Carp Lake Outlet (Lake Michigan).
- Several BTF members and participants will remain involved in technical sub-groups investigating management and engineering Grand River (Lake Michigan).
- Barrier Task Force members, participants, and control agents will implement an adaptive research plan for deploying supplemental control strategies in difficult to treat streams.

- Engage partner agencies in barrier removal discussions and request notification of project proposals.

Status of outstanding SLCB/GLFC charges:

- None currently.

Items that require SLCB decision or action:

- None currently.

Proposed Modifications to TOR or Task Force Membership:

- The BTF requests the SLCB approve Nathan Coombs to replace Gale Bravener as a member of the BTF in the role of Sea Lamprey Control Agent – Environmental Assessment for the Department.

Emerging program needs that may require addition of more than \$10,000 to next year's budget:

- Stokely Creek – A feasibility study is needed to understand and guide the repair of the cut-off channel forming around the Stokely Creek sea lamprey barrier. The Department currently has no funding to complete this work. Agents estimate that \$300,000 will be needed to complete the study.

Trapping Task Force

Purpose:

Coordinate optimization of trapping techniques for assessing adult sea lamprey populations and removing adult and transforming sea lampreys from spawning and feeding populations.

2025 Membership

Ryan Booth (Chair) and Gale Bravener (Department), Ted Castro-Santos, Scott Miehl, Sean Lewandoski and Carrie Link (USGS), Sam Hultberg and Matt Symbal (Service), Weiming Li, Anne Scott, John Hume and Michael Wagner (MSU), Heather Dawson (University of Michigan), Carrie Baker, Chris Freiburger, Mike Siefkes, and Ted Treska (Commission Secretariat).

Progress towards goals described in the Commission Vision:

Assessment of Sea Lamprey Abundance (G:1; S:4)

- Adult assessment trapping was conducted on 55 tributaries to the Great Lakes in 2025. These include the 29 index streams, for which populations will be estimated using mark-recapture, another 13 non-index streams, and 13 SupCon streams. (Obj:1)
- In total, 39,159 adult sea lampreys were captured from index and non-index streams in 2025, compared to 48,468 in 2024. (Obj:1)
- Department and Service agents continue to revise and update the standard operating procedures to keep trapping protocols consistent across index locations as much as possible to optimize the adult index. (Obj:1,6,7)
- Trap deployment options at the north side (Canada) of the St. Marys River compensation gates are being investigated to bolster the St. Marys River trap network and index estimates. Site safety and operational modifications are being made prior to installing a trap at this location.

- The Service and the USACE are pursuing the construction of a permanent sea lamprey trap at the Compensating Works in the St. Marys River. Currently, the designs are approaching the 95% completion level. Construction is planned for May 2026.
- A new permanent barrier-integrated trap was installed (fall 2024) on the Neebing River (Lake Superior) to replace portable traps used previously. The goals for the new trap were to improve operator safety, as well as increase trapping efficiency. Both objectives were achieved. The Neebing River trap is 1 of 7 sea lamprey adult index trapping sites on Lake Superior, and the only one on the Canadian side. A ceremony was held at the Neebing River barrier in Thunder Bay, ON, Canada in September 2025 to celebrate the new trap and collaboration between the Lakehead Region Conservation Authority, GLFC, and Department. (Obj:1)
- The Service and GLFC are working with USACE to construct a sea lamprey barrier to replace the one on the Manistique River. Barrier design and permitting are underway. As part of the project, two barrier integrated traps with attraction flow are included in the project. The timeline for construction award is likely 2027. (Obj:1)

Conduct or develop methods to trap adults and juvenile sea lamprey for control (G:1, S:6; G:2, S:4)

- In the fall of 2025, juvenile out-migrating sea lamprey were trapped and removed from 16 streams targeted in support of assessment, control, SupCon, or research collection efforts. Personnel from GLIFWC, KBIC, Service, Department, and USGS removed over 300 out-migrating juveniles from tributaries to lakes Superior, Huron and Michigan. (Obj:1,3)
- SupCon partners continue to test new elver nets for juvenile lamprey collection. Alterations were made in 2024 to make the nets more durable in flood events when heavy debris loads are present and there are plans to make more alterations to the design for trapping in 2026. (Obj:4)
- There continues to be interest in methods to effectively trap large open rivers. A workshop was held in June 2024. Since then, a Technical Assistance Program (TAP) proposal was submitted and approved by the Sea Lamprey Research Board (SLRB) focusing on an in-depth literature search for past fishing practices that have worked. A GLFC funded project proposal has been submitted with more focus on the in-stream work portion. (Obj:4)
- The SLRB approved a TAP proposal to examine the suitability of trammel nets as a supplemental sea lamprey control tactic in the Bad River. No sea lampreys were caught in the trammel nets in 2025. Many redhorse and other fish were caught. The group plans to deploy earlier in the spring of 2026 to try and time the spawning run more effectively. (Obj:3,4)
- The Fishery Advisory Board approved experimental trapping on the Boardman-Ottaway River, using a submerged weir design tested on Black Mallard River. The trap caught 71 sea lampreys with a population estimate of 255 sea lamprey. Trapping in 2026 should provide better estimates now that the trap is functioning as intended with trap funnel improvements. (Obj:3,4)
- Collaboration continues to be strong with the Lake Champlain Fish and Wildlife Resources Office. Allaire presented new trap designs once again that really take individual stream characteristics and morphology into consideration. (Obj:4)

Facilitation of program operations and research (G:2; S:1, S:2, S:4)

- UMESC continues to support implementation of chemosensory cues through registration and experimental use permits for pheromone and alarm cue. (Obj: 5)

- Trapping Task Force members continue to participate in research to address SLCB research priorities. (Obj: 9)
- Genetic pedigree analysis is proving an exciting tool in SupCon to reconstruct adult lamprey spawning population estimates. The task force will continue to monitor how that tool develops. (Obj: 4)

Plans for 2026:

1. Continue to operate assessment sites around the Great Lakes Basin.
2. Collect and transport live adult sea lamprey from traps to HBBS for research.
3. Continue with plans to maintain, repair and replace traps as necessary, to maintain or improve efficiency and safety.
4. Continue to review and implement trapping protocols to ensure consistent methodology of adult trapping in Canada and the U.S.
5. Continue to work with LATF/LCTF to identify and target streams for trapping transformers for control.

Status of outstanding SLCB/GLFC charges:

- SLCB Action Item (from 22-01): The SLCB supports the TTF continuing current transformer trapping efforts and directs the TTF to develop a proposal (including costs) for how transformer trapping could be included in the program for both assessment and control purposes. If a proposal is premature, what information is needed to help make decisions on deploying transformer trapping?

Status: No new update. As previously reported, a team of volunteers consisting of researchers and control program agents representing trapping, barrier, larval assessment, and lampricide control elements of the program, has been assembled to address the charge. Team members are Scott Miehl (USGS), Sean Lewandoski (USGS), Ryan Booth (Department), Sam Hultberg and Chris Gagnon (Service), Nick Johnson (USGS), and John Hume (MSU). The group has held one meeting so far which produced a large list of questions that need to be addressed prior to moving forward – the list of questions essentially amounts to a thorough literature review – Miehl is working on this review as well as data mining historic catch data to better describe the window of downstream migration and has reached out to the researchers leading the Pacific Lamprey Conservation Initiative (Ralph Lampman et al.) to determine if collaboration is possible. That group has a new initiative starting up through Pacific Northwest National Laboratory to develop improved traps for downstream migrant juvenile Pacific lamprey. Miehl and Lewandoski plan to push this SLCB charge forward in 2026.

Items that required SLCB decision or action:

- The TTF recommended the discontinuation of nest surveys on the St. Marys River.
 - The SLCB supported the recommendation to discontinue the St Marys River nest surveys beginning in 2026 and requested that a document is created outlining the effort put forth during these surveys in the event this task is revisited in future years.

Proposed Modifications to TOR or Task Force Membership:

- The TTF recommended that Gale Bravener replace Tonia Van Kempen (Department) as an official member of TTF. Gale has been appointed to the Assessment Team Lead position permanently with the Department.
 - The SLCB supported this membership change.

COMMUNICATIONS AND OUTREACH

The GLFC and its partners, the Service's Ludington and Marquette Biological Stations (LBS, MBS), the Department's Sea Lamprey Control Centre (SLCC), and USGS-HBBS, conduct a comprehensive education and outreach program. The following is a partial list of the shows and events that were attended in 2025:

Outreach and Education Events:

As part of the outreach and education program to inform the public about the Commission's programs, the health of the Great Lakes, and the importance of the fisheries to the region, the following is partial list of the shows and events that were attended:

Shows, events, and programs:

Riverside Fishing Club Presentation, Berwyn, IL—January 11 (GLFC)
Keweenaw Unitarian Universalist Fellowship Forum, Virtual—January 14 (MBS)
OCBS Fishing Workshop, Lakewood, OH—January 16 (LBS)
Chicagoland Fishing Expo, Schaumburg, IL—January 23-26 (MBS, GLFC)
New York Sportsmen's Expo, Syracuse, NY—January 26-28 (SLCC, HBBS, GLFC)
Black Lake Sturgeon Shivaree, Black Lake, MI—February 3 (HBBS)
Greater Niagara Fishing and Outdoor Expo, Niagara, NY—February 13-16 (LBS, SLCC, GLFC)
Duluth Boat, Sports, Travel show, Duluth, MN—February 13-16 (MBS, GLFC)
Rogers City High School Career Fair, Rogers City, MI—February 22 (HBBS)
MIDNR OAC Invasive Species Awareness Day, Detroit, MI—February 24 (GLFC)
North Coast Fly Fishing Expo, Kirtland, OH—March 1 (LBS, GLFC)
Ohio Charter Captains Conference, Huron, OH—March 2 (GLFC)
Conneaut Creek Wild and Scenic River Advisory Council, Virtual—March 4 (LBS)
Magnetawan First Nation Community Presentation, Magnetawan, ON—March 6 (SLCC)
Chagrin River Watershed Partners Presentation, Virtual—March 7 (GLFC)
Pennsylvania Steelhead Association, Erie, PA—March 13 (LBS)
Ultimate Sport Show, Grand Rapids, MI—March 13-16 (LBS, GLFC)
Toronto Sportsmen's Show, Mississauga, ON—March 14-17 (SLCC, GLFC)
Bad River Natural Resource Fair, Odanah, WI—March 23 (MBS)
Gratiot Ashtabula Conneaut Partnership, Virtual—March 26 (LBS)
Western Reserve Land Conservancy, Virtual—March 26 (LBS)
Sault College Fish and Wildlife SLCP Lecture, Sault Ste. Marie, ON—March 26 (SLCC)
Cranbrook Institute: Spring Into Science, Bloomfield Hills, MI—March 29 (GLFC)
Lake Michigan Sea Grant Fisheries Workshop, Scottville, MI—April 14 (LBS)
Cheboygan Earth Week Expo, Cheboygan, MI—April 20 (HBBS)
Seneca Nation Cattaraugus Community Center, Irving, NY—April 22 (LBS, GLFC)
Conneaut Creek Lampricide Treatment Tour, Conneaut, OH—April 24 (LBS, GLFC)
Earth Day, Mohawks of the Bay of Quinte, Tyendinaga, ON—April 26 (SLCC)
IL/IN Sea Grant Virtual Career Panel, Virtual—April 30 (HBBS)
Great Lakes Day in Ottawa, Ottawa, ON—May 6 (GLFC)
International Conference on Aquatic Invasive Species, Halifax, NS—May 13-15 (GLFC)
Native American Fish and Wildlife Society Annual Meeting, Welch, MN—May 13-16 (GLFC)
Lake St. Clair Water Festival, Macomb, MI—May 14 (GLFC)

Michigan Works! and MiCareerQuest Career Fair, Gaylord, MI—May 16 (HBBS)
 Bay Cliff Health Camp, Big Bay, MI—May 19-23 (MBS)
 IALGR Conference, Windsor, ON—May 20-24 (GLFC)
 Batchewana First Nation Outreach, Sault Ste. Marie, ON—May 21-22 (SLCC)
 Shedd Aquarium World Fish Migration Day, Chicago, IL—May 25 (GLFC)
 Blue Water Sturgeon Festival, Port Huron, MI—May 30-June 1 (HBBS)
 Flint Youth Kids Fishing Day, Flint, MI—June 1 (GLFC)
 Detroit Riverfront Kids Fishing Day, Detroit, MI—June 9 (GLFC)
 Gwinn Fun Daze Parade, Gwinn, MI—June 21 (MBS)
 Sands Speedway Kids Day, Marquette, MI—June 23 (MBS)
 Ohio Governor's Fish Ohio Day, Port Clinton, OH—June 24-25 (GLFC)
 Grovesfest, Fremont, OH—June 25 (GLFC)
 International Conference on the Biology of Fish, Ann Arbor, MI—June 25 (GLFC)
 Engineer's Day, Sault Ste. Marie, MI—June 27 (MBS, HBBS, SLCC)
 Art in the Garden Festival, Gaylord, MI—June 29 (HBBS)
 Skandia Days Parade, Skandia, MI—July 20 (MBS)
 Michigan Brown Trout Festival, Alpena, MI—July 21 (HBBS)
 Red Rock First Nation Outreach, Nipigon, ON—August 7 (SLCC)
 Marquette County Fair, Marquette, MI – August 7-9 (MBS)
 UP State Fair, Escanaba, MI—August 12-18 (MBS, HBBS, GLFC)
 Camden Community Outreach, Camden, NY—August 13 (GLFC, SLCC)
 Red Cliff Natural Resource Department Open House, Red Cliff, WI—August 14 (MBS)
 Shawanaga First Nation Pow Wow, Shawanaga First Nation, ON—August 15 (SLCC)
 Owen Sound Salmon Spectacular, Owen Sound, ON—August 23-September 1 (GLFC)
 Fish Field Day, Erie, PA—August 24 (GLFC)
 Sportsmen for Youth Day, Muskegon, MI—September 6 (LBS, GLFC)
 Sportsmen for Youth, Muskegon, MI—September 7 (GLFC)
 Great Outdoors Youth Jamboree, Lake Hudson, MI—September 8 (GLFC)
 Neebing River Sea Lamprey Trap Ceremony, Thunder Bay, ON—September 11 (GLFC, SLCC)
 Trail Creek Week/Creekness Stakes, Michigan City, IN—September 16-21 (GLFC)
 Rouge River Water Festival, Bloomfield Hills, MI—September 17-18 (GLFC)
 Detroit Historical Society Midtown Educator's Night, Detroit, MI—September 24 (GLFC)
 Agri-palooza, Chatham, MI—September 26 (GLFC)
 Troller's Unlimited Presentation, Schiller Park, IL—October 5 (GLFC)
 Besser Fall Harvest Fossil Fest, Alpena, MI—October 7 (HBBS)
 Toledo Zoo Sturgeon Release, Toledo, OH—October 7 (GLFC)
 Cheboygan Brewing Lamprey Killer Ale Release, Cheboygan, MI—October 13 (HBBS)
 Tittabawassee River Watershed Fisheries Workshop, Virtual—October 29 (LBS)
 Wisconsin Lakes and Rivers Partnership Presentation, Virtual—December 5 (GLFC)

PERMANENT EMPLOYEES OF THE SEA LAMPREY CONTROL PROGRAM

Fisheries and Oceans Canada

Hilary Oakman, Director, Aquatic Invasive Species and Species at Risk

Sea Lamprey Control Centre – Sault Ste. Marie, Ontario Canada

Tonia Van Kempen, Program Manager

Team Leader, Control: Bruce Morrison

Team Leader, Assessment: Gale Bravener

Lampricide Control Biologists:

Shawn Robertson, Treatment Senior Biologist

Christine Boston, Treatment Senior Biologist

Barry Scotland, Treatment Biologist

Assessment Biologists:

Vacant, Adult Senior Biologist

Fraser Neave, Larval Senior Biologist (Upper Lakes)

Lexi Sumner, Larval Senior Biologist (Lower Lakes)

Lampricide Application Coordinators:

Jerome Keen, Senior Technician

Paul Kyostia, Senior Technician

Assessment Technicians:

Jeffrey Rantamaki

Thomas Voigt

Clint Wilson

Sarah Larden

Andrea Phippen

Noah Hodson

Trevor Plumley

Ethan Curtis

Lampricide Analysis Technicians:

Melissa Leonard

Richard Middaugh

Stefanie Grand

Alicia Wellings (A)

Sean Nickle (A)

Vacant

Lampricide Application Technicians:

Sean Morrison (A)

Ryan Whitaker

D'Arcy Campbell

Sarah Daniher

Christopher Sierzputowski

Kevin Sullivan

Agata Kolodziejczyk

Kevin Finlayson

Kathryn O'Donnell

Matthew McAulay

Justin Colbourne

Connor Chessman

Chad Hill

Vacant

Vacant

Vacant

Data Management:

Matthew Lauzon, Coordinator (A)

Administrative Support:

Melanie McCaig, Finance and Administrative Officer

Vivianne Messier, Administrative Clerk

Kim Rose, Administrative Clerk

Maintenance:

Brian Greene, Facilities and Maintenance Officer

Barriers:

Ryan Booth, Senior Biologist

Vacant (Engineer)

Jeff Turcotte, Technician

Vacant (Technician)

Environmental Unit:

Nathan Coombs, Environmental Senior Biologist

Wes Armstrong, Technician

(A) – Acting

United States Fish and Wildlife Service

Amy McGovern, Aquatic Invasive Species Supervisor, Sea Lamprey Program Manager
Ludington Biological Station – Ludington, Michigan
Jenna Tews, Station Supervisor

Administrative Support:

Danya Sanders, Administrative Assistant
Vacant (CS)

Data Management and IT Support:

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Lampricide Control Fish Biologists:

Chris Eilers, Treatment Supervisor
Lauren Freitas, Treatment Supervisor
Theresa Benton, Fish Biologist
Nicholas Corniuk, Fish Biologist

Lampricide Control Lead Physical Science Technician:

Barry Shier

Lampricide Control Physical Science Technician:

Paul Seckora
Callie Kopp
Samuel Preston

(CS) – Career Seasonal

Lampricide Control Biological Science Technicians:

Justin Spear (CS) Kennedy Betser (CS)
Eric Day (CS) Adam Panek (CS)
Sheyenne Nagy (CS) Nick Poel (CS)
Vacant (CS)

Larval Assessment Fish Biologists:

Aaron Jubar, Larval Assessment Supervisor
Matthew Lipps, Fish Biologist
Vacant (Fish Biologist)

Larval Assessment Biological Science Technicians:

John Ewalt Nathan Hudak
Nick Scripps Vacant (CS)
Allen Keffer (CS) Vacant (CS)
Vacant (CS)

Maintenance Worker:

Thomas McVay

United States Fish and Wildlife Service

Amy McGovern, Aquatic Invasive Species Supervisor, Sea Lamprey Program Manager
Marquette Biological Station – Marquette, Michigan
Jess Barber, Field Supervisor

Administrative Support:

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Lisa Dennis, Administrative Assistant
Vacant (Administrative Assistant)

Data Management and IT Support:

Christopher Roberts, Data Specialist
Lynn Kanieski, Fish Biologist
Deborah Larson, Data Transcriber

Risk Management:

Cheryl Kaye, Risk Management Supervisor
Matthew Breen, Fish Biologist
Chad Andresen, Biological Science Technician

Chemist:

Benson Solomon

Maintenance Worker:

John Gilkenson

Unit Supervisor (Adult Control): Pete Hrodey

Adult Control Fish Biologists:

Matthew Symbal, Barrier and Trapping Supervisor
Samuel Hultberg
Kevin Mann

Adult Control Biological Science Technicians:

Kevin Letson Jason Pynnonen
Mark Bash (CS) Marissa Symons (CS)
Hannah Shiflet (CS) John Shiflet (CS)

(CS) – Career Seasonal

Unit Supervisor (Larval Control): Shawn Nowicki

Lampricide Control Fish Biologists:

Lori Criger, Treatment Supervisor
Christopher Gagnon, Treatment Supervisor
Jesse Haavisto, Fish Biologist
Sara Ruitter, Fish Biologist

Lampricide Control Lead Physical Science Technician:

Jamie Criger

Lampricide Control Physical Science Technicians:

Daniel Kochanski
Justin Oster
Patrick Wick

Lampricide Control Biological Science Technicians:

Kevin Hensiak (CS)	Richelle Terpstra (CS)
Ellen Cassidy (CS)	Cory Racine (CS)
Michael Olsen (CS)	Ben Reith (CS)
Sara Barrett (CS)	Randy Parker (CS)
Tiffany Opalka-Myers (CS)	Amellia Vasquez-Collins (CS)
Andrew Steffen (CS)	Vacant (CS)

Larval Assessment Fish Biologists:

Rebecca Philipps, Larval Assessment Supervisor
Nik Rewald, Fish Biologist
Shelby Herring, Fish Biologist

Larval Assessment Biological Science Technicians:

Jarvis Applekamp	Matt Elya (CS)
Nicholas Chartier	Ian Hurst (CS)
Vacant (CS)	Will Ligon (CS)
Vacant (CS)	

Appendix 1: List of Acronyms

BIPSS – Barrier Inventory and Project Selection System

BTF – Barrier Task Force

CORA – Chippewa-Ottawa Resource Authority

DFO – Fisheries and Oceans Canada

DWEF – Deep-Water Electrofishing

EC – Emulsifiable concentrate

EIS – Environmental Impact Statement

ES – Ecological Services

ESA – Endangered Species Act

FIFRA – Federal Insecticide, Fungicide, and Rodenticide Act

GBFWCO – Green Bay Fish and Wildlife Conservation Office

GEI – Geotechnical Engineers Inc.

GLFC – Great Lakes Fishery Commission

GLIFWC – Great Lakes Indian Fish and Wildlife Commission

GVSU – Grand Valley State University

HBBS – Hammond Bay Biological Station

HMCA – Huron Clinton Metroparks Authority

KBIC – Keweenaw Bay Indian Community

LATF – Lake Assessment Task Force

LAWG – Larval Assessment Work Group

LBS – Ludington Biological Station

LCTF – Lampricide Control Task Force

LiDAR – Light Detection and Ranging

LRBOI – Little River Band of Ottawa Indians

MBS – Marquette Biological Station

MIDNR – Michigan Department of Natural Resources

MLC – Minimum Lethal Concentration

MNDNR – Minnesota Department of Natural Resources

OMNR – Ministry of Natural Resources

MSU – Michigan State University

NEPA – National Environmental Policy Act

NYSDEC – New York State Department of Environmental Conservation

OHDNR – Ohio Department of Natural Resources

OHEPA – Ohio Environmental Protection Agency

RMT – Risk Management Team

SC – Suspension concentrate

SLCB – Sea Lamprey Control Board

SLCC – Sea Lamprey Control Centre

SLCP – Sea Lamprey Control Program

SLRB – Sea Lamprey Research Board

SMRT – Sterile-Male Release Technique

SupCon – Supplemental Control

TAP – Technical Assistance Program

TFM – 3-trifluoromethyl-4-nitrophenol

TTF – Trapping Task Force

UMESC – Upper Midwest Environmental Sciences Center

USACE – United States Army Corps of Engineers

USEPA – United States Environmental Protection Agency

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

WIDNR – Wisconsin Department of Natural Resources

YOY – Young-of-the-year