



**JOINT PERMIT FOR USE OF AN ALGICIDE, HERBICIDE OR FISH CONTROL CHEMICAL IN WATERS OF THE COMMONWEALTH**

**PERMIT NO.: 2518801**

In compliance with the provisions of Pennsylvania's Clean Streams Law, as amended, 35 P.S. §§ 691.1 *et seq.*, the regulations at 25 Pa. Code § 91.38, and the Fish and Boat Code, 30 Pa. C.S. § 2504(a)(1),

**US DOI Fish & Wildlife Service  
5050 Commerce Drive  
Ludington, MI 49431-9308**

is authorized to use the algicide(s), herbicide(s) or fish control chemical(s) ("pesticides") specified below, in accordance with the conditions and requirements set forth herein.

**THIS PERMIT SHALL BECOME EFFECTIVE ON APRIL 10, 2024**

**THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON APRIL 9, 2029**

<b>Municipality:</b>	<u>Multiple Townships</u>	<b>County:</b>	<u>Erie and Crawford</u>
<b>Water Body:</b>	<u>Tributaries to Lake Erie</u>	<b>Total Area:</b>	<u>N/A</u> acres
<b>Receiving Stream:</b>	<u>Tributaries to Lake Erie</u>	<b>Avg Depth:</b>	<u>N/A</u> feet

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
TFM (liquid) (Lake Erie Tributaries)	8 ppm	Other LE tributaries	N/A	N/A	1
TFM (bar) (Lake Erie Tributaries)	8 ppm	Other LE tributaries	N/A	N/A	1
TFM (liquid) (upper Conneaut Creek only)	4 ppm	Upstream Fish Creek	N/A	N/A	1
TFM (bar) (upper Conneaut Creek only)	4 ppm	Upstream Fish Creek	N/A	N/A	1
TFM (liquid) (Lower Conneaut Creek only)	5 ppm	Fish Creek to OH/PA border	N/A	N/A	1
TFM (bar) (Lower Conneaut Creek only)	5 ppm	Fish Creek to OH/PA border	N/A	N/A	1
TFM (liquid) (Conneaut Creek 2024 treatment)	4 ppm (1.3x MLC)	Fisher Road to OH/PA border	N/A	N/A	1
TFM (bar) (Conneaut Creek 2024 treatment)	4 ppm (1.3x MLC)	Fisher Road to OH/PA border	N/A	N/A	1
Niclosamide (granular Bayluscide) (active ingredient)	5 lbs/SA	Lake Erie or tributary mouths	N/A	Not to exceed 5 lbs/SA	1
Niclosimide (EC) occasionally added to TFM liquid	Not to exceed 40 ppb	Other LE tributaries	N/A	Not to exceed 40 ppb	1

**THIS PERMIT IS ISSUED UNDER THE FOLLOWING CONDITIONS:**

1. The permittee shall use pesticides strictly as described by the product label. Chemical applications shall be performed in accordance with the manufacturer's label directions, existing pesticide use laws, and any conditions imposed by local or state agencies.
2. The permittee may treat a standing body of water (i.e., pond, lake, reservoir, etc.) only when there is minimal or no outflow occurring or expected.
3. The permittee shall not treat Fish and Boat Commission approved stocked trout waters between March 1 and June 15.
4. The permittee shall not treat bass waters during the first week of the Commonwealth inland waters harvest season for bass (the first Saturday after June 11 through the following Saturday).
5. If copper sulfate will be used, the permittee shall not apply copper sulfate at a dose exceeding 0.5 mg/L Cu<sup>2+</sup> or 1.36 lbs CuSO<sub>4</sub>/acre-foot where the total hardness of the water body is less than 50 mg/L CaCO<sub>3</sub>. Where total hardness exceeds 50 mg/L CaCO<sub>3</sub>, the permittee shall not exceed a dose of 1.0 mg/L Cu<sup>2+</sup> or 2.27 lbs CuSO<sub>4</sub>/acre-foot.
6. The permittee shall not treat water bodies containing stocked or wild trout with copper in excess of 0.1 mg/L Cu<sup>2+</sup>.
7. The permittee shall treat water bodies containing very high plant densities separately, in sections, to prevent suffocation of fish. Monitoring of dissolved oxygen is recommended under these conditions.
8. The permittee is responsible for all damages to aquatic life and human health resulting from treatment.
9. Failure of the permittee or agents acting on behalf of the permittee to follow the approved specifications, conditions and requirements immediately renders this permit null and void.
10. If applicable, treatments must also comply with the terms and conditions of NPDES permit coverage.
11. The permittee shall comply with pesticide licensing requirements established by the Pennsylvania Department of Agriculture for the applications approved under this permit.
12. This permit is valid for the treatment information identified above. The permittee shall submit a new application to amend this permit if any of the following changes are proposed:
  - a. Changes to the water bodies being treated.
  - b. Increases in the maximum dose or to the number of annual treatments for any water body.
  - c. Changes in the pesticide(s) used for treatment, unless the new pesticide(s) contain the same active ingredient(s) and the same or lower percent composition of the ingredient in comparison to the pesticide(s) previously approved by DEP/PFBC.

<b>APPROVALS</b>		
<b>For the Pennsylvania Fish and Boat Commission:</b>		
<i>Heather Smiles</i>	Division Chief	04/10/2024
Heather Smiles	Title	Date
<b>Additional Requirements:</b>		
<b>For the Department of Environmental Protection:</b>		
Justin C. Dickey	Environmental Program Manager	4/10/2024
Justin C. Dickey, P.E.	Title	Date
<b>Additional Requirements:</b> <b>SEE SPECIAL CONDITIONS</b>		

**SPECIAL CONDITIONS ISSUED UNDER THIS PERMIT:**

1. Streams treated with “TFM” will follow the most recent USFWS lampricide control Standard Operating Procedures (SOP) and Pesticide Discharge Management Plan (PDMP).
2. For the 2024 treatment on Conneaut Creek – TFM concentration in Conneaut Creek main stem shall not exceed 1.3x MLC (4 ppm). Concentration banks entering Conneaut Creek main stem from tributaries shall not exceed 1.3x MLC (4 ppm). If the USFWS SLCP intends to treat with TFM greater than the concentration of 1.3x MLC on any portion of Conneaut Creek during this permit cycle, the SLCP will require prior approval from PADEP and PFBC.
3. The USFWS will immediately contact the Department and PFBC Bureau of Law Enforcement and Division of Environmental Services if observed mortality of non-target organisms occurs during or after lampricide treatments and according to their “Adverse Incident” reporting requirements.
4. Contact the PFBC Northwest Regional Office, law enforcement ([RA-FBNWRLE@pa.gov](mailto:RA-FBNWRLE@pa.gov) or 814-337-0444 and PFBC Division of Environmental Services ([hsmiles@pa.gov](mailto:hsmiles@pa.gov) or 814-359-5237), at a minimum of 48-hours prior to any lampricide application on Lake Erie tributary streams approved for treatment within this permit cycle.
5. East Branch Conneaut Creek drainage – no TFM treatment or activity resulting in the mortality of fishes is to occur above 41°53'36.09"N -80°22'34.79"W upstream of the sewage treatment facility located 0.52 miles upstream from the mouth of the East Branch Conneaut Creek to protect the only known Northern Brook Lamprey population in Pennsylvania.
6. Conneaut Creek drainage upstream of Fish Creek (mainstem only) – given the presence of the state endangered Hornyhead Chub (*Nocomis biguttatus*), TFM concentration is not to exceed 4 ppm. Any future request for an increase in concentration will require additional toxicity studies that includes a focus on young-of-year and juvenile fish.
7. Any observed mortality of Pennsylvania threatened or endangered (T&E) species is to be reported to the PFBC Division of Environmental Services and [curban@pa.gov](mailto:curban@pa.gov) or 814-359-5237) and the PADEP Clean Water Program ([ibrancato@pa.gov](mailto:ibrancato@pa.gov) or 814-332-6942). Dead specimens are to be retained, preserved and submitted to PFBC. For a current listing of PA T&E species consult Chapter 75 of the Fish and Boat Code [www.fishandboat.com/Resource/SpeciesofSpecialConcern](http://www.fishandboat.com/Resource/SpeciesofSpecialConcern).
8. If additional information regarding T&E species is confirmed via surveys conducted by the PFBC, PADEP or outside research sources in potentially treated waterways listed within this permit, the PADEP reserves the right to alter treatment operations in the permit in that particular waterway at any time.
9. For mainstem Conneaut Creek – after treatment, the USFWS will provide to the PADEP and PFBC Division of Environmental Services ([hsmiles@pa.gov](mailto:hsmiles@pa.gov)) TFM analysis graphs from each treatment location detailing time of TFM/pH sampling, desired TFM concentration, actual TFM concentration, pH MLC and TFM MAC.
10. The SLCP will present to PFBC and PADEP the methods, results, and discussion of ongoing or proposed lampricide toxicity studies involving Salamander Mussel adults and juveniles.
11. The SLCP will present to the PADEP and PFBC the methods, results, and discussion of a Mudpuppy population estimate study for the entirety of the Conneaut Creek treatment area. This study is necessary to inform PFBC and USFWS about the portion of the estimated Salamander Mussel host population that will be taken during future lampricide treatments. This study is required to occur the year before a proposed treatment. PFBC acknowledges that a portion of the Mudpuppy population will be adversely impacted during the 2024 treatment and the population will be initially reduced after treatment.
12. Efforts by the SLCP, similar to previous years, will be made to locate, capture, and revive Mudpuppies that appear to be stressed during the treatment. After recovery, these Mudpuppies are to be released back to Conneaut Creek near their capture site and after the lampricide concentration has diminished. PFBC acknowledges the long-term efficacy of this best management practice are unknown and encourages further SLCP research on the recovery of treated Mudpuppies affected by lampricide treatment.
13. Reporting of Dead Listed Species found on the project site. Any dead specimens of listed species that are found within the project action area shall be clearly photographed and frozen to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the observer has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to Section 2305 of the Fish and Boat Code (Act 1980-175, Title 30). The reporting of dead specimens is required within 24 hours to enable the PFBC to determine if species take is reached or exceeded and to ensure that the permit

conditions are appropriate and effective. Upon locating a dead specimen, the SLCP or its representatives must notify the Pennsylvania Fish and Boat Commission's Division of Environmental Services, 814-359-5237 or [curban@pa.gov](mailto:curban@pa.gov).

14. Consultation Re-initiation Procedures. SLCP staff or their representatives shall reinitiate consultation with the PFBC regarding this project under the following circumstances:
  - a) The amount or extent of take is exceeded;
  - b) New information reveals effects of the proposed project that may affect listed species in a manner or to an extent not considered in the Biological Opinion (BO);
  - c) The proposed project is subsequently modified in a manner that causes an effect to the listed species not considered in the BO;
  - d) In instances where the amount or extent of take is exceeded, any project activities causing such take must cease pending re-initiation.
15. The USFWS will submit a Letter of Treatment Concurrence to the PADEP and PFBC each year that treatments are to occur in Pennsylvania waters
16. The USFWS will provide to the PADEP final reports of surveys conducted on any potentially treated streams listed in this permit. This would include Aquatic Biological Investigations and Positive Stream Analysis (PSA) to determine population estimates / age structure of sea lampreys both pre- and post- lampricide treatment. Each year of the permit, the USFWS will provide to the PADEP a workplan of all sampling events planned on potentially treated streams in Pennsylvania.
17. Contact the PADEP Clean Water Program Aquatic Biologist Supervisor ([jbrancato@pa.gov](mailto:jbrancato@pa.gov) or 814-332-6942), at a minimum of 48-hours prior to any lampricide application on Lake Erie tributary streams approved for treatment within this permit cycle.
18. No lampricide treatments are to occur upstream of a water intake structure on Unnamed Tributary (UNT 62657) To Crooked Creek, which parallels Ables Road and enters from the East near Youngstown YMCA Camp Fitch to protect their water supply. The water intake structure is located at 42°00'13.3632 N -80°25'31.4868 W.
19. No lampricide treatments are to occur on Unnamed Tributary (UNT 62683) To Lake Erie, near Camp Lambec (known to USFWS as Camp Lambec Creek #1) to protect their water supply.
20. No lampricide treatments are to occur on Unnamed Tributary (UNT 62384) To Sixmile Run at Woodhaven Mobile Home Park to protect their water supply.
21. No lampricide treatments are to occur on Unnamed Tributary (UNT 62277) To Sixteenmile Creek, near Grahamville Reservoir to protect the Northeast Borough water supply.
22. No lampricide treatments are to occur on Unnamed Tributary (UNT 63798) To Sixteenmile Creek, near Smith Reservoir to protect the Northeast Borough water supply.
23. The USFWS shall notify the City of Erie Water Authority at a minimum of 72-hours prior to any lampricide treatments to tributaries which drain directly to Presque Isle Bay.
24. Conneaut Creek, Crooked Creek, Cascade Creek, Elk Creek and Twentymile Creek are stocked with trout the day before the opening day of the Pennsylvania trout season each year. The opening day of trout season is always the first Saturday in April (April 6 in 2024). No treatments can occur within 24-hours prior to this pre-season trout stocking and one week after the official stocking has occurred by the PFBC. If subsequent in-season trout stockings occur, avoid treatment the day of stocking and for four days after the stocking. To view the trout stocking schedule, go to [www.fishandboat.com](http://www.fishandboat.com)
25. Steelhead (smolts) are stocked annually in most named tributaries to Lake Erie. These annual stockings occur from mid-February to early-April. If TFM treatments are to occur during that period on any stream where smolts are potentially planted, coordination with the PFBC and USFWS must occur during this period.
26. Fall season treatments (after September 1<sup>st</sup>) on any tributary stream to Lake Erie in Pennsylvania needs to be coordinated through the PADEP and PFBC (Bureau of Law Enforcement and Division of Environmental Services) so conflicts with steelhead fisherman can be avoided or minimized. Contact with these two agencies must occur to allow ample time for planning and media consideration.
27. A news release is required prior to any lampricide treatment and should be distributed to all potential media outlets which could include but not limited to local newspapers. Drafting and distribution of the news release should be completed in coordination with the PFBC's Communications Director, Michael Parker ([michparker@pa.gov](mailto:michparker@pa.gov)) including review and approval of written content and distribution timeframe. Signage is required to be posted with a notice to treat at all PFBC fishing access

areas of the treated tributary, canoe/kayak boat launches, any access points where a primary, boost or volumetric flush application is to occur within a treated waterway.

28. USFWS notice to the public is to include a clear statement that fish caught during and after the lamprey treatment are safe for consumption.
29. All municipalities whose borders are within a stream scheduled for lampricide treatment must be contacted at a minimum of 48-hours prior to any lampricide application.
30. For Conneaut Creek, if salamander mussel Critical Habitat is finalized, the USFWS SLCP will consult with the USFWS Ecological Services Endangered Species Unit for the potential "Take" of that species.