

August 24, 2022

Chris Korleski, Director
U.S. Environmental Protection Agency
Great Lakes National Program Office
77 W. Jackson Boulevard (G-17J)
Chicago, IL 60604-3511

RE: Maumee Area of Concern Restrictions on Fish and Wildlife Consumption Beneficial Use Impairment Removal Action

Dear Director Korleski,

In a partnership between the Ohio Lake Erie Commission, Ohio EPA and many local entities, the State of Ohio has worked towards the restoration of the beneficial use impairments (BUI) identified for the Maumee Area of Concern (AOC).

As a result of partnerships and progress made over the past three decades, the Ohio Area of Concern program is submitting its BUI removal recommendation for Restrictions on Fish and Wildlife Consumption in the Maumee AOC. The Ohio Lake Erie Commission, in partnership with Ohio EPA and with the support of the Maumee AOC Advisory Committee, requests your concurrence with the enclosed recommendation to remove the Restrictions on Fish and Wildlife Consumption BUI in the Maumee AOC.

This will be the second BUI removed in the Maumee AOC. These continued improvements in the Maumee AOC are a result of the work by local stakeholders and organizations as well as the state and federal AOC programs. We look forward to working with U.S. EPA and the local AOC Advisory Committee to continue restoration progress in the Maumee Area of Concern.

Sincerely,



Joy Mulinex
Director, Ohio Lake Erie Commission

Enclosure

cc: Tiffani Kavalec, OEPA-DSW
Lynn Garrity, OLEC
Leah Medley, USEPA-GLNPO
Cherie Blair, OEPA

Removal Recommendation for Restrictions on Fish and Wildlife Consumption Beneficial Use Impairment in the Maumee AOC



Lower Maumee River
Photo credit: B. Blair Jr.

August 2022



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Purpose

The purpose of this document is to recommend the removal of the Restrictions on Fish and Wildlife Consumption Beneficial Use Impairment (BUI) from the Maumee Area of Concern (AOC). This document provides information and documentation of fish consumption advisories and snapping turtle assessments and advisories compared to applicable State of Ohio BUI Restoration Targets.

Background of Maumee AOC

In 1987, the US-Canada Great Lakes Water Quality Agreement amendments formed the Area of Concern (AOC) program. This program, specific to the Great Lakes Region, identified 43 “Areas of Concern” surrounding the Great Lakes that exhibited such degrees of environmental degradation that they posed risks to the overall health of the Lakes, the wildlife that depend on them, and the people that use the resources.

The Maumee AOC is one of those areas of concern. It covers 787 square miles, encompassing the greater-Toledo region and areas around Toledo in Ottawa, Wood, and Fulton counties. In total, 57 communities of all sizes are spread across this area, and roughly 558,000 people call it home. The Maumee AOC, shown in Figure 1, includes approximately 45 miles of Lake Erie shoreline and over 1,900 miles of stream in 11 independent watersheds including all of Swan Creek, Ottawa River (Ten Mile Creek), Duck Creek, Otter Creek, Cedar Creek, Grassy Creek, Crane Creek, Turtle Creek, Packer Creek, Toussaint River, the lower 23 miles of the Maumee River and a portion of Maumee Bay. Land use in the AOC is diverse, representing urban and rural developments, agriculture, and pockets of native forests, prairies, and wetlands.

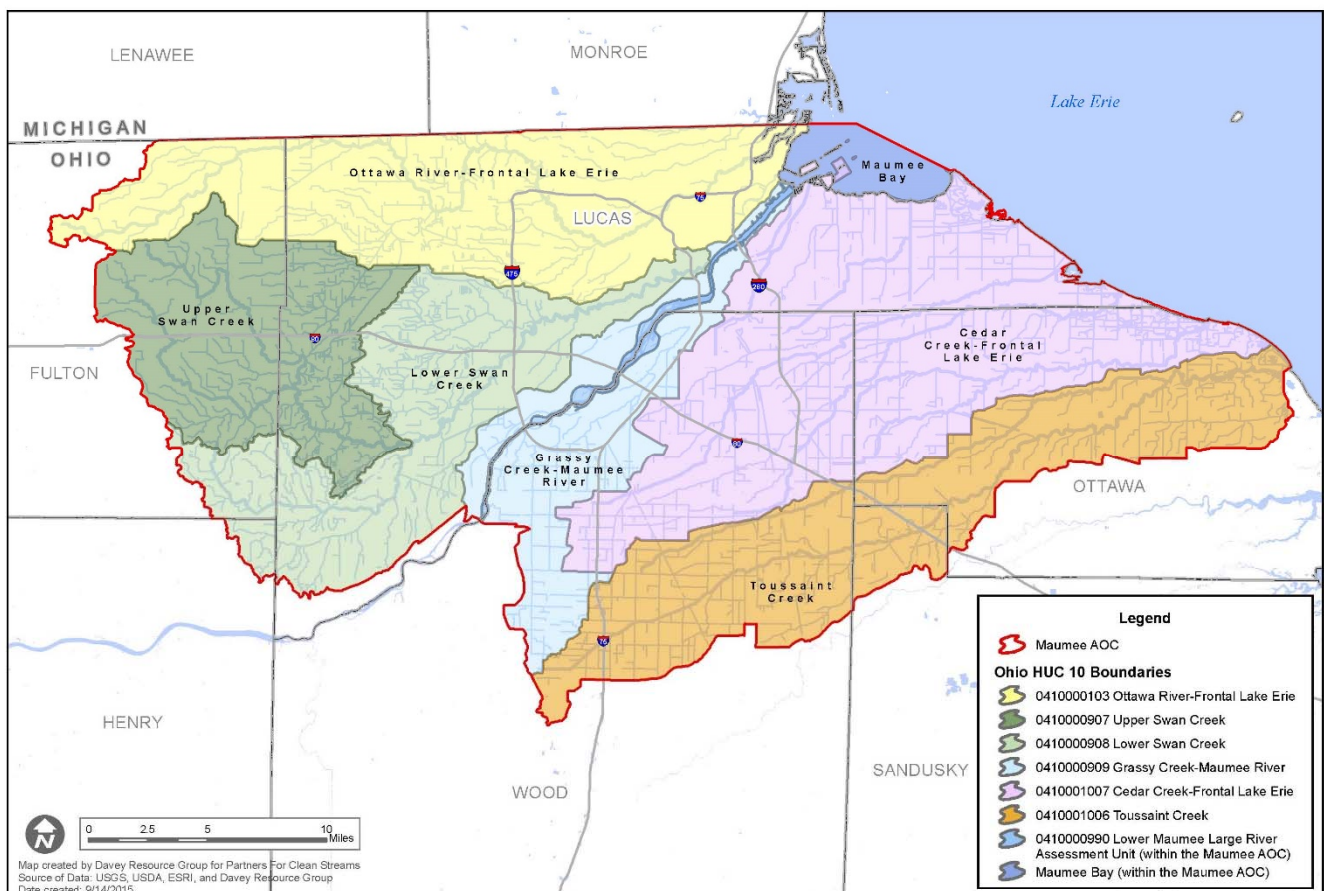


Figure 1: Maumee Area of Concern

The work of the Maumee AOC and its partners strives to improve water quality of the rivers and streams in the AOC by correcting and removing biological or chemical issues, also known as Beneficial Use Impairments (BUIs). The Maumee AOC originally had 10 of the 14 BUIs identified as impaired. BUI 12 was removed in 2015.

Status of Beneficial Use Impairments listed in Maumee AOC

- BUI 1. Restrictions on fish and wildlife consumption
- BUI 3. Degradation of fish and wildlife populations
- BUI 4. Fish tumors or other deformities
- BUI 6. Degradation of benthos
- BUI 7. Restrictions on dredging activities
- BUI 8. Eutrophication or undesirable algae
- BUI 10. Beach closings
- BUI 11. Degradation of aesthetics
- BUI 12. Added cost to agriculture or industry – Removed 2015
- BUI 14. Loss of fish and wildlife habitat

Restrictions on Fish & Wildlife Consumption BUI Listing and Removal Criteria

The Ohio Areas of Concern Program developed an AOC Delisting Guidance Document, *Delisting Guidance and Restoration Targets for Ohio Areas of Concern* (Ohio EPA 2020). This document outlines for the Restrictions on Fish and Wildlife Consumption BUI, the International Joint Commission (IJC) listing guideline as:

IJC Listing Guideline

An impairment will be listed when contaminant levels in fish or wildlife populations exceed current standards, objectives or guidelines, or public health advisories are in effect for human consumption of fish or wildlife. Contaminant levels in fish and wildlife must be due to contaminant input from the watershed.

Also included in the *Delisting Guidance and Restoration Targets for Ohio Areas of Concern* (Ohio EPA 2020) are Ohio's BUI listing guideline and BUI restoration target. Ohio's listing guideline and restoration target for this BUI are indirectly based on tissue contaminant concentrations but relies on the experience and expertise of the state's fish tissue monitoring and consumption advisory program to review data and post consumption frequencies for various species. The posting of consumption advisories as issued by the Ohio Department of Health are the basis of the listing and restoration criteria. The State of Ohio BUI listing guideline is:

State of Ohio Listing Guideline

This beneficial use shall be listed as impaired if:

- 1) An advisory or restriction to fish or wildlife consumption issued by the Ohio Department of Health in the AOC is more stringent than one meal per month or Lake Erie advisory.

The current state of Ohio restoration target for BUI 1 is:

State of Ohio Restoration Target

For Fish Consumption:

In the riverine waters upstream from the lake affected waters (lacustrary or fresh water estuary), the fish consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than one meal per month; **AND**

In the lake affected waters (lacustrary or fresh water estuary), the fish consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than the current Lake Erie advisories; **OR**

If consumption advisories in the AOC are more stringent than the respective state-wide or lake-wide advisories and a study was conducted that demonstrates either (1) the source of contamination originates outside of the AOC or (2) the fish tissue concentrations within the AOC are not statistically different than non-AOC areas, reference sites or region-wide, background concentrations.

For Wildlife Consumption:

Wildlife consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than one meal per month.

Potential Data Sources

- State of Ohio Sport Fish Consumption Advisories
- Ohio EPA fish tissue data
- Other fish tissue studies

The full text of this BUI Restoration Target from Ohio EPA (2020) is included in Appendix A of this document.

Ohio Fish and Wildlife Consumption Advisories

Unfortunately, some fish in Ohio's waters are contaminated with harmful chemicals. Over time, eating contaminated fish can cause health problems if advisories are not followed. In general, some fish tend to be lower in contaminants than others. Ohio provides sport fish consumption advisories on fish based on the body of water. Some species of fish from certain Ohio waters should not be eaten at all.

In Ohio, fish and wildlife consumption advisories are issued by the Ohio Department of Health (ODH) for sport fish caught in Ohio waters. ODH, in cooperation with the Ohio Environmental Protection Agency (OEPA) and the Ohio Department of Natural Resources (ODNR), issues this advice under Ohio law (Ohio Revised Code Chapter 3701).

Fish tissue samples are collected throughout Ohio annually and updated consumption advisories are released each year. Ohio EPA is responsible for collecting Ohio fish tissue samples for Ohio's Fish Tissue Monitoring Program. Fish tissue collection is performed in accordance with the *Ohio Fish Tissue Field Collection Manual* (Ohio EPA 2021). For fish tissue contamination, the levels of the contamination are tiered in accordance with five levels of consumption frequency that have been developed to be protective of human health.

The fish contaminant monitoring sites are typically selected to coordinate with other water quality monitoring survey sites on an annual basis. The *State of Ohio Cooperative Fish Tissue Monitoring and Sport Fish Tissue Consumption Advisory Program (last revised October 2010)* (State of Ohio 2010) document provides the assessment procedures for evaluating fish tissue data and advisory decision making. In cases where an advisory decision is needed for constituents not addressed in the protocol, the protocol is used as a framework for developing appropriate thresholds.

Ohio adopted the *Protocol for a Uniform Great Lakes Sport Fish Advisory* (1993) and the 2007 addendum to establish fish consumption advisories for polychlorinated biphenyls (PCBs) and mercury, respectively (State of Ohio 2010). These are the contaminants that drive most of the advisories in Ohio waters and consumption advisory limits are shown in Table 1.

Table 1: Ohio Fish and Wildlife Consumption Advisory limits for select contaminants (State of Ohio 2010)

Contaminant	Unrestricted	2 meals per week	1 meal per week	1 meal per month	1 meal per 2 months	Do Not Eat
PCBs (mg/kg)	<0.050	--	0.051 to 0.220	0.221 to 1.000	1.000 to 1.999	> 1.999
Mercury (mg/kg)	<0.050	0.051 to 0.110	0.111 to 0.220	0.221 to 0.999	--	> 1.000
Lead (mg/kg)	<0.086	--	0.086 to 0.375	0.3751 to 1.622	1.6221 to 3.243	>3.243

Consumption advisories are based on a recommended meal frequency and size:

- “one meal/week” means that an adult should eat no more than 4 to 6 ounces (cooked) of that fish each week, and that a child should eat no more than 2 to 3 ounces (cooked) of that fish each week.
- “two meal/week” means that an adult should eat no more than 8- to 12 ounces (cooked) of that fish each week. Keep in mind that this could either be one large meal totaling 8-12 ounces, or any combination of smaller meals that equals 8 to 12 ounces. For a child, “two meal/week” means that a child should eat no more than 4 to 6 ounces (cooked) of that fish each week.

Like fish, turtles can also accumulate contaminants that can be passed on to people who eat turtles. In general, contamination in turtles tends to be stored in the fat, certain organs, and the eggs of female turtles. The Ohio Sport Fish Consumption Advisory recommends that anyone eating turtles should eat only the muscle meat (back straps, neck muscle, etc.) and discard the fat, skin, organs, blood, and eggs before preparing the meat (ODH 2021) as shown in Appendix D.

Summary of BUI Assessment, Status, and Actions

Fish consumption advisory sampling is conducted in several listed Maumee AOC watersheds including the Maumee River, Swan Creek, Ottawa River, Toussaint River, and all Lake Erie Tributaries which could include Crane Creek, Cedar Creek and Turtle Creek.

BUI 1: Restrictions on Fish and Wildlife Consumption was listed as an impaired BUI in the *Maumee AOC Stage 1 Report* (Ohio EPA 1990) for three reasons:

- Fish consumption advisory for carp and catfish in all Lake Erie waters due to PCBs.
- Fish consumption advisory for all species due to PCBs in Ottawa River from RM 5.7 to mouth.
- Fish consumption advisory for all species due to PCBs in Hecklinger Pond.

In 2005, the Ohio EPA created *Delisting Targets for Ohio Areas of Concern* for each BUI (Ohio EPA 2005). The state based this guidance upon the U.S. Policy Committee Delisting Principles and Guidelines (USPC 2001), the International Joint Commission’s Delisting Guidelines (IJC 1991), and various Ohio water quality standards, guidance, and policies.

From 2012 to 2014, Ohio conducted a comprehensive evaluation of its BUI Delisting Targets to ensure they were measurable and achievable for the AOC Program. The outcome of that review was Ohio’s new *Delisting Guidance and Restoration Targets for Ohio Areas of Concern* (Ohio EPA 2014). Upon the release of those updates, a re-evaluation of the Maumee AOCs BUIs was conducted. For BUI 1: Restrictions on Fish and Wildlife Consumption, Ohio’s AOC Program relies on Ohio’s annual consumption advisory program as the BUI restoration target. Based upon a review of the 2015 consumption advisories (see advisory Tables in next section), it was determined that status of this BUI was still impaired for certain areas and species in the Maumee AOC for both fish and wildlife:

- FISH:
 - Ottawa River (for one species in middle reach, all species in lower reach)
 - Maumee River (for multiple species in lower reach/lacustrary)
- WILDLIFE:
 - Ottawa River (for snapping turtles)

Current Fish Consumption Status

As explained above, the last two areas of the Maumee AOC not meeting the BUI Restoration Target were the Ottawa River and Maumee River. In the Ottawa River, from 1991 to 2011 the fish consumption advisories are shown in Tables 2 and 3. Yellow boxes indicate where BUI restoration target is not being met.

Table 2: Ohio's Ottawa River (Toledo) sport fish advisory, 1991 to 2011 covering the lower 17 miles (ODH 2011)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Ottawa River (Toledo)	Interstate 475 north of Wildwood Preserve, Toledo to Maumee Bay, Lake Erie (Lucas County)	All Species	Do Not Eat	PCBs

Ohio EPA collected fish tissue in the middle and upper reaches of the Ottawa River watershed in 2011. That data yielded a reduction to the all species “Do Not Eat” advisory in the middle reaches (I-75/I-475 interchange to Wildwood Preserve Metropark) to a “one meal per month” for some species in 2012. The “Do Not Eat” advisory remained for common carp in the middle reach and all species in the lower reach.

Table 3: Ohio's Ottawa River (Toledo) sport fish advisory, 2012 to 2016 with “Do Not Eat” posted for carp below RM 11.7 (Secor Road) and all other species below RM 9 (Auburn Ave). (ODH 2012)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Ottawa River (Toledo)	Main St. in Sylvania to Secor Rd. at University of Toledo (Lucas County)	Common Carp	One/month	PCBs
	Secor Road at University of Toledo to Auburn Ave. (Lucas County)	Common Carp	Do Not Eat	PCBs
	Auburn Ave. to mouth (Lake Erie) (Lucas County)	All Species	Do Not Eat	PCBs

In 2015 and 2016, fish tissue was collected in the area under an advisory at that time (middle and lower reaches) of the Ottawa River. That survey yielded a reduction of the remaining “Do Not Eat” advisory to “one meal per month” or less restrictive for only a few species in 2017, thus achieving the BUI restoration target for the Ottawa River (Table 4).

Table 4: Ohio's Ottawa River (Toledo) sport fish advisory, 2017 to present (ODH 2017)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Ottawa River (Toledo)	Main St. in Sylvania to mouth (Lake Erie) (Lucas County)	Channel Catfish, Common Carp, Golden Shiner	One/month	PCBs
		Pumpkinseed Sunfish	One/week	PCBs

In the Maumee River, in 2012 one of the species (channel catfish) under the fish consumption advisories did not achieve the BUI Restoration Target (Table 5).

Table 5: Ohio's Maumee River sport fish advisory as of 2012-2014 (ODH 2012)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Maumee River (Toledo)	Waterville to mouth (Lake Erie) (Lucas, Wood Counties)	Channel Catfish	One/2 months	PCBs
		Freshwater Drum, Smallmouth Bass	One/month	PCBs
		Smallmouth Buffalo	One/month	Mercury, PCBs
		Common Carp, Flathead Catfish	One/month	Mercury

The Maumee River consumption advisories were updated in 2015 to indicate different advisories for different species at a finer scale (Table 6). The channel catfish advisory remained at “one meal per two months” in the Maumee AOC, thus not achieving the BUI Restoration Target.

Table 6: Ohio's Maumee River sport fish advisory as of 2015-2017 (ODH 2015)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Maumee River	Defiance to Perrysburg (Defiance, Henry, Lucas, Wood counties)	Channel Catfish	One/month	PCBs
		Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Common Carp, Flathead Catfish	One/month	Mercury, PCBs
		Channel Catfish	One/2 months	PCBs
	Perrysburg to Interstate 75 (Lucas, Wood counties)	Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Common Carp, Flathead Catfish	One/month	Mercury, PCBs
		Channel Catfish	One/2 months	PCBs
		Smallmouth Bass	One/month	PCBs
	Interstate 75 to mouth (Lake Erie) (Lucas County)	Freshwater Drum, Smallmouth Buffalo, Common Carp, Flathead Catfish	One/month	Mercury, PCBs
		Channel Catfish	One/2 months	PCBs
		Smallmouth Bass	One/month	PCBs

Ohio EPA collected fish tissue in 2016 and 2017 in the Maumee River lacustrary which showed the tissue contaminant levels in channel catfish had reduced to below the “one meal per month” threshold. Based on this data, in 2018 the channel catfish consumption advisory was reduced from “one meal per two months” to “one meal per month,” thus achieving the BUI restoration target (Table 7).

Table 7: Ohio's Maumee River sport fish advisory; 2018 - present (ODH 2018)

Body of Water	Area Under Advisory	Species	Meal Frequency	Contaminant Driving Advisory
Maumee River	Defiance to Perrysburg (Defiance, Henry, Lucas, Wood counties)	Channel Catfish	One/month	PCBs
		Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Common Carp, Flathead Catfish	One/month	Mercury, PCBs
	Perrysburg to Interstate 75 (Lucas, Wood counties)	Channel Catfish, Common Carp	One/month	PCBs
		Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Flathead Catfish	One/month	Mercury, PCBs
	Interstate 75 to mouth (Lake Erie) (Lucas County)	Channel Catfish, Common Carp, Smallmouth Bass	One/month	PCBs
		Freshwater Drum, Smallmouth Buffalo, Flathead Catfish	One/month	Mercury, PCBs

Since this BUI was listed as impaired in 1990 (Ohio EPA 1990), the conditions have progressively improved in the Maumee AOC. A Great Lakes Legacy Act project was conducted in the Ottawa River in 2010 that included the removal of PCBs and other contaminants (*for more information visit <https://www.greatlakesmud.org/ottawa-river---maumee-aoc.html>*). No specific AOC management actions related to fish or wildlife consumption have been conducted in the lower reach of the Maumee River. Similar improvements have been seen in other Ohio AOCs (i.e., Cuyahoga River AOC) during similar time periods regarding fish consumption advisories.

See Appendix B for a complete list of fish advisories for all waters within the Maumee AOC where consumption advisories exist.

Current Wildlife Consumption Status

In 1997, Ohio EPA collected snapping turtles (*Chelydra s. serpentina*) from six locations across the Lake Erie watershed and analyzed the meat (muscle), liver, and fat tissues as part of a special monitoring project. These six locations were:

- Ashtabula River
- Black River
- Lake Rockwell
- Maumee River
- Ottawa National Wildlife Refuge
- Ottawa River



Figure 2: Channel Catfish collected in Maumee River (May 2017)
Photo credit: C. Blair, Ohio EPA

Three of these locations were in the Maumee AOC (Maumee River, Ottawa River, and Ottawa National Wildlife Refuge). (Dabrowska 2006) Based on this 1997 study, consumption advisories were posted in five of the six locations. Those consumption advisories are still posted for all five locations (ODH 2021). Of the three sites in the Maumee AOC, only the Ottawa River fails to meet the BUI target.

Ohio’s consumption advisory program had not conducted a follow-up to the 1997 study to re-evaluate the status of the wildlife consumption advisories, so in 2017 and 2018 the Ohio EPA had two sampling events conducted to update the status of this BUI. Since these studies were focused upon possible BUI removal, turtles were not collected in the areas of the Maumee AOC that were not impaired for this BUI (Maumee River and Ottawa National Wildlife Refuge) or the other locations from the 1997 study that were outside of the Maumee AOC. Turtles were only collected in Ottawa River from the same lower reach using the same methods as the 1997 study. The need for these follow-up studies was especially relevant in the Ottawa River due to the Great Lakes Legacy Act contaminated sediment removal project in 2010 (for more information visit <https://www.greatlakesmud.org/ottawa-river---maumee-aoc.html>), and the subsequent contact advisory removals in 2011 and 2017, and fish consumption advisory reductions in 2012 and 2017.



Figure 3: Snapping Turtle Collected in Ottawa River (May 2018)
Photo credit: C. Riddle, Ohio EPA

Table 8 provides a summary of the Ottawa River data from the three snapping turtle sampling events and resulting PCB measurements. Both female and male snapping turtles were collected in 1997 (8 males and 4 females), and they weighed between 3.2 and 8.0 kg (males ranged 3.4-8.0 kg; females ranged 3.2-4.4 kg). The turtles collected in 2017 were both males and weighed 9.5 and 13 kg. The turtles collected in 2018 were all males and weighed between 7.5 and 13.0 kg. See Appendix F for photo log and collection details of turtles collected in 2018.

Table 8: Summary data from Ottawa River snapping turtle sampling events for PCB detections. (Dabrowska 2006, TestAmerica, 2017, TestAmerica 2018)

Year of Study	Turtles Collected	1 meal/month Threshold for PCBs	Tissue Type	Minimum detected for PCBs	Maximum detected for PCBs	Average Level for PCBs
1997	8 males, 4 females	0.22 to 1.0 mg/kg	Muscle	0.09 mg/kg	0.25 mg/kg	0.146 mg/kg (Males) <0.049 mg/kg (Females)
			Fat	11.9 mg/kg	67.9 mg/kg	37 mg/kg (Males) 26.95 mg/kg (Females)
2017	2 males	0.22 to 1.0 mg/kg	Muscle	0.028 mg/kg	0.031 mg/kg	0.063 mg/kg
			Fat	27 mg/kg	130 mg/kg	48.08 mg/kg
2018	5 males	0.22 to 1.0 mg/kg	Muscle	0.046 mg/kg	0.2 mg/kg	0.083 mg/kg
			Fat	20 mg/kg	56 mg/kg	42.36 mg/kg

The results of the 2017 and 2018 studies (TestAmerica 2017, TestAmerica 2018) showed that PCBs were still the primary contaminant of concern for turtles in the Ottawa River. PCBs were detected in all muscle (meat) samples, but they were all under the “one meal per month” consumption threshold (0.22 mg/kg) (which is the BUI target). However, PCBs were also detected in all fat samples, and most levels were greater than the “one meal per month” consumption threshold (1.0 mg/kg) that applies to muscle. There is no advisory threshold for fat bodies as they are not considered the consumable portion of the animal.

Table 9 provides a summary of the Ottawa River data from the three snapping turtle sampling events and resulting mercury and lead measurements. The average mercury levels in both muscle and fat bodies decreased slightly between the 1997 and 2018 studies. Lead was not detected in any of the samples the 2017 or 2018 study, which is an improvement from the 1997 samples.

Table 9: Summary data from Ottawa River snapping turtle sampling events for Mercury and Lead detections. (Dabrowska 2006, TestAmerica, 2017, TestAmerica 2018)

Year of Study	Turtles Collected	Tissue Type	Minimum detected for Mercury (mg/kg)	Maximum detected for Mercury (mg/kg)	Average Level for Mercury (mg/kg)	Minimum detected for Lead (mg/kg)	Maximum detected for Lead (mg/kg)	Average Level for Lead (mg/kg)
1997	8 males, 4 females	Muscle	0.019	0.236	0.059	0.088	0.143	0.1
		Fat	<0.004	0.008	0.016	0.089	0.274	0.106
2017	2 males	Muscle	0.048	0.078	0.063	ND	ND	ND
		Fat	ND	ND	ND	ND	ND	ND
2018	5 males	Muscle	0.046	0.064	0.053	ND	ND	ND
		Fat	0.0094	0.014	0.011	ND	ND	ND

ND = not detected

In general, PCBs concentrate primarily in adipose tissue (fat) of turtles. PCBs are often transferred from gravid females to eggs in utero. The concentrations in the eggs depend on whether contaminated fat reserves are present in gravid females. Female turtles fast during the nesting season, which may be the reason for the mobilization of the stored PCBs and alteration of PCB concentrations in different tissues. The PCBs are transferred to eggs, mostly in the yolk (Ware 1994).

There is evidence that turtle age, length, weight, and gender influences PCB accumulation, with male snapping turtles typically being larger and heavier than females (Herbert 1993). The PCB concentrations found in males are often significantly higher than females. This reduction in females may be due to transfer of PCBs into the eggs (Ware 1994). It has been found that mean PCB levels in fat were 40.4 mg/kg in males and 8.4 mg/kg in females (Albers 1986).

Differences in the size and gender of individuals in the samples between the 1997 and 2017/2018 samples may make definitive interpretation of the PCBs levels observed in these samples more difficult. Two examples illustrate these challenges. The observed reductions in PCB levels in turtle muscle (meat) (Table 8) may be an underestimate of actual reductions since the 2017 and 2018 samples did not include females, and females typically have lower levels of PCBs. The observed slight increase in PCB levels in fat bodies between the 1997 and 2017/2018 samples was unexpected given the removal of PCB contaminated sediments in the Ottawa River. However, rather than a true increase in PCB levels, these results could be an artifact of the differences in turtle sexes and sizes/ages between the study years. In 2017 and 2018, most of the turtles included in the samples were substantially larger than the male turtles collected in 1997. Because of their longevity and relatively large lipid reserves, snapping turtles have the potential to accumulate and store various contaminants including PCBs throughout their lifetime.

Figures 4 and 5 illustrate a comparison of the three sampling events for PCBs to the consumption advisory thresholds. Even though all muscle (meat) samples were below the “one meal per month” threshold in all studies of the Ottawa River, Ohio has continued the consumption advisory for snapping turtles in the Ottawa River due to the bioaccumulation of PCBs in the fat bodies and the exposure risk to those who prepare the turtles for consumption. Following the 2017/2018 studies, Ohio added precautions to the state advisory document regarding how to reduce exposure to contamination when cleaning/preparing a turtle for

consumption, including a recommendation to carefully remove and discard any fat and eggs present, and all organs, such as the liver and kidneys. Only the meat (muscle) should be saved for eating (ODH 2021). See Appendix C, D and E for a complete list of turtle advisories and regulations for waters within the Maumee AOC and the cleaning recommendation.

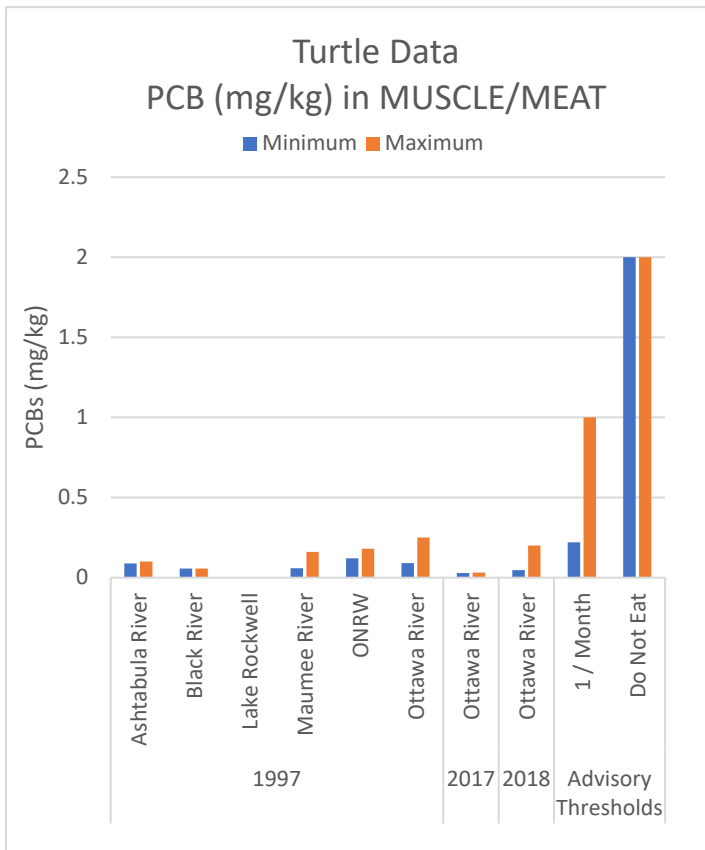


Figure 4: Snapping Turtle Muscle (Meat) Body Data (Dabrowska 2006, TestAmerica, 2017, TestAmerica 2018)

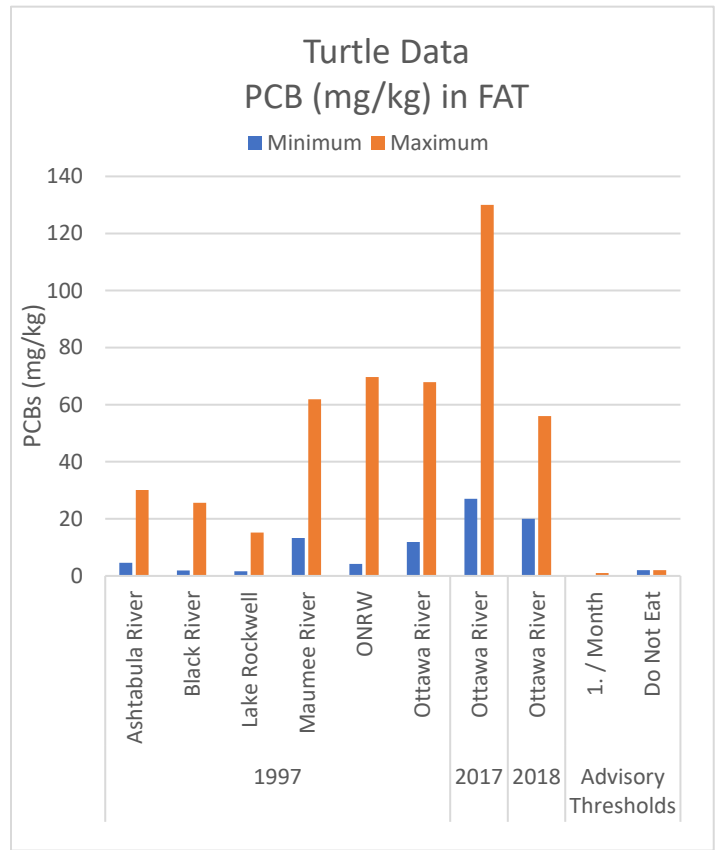


Figure 5: Snapping Turtle Fat Bodies Data (Dabrowska 2006, TestAmerica, 2017, TestAmerica 2018)

Conclusions

Over the past 30 years since the impairment was designated, consumption advisories in the Maumee AOC have become less restrictive as ongoing sources have been eliminated and contaminated sediment has been remediated. The Ohio AOC program concludes that the Restrictions for Fish and Wildlife Consumption in the Maumee AOC should be removed because:

- **All fish species in all waters** of the Maumee AOC are **safe to consume** at a frequency of **“one meal per month” or less restrictive**, thus meeting the BUI Restoration Target for fish.
- **Snapping turtle muscle (meat)** in the Ottawa River of the Maumee AOC are within the contaminant levels designated as **safe to consume at a frequency of “one meal per month” or less restrictive**, thus meeting the BUI Restoration Target for wildlife, even though an advisory remains as a precaution to minimize the possible exposure risk to contaminated fat bodies when cleaning/preparing snapping turtles for consumption.

- Turtles that were exposed to and bioaccumulated contaminants prior to contaminated sediment removed from the Ottawa River in 2010 may remain. Since the life expectancy of snapping turtles in the wild ranges from 11 to 45 years, it is expected that consumption advisories due to fat tissue conditions could remain for many years into the future. Guidance on cleaning/preparing snapping turtles for consumption have been put in place to inform the public. (see ODH reference below for link)

A 21-day public comment period was issued by Ohio EPA and Ohio Lake Erie Commission on July 18,2022. No public comments were received during the public comment period.

Removal Statement

Based upon improvements over the years, including the remediation of the Ottawa River and results of fish and wildlife consumption studies, Ohio EPA and Ohio Lake Erie Commission recommend the removal of the Restrictions on Fish and Wildlife Consumption BUI from the Maumee AOC.

This recommendation to remove the Restrictions on Fish and Wildlife Consumption BUI is made in accordance with the process and criteria set forth in the *Delisting Guidance and Restoration Targets for Ohio Areas of Concern* (Ohio EPA 2020).

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Appendix A: Restoration Target for Restrictions on Fish and Wildlife Consumption (Ohio EPA 2020)

IJC Listing Guideline

An impairment will be listed when contaminant levels in fish or wildlife populations exceed current standards, objectives or guidelines, or public health advisories are in effect for human consumption of fish or wildlife. Contaminant levels in fish and wildlife must be due to contaminant input from the watershed.

State of Ohio Listing Guideline

This beneficial use shall be listed as impaired if:

1) An advisory or restriction to fish or wildlife consumption issued by the Ohio Department of Health in the AOC is more stringent than one meal per month or Lake Erie advisory.

State of Ohio Restoration Target

For Fish Consumption:

In the riverine waters upstream from the lake affected waters (lacustrary or fresh water estuary), the fish consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than one meal per month; **AND**

In the lake affected waters (lacustrary or fresh water estuary), the fish consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than the current Lake Erie advisories; **OR**

If consumption advisories in the AOC are more stringent than the respective state-wide or lake-wide advisories and a study was conducted that demonstrates either (1) the source of contamination originates outside of the AOC or (2) the fish tissue concentrations within the AOC are not statistically different than non-AOC areas, reference sites or region-wide, background concentrations.

For Wildlife Consumption:

Wildlife consumption advisories issued by the Ohio Department of Health in the AOC are the same or less stringent than one meal per month.

Potential Data Sources

- State of Ohio Sport Fish Consumption Advisories
- Ohio EPA fish tissue data
- Other fish tissue studies

Rationale

While most Ohio sport fish are of high quality and a good source of protein, levels of chemicals such as PCBs, mercury, lead, and other metals and pesticides have been found in some fish from certain waters. To ensure the continued good health of Ohioans, the Ohio Department of Health, in cooperation with the Ohio Environmental Protection Agency and Ohio Department of Natural Resources, issues fish consumption advisories per Chapter 3701 of the Ohio Revised Code. Ohio uses the *Protocol for a Uniform Great Lakes Sport Fish Advisory* (1993) and the 2005 addendum to establish fish consumption advisories for PCBs and mercury, respectively. These are the contaminants that drive most of the advisories in Ohio waters.

Ohio EPA refers to the area where river and lake water mix as a lacustrary (combination of the terms lacustrine and estuary). These areas could also be described as drowned river mouths (lake water flows into the river essentially “drowning” the river mouth). See Appendix B for more detail and a description of lacustraries within Ohio’s AOCs.

Snapping turtles are currently the only wildlife species with a consumption advisory in effect as issued by the Ohio Department of Health. This advisory was listed based on the results of a one-time study done in 1997. All turtles had high levels of PCB and mercury in fat and liver tissue and advisories stress not eating those portions of the turtle. Currently, turtles from the Black, Ashtabula and Maumee Rivers have a one meal per week advisory for mercury which is similar to the statewide blanket advisory for fish, and not considered impaired. The Ottawa River has a do not eat advisory due to mercury, and it is the only portion of an AOC with a wildlife consumption impairment.

Sources of contaminants originating outside an AOC (upstream, long-range transport of contaminants released to the air and deposited in the AOC, from open lake waters, etc.) that result in a fish or wildlife consumption advisory should not impinge on the ability to delist an AOC. In order to document that the BUI can be removed due to sources outside the AOC a pollutant source study or other investigation could be conducted.

Alternatively, a comparison study of fish tissue contaminant levels can show that the fish tissue concentrations within the AOC are not statistically different than non-AOC areas or selected reference sites. If a trend analysis shows similarity between the sites, then the BUI should be considered restored. Whenever possible, Ohio EPA will attempt to ensure that another responsible party or existing regulatory program is addressing source control outside the AOC boundaries.

Up-to-date comprehensive fish and wildlife consumption advice is available on the Ohio EPA web page at: www.epa.state.oh.us/dsw/fishadvisory/index.html. In 2003, a general state-wide restriction was issued advising not to eat more than one meal per week of fish caught from any waters in Ohio due to widespread low levels of mercury. This blanket statewide advisory is protective of the most sensitive human populations and pre-empted the listing of other one meal per week advisories that were mostly due to PCBs. In order to keep the fish consumption advisory information as simple as possible, the web page now only lists the more restrictive one month or greater advisories. This does not mean the PCBs have gone away. Therefore, when conducting a study to determine if the local advisories are strictly related to sources from outside an AOC, it is important to examine the actual fish tissue data for the area in question and not just whether an advisory is listed on the web page. In the *Ohio Integrated Report*, beginning in 2006, water body impairments were included based on fish tissue concentrations as related to water quality criteria. Information about fish consumption advisories and where to obtain fish tissue data are available from Ohio EPA at: www.epa.ohio.gov/dsw/fishadvisory/index.aspx. Integrated Reports can be found at www.epa.state.oh.us/dsw/tmdl/OhioIntegratedReport.aspx. The Integrated Report data are somewhat different than the concentrations that trigger fish consumption advisories and are offered here for informational purposes only. For the BUI restoration targets, we will continue to keep the targets focused on the existence of fish consumption advisories rather than fish tissue concentrations.

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Appendix B: Fish consumption advisories summarized for BUI status tracking (Ohio EPA 2018)

This table represents a summary status of the conditions when all fish species in all waters of the Maumee AOC achieved the BUI Restoration Target. State consumption advisories have continued to become less restrictive in the Maumee AOC since this time.

FISH CONSUMPTION								
Body of Water	Area Under Advisory	Species	One meal per	Contaminant	Last advisory change	Most recent data	Type of waterbody	BUI Status
Lake Erie Tributaries	All Waters (Ashtabula, Cuyahoga, Erie, Lake, Lorain, Lucas, Ottawa, Sandusky Counties)	Steelhead Trout	month	PCBs	pre-2014	varies	river & lacustrary	Not Impaired
Maumee River	Defiance to Perrysburg (Defiance, Henry, Lucas, Wood counties)	Channel Catfish	month	PCBs	2010	2014	river	Not Impaired
		Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Common Carp, Flathead Catfish	month	mercury, PCBs	2010	2014	river	Not Impaired
	Perrysburg to Interstate 75 (Lucas, Wood Counties)	Channel Catfish	two months month	PCBs	2010 2018	2016 2017	lacustrary	Not Impaired
		Freshwater Drum, Smallmouth Bass, Smallmouth Buffalo, Common Carp, Flathead Catfish	month	mercury, PCBs	2010	2014	lacustrary	Not Impaired
	Interstate 75 to mouth (Lake Erie) (Lucas County)	Channel Catfish	two months month	PCBs	2010 2018	2016 2017	lacustrary	Not Impaired
		Smallmouth Bass	month	PCBs	1998	2014	lacustrary	Not Impaired

Note: Strikethrough is the previous status and last time it was updated/sampled.

FISH CONSUMPTION								
Body of Water	Area Under Advisory	Species	One meal per	Contaminant	Last advisory change	Most recent data	Type of waterbody	BUI Status
Maumee River <i>(continued)</i>	Interstate 75 to mouth (Lake Erie) (Lucas County)	Freshwater Drum, Smallmouth Buffalo, Common Carp, Flathead Catfish	month	mercury, PCBs	2010	2014	lacustuary	Not Impaired
Ottawa River (Toledo)	Main Street in Sylvania to mouth (Lake Erie) (Lucas County)	Channel Catfish, Common Carp, Golden Shiner	month	PCBs	2017	2016	river & lacustuary	Not Impaired
Swan Creek	Weckerly Road (Whitehouse) to mouth (Lake Erie) (Lucas County)	Common Carp	month	mercury, PCBs	2010	2010	river & lacustuary	Not Impaired
		Northern Pike, Freshwater Drum, Rock Bass	month	mercury	2010	2010	river & lacustuary	Not Impaired
Toussaint Creek	U.S. 23 to mouth (Lake Erie) (Ottawa, Sandusky Counties)	Common Carp	month	PCBs	2010	2010	river & lacustuary	Not Impaired

Note: Strikethrough is the previous status and the last time it was updated/sampled.

Appendix C: Wildlife consumption advisories summarized for BUI status tracking (ODH 2021)

WILDLIFE CONSUMPTION								
Body of Water	Area Under Advisory	Species	One meal per	Contaminant	Last advisory change	Most recent data	Type of waterbody	BUI Status
Maumee River	All waters	Snapping Turtles	week	Mercury	2002	1997	-	Not Impaired
Ottawa River (Toledo)	All waters	Snapping Turtles	DO NOT EAT [^]	PCBs	2002	1997 2017 & 18	-	Impaired
Ottawa National Wildlife Refuge	All waters	Snapping Turtles	week	Lead	2002	1997	-	Not Impaired

Note: Strikethrough is the previous status and the last time it was updated/sampled.

[^]: The State of Ohio has maintained the “Do Not Eat” consumption advisory in order to be protective and minimize risk due to high levels of PCBs in the fat bodies, even though the meat (muscle) is below the one meal/week threshold.

Appendix D: Ohio Turtle Consumption Advisory (ODH 2021)

2021 Ohio Sport Fish Consumption Advisory

Do Not Wade or Swim in These Waters

The waters and/or sediments in these areas have high levels of contaminants. It is recommended that a person not swim or wade in these water body sections.

Body of Water	Area Under Advisory	Contaminant
Dicks Creek	River mile 4.1 (1 mile downstream from North Branch Dicks Creek), Middletown to the Great Miami River (Butler County)	PCBs
Little Scioto River	State Route 729, near Marion to Holland Road, near Marion (Marion County)	PAHs
Mahoning River	NW Bridge Road (Warren) to Pennsylvania State Line (Mahoning, Trumbull counties)	PAHs, PCBs

PAHs = Polycyclic Aromatic Hydrocarbons
PCBs = Polychlorinated Biphenyls

Turtle Consumption Advisory

Like fish, turtles can also accumulate contaminants that can be passed on to people who eat turtles. In general, contamination in turtles tends to be stored in the fat, certain organs, and the eggs of female turtles. The Ohio Sport Fish Consumption Advisory recommends that anyone eating turtles should eat only the muscle meat (back straps, neck muscle, etc.). Discard the fat, skin, organs, blood, and eggs before preparing the meat.

Reason for the Advisory

In 1997, the Ohio EPA collected snapping turtles from six locations and analyzed meat (muscle), liver and fat tissues for lead, mercury, PCBs, and pesticides as part of a special monitoring project. Mercury and lead were found in the meat samples taken from four water bodies, resulting in the advisories below. Meat from snapping turtles collected at one location (see below) had contaminant concentrations below advisory levels of concern.

PCBs and mercury were found at extremely high concentrations in the turtles collected from the turtle advisory locations. Avoid eating fat or liver tissue from any snapping turtle caught in Ohio, particularly from turtles caught at the advisory locations.

Turtle Meal Preparation

If you decide to eat any snapping turtle caught in Ohio, we recommend the following precautions to reduce your exposure to contaminants that may be present:

1. Lay the turtle on its back shell (carapace).
2. Remove the shell that faces you (the plastron) by carefully cutting through the two bony ridges on both sides of the turtle between the fore and hind limbs.
3. Carefully remove and discard any fat and eggs present, and all organs, such as the liver and kidneys. **Save only the meat (muscle) for eating.**
4. Remove claws from the fore and hind limbs.
5. Remove skin from the neck, tail, and fore and hind limbs.

2021 Ohio Sport Fish Consumption Advisory

Ohio Snapping Turtle Advisory

Body of Water	Area Under Advisory	Meal* Frequency	Contaminant
Ashtabula River (Ashtabula County)	All waters	One/week	Mercury
Black River (Lorain County)	All waters	One/week	Mercury
Maumee River (Defiance, Henry, Lucas, Paulding, Wood Counties)	All waters	One/week	Mercury
Ottawa National Wildlife Refuge (Ottawa County)	All waters	One/week	Lead
Ottawa River (Lucas County)	All waters	DO NOT EAT	PCBs

*One meal = One serving = 4 ounces uncooked meat
PCBs = Polychlorinated Biphenyls

Frequently Asked Questions

1. What health benefits do I get from eating Ohio sport fish?

There are many benefits to including fish (including both fish and shellfish) in a balanced diet for people of all ages. Fish are high in protein, low in fat, and contain healthy oils called omega-3 fatty acids which are important during fetal development, and which help prevent heart disease in adults. For more information on eating fish, visit the U.S. Food and Drug Administration's page on fish recommendations: www.fda.gov/fishadvice.

Additionally, fishing can be a rewarding hobby that brings people closer to nature, provides a source of natural food, and can even help with wildlife conservation. For more information on fishing in Ohio, visit the Ohio Department of Natural Resource's Fishing Basics page: <https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/wildlife/fishing>.


2. What is a fish consumption advisory and why is it needed?

A fish consumption advisory is a recommendation to help people eating Ohio-caught fish make educated choices about: where to fish, what types of fish to eat, how to determine the amount and frequency of fish they consume, and how to prepare fish for cooking.

While most Ohio sport fish are safe to eat, low levels of harmful chemicals like polychlorinated biphenyls (PCBs) and mercury have been found in some fish from certain Ohio waters. To protect the health of anyone who eats Ohio-caught fish, the Ohio Department of Health offers an advisory for how often these fish can be safely eaten. A consumption advisory is a recommendation meant to protect people eating Ohio-caught fish and should not be viewed as law or regulation.

Fish consumption advisories are designed to protect the most at-risk (vulnerable) members of the population, especially infants, children, and women who are pregnant, breastfeeding, or planning to become pregnant. This will also ensure that people who are less at-risk will be protected.

Appendix E: Additional information issued by ODNR regarding Snapping Turtles (ODNR 2022)



OHIO FISHING REGULATIONS 2022-23
 Effective MARCH 1, 2022
 to FEBRUARY 28, 2023

**OHIO DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF WILDLIFE**
 wildohio.gov

FROG & TURTLE REGULATIONS

Reptiles and amphibians may not be taken by shooting, except green frogs and bullfrogs which may be taken with archery equipment.

SPECIES	DATES	DAILY LIMIT	MIN. SIZE
Bullfrog & Green Frog	June 10, 2022 - April 30, 2023	15 (singly or in combination)	None
Snapping Turtle & Softshell Turtle	July 1 - December 31, 2022	None	11 Inches

TURTLE SEASON

Turtle season is open July 1, 2022 to December 31, 2022. Only snapping and softshell turtles may be legally taken. Snapping turtles and softshell turtles must have a straight-line carapace length of 11 inches or greater to be taken, and there is no daily limit. A turtle trap must be marked with the name and address or customer identification number of the owner or user. All traps must be checked once every 24 hours.

It is illegal to take, collect, or possess the eggs of snapping turtles or softshell turtles from Ohio lands or waters. See wildohio.gov for additional regulations.

Snapping turtles and softshell turtles may be taken by any method except:

- By shooting;
- Turtle traps having mesh measuring less than 4 inches on a side, unless such traps are provided with an escape ring of at least 6 inches in diameter leading out of the trap and held open at all times;
- Turtle traps placed in water having wings or leads;
- A foothold or body-gripping trap;
- Deleterious or stupefying substances;
- Chemicals;
- Smoke;
- Explosives.

Please report your turtle harvest at wildohio.gov. Search for report wildlife.

HOW TO MEASURE A STRAIGHT-LINE CARAPACE LENGTH



FROG SEASON

Frog season is open from 6 p.m. on June 10, 2022 (the second Friday in June) to April 30, 2023. Only bullfrogs and green frogs may be taken. No more than 15 (singly or in combination) may be taken or possessed in any one day.

Bullfrogs and green frogs may be taken by any method except:

- By shooting, except with archery equipment;
- A foothold or body-gripping trap;
- Deleterious or stupefying substances;
- Chemicals;
- Smoke;
- Explosives.



BULLFROG

Appendix F: Photos and collection details of Snapping Turtles in 2018

Maumee AOC Turtle Sampling – May 2018



Collected May 24, 2018
7.48 kg (16.49 lbs.)

OTTW-2018-001



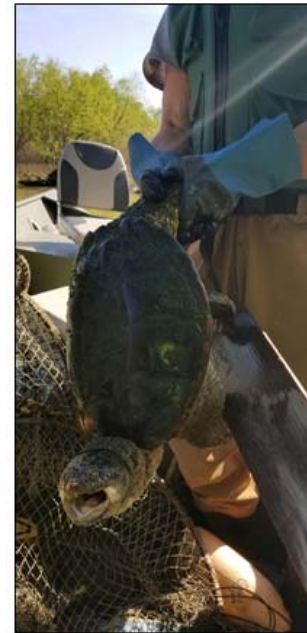
Collected May 25, 2018
9.86 kg (21.74 lbs.)

OTTW-2018-002



Collected May 25, 2018
10.2 kg (22.49 lbs.)

OTTW-2018-003



Collected May 25, 2018
9.3 kg (20.5 lbs.)

OTTW-2018-004



Collected May 25, 2018
13.15 kg (28.99 lbs.)

OTTW-2018-005

Appendix G: Public Comments

The Public Comment period for this BUI Removal Recommendation was 21-days from July 18, 2022 until August 5, 2022. The opportunity for public comment was shared through an Ohio EPA/Ohio Lake Erie Commission press release with information provided on Ohio Lake Erie Commission, Ohio EPA and the Maumee AOC websites. The information was subsequently shared via Ohio Lake Erie Commission and Maumee AOC social media. Information on the public comment period was provided in an article in the Toledo Blade on July 27, 2022 and through a press release issued by the Office of the Lucas County Engineer on July 19, 2022. No public comments were received.

Ohio EPA/Ohio Lake Erie Commission Press Release



Mike DeWine, Governor, State of Ohio
Jon Husted, Lieutenant Governor, State of Ohio
Laurie A. Stevenson, Director, Ohio EPA; Chairman
Joy Mulinex, Executive Director

FOR IMMEDIATE RELEASE
July 18, 2022

Ohio Lake Erie Commission Requests Public Comments about Maumee Area of Concern

The Ohio Lake Erie Commission and Ohio EPA are accepting comments through Aug. 5, 2022, for the proposed removal of a beneficial use impairment regarding restrictions on fish and wildlife consumption within the Maumee Area of Concern (AOC).

Beneficial use impairments (BUIs) identify specific problems that can prevent a waterbody from meeting its full water quality potential. The Ohio Lake Erie Commission and Ohio EPA recommend removing the "restrictions on fish and wildlife consumption" BUI because the conditions now meet restoration criteria that include fish and wildlife consumption in all waters of the Maumee AOC. This means the fish and wildlife meet safe consumption thresholds used by the Ohio Department of Health in the [Ohio Sport Fish Consumption Advisory](#). In general, safe consumption for Maumee River AOC streams and Lake Erie fish are one meal per month, but may be more or less stringent, depending on the species and location. Consult the advisory for more information.

A summary of the proposed recommendation is available on Ohio EPA's [website](#).

This beneficial use impairment is the second BUI to be recommended for removal from the initial 10 BUIs listed for the Maumee Area of Concern. BUIs identify specific problems that can prevent a waterbody from meeting its water quality targets.

Written comments will be accepted through Aug. 5, and can be emailed to Cherie Blair, Ohio EPA Maumee AOC coordinator at Cherie.Blair@epa.ohio.gov.

The Ohio Lake Erie Commission was established to preserve Lake Erie's natural resources, protect the quality of its waters and ecosystem, and promote economic development in the region. The director of the Ohio EPA serves as the Commission's chairman. Additional members include the directors of the state departments of Transportation, Health, Development, Agriculture, Natural Resources, and five additional members appointed by the Governor.

Ohio EPA was created in 1972 to consolidate efforts to protect and improve air quality, water quality and waste management in Ohio. Since then, air pollutants dropped by as much as 90 percent; large rivers meeting standards improved from 21 percent to 89 percent; and hundreds of polluting, open dumps were replaced with engineered landfills and an increased emphasis on waste reduction and recycling.

-30-

For more information, contact:
Lynn Garrity, Ohio Lake Erie Commission
(614) 506-0619

Dina Pierce, Ohio EPA
(614) 644-2160

Office of the Lucas County Engineer

1049 S. McCord Road
Holland, Ohio 43528

Phone: 419-213-2860
FAX: 419-213-2829



Mike Pniewski, P.E., P.S.
County Engineer

News Release

July 19, 2022

Contact: Michael Tatar

Public Information Officer

419-213-2860

mtatar@co.lucas.oh.us

Lucas Co. Engineer joins state agencies in asking public for comment on Maumee Area of Concern (AOC)

The Lucas County Engineer's Office joins the [Ohio Lake Erie Commission and the Ohio EPA in asking the public for comments on the proposed removal of the beneficial use impairment \(BUI\) for restrictions on fish and wildlife consumption within the Maumee Area of Concern \(AOC\).](#)

Located in northwest Ohio, the Maumee AOC is comprised of 787 square miles, including several watersheds draining to Lake Erie, making it one of the largest AOCs in the United States.

What is a beneficial use impairment or BUI? Designations given by the International Joint Commission for the Maumee AOC, they officially recognize various examples of significant environmental degradation. As restoration and cleanup projects make progress, monitoring is conducted at the site to determine the level of recovery in environmental health and if and when sufficient recovery is reached, BUIs can be designated as "removed."

Written comments will be accepted through Aug. 5, and can be emailed to Cherie Blair, Ohio EPA Maumee AOC coordinator at Cherie.Blair@epa.ohio.gov.

The Ohio Lake Erie Commission and Ohio EPA recommend removing the "restrictions on fish and wildlife consumption" BUI because the conditions now meet restoration criteria that include fish and wildlife consumption in all waters of the MAOC. This means the fish and wildlife meet safe consumption thresholds used by the Ohio Department of Health in the [Ohio Sport Fish Consumption Advisory](#).

"The potential removal in a Beneficial Use Impairment in the Maumee Area of Concern is a significant milestone toward giving our region a higher quality of life and a better place to live," Lucas County Engineer Mike Pniewski said. **"Sustained funding from the Great Lakes Restoration Initiative and from local partners allowed the projects to make this moment possible. I look forward to seeing more progress in the coming years."**

In general, safe consumption for Maumee River AOC streams and Lake Erie fish **are one meal per month**, but may be more or less stringent, depending on the species and location. Consult the advisory for more information.

A summary of the proposed recommendation is available on Ohio EPA's [website](#).

This beneficial use impairment is the second BUI to be recommended for removal from the initial 10 BUIs listed for the Maumee Area of Concern. The first one, *Added Costs to Industry or Agriculture*, was removed in 2015.

For more information, contact:
Lynn Garrity, Ohio Lake Erie Commission
(614) 506-0619

Dina Pierce, Ohio EPA
(614) 644-2160

Appendix H: Maumee AOC Advisory Committee Letter of Support



August 11, 2022

Laurie Stevenson, Director
Ohio Environmental Protection Agency
P. O. Box 1049
Columbus OH 43216-1049

Joy Mulinex, Executive Director
Ohio Lake Erie Commission
P.O. Box 1049
Columbus OH 43126-1049

RE: Removal of Beneficial Use Impairment for Restrictions on Fish and Wildlife Consumption

Dear Directors Stevenson and Mulinex,

The Maumee Area of Concern (AOC) Advisory Committee has reviewed the Recommendation document for the removal of the beneficial use impairment for Restrictions on Fish & Wildlife Consumption (BUI 1).

The Maumee AOC Advisory Committee supports the Ohio AOC program through the Ohio Lake Erie Commission and Ohio EPA in recommending the removal of this BUI and its submittal to U.S. EPA's Great Lakes National Program Office (GLNPO) for their approval.

With the removal of this BUI, the following impairments currently remain in the Maumee AOC.

- BUI #3: Degradation of Fish & Wildlife Populations
- BUI #4: Fish Tumors or Other Deformities
- BUI #6: Degradation of Benthos
- BUI #7: Restrictions on Navigational Dredging Activities
- BUI #8: Eutrophication or Undesirable Algae
- BUI #10: Beach Closings (Recreational Contact)
- BUI #11: Degradation of Aesthetics
- BUI #14: Loss of Fish & Wildlife Habitat

The Maumee AOC Advisory Committee looks forward to continuing to work in coordination with the Ohio AOC program with these remaining BUIs and the work necessary for their removal.

Sincerely,



Mike Pniewski,
Chair, Maumee AOC Advisory Committee

cc: Lynn Garrity, OLEC and Cherie Blair, Ohio



PO Box 203 Perrysburg, Ohio 43552
Phone: 419-874-0727
Email: admin@PartnersForCleanStreams.org
www.MaumeeRAP.org

