



Former Wurtsmith Air Force Base – Activity Update: PFCs

April 29, 2015 Community Meeting
Oscoda, Michigan



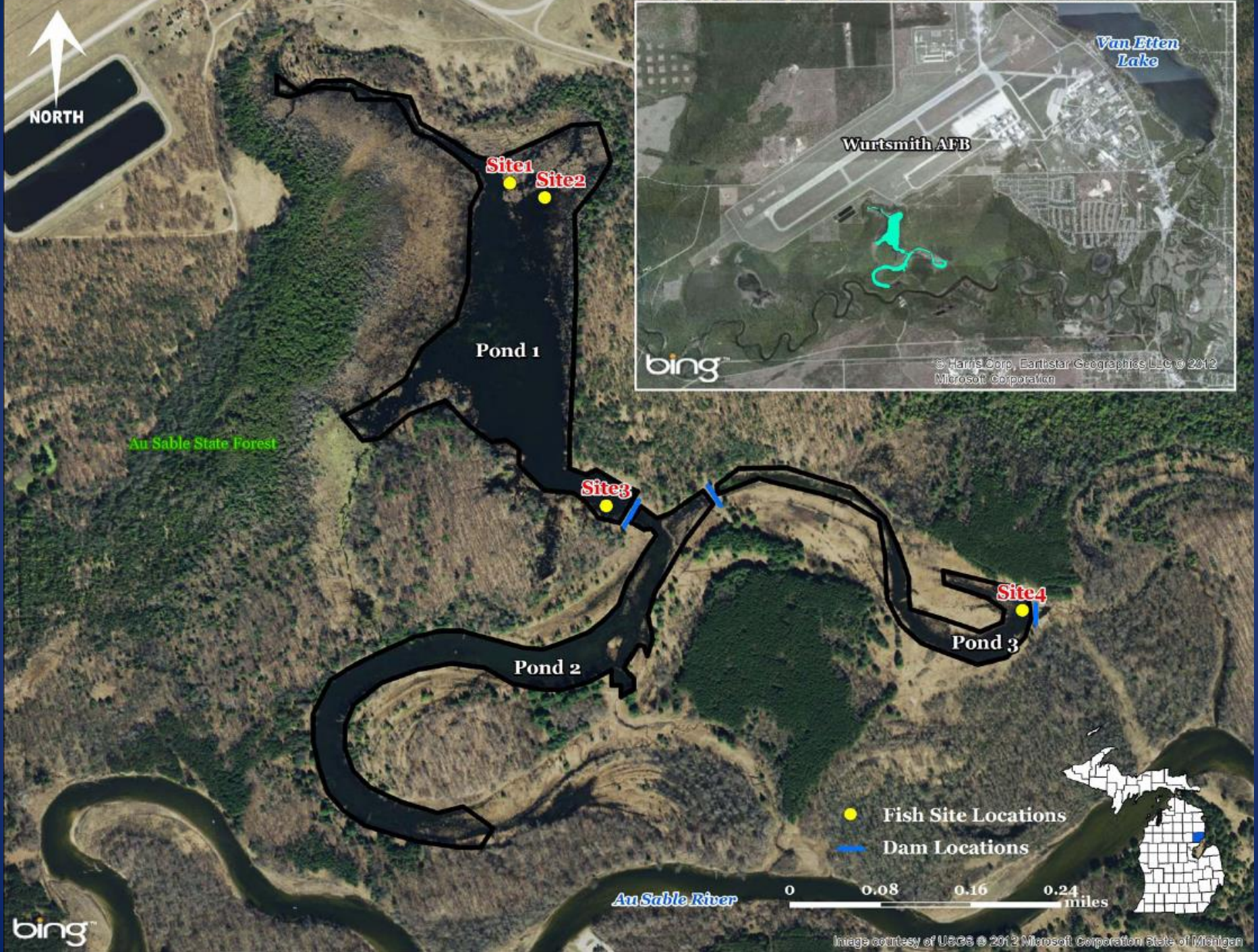
Agenda

- Introductions
- Presentations
 - Review of PFC issue
 - Where we are
 - What's next
- Questions after each speaker and at end

Perfluorinated Chemicals (PFCs)

- Uses
- Environmental issues
- PFC focus = PFOS
- Human health concerns





PFCs in Fish

- Where we are
 - Screening values finalized
 - Eat Safe Fish guidelines
 - Outreach so far
- What's next
 - Report for public comment
 - More fish data

PFOS in fish – Final Screening Values

| Meal Category | FCSV Ranges |
|-------------------------|--------------------------------|
| <i>meals per month</i> | <i>parts per billion (ppb)</i> |
| 16 | ≤ 9 |
| 12 | >9 to 13 |
| 8 | >13 to 19 |
| 4 | >19 to 38 |
| 2 | >38 to 75 |
| 1 | >75 to 150 |
| 6 meals per year | >150 to 300 |
| Do Not Eat | >300 |

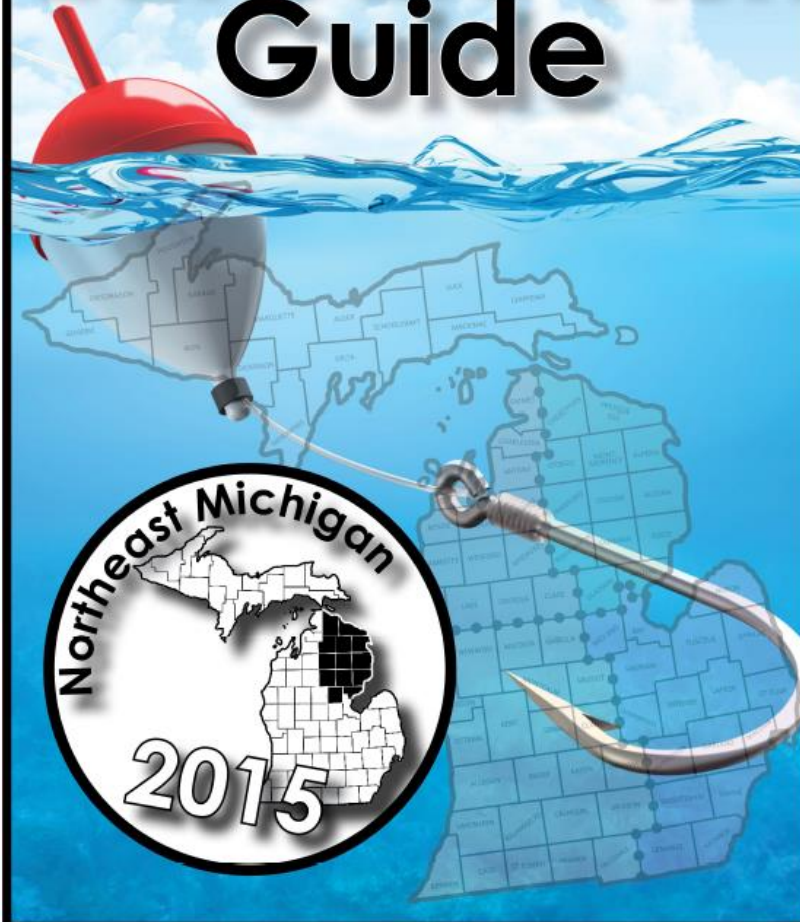
From “Michigan Fish Consumption Advisory Program”
Guidance Document, available under “Reports and Science” at
www.michigan.gov/eatsafefish

PFOS-related guidelines

- Clark's Marsh – Do not eat any fish
- Allen Lake – Do not eat any fish
- Lower Au Sable River - Do not eat non-migratory fish
- Au Sable migratory fish and other water bodies –
No PFOS guidelines, BUT...

Michigan Department of Community Health's

Eat Safe Fish Guide



Some fish contain chemicals that can harm your health. MDCH tests filets of fish taken from Michigan's lakes and rivers to learn which fish are safer to eat.

The *Eat Safe Fish Guide* lists the fish that have been tested and how much is safe to eat.





Eat Safe Fish in Michigan

Contact us: 1-800-648-6942

Michigan Department of Community Health



Click on any of the boxes below to learn more about choosing and eating safe fish!



www.michigan.gov/eatsafefish

www.michigan.gov/eatsafefish



- Birth, Death, Marriage and Divorce Records
- Physical Health & Prevention
- Pregnant Women, Children & Families
- Behavioral Health & Developmental Disability
- Health Care Coverage
- Statistics and Reports
- Providers
- Inside Community Health
- Public Safety & Environmental Health
- Office of Public Health Preparedness
- Great Lakes Border Health Initiative
- Michigan Sports Concussion Law
- Crime Victim Services
- Injury & Violence Prevention
- Toxic Substances
- Climate Change
- Michigan Fish & Game Advisory

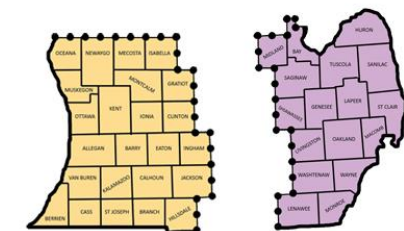
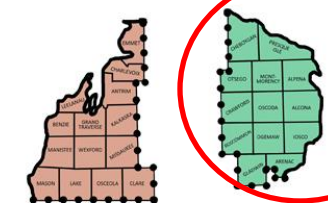
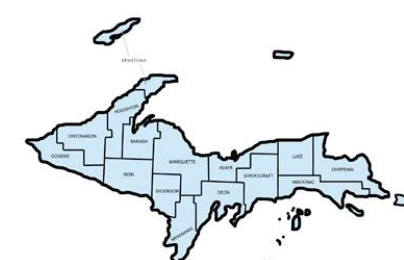
MDCH > PUBLIC SAFETY & ENVIRONMENTAL HEALTH > TOXIC SUBSTANCES > MICHIGAN FISH & GAME ADVISORY

Eating Fish from Michigan's Lakes & Rivers

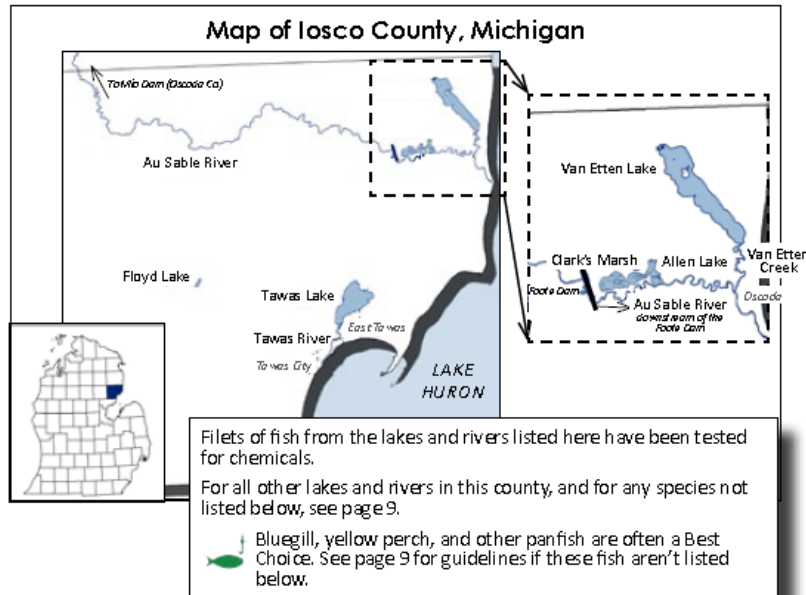
Getting Started...

Michigan has over 11,000 lakes, streams, and rivers. Unfortunately, some of those water bodies have chemicals including PCBs, dioxins, and mercury. Check out the links below to learn more about eating safe fish.

- [Eat Safe Fish packet download](#)
A quick way to save all the information listed below, including the Eat Safe Fish brochure and Guides!
 - [Eat Safe Fish in Michigan brochure](#)
A basic overview... find out if you're at risk!
 - [Eat Safe Fish Guides](#)
The regional *Eat Safe Fish* Guides list the fish that have been tested and how much is safe to eat.
 - [Statewide Safe Fish Guidelines](#)
Use the *Statewide Guidelines* if you can't find a lake or river in the *Eat Safe Fish Guides*.
 - [3Cs & S.A.F.E.](#)
Learn easy ways to choose safer fish.
 - [How do chemicals end up in fish?](#)
Learn how chemicals build up in the food chain.
 - [How might these chemicals affect me?](#)
See page 2 of the Frequently Asked Questions page to find out more about the chemicals found in fish.
 - [How does MDCH create the Eat Safe Fish Guide?](#)
Learn how MDCH tests fish and uses the results to create the *Eat Safe Fish Guide*.
 - [Learn to Fish!](#)
Learn how to fish from the Michigan DNR.
 - [Quick Start to Safer Fish](#)
The *Quick Start to Safer Fish* helps you quickly identify Michigan fish and, generally, how safe to eat them.
- If you eat fish regularly, use the Eat Safe Fish Guides to find the guidelines for your fish.*



Select Your County:



Allen Lake

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|--------------|----------------------|---------------------------------|-------------------------|
| All Species | PFOS | Any | Do Not Eat [▲] |

Au Sable River

(between Mio Dam in Oscoda Co. and Foote Dam)

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|---------------|----------------------|---------------------------------|------------------------|
| Northern Pike | Mercury | Under 30" | 1 |
| Walleye | Mercury | Any | 6 Per Year |
| Walleye | Mercury | Any | 1 |

(continued on the next page)

Au Sable River

(downstream of Foote Dam; includes Van Etten Creek)

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-------------------|----------------------|---------------------------------|--------------------------|
| Brown Trout | PCBs | Any | 6 Per Year ^{2x} |
| Carp | PFOS | Any | Do Not Eat [▲] |
| Chinook Salmon | PCBs | Any | 6 Per Year ^{2x} |
| Coho Salmon | PCBs | Any | 6 Per Year ^{2x} |
| Largemouth Bass | PFOS | Any | Do Not Eat [▲] |
| Rainbow Trout | PCBs | Any | 6 Per Year ^{2x} |
| Smallmouth Bass | PFOS | Any | Do Not Eat [▲] |
| Steelhead | PCBs | Any | 6 Per Year ^{2x} |
| Suckers | PFOS | Any | Do Not Eat [▲] |
| Walleye | Dioxins | Any | 6 Per Year ^{2x} |
| All Other Species | PFOS | Any | Do Not Eat [▲] |

PFOS can't be reduced by trimming and cooking. Do not double MI Servings.

Clark's Marsh

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-------------------|----------------------|---------------------------------|-------------------------|
| Bluegill | PFOS | Any | Do Not Eat [▲] |
| Sunfish | PFOS | Any | Do Not Eat [▲] |
| All Other Species | PFOS | Any | Do Not Eat [▲] |

PFOS can't be reduced by trimming and cooking. Do not double MI Servings.

(continued on the next page)

* See page 6

▲ See page 7

2x See page 8

Best Choice! =

* See page 6

▲ See page 7

2x See page 8

Best Choice! =

Iosco County (continued)

Floyd Lake

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-----------------|----------------------|---------------------------------|------------------------|
| Largemouth Bass | Mercury | Under 18" | 1 |
| | | Over 18" | 6 Per Year |
| Smallmouth Bass | Mercury | Under 18" | 1 |
| | | Over 18" | 6 Per Year |

Tawas Lake

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|---------------|----------------------|---------------------------------|------------------------|
| Black Crappie | Mercury | Any | 2 |
| White Crappie | Mercury | Any | 2 |

Tawas River

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|--------------|----------------------|---------------------------------|------------------------|
| Suckers | Mercury | Any | 2 |

When fishing the river near Lake Huron, please check the lake guidelines on page 16, too.

Van Effen Lake

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|--------------|----------------------|---------------------------------|------------------------|
| Catfish | PCBs | Any | Limited [▲] |
| Suckers | Mercury | Under 14" | 8 |
| | | 14 to 20" | 4 |
| | | Over 20" | 2 |
| Walleye | Mercury | Any | 1 |

See which fish are safe to eat from Lake Huron on Page 16.

* See page 6

▲ See page 7

** See page 8

Best Choice! = 

Use the Statewide Safe Fish Guidelines ONLY if:



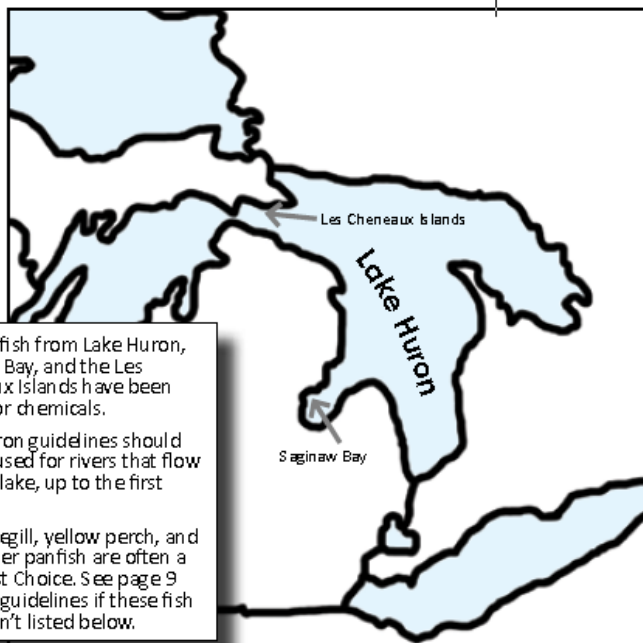
- your lake or river is not listed in the regional *Eat Safe Fish Guide*, OR
- your lake or river is listed in the *Eat Safe Fish Guide*, but the fish species is not listed.

Statewide Safe Fish Guidelines

| Type of Fish | Chemical of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-----------------|---------------------|------------------------------------|---------------------------|
| Black Crappie | Mercury | Any Size | 4 |
| Bluegill | Mercury | Any Size | 8 |
| Carp | PCBs | Any Size | 2 |
| Catfish | PCBs & Mercury | Any Size | 4 |
| Largemouth Bass | Mercury | Under 18" | 2 |
| | | Over 18" | 1 |
| Muskellunge | Mercury | Any Size | 1 |
| Northern Pike | Mercury | Under 30" | 2 |
| | | Over 30" | 1 |
| Rock Bass | Mercury | Any Size | 4 |
| Smallmouth Bass | Mercury | Under 18" | 2 |
| | | Over 18" | 1 |
| Suckers | Mercury | Any Size | 8 |
| Sun fish | Mercury | Any Size | 8 |
| Walleye | Mercury | Under 20" | 2 |
| | | Over 20" | 1 |
| White Crappie | Mercury | Any Size | 4 |
| Yellow Perch | Mercury | Any Size | 4 |

These guidelines are based on the typical amount of chemicals found in fish filets tested from around the state. Some fish may be higher or lower. If any of these fish are listed in the guidelines for the lake or river you are fishing in, use **those** guidelines instead of statewide guidelines. The *MI Servings* recommendation will be more exact for that lake or river because those filets have been tested.

Lake Huron



Filets of fish from Lake Huron, Saginaw Bay, and the Les Cheneaux Islands have been tested for chemicals.

Lake Huron guidelines should also be used for rivers that flow into the lake, up to the first dam.

Bluegill, yellow perch, and other panfish are often a Best Choice. See page 9 for guidelines if these fish aren't listed below.


| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-----------------|----------------------|---------------------------------|--------------------------|
| Brown Trout | PCBs | Any | 6 Per Year ^{2x} |
| Carp | PCBs & Dioxins | Any | Limited [▲] |
| Catfish | Dioxins | Any | Limited [▲] |
| Chinook Salmon | PCBs | Any | 6 Per Year ^{2x} |
| Coho Salmon | PCBs | Any | 6 Per Year ^{2x} |
| Freshwater Drum | Mercury | Any | 1 |
| Lake Trout | PCBs & Dioxins | Under 20" | 1 ^{2x} |
| | PCBs | 20" to 24" | 6 Per Year ^{2x} |
| | | Over 24" | Limited [▲] |
| Lake Whitefish | Dioxins | Any | 6 Per Year ^{2x} |
| Northern Pike | PCBs | Any | 1 ^{2x} |

(continued on the next page)

* See page 6

▲ See page 7

^{2x} See page 8

Best Choice! = 

Lake Huron (continued from p 16)

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|---------------------|----------------------|---------------------------------|--------------------------|
| Rainbow Trout | PCBs | Any | 6 Per Year ^{2x} |
| Smelt | PCBs | Any | 4 ^{2x} |
| Steelhead | PCBs | Any | 6 Per Year ^{2x} |
| Suckers | PCBs | Any | 2 ^{2x} |
| Walleye | Dioxins | Any | 6 Per Year ^{2x} |
| White (Silver) Bass | PCBs & Dioxins | Any | Limited [▲] |
| White Perch | PCBs | Any | 6 Per Year ^{2x} |
| Yellow Perch | Dioxins | Any | 2 ^{2x} |

Les Cheneaux Island Area

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-----------------|----------------------|---------------------------------|------------------------|
| Bluegill | Mercury | Any | 12 |
| Carp | PCBs & Dioxins | Any | Limited |
| Largemouth Bass | Mercury | Under 18" | 2 |
| | | Over 18" | 1 |
| Rock Bass | Mercury | Under 8" | 8 |
| Rock Bass | Mercury | Over 8" | 4 |
| Smallmouth Bass | Mercury | Under 18" | 2 |
| | | Over 18" | 1 |
| Sunfish | Mercury | Any | 12 |
| Yellow Perch | Dioxins | Any | 2 |

Use the Lake Huron guidelines above for any fish species not listed here.

Saginaw Bay

| Type of Fish | Chemicals of Concern | Size of Fish (length in inches) | MI Servings per Month* |
|-----------------|----------------------|---------------------------------|-------------------------|
| Carp | PCBs & Dioxins | Any | Do Not Eat [▲] |
| Catfish | Dioxins | Any | Do Not Eat [▲] |
| Freshwater Drum | Mercury | Any | 1 |

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MDHHS outreach

- Fact sheets
- Meetings
- Brochure
- Signs

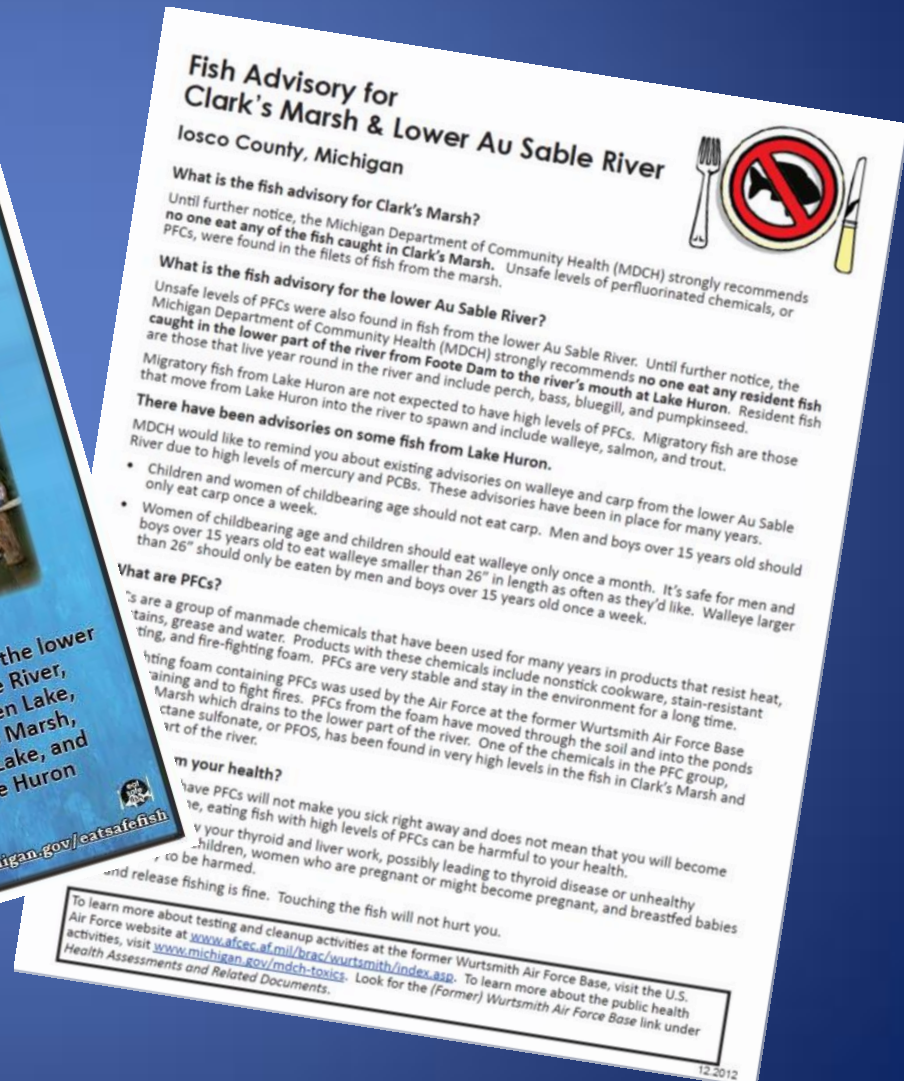


Eat Safe Fish


caught from the lower Au Sable River, Van Etten Lake, Clark's Marsh, Allen Lake, and Lake Huron

www.michigan.gov/eatsafe/fish

The sign features a photograph of a person fishing in a lake with a large white fish nearby.



Fish Advisory for Clark's Marsh & Lower Au Sable River
Iosco County, Michigan



What is the fish advisory for Clark's Marsh?
Until further notice, the Michigan Department of Community Health (MDCH) strongly recommends **no one eat any of the fish caught in Clark's Marsh**. Unsafe levels of perfluorinated chemicals, or PFCs, were found in the filets of fish from the marsh.

What is the fish advisory for the lower Au Sable River?
Unsafe levels of PFCs were also found in fish from the lower Au Sable River. Until further notice, the Michigan Department of Community Health (MDCH) strongly recommends **no one eat any resident fish caught in the lower part of the river from Foote Dam to the river's mouth at Lake Huron**. Resident fish are those that live year round in the river and include perch, bass, bluegill, and pumpkinseed. Migratory fish from Lake Huron are not expected to have high levels of PFCs. Migratory fish are those that move from Lake Huron into the river to spawn and include walleye, salmon, and trout.

There have been advisories on some fish from Lake Huron.
MDCH would like to remind you about existing advisories on walleye and carp from the lower Au Sable River due to high levels of mercury and PCBs. These advisories have been in place for many years.

- Children and women of childbearing age should not eat carp. Men and boys over 15 years old should only eat carp once a week.
- Women of childbearing age and children should eat walleye only once a month. It's safe for men and boys over 15 years old to eat walleye smaller than 26" in length as often as they'd like. Walleye larger than 26" should only be eaten by men and boys over 15 years old once a week.

What are PFCs?
PFCs are a group of manmade chemicals that have been used for many years in products that resist heat, stains, grease and water. Products with these chemicals include nonstick cookware, stain-resistant carpeting, and fire-fighting foam. PFCs are very stable and stay in the environment for a long time. Fire-fighting foam containing PFCs was used by the Air Force at the former Wurtsmith Air Force Base during training and to fight fires. PFCs from the foam have moved through the soil and into the ponds at Clark's Marsh which drains to the lower part of the river. One of the chemicals in the PFC group, perfluorooctane sulfonate, or PFOS, has been found in very high levels in the fish in Clark's Marsh and the lower part of the river.

How can PFCs affect your health?
PFCs will not make you sick right away and does not mean that you will become sick. However, eating fish with high levels of PFCs can be harmful to your health. High levels of PFCs can affect your thyroid and liver work, possibly leading to thyroid disease or unhealthy pregnancies. Children, women who are pregnant or might become pregnant, and breastfed babies should be harmed.

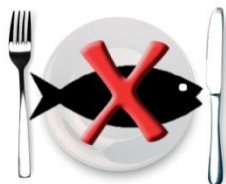
Recreational and release fishing is fine. Touching the fish will not hurt you.

To learn more about testing and cleanup activities at the former Wurtsmith Air Force Base, visit the U.S. Air Force website at www.afcec.af.mil or brac.wurtsmith/index.asp. To learn more about the public health activities, visit www.michigan.gov/mdch-toxics. Look for the (Former) Wurtsmith Air Force Base link under Health Assessments and Related Documents.

12.2012

Do Not Eat Fish From Clark's Marsh

The Michigan Department of Community Health has found unsafe levels of perfluorinated chemicals (PFCs) in fish from Clark's Marsh.



Eating fish from Clark's Marsh could harm your health.

Catching and releasing fish is fine. Touching the fish or water will not harm you.



For more information, call MDCH at 1-800-648-6942 or visit www.michigan.gov/eatsafefish.



*Find a missing sign?
Please drop it off at
the U.S. Forest Service
station near the base.

Signs*

Do Not Eat Fish From Allen Lake

The Michigan Department of Community Health has found unsafe levels of perfluorinated chemicals (PFCs) in fish from this area.



Eating fish from Allen Lake could harm your health.

Catching and releasing fish is fine. Touching the fish or water will not harm you.



For more information, call MDCH at 1-800-648-6942 or visit www.michigan.gov/eatsafefish.



Have fun on the Au Sable!

The Michigan Department of Community Health has advice about activities on the lower Au Sable River between Foote Dam and Lake Huron.



Do not eat resident river fish such as sunfish, bass, and perch. There are high amounts of perfluorinated chemicals (PFCs) in fish that live in this part of the river year round. Eating them could harm your health.

Fish that don't live in the river year round, such as salmon and steelhead, are safer to eat.



Enjoy swimming, boating, and fishing in the river. Touching the water will not harm you.



MDCH has meal guidelines for some Au Sable River and Lake Huron fish because of other chemicals. Call MDCH at 1-800-648-6942 or visit www.michigan.gov/eatsafefish.



Scan this with your smartphone!

Health consultation report

- Documents public health assessment and activities
- Process
 - Agency review
 - Public comment
- At any time, if action is needed, it is taken

What's next

- More fish data
 - New fish data for lower Au Sable being QA/QC'd
 - Sampling fish before / after remedial work
- More outreach as needed

MDHHS Contacts

- Christina Bush, Toxicologist
 - 517-335-9717 or 800-648-6942
 - bushc6@michigan.gov
- Sue Manente, Health Educator
 - 517-335-0003 or 800-648-6942
 - manentes@michigan.gov

Resources

- MDHHS webpage for Wurtsmith work:
 - www.michigan.gov/mdch-toxics → “Health Assessments and Related Documents” → “(Former) Wurtsmith Air Force Base”
- “Eat Safe Fish” website
 - www.michigan.gov/eatsafefish

Questions / Comments