

Frequently Asked Questions and Answers regarding the “do not eat” deer advisory in Iosco County (*printable map attached*)

(updated 9/16/2019)

What is the “do not eat” advisory?

On October 19, 2018, the Michigan Department of Health and Human Services (MDHHS) issued a ‘Do Not Eat’ advisory for deer taken within approximately five miles of Clark’s Marsh in Oscoda Township. The advisory is due to high levels of PFOS (perfluorooctane sulfonic acid) found in a single deer taken from Clark’s Marsh, which borders the former Wurtsmith Air Force Base. PFOS is one type of PFAS (per- and polyfluoroalkyl substances) chemical.

What is PFOS and PFAS?

PFOS is one type of PFAS chemical. PFAS are manmade chemicals that are resistant to heat, water, and oil. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, personal care products, fire-fighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in the blood of the majority of the U.S. population.

PFAS do not break down in the environment. They can also build up over time in the blood and organs of wild game, fish, and humans that are exposed to these chemicals through the food they eat and the water they drink. Studies of people who were exposed to PFAS found links between the chemicals and increased risk of liver damage, thyroid disease, preeclampsia, decreased fertility, and small decreases in birthweight.

What parts of the deer are safe for me to eat?

None. Do not eat any deer that came from within five miles of Clark’s Marsh. In addition, MDHHS recommends you do not eat kidneys or liver of any deer throughout the state because PFAS and other chemicals can build up in the organs. For more information about PFAS in wild game and fish, visit [Michigan.gov/PFASResponse](https://www.michigan.gov/PFASResponse) and go to the Fish and Wildlife button. For more information about wild game consumption, visit [Michigan.gov/EatSafeGame](https://www.michigan.gov/EatSafeGame) and click on the Eat Safe Wild Game button. If you have health-related questions, please contact MDHHS at 800-648-6942.

Can't I just cook it well?

No. You cannot get rid of PFAS by cooking the meat or organs.

Why was the advisory issued?

One deer out of twenty tested around the former Wurtsmith Air Force Base was found to have high levels of PFOS. The level of PFOS in the muscle of the deer was 547 parts per billion, exceeding the level of 300 ppb at which MDHHS recommends people do not eat the meat. PFAS was either not found or was at low levels in muscle samples from the other 19 deer. Although only one deer of this group tested at such high levels, the advisory was issued to protect the health of anyone eating venison taken within approximately five miles of Clark's Marsh. The State has plans to test more deer from this area, as well as other wild game.

How long will the "do not eat" advisory be in place?

It's unknown how long the advisory will be in place. We don't have enough information on how deer are exposed to PFAS. There are still high levels of PFAS in the area waterbodies.

Where is the area from which we should avoid eating deer?

The five-mile radius encircles the former Wurtsmith Air Force Base property and covers what the DNR has estimated to be the expected travel range of deer living in or near the marsh. The area covered by the deer consumption advisory issued can be described as:

Oscoda Township East (T24N, R09E) Sections: 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33, and 34

AuSable Township (T23N, R09E) Sections: 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 16, 17, 18, 19, 20, and 21

Wilbur Township (T23N, R08E) Sections: 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 23, and 24

Oscoda Township West (T24N, R08E) Sections: 1, 2, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, and 36

[See a visual, printable map](#)

Why did the state test deer in this area?

MDNR and MDHHS developed this investigation in response to questions from hunters concerned about harvesting deer in contaminated areas. This is the first study of its kind, and very little scientific information exists on PFAS exposure in whitetail deer.

DNR also collected an additional 60 deer for PFAS testing this year as part of the Michigan PFAS Action Response Team’s work on this emerging contaminant. In addition to the testing around the former Wurtsmith Air Force Base, 20 deer were taken from areas near each of the PFAS investigation sites in Alpena, Rockford, and Grayling. These sites all have lakes and rivers known to be contaminated with PFAS. The venison tested from these other areas had no PFAS or very low levels of the chemical detected. An additional 48 samples of deer muscle from the 2017 hunting season were also tested from other areas across the state. The results for these deer also showed no PFAS or very low levels of the chemical detected. Read the final report: [PFAS levels in Michigan Deer and Eat Safe Wild Game Guidelines](#).

Why the five-mile radius?

The deer with high PFAS levels was taken from Clark’s Marsh. Deer usually travel about one to one and a half miles but may travel farther in some circumstances. The “do not eat” advisory extends five miles around the marsh in order to provide an extra measure of protection for hunters and their families.

How did this deer pick up high levels of PFAS contamination?

It is unknown how PFAS could accumulate to this level in deer. The State of Michigan is investigating the circumstances of the one deer with elevated levels and doing further analysis on these test results to learn more about PFAS in deer and wildlife. In addition, the state will be doing additional testing on deer from the Clark’s Marsh region and performing modeling studies to learn about PFAS consumption in wildlife.

Can I eat other game species from this area?

DHHS is advising that in addition to fish and deer, other animals such as muskrat or turtles taken from Clark’s Marsh should probably not be eaten. While there isn’t any additional data at this time, it is reasonable to assume that levels in other animals living directly in the water of Clark’s Marsh could have elevated levels of PFAS.

What animals have been tested for PFAS?

In Michigan, to date, only fish and deer have been sampled for PFAS by the State for the purposes of determining if they are safe to eat. For more information about PFAS in wild game and fish, visit Michigan.gov/PFASResponse and go to the Fish and Wildlife button. For more

information about wild game consumption, visit Michigan.gov/EatSafeGame and click on the Eat Safe Wild Game button.

What about cattle, chickens, or other livestock raised in the area?

The advisory does not apply to cattle, chickens, or other livestock raised in the area. Those animals are provided drinking water and are not drinking water from Clark’s Marsh, the suspected source of contaminated drinking water for deer.

How do we know this wasn’t just a unique situation or a mistake?

The kidney and liver from this deer also had very high levels of PFOS, confirming this result. The muscle, kidney, and liver samples from this deer were all received at the laboratory individually packaged, processed separately on different days, and analyzed at the laboratory separately, so the high results in all three tissues helps to confirm these results.

If I have a deer in my freezer from the PFAS “do not eat” advisory area what do I do with it?

We recommend that you do not eat it because there is a possibility that it could have a high level of contamination. For more information about PFAS in wild game and fish, visit Michigan.gov/PFASResponse and go to the Fish and Wildlife button. For more information about wild game consumption, visit Michigan.gov/EatSafeGame and go to the Eat Safe Wild Game button. If you have health-related questions, please contact MDHHS at 800-648-6942.

If I want to throw my venison away, how should I do this?

You can throw it away in your trash or landfill.

How can I have venison tested? Can I take a deer to a check station to have it tested for PFAS?

PFAS testing is not possible at deer check stations. While the state cannot endorse or recommend any lab, the following labs confirmed that they will analyze PFAS samples from deer tissue.

For information on the cost and how to send deer tissue, contact:

Vista Analytical Laboratory

Contact: Martha Maier, mmaier@vista-analytical.com

Phone: 916-673-1520

Website: www.vista-analytical.com

Battelle

Contact: Jonathan Thorn, thornj@battelle.org

Phone: 781-681-5565

Website: www.battelle.org

GEL Laboratories, LLC

Contact: Robert Pullano, rlp@gel.com

Phone: 843-556-8171

Website: www.gel.com

Testing will tell you if there is PFAS in the meat but won't tell you how much or how often to eat the meat. While MDHHS cannot do the testing for you, they can review your results with you, if you wish. Please call 800-648-6942 and ask to talk to a toxicologist about PFAS levels in venison.

How are the deer tested?

Testing for PFAS is a several step process. First, deer are collected, and the lymph nodes are tested for chronic wasting disease and bovine tuberculosis. These lab tests take approximately 2 weeks. The disease testing is an important step because lab staff processing the venison could be exposed if the deer have diseases.

The meat and organs then go through several steps of processing for PFAS analysis. Laboratories tend to run samples in batches. It can take up to 12 weeks from the time the sample is received to get test results. It may take even longer if the results need to be confirmed with a second round of tests. The test results from the sample show the amount of PFAS measured in the sample (meat, organs).

What is done with the deer after it's tested?

During the PFAS testing process, any deer parts that are not needed for testing are disposed of. Due to the length of time it takes to collect and test the deer using our current process, the venison will not be fit for human consumption. For any future testing, the state will investigate opportunities to donate safe venison to food banks.

Can I take my deer to a processor or do I need to have test results first?

Hunters should not eat deer from the “do not eat” advisory area. We advise processors to ask hunters where they harvested their deer. If deer were taken from this area, the venison should not be eaten.

What if I've already eaten venison from this area? What about my kids?

One of the twenty deer tested near Clark's Marsh had high levels of PFAS, so not all deer in the area have high levels of PFAS. If you have eaten deer with PFAS, it doesn't mean you are sick or will get sick. For more information about PFAS in wild game and fish, visit [Michigan.gov/PFASResponse](https://www.michigan.gov/PFASResponse) and go to the Fish and Wildlife button. For more information about wild game consumption, visit [Michigan.gov/EatSafeGame](https://www.michigan.gov/EatSafeGame) and go to the Eat Safe Wild Game button. If you have health-related questions, please contact MDHHS at 800-648-6942.

What health problems can be linked to eating deer with PFAS?

Eating or drinking PFAS at levels that are commonly found in foods and drinking water does not guarantee that you will have health problems. However, individual health factors and genetics determine your actual personal risk.

Some studies have linked PFAS to health issues such as:

- Decreased response to vaccines
- Increased chance of fertility problems in women
- Increased chance of high blood pressure in pregnant women (preeclampsia)
- Increased chance of thyroid disease
- Increased cholesterol levels
- Increased chance of cancer, especially kidney and testicular cancers

If you have questions about your health, talk with your doctor. You may find the Agency for Toxic Substances and Disease Registry's factsheet, “Talking to Your Doctor about Exposure to PFAS” helpful. It is available at www.atsdr.cdc.gov/pfas.

I've eaten deer from this area. Should I have my blood tested?

Blood tests are available that can measure the amount of PFAS in blood at the time it is collected. However, the test cannot tell you how much PFAS was in your blood in the past or if the PFAS has or will cause health problems.

According to the Center for Disease Control and Prevention, most people in the United States have some amount of PFAS in their blood, especially PFOA and PFOS. There is no medical treatment to remove PFAS from blood.

If you're thinking about having your blood tested for PFAS, talk to your doctor.

How is PFAS different from deer diseases?

Deer diseases are caused by bacteria or viruses and are usually contagious. PFAS are chemicals that might build up in deer due to contamination in the environment rather than spread from one deer to another. A deer that has been exposed to PFAS is not likely to show any signs or symptoms of being ill. If you see a deer that appears to be sick, contact the DNR hotline at 800-292-7800.

What percentage of deer potentially have high levels of PFAS?

It is unknown at this time how many deer are potentially affected by PFAS exposure at this site. Additional testing of deer is necessary before these determinations can be made. Very little is known about the effects that PFAS has on the health of deer.

What does a deer with elevated levels PFAS look like? How can I tell which deer have it so I can avoid shooting one? What should I do if I see a sick deer?

A deer that has been exposed to PFAS is not likely to show any signs or symptoms of being ill. If you see a deer that appears to be sick, contact the DNR hotline at 800-292-7800.

If I harvested a deer from the "do not eat" area, can I get a replacement deer harvest tag, so I can take another deer?

If a deer was harvested within five miles of Clark's Marsh before learning about the advisory, a replacement license may be issued. Call 517-284-6057 or email mDNR-CustomerService@michigan.gov. The hunter can keep the antlers if taken with the original tag.

Are there rules for transporting deer from a “do not eat” area?

There are no transportation rules from this area. However, MDHHS and DNR recommend hunters do not eat the meat and organs and throw away the venison of any deer taken from this area.

What about baiting and feeding in that area? What other regulations will there be on hunting?

For the 2019 hunting season, baiting and feeding is banned in the entire Lower Peninsula and the core chronic wasting disease surveillance area in the Upper Peninsula. For current hunting regulations in your area, go to Michigan.gov/DNRDigests and review the appropriate hunting digest.

What precautions should processors take in the event a deer has been contaminated by PFAS?

Processors should ask hunters where they harvested their deer. If it's from the area surrounding Clark's Marsh, they should throw it away. Normal sanitation procedures should be enough in the event a processing machine comes in contact with a deer contaminated with PFAS.

What about other parts of the state? Is it still safe to eat deer where there have been other “do not eat fish” advisories?

At this time, there are no other advisories for eating venison from any of the other locations tested for PFAS.

In addition to the testing around the former Wurtsmith Air Force Base, 20 deer were taken from areas near each of the PFAS investigation sites in Alpena, Rockford, and Grayling. These sites all have lakes and rivers known to be contaminated with PFAS. The venison tested from these other areas had no PFAS or very low levels of the chemical detected. An additional 48 samples of deer muscle from the 2017 hunting season were also tested from other areas across the state. The results for these deer also showed no PFAS or very low levels of the chemical detected. Read the final report: [PFAS levels in Michigan Deer and Eat Safe Wild Game Guidelines](#).

Clark's Marsh has high levels of PFAS in the surface water due to its location near the former Wurtsmith Air Force Base. The State will continue to test additional wild game and fish across the state to assess levels of PFAS and will issue consumption advisories as needed.

Will more deer be taken in Oscoda?

The state plans to collect about 20-30 more deer from the Oscoda area surrounding the former Wurtsmith Air Force Base, to further determine the amount of possible contamination in the deer herd.

Can hunters help the state harvest deer for testing?

In Fall 2019, the state plans to initiate a pilot project for collection of hunter-harvested deer. Participants for the project are by invitation only and were pre-determined prior to the deer hunting season. Samples of up to 50 hunter harvested deer will be tested for PFAS from within the advisory area. The goals of the pilot project are to work out logistics for collection of hunter-harvested deer for PFAS testing, as well as obtain additional samples for PFAS testing of deer in the advisory area.

Can the deer be tested locally?

No, PFAS testing is not possible at deer check stations. The deer collected through the DNR's project will be sent to the Michigan Department of Health and Human Services' laboratory in Lansing, MI. Testing for PFAS in deer must be done in a laboratory with specific machines and procedures.

Are other wild game being tested and where?

DHHS and DNR are committed to further understanding contamination in deer and other wildlife such as turkey and waterfowl. The state will continue to look at areas where we know there is PFAS contamination. Information on those locations can be found at Michigan.gov/PFASResponse.

Where can people hunt?

If hunters wish to avoid the "do not eat" advisory area, they can still hunt the public land surrounding that area, in DMU 487 and DMU 006 to the south. Visit Michigan.gov/DNRDigests for more information on Deer Management Units (DMUs) that provide hunting opportunities.

Why was Tuttle Marsh included in the advisory area?

Tuttle Marsh was included in the advisory because the five-mile “do not eat deer” advisory area that was set around Clark’s Marsh, the suspected source of contaminated water. That area was chosen to represent the furthest distance deer might reasonably travel.

Should I have my well tested if I live in this area?

The five-mile area “do not eat deer” advisory was set around Clark’s Marsh, the suspected source of contaminated drinking water for deer. That area was chosen to represent a reasonable distance a deer might travel from the Marsh. It doesn’t represent the area where contaminated groundwater has moved from the base. The wells in those areas have been identified and testing has been offered to those well owners.

What is the state doing to get the contamination under control?

For current information on this site, please see the [Michigan PFAS Action Response Team webpage for the Former Wurtsmith Airforce Base](#), Iosco County

For more information about PFAS:

- Michigan PFAS Response: [Michigan.gov/PFASResponse](https://www.michigan.gov/PFASResponse)
- Michigan’s Eat Safe Fish Guidelines: [Michigan.gov/EatSafeFish](https://www.michigan.gov/EatSafeFish)
- EPA PFAS Info Page: [EPA.gov/PFAS](https://www.epa.gov/PFAS)
- Call the Michigan Toxics Hotline at 800-648-6942
- Discuss with a healthcare professional



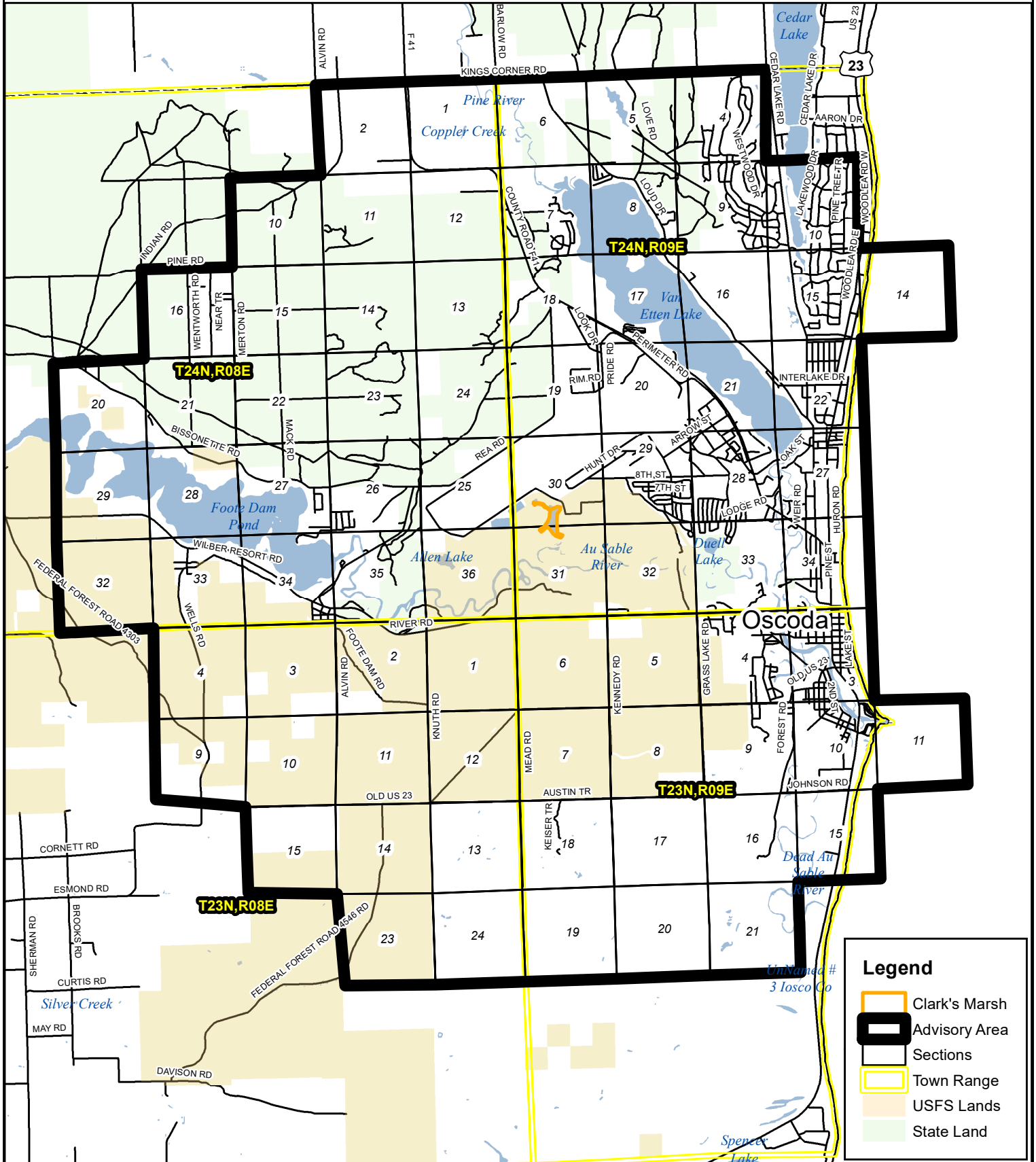
Clark's Marsh DO NOT EAT DEER



For more information go to:
www.michigan.gov/pfasresponse/

Advisory Area

Advisory Area
76.8 Square Miles



Legend

- Clark's Marsh
- Advisory Area
- Sections
- Town Range
- USFS Lands
- State Land

1 0.5 0 1 2 3 4 Miles