



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Former Wurtsmith Air Force Base and Oscoda Area Town Hall Meeting

July 16, 2019



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Updates former Wurtsmith Air Force Base

Remediation and Redevelopment Division
Superfund Section

Existing Remedies

- USAF is completing the Five Year Review for existing Remedies
- Annual Long term monitoring for volatile organic compounds completed this summer.



Vapor Intrusion Evaluation

- USAF is completing a Vapor Intrusion Evaluation
- Nationally, Agencies in recent years learned that there were potentially Vapor Intrusion risks from volatile organic compounds.
- EGLE/USAF Discussions begin again in August



PFAS

- EGLE is currently working on a summary report of EGLE PFAS investigations for 2017 and 2018.
- EGLE has been evaluating PFOS contaminated water venting to surface water
 - Van Etten Lake
 - Southern portion of base-Au Sable



PFAS

- USAF completed 3rd Round of PFAS sampling for the Expanded Site Inspection in May-June
 - Results pending
 - Supplied before the end of 2019
- USAF also sampled two wells at LF30/31 for PFAS
- USAF completed the 4th round of residential well sampling in June



PFAS Updates Email List Wurtsmith and Oscoda Area

To sign up, Visit
Michigan.gov/Wurtsmith

Updates on

- important news
- community meetings
- PFAS investigation updates



News Release: EGLE offers email list for PFAS updates regarding former Wurtsmith Air Force Base and Oscoda area

Michigan Department of Environment, Great Lakes, and Energy sent this bulletin at 07/11/2019 03:55 PM EDT

For Immediate Release:

July 11, 2019

EGLE Media Office, EGLE-Assist@Michigan.gov, 517-284-9278

EGLE offers email list for PFAS updates regarding former Wurtsmith Air Force Base and Oscoda area

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) created an email list specifically for the former Wurtsmith Air Force Base and Oscoda Area per- and polyfluoroalkyl substances (PFAS) investigations. Those interested can sign up for the email list to stay informed on important news, community meetings, and PFAS investigation updates. Updates are sent when significant content is added to the webpage, such as information on community meetings and when significant advancements in the investigation occur.

To sign up, visit the former Wurtsmith Air Force Base webpage on the Michigan PFAS Action Response Team (MPART) website at Michigan.gov/Wurtsmith.

Scroll down to find the header "Sign Up for Email Updates" and click "Subscribe to the Updates" to get to the EGLE subscription list. Enter your email, then find the "Local Topic Updates" header, select "Former Wurtsmith Air Force Base and Oscoda Area Investigations" and click "Submit" at the bottom of the page. This pathway also is available on the [Oscoda Area webpage](#) on the MPART website.

To stay up to date on other EGLE news follow us at Michigan.gov/MIEnvironment.

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You are subscribed to Press Releases for Michigan Department of Environment, Great Lakes, and Energy. This information has recently been updated, and is now available.



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

2019 Oscoda Area Monitoring

Water Resources Division

Water Resources Division
2019 Oscoda Area Monitoring

Monitoring Studies

1. Fish Contaminant Monitoring
 - Van Etten Lake
 - Ausable River
 - Cedar Lake

2. AuSable River Plume study

2019 Oscoda Area Fish Collection Plans

- Update data for selected species from Van Etten Lake and the Au Sable River
- Fill Van Etten Lake data gaps (yellow perch, channel catfish)
- Collect bass and panfish from Cedar Lake
- Simpson Lake

VAN ETTEN LAKE FISH SAMPLES

	Most Recent PFAS Sample	Total Number	PFOS 95% UCL (ppb)	Planned 2019 Collection
Black Crappie	2018	6	31	
Channel Catfish	--	--	--	X
Largemouth/Smallmouth Bass	2018	5	56	X
Northern Pike	2018	10	14	
Bluegill/Pumpkinseed	2012	10	10	X
Rock Bass	2018	20	15	
Walleye	2018	20	26	
White Sucker	2010	10	18	
Yellow Perch	--	--	--	X

AU SABLE RIVER FISH SAMPLES

	Most Recent PFAS Sample	Total Number	PFOS 95% UCL (ppb)	Planned 2019 Collection
Bluegill/Pumpkinseed	2015	20	473	X
Carp	2015	10	11	
Largemouth/Smallmouth Bass	2018	30	106	
Rock Bass	2014	18	26	X
Walleye	2014	14	26	
Yellow Perch	2014	7	14	X

AU SABLE RIVER PLUME SURFACE WATER MONITORING

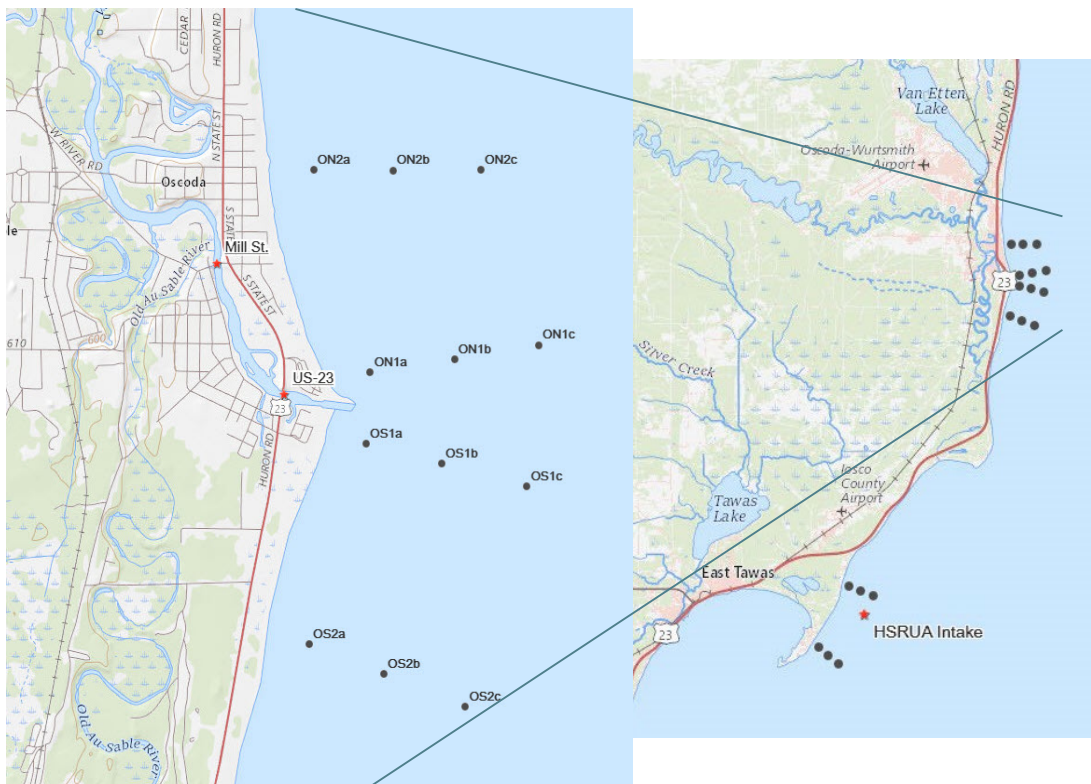
AU SABLE RIVER

- SAMPLE AT MILL ST & US-23
- DEPTH COMPOSITE AT EACH

LAKE HURON

- 6 TRANSECTS
- 3 SAMPLING POINTS PER TRANSECT
- 3 GRAB SAMPLES PER POINT

FOUR SAMPLING EVENTS PLANNED



OBJECTIVE: Determine the extent of measurable PFAS contamination in nearshore Lake Huron south of the Au Sable River mouth

For Additional Information:

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Fish Contaminant Monitoring Program
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Bay City District Updates Oscoda Area Investigations

Ann Person

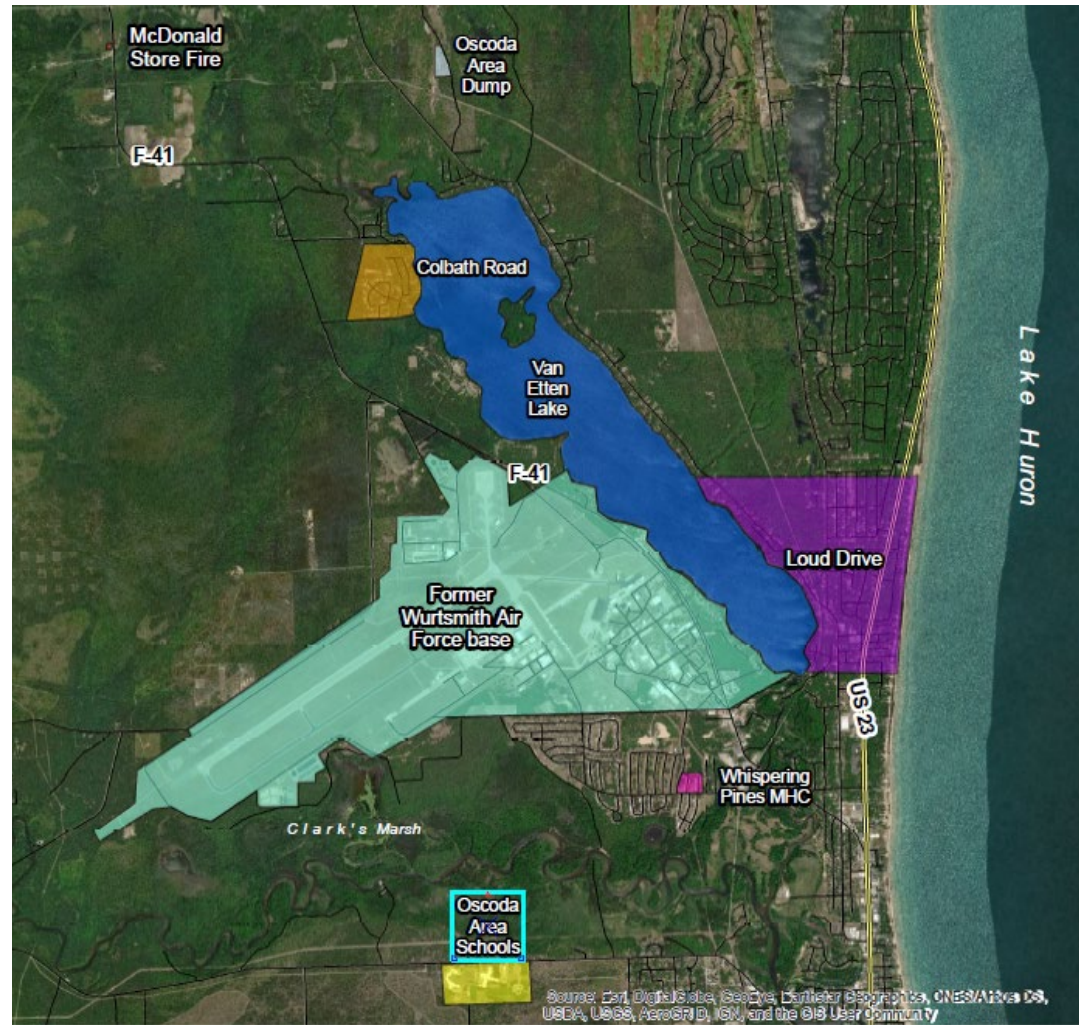
Remediation and Redevelopment Division

Bay City District Office

persona@Michigan.gov 989-894-6248

Oscoda Area PFAS Investigation Sites

- Loud Drive
- Whispering Pines
- Van Etten Lake
- Colbath Road
- McDonald Store
- Oscoda Area Schools
- AuSable Township
- Oscoda Twp Dump



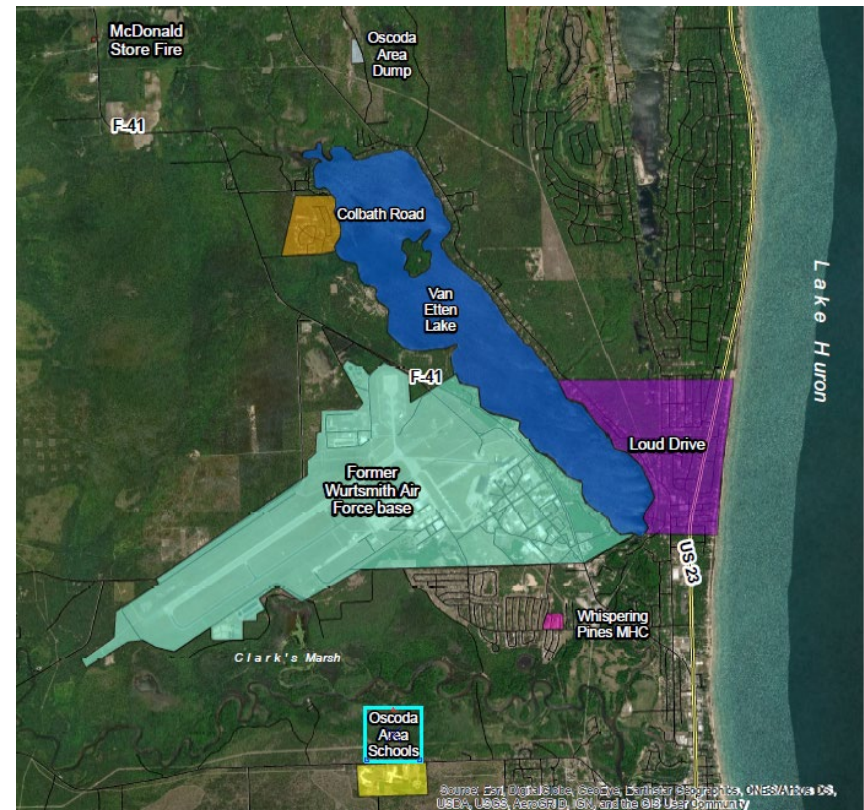
McDonald Store

- A historic fire occurred at the **McDonald Store** in 1992. The fire was put out with large quantities of foam.
- EGLE's consultant conducted a soil, sediment and surface water investigation of the area in July 2018. Based on the results of the investigation EGLE hopes to begin removal of the most contaminated soils within the next year.



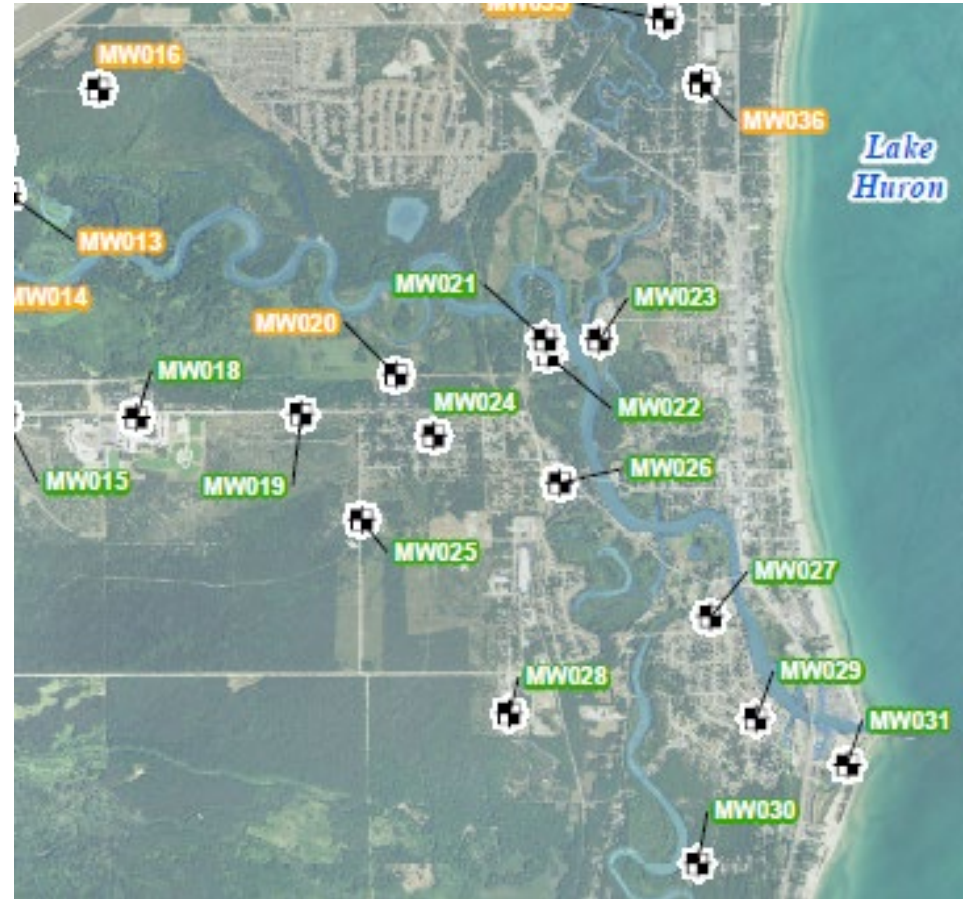
Colbath Road, Loud Drive & Oscoda Area Schools

- Fire fighting foam was reportedly used in the **Colbath Road** neighborhood. In 2016 & 2017, EGLE conducted a groundwater investigation of the area and installed several monitoring wells. Elevated PFAS concentrations were identified.
- A historic fire at the **Oscoda Area Schools** complex was extinguished with foam. In 2016 EGLE completed a groundwater investigation based on detections of PFAS in the school's drinking water wells. Drinking water wells along **River Road** and **Pine Crest Subdivision** were also sampled. The Oscoda schools complex was hooked up to municipal water in 2018.
- In 2016, a resident located on **Loud Drive** identified contamination in their well. EGLE completed a groundwater investigation and multiple drinking water wells have been sampled.
- EGLE plans to continue groundwater and drinking water well sampling at all three of these sites over the next year.



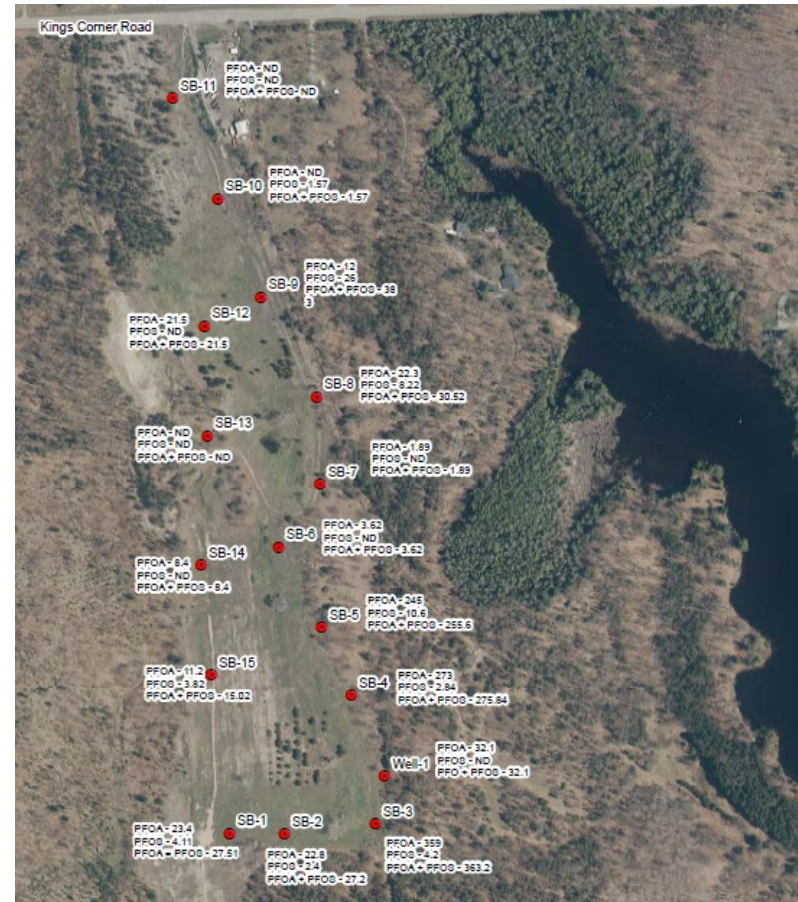
AuSable Township

- In 2017 & 2018 EGLE's consultant conducted a large-scale investigation to look at groundwater conditions throughout the Oscoda area. 36 cluster monitoring wells were installed in Oscoda and AuSable Townships.
- PFAS was detected in many of the monitoring wells, but not all detections appear to be associated with the former Air Force Base.
- EGLE plans to conduct additional groundwater investigation near some of the **AuSable Township** wells with elevated PFAS concentrations to help identify potential sources.



Oscoda Township Dump

- In December 2018 EGLE completed a groundwater investigation around the perimeter of the former **Oscoda Township Dump**. The investigation was based on concerns waste containing PFAS may have been disposed at the dump.
- 16 groundwater samples were collected, 11 detected PFAS and 3 identified concentrations of PFAS above EGLE's drinking water criteria of 70 ppt. In March 2019, nine drinking water wells in the surrounding area were sampled. All 9 wells had no detections of PFAS. Results are pending for one additional drinking water well sample collected in June.
- A letter was sent to Oscoda Township in June, asking the township to determine the extent of the contamination coming from the dump.



USDA Forest Service Updates

Drinking Water Well Test Updates

Michigan Department of Health and Human Services

July 16, 2019

Number of residential well tested

- March 2019 – **18** Residential Wells Tested
 - Oscoda Township dump site - **9** wells
 - Colbath area - **4** wells
 - Loud Drive area - **3** wells
 - AuSable Township - **2** wells

Residential well test

- The Oscoda Township dump site wells were tested for PFAS, volatile organic compounds (VOCs) and metals
- The Colbath area, Loud Drive area and AuSable Township wells were only tested for PFAS

Results

- Oscoda Township dump site residential wells (9)
 - PFAS and VOCs: **not detected**
 - Metals, that occur naturally, were found. The results are below the *EGLE Part 201 Residential Drinking Water Criteria*
- Colbath area residential wells (4)
 - PFOS found in **1** well at **5 parts per trillion (ppt)**

Results

- Loud Drive area residential wells (**3**)
 - PFBS and PFHxS found in **1** well (PFBS at **6 ppt** and PFHxS at **5 ppt**)
- AuSable Township area residential wells (**2**)
 - PFOA found in **1** well at **2 ppt**

Abiy Mussa, Toxicologist
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PFAS Foam Signs Van Etten Lake

Avoid Foam



Foam may have high amounts of PFAS.

Rinse off foam after contact. Rinsing in the lake or river is okay.

Bathe or shower after the day's outdoor activities.

PFAS contaminated foam can:

- Be bright white
- Be lightweight
- Pile up like shaving cream
- Be sticky
- Blow inland

Touching the water is not a health concern. Enjoy swimming, boating, and fishing.



Do not allow pets to drink foamy water. Rinse pets with water after contact with foam to avoid swallowing PFAS that may be on their fur.



For more information, call MDHHS at 800-648-6942 or visit www.michigan.gov/PFASresponse.



- 6 signs went to the DNR for Posting at the Campground
- 6 signs at Ratliff Park
 - Boat Ramp
 - Playground
 - Beach
 - both open Air pavilions
 - West side of Warrior pavilion



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PFOS Groundwater Surface Water Interface – Van Etten Lake

PFOS Groundwater-Surface Water Interface – Van Etten Lake

- What is GSI?
 - Groundwater Surface Water Interface that is the location at which groundwater enters a creek, stream, river or lake.

PFOS Groundwater-Surface Water Interface – Van Etten Lake

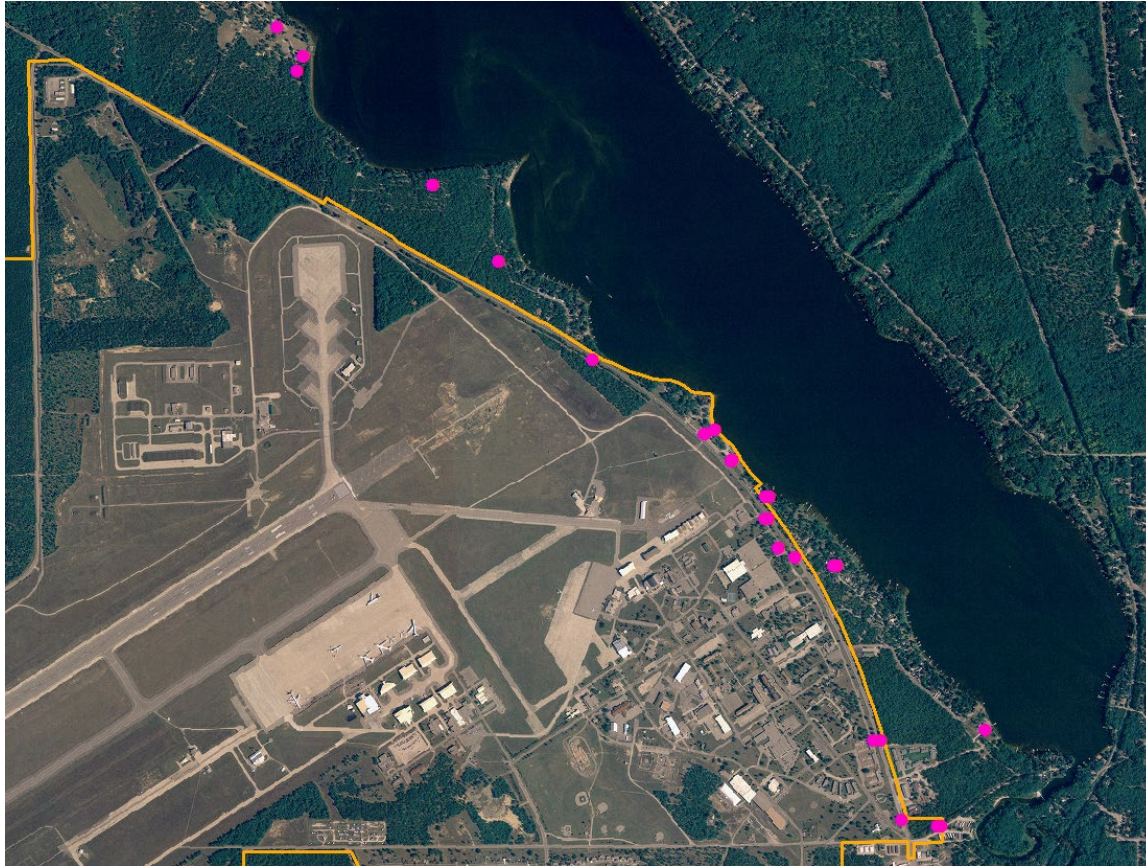
- Groundwater flow direction
- Groundwater concentrations above the GSI criteria
 - 12 parts per trillion for PFOS
- Thermal imaging
- Pore-water sampling
- Surface water sampling

PFOS Groundwater-Surface Water Interface – Van Etten Lake



Monitoring Wells Used for Groundwater Flow
Determination

PFOS Groundwater-Surface Water Interface – Van Etten Lake



PFOS Above GSI (12 parts per trillion)

PFOS Groundwater-Surface Water Interface – Van Etten Lake



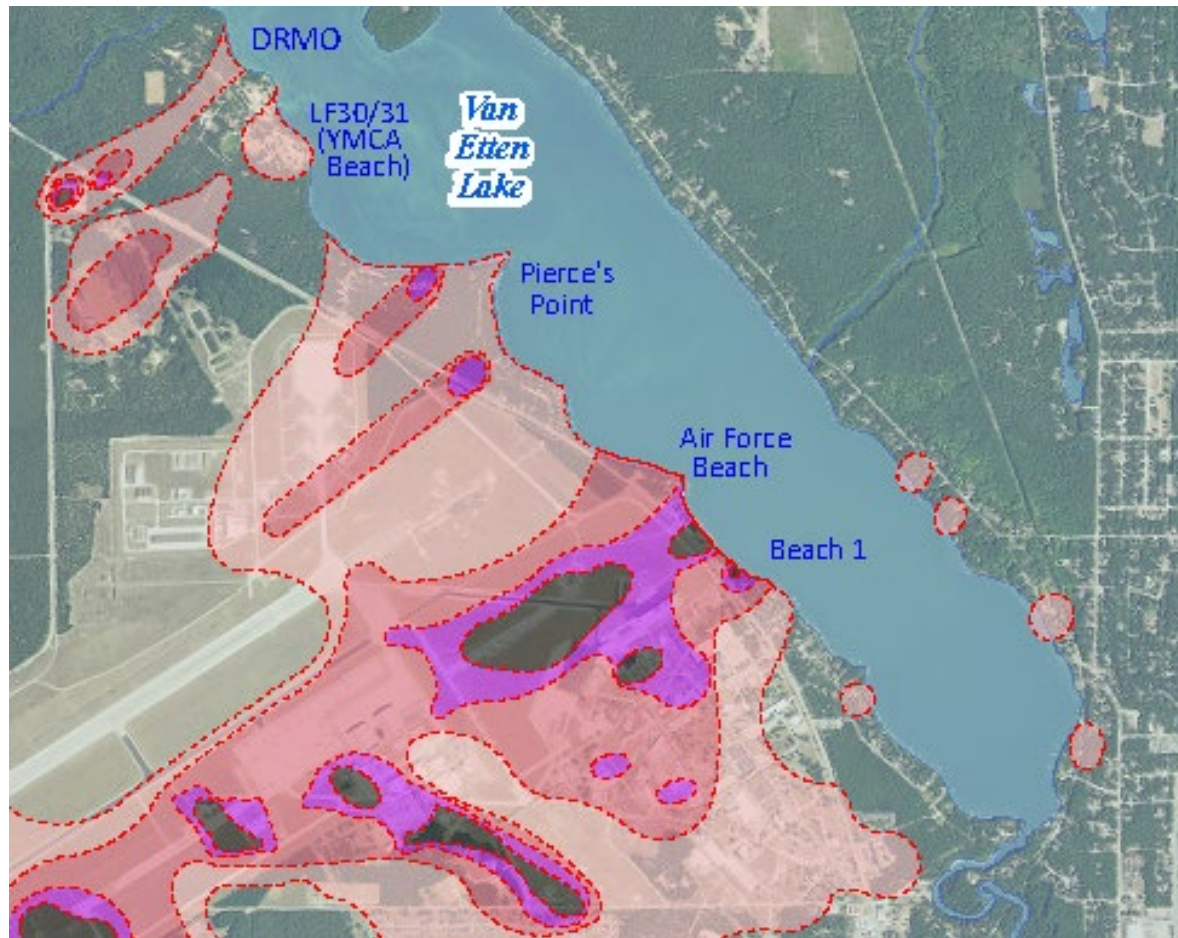
Pore Water Samples – December 2018

PFOS Groundwater-Surface Water Interface – Van Etten Lake



Surface Water Samples – December 2018

PFOS Groundwater-Surface Water Interface – Van Etten Lake



PFOS Groundwater-Surface Water Interface – Van Etten Lake

- Groundwater with PFOS concentrations above 12 ppt is venting from the former base to the western side of Van Etten Lake
- Consistent with the groundwater presentation presented by USAF John Gillespie at April 2019 RAB



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Next Steps

Remediation and Redevelopment Division
Superfund Section

July 1, 2019 USAF and EGLE Press Release

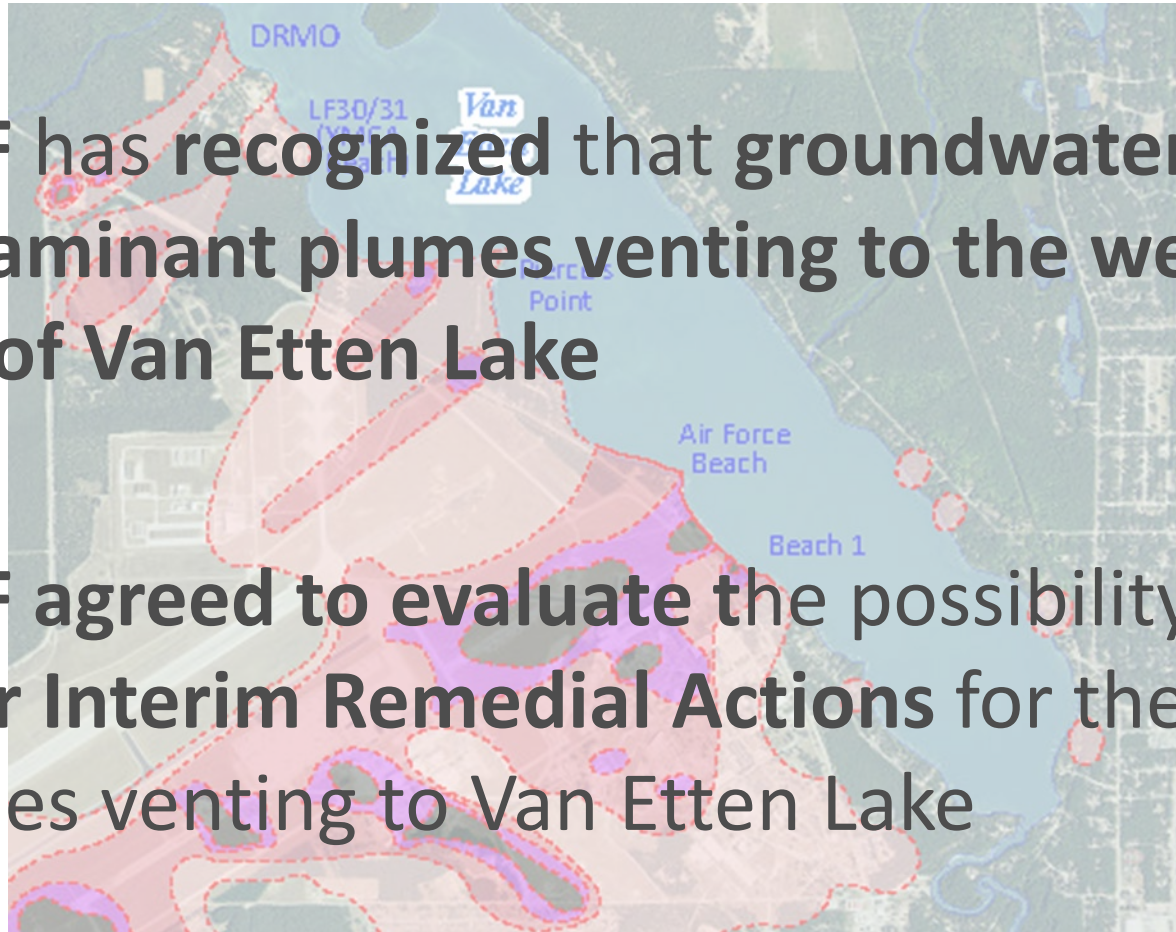
- USAF made commitment to a **Remedial Investigation (RI)**
- USAF agreed to **Michigan's** regulatory limit of **12 ppt for PFOS** for groundwater venting to surface water

July 1, 2019 USAF and EGLE Press Release

- USAF agreed to complete the **Expanded Site Inspection (ESI)** by then **end of the 2019**
 - ESI will provide **evaluate effectiveness of the existing** interim remedial action treatment **systems** (including FT-02) that capture and treat contaminated groundwater
 - ESI will identify areas for **more extraction wells**

July 1, 2019 USAF and EGLE Press Release

- **USAF has recognized that groundwater contaminant plumes venting to the western side of Van Etten Lake**
- **USAF agreed to evaluate the possibility of other Interim Remedial Actions for the plumes venting to Van Etten Lake**



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