Former Wurtsmith AFB
Restoration Advisory Board (RAB) Meeting
6 June 2018
5:30 – 7:55 pm Eastern Daylight Time
Robert J. Parks Public Library
6010 N. Skeel Ave., Oscoda Township, MI 48750

Final Meeting Minutes

Members Present	**Organization**	**Comment**
Tim Cummings	Oscoda Township	
Robert Delaney	Michigan Department of Environmental Quality (MDEQ)	
Christina Bush	Michigan Department of Health and Human Services (MDHHS)	
Bill Gaines	Community Member	
Arnie Leriche	Community Co-Chair	
Chuck Lichon	District Health Department #2 (DHD2)	
Matt Marrs	Air Force Civil Engineer Center/Air Force Co-Chair	
Tony Martoglio	U.S. Department of Agriculture Forest Service (USFS)	
Joe Maxwell	Community Member	
Jeff Moss	AuSable Township	
Mike Munson	Oscoda-Wurtsmith Airport Authority (OWAA)	
Dan O'Connor (Alternate)	Community Member	
Jerry Schmidt	Community Member	
Dan Stock (Alternate)	Community Member	
Robert Tasior	Community Member	
Aaron Weed (Alternate)	Oscoda Township	
Cathy Wusterbarth	Community Member	
Catherine Larive (Alternate)	Community Member	
Joe Plunkey	Community Member	
John Nordeen (alternate)	Oscoda Township	
Irene Dunn (alternate)	Community Member	
Jim Davis (Alternate)	Community Member	
Martha Gottlieb (Alternate)	Community Member	
Members Absent	**Organization**	
Matthew Hegwood	Community Member	
Ryan Mertz	Community Member	
Other Attendees	**Organization**	
Saamih Bashir	AMEC (Air Force contractor)	
Dale Corsi	DLZ (MDEQ contractor)	
Jenny Haglund	Oscoda Press	
Breanne Humphreys	Cherokee (Air Force contractor)	
Bill Palmer	Trustee of Oscoda Township Board	
Paul Rekowski	AGEISS (Air Force contractor)	
Beth Flynn	AMEC (Air Force contractor)	
Malcolm McClendon	AFIMSC Public Affairs	
Troy Techlin	Saginaw Chippewa Indian Tribe	
Rose Mary Nentwig	Oscoda Resident & Librarian	
Greg Watson	Aerostar, LLC	
Gene Kirvan	AuSable River Steelheaders, Lake Huron Sport Fishing	
Jacob Bennett	Congressman Dan Kildee's office	
Marilyn Overholt		
Lynn Winn		
Dave Winn		
Melanie Brown	MDEQ, Communications Director	
Garret Ellison	MLive	

Michael J Smith		
Susan Kitzman	Citizen	
Marilyn O'Connor	Oscoda resident	
Rex Vaughn	Cedar Lake Improvement Board	
Michael Lewandowski	Citizen	
Susan Blake	U.S. Forest Service	
Tom H		
Tom Ponder	Oscoda resident	
Melissa Witkowski	Grand Traverse Band of Ottawa and Chippewa Indians	
Deb Jones	Oscoda resident	
Marion Szewc	Oscoda resident	
Dave Schaeffer	Oscoda resident	
Gary Kellan	Oscoda-Wurtsmith Airport	
Sesha Kallakuri	MDHHS	
Lora Greene	State Rep. Candidate	
Ross Tingley	Oscoda resident	
Donna Tingley	Oscoda resident	
Ben Lauber		
Jane Lauber		
Kay Greene		
Robert Kelly	Oscoda resident	
Facilitator	**Organization**	
Tim Sueltenfuss	Galen Driscol (Air Force contractor)	

Attachments
Attachment 1: RAB Agenda
Attachment 2: Air Force Presentation
Attachment 3: Project Tracker
Attachment 4: AF Acronym List
Attachment 5: RAB evaluation summary
Attachment 6: 18 April RAB Q&As
Attachment 7: OWAA: Site Assessment Grant Application
Attachment 8: MDEQ Presentation
Attachment 9: MDEQ Maps
Attachment 10: Action Item Tracker

Link to video: https://www.youtube.com/watch?v=0-b7HkIe1wE

Welcome and Introductions (0h:12m:19s)

Mr. Tim Sueltenfuss, facilitator, began the RAB meeting at 5:30 pm and welcomed RAB members and others in attendance. Mr. Sueltenfuss introduced Mr. Matt Marrs, the Air Force Co-Chair and the Base Realignment and Closure (BRAC) Environmental Coordinator (BEC). Mr. Marrs welcomed the RAB members to the meeting, recommended a moment of silence and commended Oscoda Township and the Oscoda-Wurtsmith Airport Authority for working in partnership with the Air Force to push forward on an Access Easement agreement critical to progress on the Arrow Street/Benzene Granular-Activated Carbon Pump and Treat System project underway.

RAB Member Introductions (0h:15m:45s)

Greater than 50% of community RAB members, greater than 50% of government RAB members, and both co-chairs were present, so a quorum was present.

Agenda (0h:18m:20s)

Mr. Sueltenfuss summarized the established agenda items. Per a decision made earlier between the RAB co-chairs, Mr. Sueltenfuss announced some adjustments would be made to make the RAB meeting more streamlined and efficient. Mr. Sueltenfuss reminded attendees to add their name to the sign-in sheet and for those who wish to make a public comment to sign the public comment sign in sheet and record comments on the provided card.

Mr. Sueltenfuss asked members to take turns reading the Wurtsmith RAB Ground Rules.

Stakeholder Updates (0h:21m35s)

Mr. Sueltenfuss reminded the RAB that stakeholder updates are intended to be brief informational updates, specifically any items that occurred since the April 18, 2018 meeting, and any more detailed information will occur further along in the meeting.

Michigan Department of Environmental Quality (0h:22m:05s)

Mr. Bob Delaney, MDEQ, said 20 deer were taken by professional hunters from the Clark's Marsh area to be analyzed for PFOS. Results are anticipated to be available this fall. MDEQ is also contracting to have a pilot test to capture foam from beaches. More details are provided later in the meeting.

Air Force Civil Engineer Center (AFCEC) (0h:23m:40s)

Mr. Marrs updated the community on the ongoing Drinking Water (DW) Monitoring Program. Ms. Beth Flynn, AMEC Foster Wheeler said so far they've collected 29 samples from residents and have nine seasonal residents they're still trying to get in touch with. Results should be available in about four weeks.

Oscoda-Wurtsmith Airport Authority (0h:24m:48s)

Mr. Mike Munson talked about OWAA's responsibility to benefit the community and proposed efforts to maximize their impact on the community, including a runway reconstruction this summer using federal, state and local airport money. He said there are 26 businesses on airport property that employ anywhere from one to 700 people, employing the equivalent of about 25 percent of the Oscoda Township population. Mr. Munson highlighted a potential project on the horizon, two new aircraft hangars. Prior to construction the airport must complete a NEPA action, which will be completed using funds from the Brownfield Redevelopment Program.

Michigan Department of Health and Human Services (0h:27m:55s)

Ms. Chris Bush, MDHHS, discussed the latest on the Colbath neighborhood well sampling. Ms. Bush anticipates results will be mailed to residents shortly. She said with the exception of the one residence that exceeded the U.S. Environmental Protection Agency's Lifetime Health Advisory (HA) for Perfluorooctanesulfonic Acid (PFOS)/Perfluorooctanoic Acid (PFOA) in the initial round of sampling in the Pinecrest area (across from the high school), no additional DW wells exceeded the HA and MDHHS recommendations remain the same.

Ms. Bush said MDHHS is wrapping up a foam evaluation for the area. She referenced a report from the evaluation that MDHHS previously completed in Kent County. The report was made available to the county health office, but is also available publicly online for anyone interested in learning more about their evaluation process.

The MDHHS fish update will be provided later on in the meeting.

Community Updates (0h:30m:10s)

Based on recent community feedback, Mr. Leriche said the most pressing topic of concern for the community is the release of the MDEQ report on plume modeling that was completed last August and has been under management review, most recently being submitted for review by an outside consultant and

he asked to know when it would be made available to the public. Mr. Leriche emphasized the value of this report to the community, citing its impact on remediation efforts and health effects.

Ms. Cathy Wusterbarth, Community RAB Member and Need Our Water (NOW) member, discussed ongoing community support, engagement with state leaders and collaboration with similar groups. Ms. Wusterbarth said NOW is demanding the release of the ATSDR study (Agency for Toxic Substances and Disease Registry.) Ms. Wusterbarth said they believe the report could show evidence for the lowering of safe Per- and Polyfluoroalkyl Substances (PFAS) levels and will greatly impact the process Oscoda is currently in.

Technical Presentations (0h:33m40s)

Mr. Marrs provided an overview of the Air Force's data gathering processes and guidelines and explained how the Air Force uses MDEQ's sampling results to guide future sampling efforts.
Mr. Delaney said that historically the Air Force has gathered a majority of the site data. Under a federal grant, he said MDHHS can sample 10 percent of the same areas to validate/check Air Force work. MDEQ sampling conducted for residential wells and other investigative work is funded by money from the state — that data is shared with the Air Force. Mr. Delaney said the Air Force is using the data MDEQ provides in the ways he would expect, though he hasn't seen the Air Force use data pertaining to surface water, contaminants on the east side of Van Etten Lake or fish. As a matter of policy, he said the Air Force only provides data on their maps for the two regulated contaminants—PFOS and PFOA—whereas MDEQ provides data for all PFAS screened on their maps. The Air Force performs the same screening, however, the data for PFAS contaminants, other than PFOS and PFOA, are provided in Air Force reports, but not in maps.

Mr. Robert Tasior asked who is doing the monitoring at Clark's Marsh, the Air Force or MDEQ?

Mr. Delaney said both: the Air Force has the pump and treat system and has an agreement with MDEQ to continually monitor to make sure the system is operating properly—capturing what it's supposed to and discharging water within the criteria. He said the Air Force has also been doing more investigation work and sampling in that area, while MDEQ is checking the marsh water continuously to see if it's improving.

Mr. Tasior asked if Clark's Marsh is considered a secondary source of contamination. Mr. Delaney said the reality is that the sediments of the marsh are contaminated by the plumes and they accumulate in the sediments like the fish and they continue to bleed out into the surface water. Mr. Delaney said it will be a secondary source in the way that he's thinking and how to deal with that is a big and difficult question they'll face.

Mr. Sueltenfuss reminded RAB members of the questions and answers document provided to RAB members via email prior to the meeting that included a Q&A that pertains to that question (Attachment 6).

Mr. Leriche asked for confirmation about the grant MDEQ receives from the Air Force and about whether or not they also review the documents the Air Force uses to recommend solutions and remediation and also the environmental management of the state's requirements to help the Air Force understand that and the state's enforcement responsibilities. Mr. Delaney confirmed Mr. Leriche's summation and confirmed the grant totals about $500,000 annually.

Mr. Bill Gaines asked what needs to be done to determine the source of contamination and establish responsibility for contamination off base, such as the east side of Van Etten Lake and by the school, as well as the contamination potentially passing through what was thought to be natural barriers.

Mr. Marrs explained that the CERCLA process will establish sources and responsibility.

Mr. Delaney clarified that the CERCLA process will take the Air Force to full resolution— answering the question of the full nature and extent of contamination.

Ms. Martha Gottlieb asked why her and her neighbors (east side of Van Etten Lake) were given filters more than a year ago and told contamination impacting their water was from the Air Force Base. Ms. Gottlieb wanted to know why it sounds like the Air Force isn't using the sampling data MDEQ has that links contamination in that area to Air Force activities.

Mr. Delaney clarified that the Air Force has never asserted contamination in that area came from the base, and that MDEQ has said that they believe that contamination comes from the Air Force Base due to plume size. He said scientists develop hypothesis as to why things happen, and the MDEQ hypothesis is the PFAS on the east side of the lake came from the base.

Ms. Gottlieb wanted to know why the Air Force isn't using MDEQ's data to establish responsibility. Mr. Marrs explained the Air Force uses data gathered from the company contracted by the Air Force to collect sampling data. He said right now their emphasis is on DW receptors on the west side of the lake because on the east side of the lake, they've looked at the old U.S. Geological Survey maps that show there is another groundwater divide, and that the groundwater migrates from Cedar Lake down to Van Etten Lake on the east side of the lake (the USGS reports from the 1983, 1986, 1991, and 1993 studies at Wurtsmith can be found in the Administrative Record). He said more will be determined as the Air Force continues its investigation following the CERCLA process.

SSI (Supplemental Site Inspection) Update (0h:51m31s)

Mr. Marrs revisited the SSI objectives discussed during the 18 April 2018 RAB meeting. He said since that meeting the Air Force adjusted their SSI objectives by expanding sampling efforts and areas included in the SSI Workplan. Those additional areas include 5, 4 and 6.

Right now, the focus is on protecting DW sources. Mr. Marrs said as they proceed through the SSI process they'll provide recommendations for the mitigation needed to ensure the DW wells remain below the HA for PFOS and PFOA. He hopes to have the SI report finalized in the near future.

Mr. Marrs said the SSI does more than just info gathering, we also have the hydraulic profiling tool we'll be looking at in areas 1,2,4,6 and 15, throughout the process to help determine the best mitigation efforts to implement as they move forward. He said they've also upped the number of vertical aquifer sampling locations from four to six in areas 4 and 6.

In area 5, the former DRMO (Defense Reutilization Marketing Office), the contractor is reevaluating the data there. Even though it's not a DW source, it's upgradient from the YMCA camp.

Discussing Landfill 30/31, Mr. Marrs said the Air Force is proceeding with an Out Of Cycle project for the feasibility study and action alternatives for that site.

GAC PTS (Granular Activated Carbon Pump and Treat System) Update (0h:56m:30s)

Moving forward, Mr. Marrs said the Air Force will be looking at doing a lot of hydrogeologic investigation using the HPT throughout various areas and updating the groundwater monitoring to see about breakthrough and capture, for not only the Arrow (Street) and Benzene Plant, but also Mission Street Pump and Treat System. Referencing the Arrow Street/Benzene GAC Treatment System currently under construction, Mr. Marrs said the next phase of that project will be in 2019 and that will be to tie the Mission Street in to that system. The current project only uses less than half the building's treatment capacity of 500 gallons per minute. Moving forward, as the Air Force works to tie in the Mission Street Plant; Mr. Marrs said the Air Force will be looking at alternate technologies, like Resin, to potentially use in conjunction (pre-treatment) with GAC. He said the current carbon filter replacement rate is too high (approximately every 80 days).

SSI Fieldwork update continued (0h:58m52s)

Ms. Beth Flynn, AMEC Foster Wheeler, presented more details regarding ongoing and planned SSI fieldwork. She commended the cooperation of MDEQ for their quick-turn review and approval of their draft work plan and permission to proceed with work ahead of final work plan approval.

Ms. Flynn said they talked to the former assistant base fire chief earlier that day and he confirmed they had conducted weekly testing in Area 1; she said that information supports and explains the sampling data they've collected in that area.

Ms. Flynn said that 59 more samples across 21 locations on the former base have been collected since the last RAB meeting and are being analyzed. Future sampling will focus in areas outside the capture zones of the GAC PTS.

Regarding Areas 4 and 6, Ms. Flynn said they're currently seeking permission to conduct vertical aquifer sampling on the other side of F-41 and to install additional monitoring wells.

Mr. Marrs said AMEC and the Air Force will be updating the map displayed (slide 12). He pointed out the groundwater divide that runs through the base. On one side of the divide he said the groundwater flows from the base toward Van Etten Lake; on the other side of the ground water divide the ground water flows toward Clark's Marsh and the AuSable River. The goal of the updated map is to make it more user-friendly. The Air Force will also create another map that identifies all the IRP (Installation Restoration Program) sites to help people better understand the full restoration snapshot.

Ms. Flynn highlighted the additional SSI objectives called out for Areas 4 and 6 (Slide 13).

The DRMO in Area 5 was identified as a potential release area during the 2016 assessment. Right now, they're not aware of DW receptors, but Ms. Flynn said ongoing sample will confirm that and help them decide how to proceed.

Drinking Water Monitoring Program (1h:06m:25s)

Regarding the latest sampling effort for the ongoing DW monitoring program, Ms. Flynn said they've completed DW sampling for 29 residences and are currently working to schedule nine more. Results are expected to be available in four to six weeks.

Mr. Gaines reiterated the need to provide more legible maps, larger and/or sharper, with clear labels for each site.

Break (1h:09m:55s – 1h:20m:50s)

Benzene/Arrow Street GAC PTS Update (1h:20m:50s)

Mr. Marrs provided the latest update on the Benzene/Arrow Street GAC System currently under construction. Mr. Marrs discussed construction status and progress. He noted RAB members who joined him for a brief site walk prior to the meeting saw this progress firsthand.

Most recently installed was a 20-inch-thick slab of concrete that will support the heavy treatment equipment once the project is complete. Mr. Marrs hopes to host a ribbon cutting ceremony for the facility in August in conjunction with the next RAB meeting.

Mr. Marrs cited a few roadblocks that caused some delays since construction began: the first, a snow storm in April, and the second working through a non-exclusive easement for the agreement with Oscoda Township regarding the underground pipeline that will tie in the Arrow Street and Benzene Plants. Mr. Marrs thanked the Township and OWAA for their efforts to work with the Air Force to find a solution. The mutually agreeable solution allows for a horizontal boring that will be installed at five feet below grade, which will be below the other utilities. Mr. Marrs said the Air Legal Team is working to get the title report and legal descriptions together to accompany the agreement.

During recent program management reviews for the next fiscal year, Mr. Marrs said BRAC program leaders indicated a desire to look at other treatment technologies, like resin, to augment GAC treatment at both the FT-02 and the Arrow Street/Benzene Plants.

Mr. Marrs hopes to bring Subject Matter Experts on various treatment technologies, including resin, to a RAB meeting in the fall/early winter timeframe to present and answer questions.

Mr. Jeff Moss inquired about the PFAS-saturated carbon filters and where they are taken when the new filters are installed. Mr. Paul Rekowski, AGEISS contractor, and Mr. Delaney both explained that Calgon Carbon takes the filters back to Pennsylvania where they regenerate the carbon for reuse and destroy the contaminants.

MDHHS Presentation (1h:30m:00s)

Mr. Sueltenfuss said the co-chairs developed a meeting-standards document which indicated practices that will make the meetings run as effectively and efficiently as possible. One of those practices is having a standing agenda item for a technical presentation by the regulatory partners. He stated that MDHHS will begin the update and then MDEQ will provide an update.

Ms. Bush pointed out a typo in the presentation—slide 19 should have read, MDHHS Fish Contaminant Monitoring Program.

Ms. Bush provided the website for more detailed information on the Fish Contaminant Monitoring Program: Michigan.gov/eatsafefish

Ms. Bush explained an adequate sample size for fish monitoring is at least 10 fish of a species. She said they could use as few as five, though more is always better because the statistics are stronger with a larger sample size.

She said MDHHS has not conducted further sampling at Clark's Marsh. Instead, they prefer to wait until contamination is addressed so they can assess how that impacts contamination in the fish in the marsh. For now, the Do Not Eat Fish Advisory at Clark's Marsh stands.

In Van Etten Lake, MDEQ worked with the Department of Natural Resources to collect fish from the water, using methods like electroshock, nets, or a hook and line. So far this year they've collected 10 pike, 10 walleye, six black crappie and five rock bass—however no perch were collected, so there is a plan to collect those later this summer. In the AuSable River, downstream of the damn, they collected 10 Atlantic salmon and 10 small-mouth bass. Ms. Bush reminded the RAB that in the lower AuSable, they've advised people not to eat non-migratory fish, like the small-mouth bass, due to varying levels of PFAS concentrations found in "resident" fish when they first sampled fish tissue.

It's possible that later this summer they will sample bluegill and pumpkin seed at the mouth of the Au Sable River. Some people have recommended sampling steelhead and walleye, however they are migratory fish. She said more information can be found at the eat fish safe website.

They also plan to sample fish at Cedar Lake later this year. Ongoing monitoring will continue, especially after remedial actions are taken.

Jeff Moss thanked Ms. Bush and MDHHS for responding to the community's request for additional fish tissue sampling. He asked if MDHHS could conduct annual fish sampling to continue to assess contamination impacts to fish.

Ms. Bush asked Mr. Moss to send her an email with his request.

Mr. Leriche inquired about a recommendation in a report found online that Wurtsmith be considered for annual fish tissue sampling. Ms. Bush said it was an update to a white paper report and has been

provided to MDHHS management. Mr. Leriche recommended Mr. Sueltenfuss record an action item to ensure decision makers of the Fish Contaminant Monitoring Program be provided a copy of that report.

MDEQ (1h:44m:30s)

Mr. Delaney indicated recent sampling area conducted in the Colbath area on a map (Attachment 8, slide 6). Along the west side of Van Etten Lake he indicated there was only one home that exceeded the HA number in a previous sampling effort. Subsequent sampling has not yielded results above the HA for DW sources, though two monitoring wells have yielded results above the HA.

Surface water is being sampled all around the base by MDEQ. Mr Delaney said that data should help better understand where the foam is coming from and other potential impacts from AFFF use.

Mr. Delaney discussed the ongoing dispute resolution between the Air Force and the DEQ. He said the Air Force has agreed to expand SSI efforts.

Mr. Delaney talked about plume modeling and a report that is going out for peer review. He said they're also working with the Air Force on a work plan for vapor intrusion.

Mr. Joseph Maxwell asked about health advisory levels and what the latest recommendations are for health protection. Ms. Bush clarified that the protective levels the state of Michigan currently use as screening threshold is 70 parts per trillion.

Mr. Moss expressed concern over the proposed RAB meeting schedule for the remainder of the year: Meeting once in August and once in November. Mr. Leriche explained that meeting in October is high risk due to government travel funding.

Public Comment Period (2h:01m15s)

Gene Kirvan
Member of AuSable River Steelheaders, Lake Huron Sport Fishing and NOW

The fact that former Wurtmsith Base is such a hot spot for contamination, he asked for annual sampling for fish and migratory game like deer. He also asked for new results to be published in a timely manner. He said even though the new advisory has been published, it contains the old data.

Tom Ponder
Seasonal resident; former Wurtsmith Airman

Expressed his gratitude to the Township of Oscoda and the work they've done to redevelop the property and old base housing. He singled out the work done by Bob Stalker. Mr. Ponder said there appears to be some disconnect regarding fish sampling that he'd like to see sorted out.

John Nordeen
Oscoda Township Clerk, RAB alternate

Requested clarification from the Air Force regarding the word usage of "focus" and whether or not that implies the Air Force is working to address other things, like the environment. He said he's heard the Air Force discuss the focus or emphasis on protecting human health from DW exposure.

Mr. Delaney clarified further that through the CERCLA process, the Air Force is required to conduct a human health assessment as well as an ecological risk assessment. He said MDEQ has been pushing the Air Force to address fish contamination due to their agency's position that it does pose a risk to human health.

Jeff Moss requested an action item for the Air Force to conduct an environmental assessment. Mr. Marrs explained that NEPA is outside of the CERCLA process and that NEPA is used to assess environmental impacts in other types of projects, such as construction. He said that potential environmental impacts are

assessed later in the CERCLA process, just not under NEPA. Mr. Marrs agreed to add the discussion of environmental assessments as an action item.

Mr. Leriche reiterated his opinion that contamination coming from FT-02 and entering the fish in Clark's Marsh and the AuSable River should be considered a potential risk to human health from fish consumption and trigger an action through CERCLA for remediation. Mr. Delaney explained that the Do Not Eat Fish Advisory is intended to mitigate that potential human health risk.

Mr. Robert Tasior asked when the Air Force will accept responsibility for the plumes extending to the other side of Van Etten Lake. Mr. Marrs responded that it would be assessed during the RI/FS stage (Remedial Investigation/Feasibility Study), though the timeline is yet to be determined.

Regarding the timeline, Mr. Delaney clarified that the Air Force could start an FS immediately if they had the money. He said the Air Force proposed doing an RI in 2016, but due to funding pursued the SSI work.

Dave Winn
Oscoda Resident

Mr. Winn asked Mr. Munson (OWAA) where the old airport materials will be going when the airport renovates the two hangars. Mr. Munson explained that the materials would continue to be stored on the base. Mr. Winn asked him if he saw a problem with contaminated materials being stored on the base and potentially re-contaminating the area. Mr. Munson asked where he would like to see those materials moved or stored. Mr. Winn asked whether this was something MPART (Michigan PFAS Action Response Team) and MDEQ should be involved with to assess contamination risks. Mr. Munson said that would be covered through the NEPA action planned this summer, and Mr. Delaney said OWAA would be within their legal right to move contaminated materials to another site of "like" contamination and that any disposal actions would be monitored by MDEQ.

Mr. Winn asked if any testing was planned for the east side of Van Etten Lake. Mr. Delaney said MDEQ is installing new monitoring wells in that area, but said they face challenges conducting resident well sampling due to unknown well depths in the aquifer. Mr. Winn offered to provide his well information. Mr. Delaney said the monitoring wells being installed will be sampled in about two weeks and they expect results in about two months. He said due to limited money they prioritized residential wells where they didn't know contamination levels or where people were unable to receive alternate water.

Tony Spaniola
Oscoda Resident

Ms. Wusterbarth read the following statement, which Mr. Spaniola had sent to her:

As a person whose family owns property in the Zone of Concern for PFAS contamination, I ask, as an action item, that Assistant Air Force Secretary John Henderson and Assistant Defense Secretary Lucian Niemeyer, be requested to meet in person with impacted citizens in the Oscoda area. Because the Assistant Secretaries are responsible for policies directly impacting PFAS remediation in our area, a first-hand view might help them to understand that the Air Force's cookie-cutter remediation approach is inadequate because it fails to take into account the fact that Wurtsmith is bounded by public water bodies and fisheries. A first-hand view would further put them in a better position to submit more realistic budget requests to Congress.

Mr. Marrs said Mr. Spaniola's request would be forwarded to the BRAC Program Chief, Dr. Stephen TerMaath, for review.

Action Item Review (2h:23m:55s)

Mr. Sueltenfuss briefed updates to action items.

Mr. Gaines inquired about the status of his action item to resolve the off base plume near the school that is likely linked to AFFF used by the Air Force while responding to a fire under a mutual aid agreement with the Township.

Ms. Gottlieb asked if there where results yet for foam sampling. Mr. Delaney said the pilot study will help determine the best methods for cleaning up foam.

Mr. Moss asked MPART representatives to provide any updates they could provide. Thought an MPART updates was not on the agenda, the co-chairs conferred and allowed MPART a few minutes to provide an update.

Ms. Melanie Brown, MPART spokesperson said the director, Carol Isaacs and XXX, attended the EPA summit. One of the things they did was request data from ATSDR on the health report that has not yet been released. She said they are advocating for receiving that information as soon as possible. She said the state's entire congressional delegation is extremely engaged and working to secure funds and support.

Ms. Brown said that MPART is actively engaged in the ongoing dispute resolution with the Air Force and MDEQ and that they are constantly working toward achieving a mutually agreeable resolution.

Mr. Leriche asked for an update on regional EPA meetings—specifically one in Michigan at the end of July. Ms. Brown said there is a desire to conduct summits outside of Washington D.C. and that there was discussion about holding a regional summit in Michigan this summer, but that a specific date has not been selected at this time.

Mr. Marrs thanked everyone for attending the RAB meeting. He said he understands that this is a widespread issue nationwide and cited the recent findings at Former Reese Air Force Base, Texas, where more than 200 private DW wells have yielded results above the HA.

Mr. Leriche talked about the meeting being streamed and available online. Historically paid for by Township, funding for recording and streaming future meetings is in question.

Conclusion

The RAB meeting adjourned at 7:57 p.m.

RESTORATION ADVISORY BOARD (RAB) MEETING

DATE/TIME: Wednesday, 6 June 2018, 5:30-7:30 p.m. EDT
LOCATION: Robert J. Parks Public Library, 6010 N. Skeel Ave., Oscoda, MI 48750
[Note: This meeting will be conducted as a teleconference in the event of inclement weather.]
GROUND RULES:

1. Respect one another and maintain an atmosphere of open dialogue and exchange of ideas.
2. Use our time together efficiently, wisely, and respectfully.
3. Listen and remain open to each other's varying points of view.
4. Speak clearly and succinctly one person at a time; avoid interrupting others.
5. Share information early, openly, and honestly.
6. Maintain a propensity for progress: prepare, discuss, document, and move forward.
7. Accurately and objectively relay to others the discussions that occur at board meetings.

Topic	Purpose	Presenter	Time
	Introductions		
Welcome	• Air Force and community co-chairs welcome RAB members and attendees. • Participants introduce themselves and read ground rules. • Facilitator summarizes agenda.	Matt Marrs Arnie Leriche All Tim Sueltenfuss	5:30-5:40
	Stakeholder Updates		
Stakeholder/RAB Member Updates	• Government RAB members who submitted update bullets provide brief update for their stakeholder organizations. • Community RAB members who submitted update bullets provide brief update regarding matters pertinent to the RAB.	Government RAB members Community RAB members	5:40-6:10
	Joint Air Force/Michigan Department of Environmental Quality (MDEQ) Technical Presentation		
Use of Data in Investigation and Interim Mitigation Activities	• Air Force and MDEQ discuss how data are used in environmental investigation and interim mitigation activities.	Matt Marrs Bob Delaney, MDEQ	6:10-6:25
	Air Force Technical Presentation		
Supplemental Site Inspection Update	• Update status and describe upcoming actions.	Matt Marrs Beth Flynn, AMEC FW	6:25-6:50

Topic	Purpose	Presenter	Time
Granular-Activated Carbon (GAC) Treatment System Update	• Update status of GAC treatment system.	Matt Marrs	6:50-6:55
Regulatory Partners' Technical Presentation			
Fish Contaminant Monitoring Program Update	• Update status of Fish Contaminant Monitoring Program.	MDHHS/MDEQ	6:55-7:05
RAB Business			
RAB Business Update	• Update status of previous meeting minutes. • Update status of current action items. • Note upcoming RAB meeting dates.	Tim Sueltenfuss	7:05-7:10
Public Comment			
Public Comment	• Public participants provide three-minute verbal comments to the RAB. • [Note: Public participants may also choose to provide written comments.]	Public participants	7:10-7:25
Conclusion			
Conclusion	• Co-chairs offer closing remarks.	Co-chairs	7:25-7:30
RAB Meeting Adjourns			

Attachment 2

Air Force Civil Engineer Center

Wurtsmith Restoration Advisory Board Meeting

6 June 2018

Matt Marrs
AFCEC/CIB

Wurtsmith RAB

Welcome

Attachment 2

Wurtsmith RAB Agenda

WELCOME
- Introductions
- Ground rules

UPDATES
- Stakeholder updates

PRESENTATIONS
- AF & MDEQ: Using/sharing data:
- AF: SSI work plan review
- GAC Treatment System update
- MDHHS: Fish containment monitoring program

RAB BUSINESS
- 18 April Meeting Minutes
- Action Items
- Next RAB meeting

PUBLIC COMMENT
- Three-minute limit or written comments

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Wurtsmith RAB Ground Rules

01	Respect one another and maintain an atmosphere of open dialogue and exchange of ideas.
02	Use our time together efficiently, wisely and respectfully.
03	Speak clearly and succinctly one person at a time; avoid interrupting others.
04	Listen and remain open to differing points of view.
05	Maintain a propensity for progress: prepare, discuss, document and move forward.
06	Share information early, openly and honestly
07	Accurately and objectively relay to others the discussions that occur at board meetings.

Wurtsmith RAB

Updates

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Wurtsmith RAB Stakeholder Updates

Oscoda Township Naturally

Charter Township of AuSable Est. 1848

DEQ

Air Force Civil Engineer Center

OWA

- Residential well sampling updates
- Update from PFAS summit
- Foam, field efforts

- DW Monitoring Program – sampling status

- New hangar construction projects and related EIS *(slide 8)*
- USAF recently conducted core sampling for PFAS on airport grounds. Results & findings available when?

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Wurtsmith RAB Stakeholder Updates

DHD2

- Resampling of private residential wells in the Colbath neighborhood and across from the school
- Status on foam evaluation

MDHHS

FOREST SERVICE US DEPARTMENT OF AGRICULTURE

Community RAB Members

- Delayed MDEQ PFAS plume "modeling" report will be released when? Impacts on health & remediation decisions?

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Wurtsmith RAB
OWAA Update

OWAA BRG - Full Application

Attachment 2

Wurtsmith RAB Data use

The Air Force uses approved, controlled methods to gather data:

- **MDEQ data is reviewed and evaluated as screening data for guiding AF work.**
- **The vast majority of MDEQ data has been gathered in AF wells simultaneous with AF sampling, so the AF already has data for a majority of the same locations.**

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Wurtsmith RAB
SSI Work Plan Review

Following CERCLA Process:

Focus is <u>protecting drinking water</u>

Site Inspection (SI): Determine release and identify drinking water receptors; sample drinking water wells and mitigate if above HA.

Supplemental SI (SSI): Delineate drinking water exposure pathway; evaluate need for additional mitigation.

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Wurtsmith RAB
SSI Work Plan Review

Additional SSI objectives
Areas 5, 4 and 6

- Presented initial SSI objectives during April 18, 2018, RAB Meeting (Areas 2, 7, 1, 15)
- AF will conduct hydrogeological investigation, HPT throughout the SSI at Areas 1, 2, 4, 6, and 15
- AF began field work for Areas 1, 2 and 15 week of 21 May

SSI Objectives

- Protect DW receptors and investigate DW pathway
- Identify mitigation needed to protect DW and what will be utilized to initiate restoration activities

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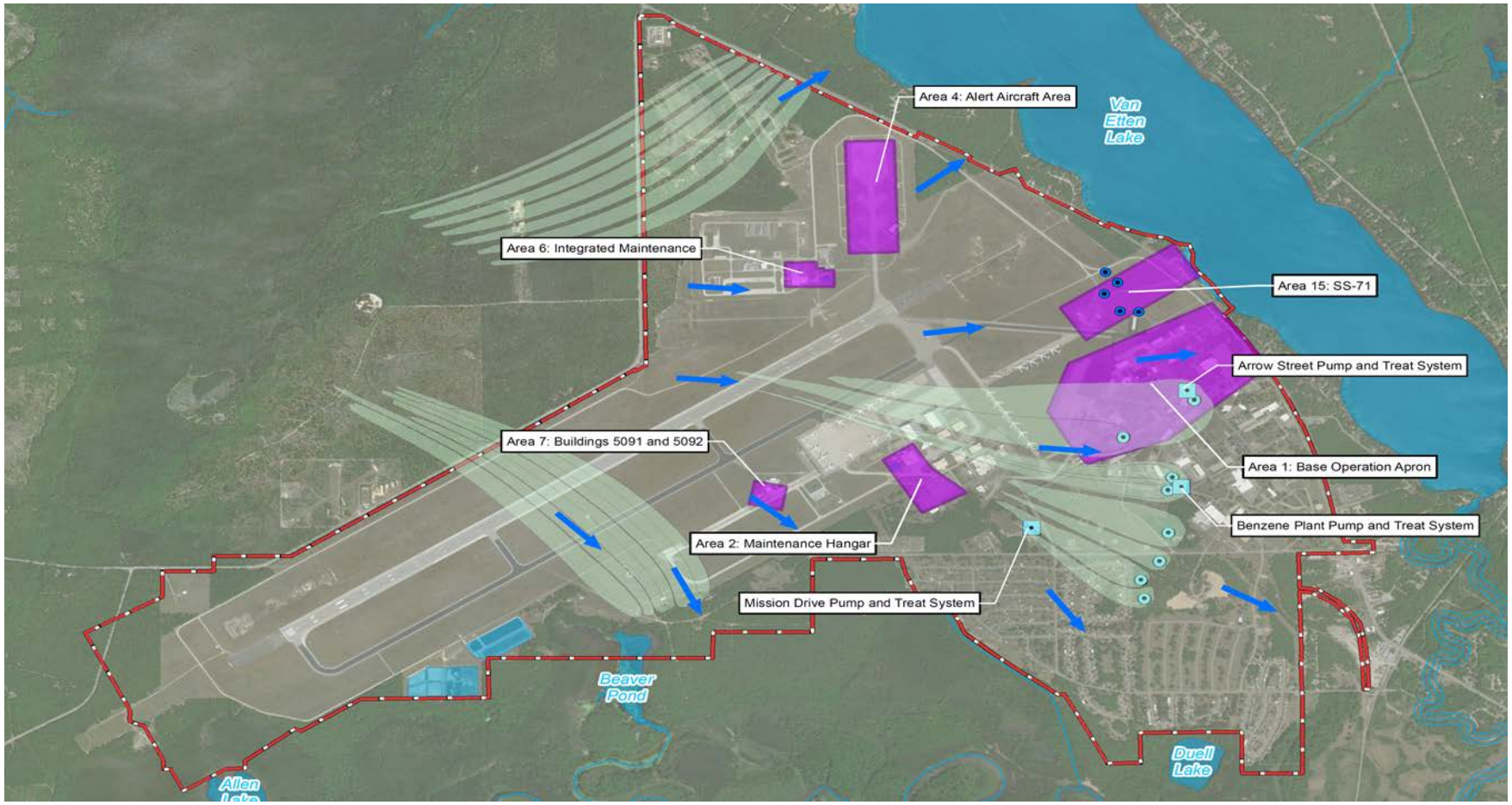
Wurtsmith RAB
SSI Work Plan Review

Continue to protect drinking water receptors through further SSI sampling:



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Wurtsmith RAB
SSI Work Plan Review

Continue to protect drinking water receptors through further SSI sampling:

Areas 4 & 6

- Evaluate the down-gradient extent of contamination (4 locations)
- Collect additional hydrogeologic data to better understand aquifer characteristics and GW flow, update GW Model
- Assess quarterly sampling for seasonal variations following initial sampling

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Wurtsmith RAB
SSI Work Plan Review

Continue to protect drinking water receptors through further SSI sampling:

Area 5

- Review existing DRMO VAS and MW data to ensure plume adequately characterized and/or outline follow-up actions
- Assess need to resample four existing MW at DRMO

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Wurtsmith RAB
Quarterly Sampling Update

- ✓ Advertised sampling event in local papers
- ✓ Contacted residents to arrange sampling week of May 14
- ✓ Implemented sampling week of May 29

- ❑ Expect completion of sampling by June 15

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Wurtsmith RAB
GAC PTS Update

Arrow Street/Benzene GAC Pump and Treat System

April-May 2018

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Wurtsmith RAB
GAC PTS Update

Under Slab Piping Installation

3 May 2018

Rebar Placement

23 May 2018

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Wurtsmith RAB
GAC PTS Update

Project Delays/Issues

- **Work stoppage due to Access Easements for Piping Installation**
- **Township Approval of Manhole Construction on the Storm Water Line**

Wurtsmith RAB MDHHS Update

MDHHS: FISH CONTAMINANT MONITORING PROGRAM

RAB Business

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Wurtsmith RAB
RAB Business

- **Action Item Review**
- **Wurtsmith Project and RAB Documents**

Document	
Draft SSI Work Plan Addendum	IR
18 April Meeting Minutes	IR
6 June RAB Packet	IR
Private & Public Water Supply Drinking Water Well Monitoring Work Plan	AR -#572675

- **Next RAB Meeting**
- **Meeting evaluation cards**

Wurtsmith RAB

Public Comment

Wurtsmith RAB

Public Comment Period

01	Sign in and write your name on a card
02	Deliver your comments from the front of the room
03	Three minute time limit
04	RAB members will confer after your comment to see if a follow-up action is needed

Conclusion & Adjournment

Attachment 2

Former Wurtsmith AFB: FY18 Projects, Programming and Updates

Current as of 31 May 2018

PROJECT	DESCRIPTION	STATUS UPDATE	PROJECTED COMPLETION
New GAC treatment system **Aerostar*	New treatment system will combine the Arrow Street and Benzene Plant influent streams and treat PFOS/PFOA using GAC treatment	Work stoppage due to Pipeline Easement and new manhole installation issue with the Township	August 2018
Supplemental Site Inspection **AmecFW*	SSI sampling will gather additional data to build on initial site inspection work. SSI work will define plume locations, potential movement and understand plume fate	Phase II sampling began week of 21 May for areas 1, 2 and 15. Areas 4 & 6 will be addressed as well	Phase 1: July 2019 (includes 2017 and 2018 fieldwork)
Influent/ Effluent monitoring	PFOS/PFOA Influent/Effluent monitoring for Mission Street, Arrow Street and Benzene Plant PTS	With current contract scope and funding we sampled once in 2017 and once in 2018	TBD
Mission Street discharge mitigation	PTS Discharge Mitigation for PFOS/PFOA above surface water discharge limit	PRD process for FY19 – contingent on funding	TBD
Remedial Action, Operation and Monitoring **Bay West*	Central Region Performance Based Remediation. Ongoing remedial operations, monitoring, optimization, site closures and five-year review	Ongoing	Bay West contract completion: June 2021 (follow-on PBR) Follow on PBR package in initial stages
LF30/31 remedy enhancements	Incorporating recommendations from complex site investigation	PRD (*Program Requirements Development*) process for FY19 Out of cycle project for FY18 to do FS (Alternatives Analysis)	FY18 OOC project to be awarded 4th QTR FY19 portions contingent on funding
LF30/31 Hydraulic Gradient Control	Hydraulic Gradient Control to Prevent Leachate Migration. Feasibility study for phytoremediation	PRD process for FY19 – contingent on funding	TBD
Remedial Action Site SS072 **Bay West PBR*	Full-scale Enhanced Bioremediation implementation to treat PCE contamination	Ongoing	Initial injection following system construction (2018), plus every 2 years

AIR FORCE ACRONYM LIST: WURTSMITH RAB

AF – Air Force

AFB – Air Force Base

AFCEC – Air Force Civil Engineer Center

AFFF – Aqueous Film Forming Foam

AFIMSC – Air Force Installation and Mission Support Center

AR – Administrative Record

ATSDR – Agency for Toxic Substances and Disease Registry

BCT – BRAC Cleanup Team

BEC – BRAC Environmental Coordinator

BRAC – Base Realignment and Closure

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

DERP – Defense Environmental Restoration Program

DoD – Department of Defense

DSMOA – Defense and State Memorandum of Agreement

DW – Drinking Water

EA – Environmental Assessment

EC – Emerging Contaminant

EIS – Environmental Impact Statement

EPA – Environmental Protection Agency

ERP – Environmental Restoration Program

ERD – Enhanced Reductive Dechlorination

ESE — Extended Site Evaluation

FAQs – Frequently Asked Questions

FOUO – For Official Use Only

FTA – Fire Training Area

GAC – Granulated Activated Carbon

GPM – Gallons Per Minute

GW – Groundwater

HA – Health Advisory

IR – Information Repository

IRP – Installation Restoration Program

IX – Ion Exchange

LHA – Lifetime Health Advisory

LUC – Land Use Control

MDEQ – Michigan Department of Environmental Quality

MDHHS – Michigan Department of Health and Human Services

MMRP – Military Munitions Response Program

NEPA – National Environmental Policy Act

NOV – Notice Of Violation

OP – Operating Procedures

OOC – Out Of Cycle

PA – Preliminary Assessment

PAO – Public Affairs Office(r)

PFAS – Per- and Polyfluoroalkyl Substances

PFCs – Perfluorinated Compounds

PFOS/PFOA – Perfluorooctanesulfonic and Perfluorooctanoic Acids

PM – Project Manager

POL – Petroleum, Oil and Lubricant

PPB – Parts per Billion

PPT – Parts per Trillion

PRD – Program Requirements Development

PTS – Pump and Treat Systems

RAB – Restoration Advisory Board

RAO – Remedial Action Objectives

RI – Remedial Investigation

ROD – Record of Decision

SC – Site Closure

SI – Site Inspection

SSI – Supplemental Site Inspection

TCE – Trichloroethene or Trichloroethylene

TRC – Technical Review Committee

USAF – United States Air Force

VI – Vapor Intrusion

VOCs – Volatile Organic Compounds

WBT – Whole Base Transfer

RAB Survey Feedback Summary

6 June 18 Wurtsmith RAB meeting

MEETING EVALUATION					
	Strongly Disagree	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
Agenda content was comprehensive and relevant.		2		4	
Presenters were effective.		2		4	
Satisfied with meeting venue and set-up.	1			4	1
Overall, the meeting was worthwhile.		1		5	

STRENGTHS	IMPROVEMENTS
Flexibility with public comments	Sound system needs attention. Video stream had poor sound quality during large chunks of meeting
Good info on GAC & Resin	Better organized slides
Good collaboration between AF & local government	Many action items are still open
Good attendance; professionally run	

Requests/Comments:

1. Discuss plumes that are all agreed upon
2. Topic on how GAC filters are processed when contaminated
3. Future training on Resin
4. Regarding comments about water flow from Cedar Lake: water management shows water flow to be north and east, not south toward Van Etten
5. CERCLA seems to be not well understood
6. Still awaiting info about Air Force sampling on runway ends

RAB Questions

18 April 2018 Wurtsmith RAB meeting

Requests/Comments:

1. **Will the Air Force consider additional interim actions permitted within CERCLA?**

   Interim remedial actions or removal actions are options at any point during the CERCLA process if there is a determination of an imminent or substantial endangerment to human health or the environment. The Air Force will evaluate the need for interim or removal actions as it works through the CERCLA process.

2. **Did the Air Force look into the claims about runway foaming and other potential release areas? What did you find?**

   The AF recently has talked with some of the individuals who provided historical accounts regarding foam that may not have been considered during the preliminary assessment (PA). The Air Force is evaluating that information.

3. **Can the Air Force take any lessons learned from Wurtsmith to improve the thoroughness of preliminary assessments?**

   The Air Force continues to have confidence in the diligent efforts made to assess potential AFFF release sites decades after firefighting and base operations ceased at Wurtsmith. With a focus on protecting human health, the CERCLA process considers newly discovered information throughout each stage of the investigation.

4. **What is the Air Force decision on the AFFF release near the high school? Does the Air Force take responsibility? Who will investigate this release? Who will pay for an alternate drinking water supply for the private well above HA?**

   The Air Force does not have proof that Air Force actions contaminated drinking water wells near the high school. It is the Air Force's understanding that Oscoda Township applied for a U.S. Department of Agriculture water line grant for the private well at issue. The Air Force recommends you direct further questions to Oscoda Township.

5. **Did the Air Force have fire response boats on the AuSable River in case of a crash on Lake Huron? If so, shouldn't that be investigated as a potential source?**

   The AF does not have credible information that boats with AFFF were staged at the DNR boat launch. The data MDEQ gathered at the boat launch is consistent with other PFOS/PFOA data in the proximity of the boat launch area, and which MDEQ has stated is related to a source(s) other than the AF. The information provided stated the firefighting boats in question may have been used during the WWII era. This was long before the Air Force began using AFFF in 1970.

6. **Is Clark's Marsh included in the Air Force study area or not? If so, why do we not yet understand the nature of contamination?**

   Yes Clark's March is a part of the Air Force study as it is downgradient from the former Fire Training Area. In 2015, the Air Force installed a groundwater treatment system at the former fire training area to mitigate impact to Clarks Marsh. The Air Force's Supplemental Site Inspection work includes further investigation of the area.

7. **How will additional DoD restoration funding be used at Wurtsmith?**

   Wurtsmith will compete for Environmental Restoration Program (ERP) funding along with the other 40 BRAC bases. No Air Force sites received additional ERP funding in Fiscal Year 2018 (FY18) beyond the original FY18 allocation.

8. **What's the latest on the dispute resolution?**

   The dispute resolution process is ongoing. The supplemental site inspection (SSI) presentation on 6 June will address some of the SSI objectives negotiated as a result of the dispute resolution.

9. **What's being done to prevent contamination from Clark's Marsh from reaching the AuSable River?**

   The groundwater recovery system and the associated GAC treatment plant installed at FT-02 intercepts and treats the vast majority of PFOS/PFOA-contaminated groundwater before reaching Clark's Marsh and the AuSable River.

10. **How can you not know if the GAC Treatment System will treat to the 12 ppt standard?**

11. The new GAC treatment system is goal is to treat the groundwater to non-detect prior to discharge, and we have been successful doing that elsewhere. Our experience with similar types of systems has shown that treatment of PFOS to ND is easily achievable. We will evaluate the effectiveness of the Arrow/Benzene Pump & Treat System GAC treatment process on an ongoing basis. **When will the latest SSI work plan be available to the public?**

    The SSI work plan will be available once MDEQ and the AF have agreed to it. The AF will present the latest SSI objectives, agreed on by the AF and MDEQ, during the June 6, 2018, RAB meeting.

12. **Why doesn't the Air Force include MDEQ data in reports, maps and presentations? Wouldn't a comprehensive map with all data be best?**

    The AF uses approved, controlled methods to gather its data. However, MDEQ data is reviewed and evaluated as screening data for guiding AF work. The vast majority of MDEQ data has been gathered in AF wells simultaneous with AF sampling, so the AF already has data for a majority of the same locations.

13. **Please provide a timeline for follow-on actions. When can we expect the RI phase to begin?**

    In accordance with CERCLA, at the conclusion of the SSI the USAF will determine whether further action is warranted. Final remedial actions will be determined under the CERCLA process and these typically come after a remedial investigation (RI), including risk assessments, and feasibility study (FS) are completed. No timeline exists for entering that phase.

MICHIGAN BROWNFIELD REDEVELOPMENT PROGRAM

SITE ASSESSMENT GRANT APPLICATION INSTRUCTIONS

RICK SNYDER, GOVERNOR
C. HEIDI GRETHER, DIRECTOR
www.michigan.gov/deq #mibrownfields

This application may be used to apply for an environmental site assessment grant from the Department of Environmental Quality's (DEQ's) Brownfield Redevelopment Grant and Loan Program. Site assessment grants are awarded to communities to facilitate reuse of brownfield properties for projects that will create jobs, and result in community investment. Due to limited funding, **a project that qualifies may not be recommended for a grant if the applicant does not meet the criteria** described below under Application Evaluation.

Applicants are required to complete a short project proposal prior to submitting an application. A DEQ grant coordinator should be contacted prior to applying for a grant to determine whether a project is eligible and likely to be recommended for funding. A map of the state showing the grant coordinator assigned to each region is located HERE or you may call 517-284-5113 for assistance. Staff will work with applicants to ensure that projects are acceptable before the funding package is recommended for approval. Applicants will be notified immediately if further information is required before the DEQ makes a funding decision.

This application is for site assessments and transaction costs only. Communities may apply for a grant or a low-interest loan to address environmental contamination found during a site assessment. Grant coordinators will help applicants through the DEQ's application, award, and implementation process, and can advise communities on other potential funding sources for cleanup, such as brownfield tax increment financing.

For more information on the DEQ's Brownfield Redevelopment Grant and Loan Program, please see our web page, call 517-284-5113, or contact us by e-mail at DEQBrownfields@michigan.gov

DEQ

FUNDING ELIGIBILITY

- The applicant must be a city, township, village, county, brownfield redevelopment authority, economic development corporation, or an authority or other public body created pursuant to state law.
- Grants cannot be awarded to an applicant that may be liable for causing or contributing to contamination on the project site. A grant must not relieve any potentially liable party from responsibility for environmental response activities, pursuant to state law, or permit a potentially liable party to benefit from the investment of public funds.
- Eligible properties may be either publicly or privately owned. Communities will be awarded funds on properties where access is assured or demonstrated, such as publicly owned property, property where an access agreement or right of entry already exists, or where access is assured in some other manner.
- The property must have economic development potential.
- Communities may use site assessment grants ***only*** for environmental site assessments to determine if a property is a site or facility under state law, and for lead, asbestos, and mold assessments. If a developer commits to redevelop the property within the contract period, funds may also be available for development of a Baseline Environmental Assessments (BEA) and a Section 7a Compliance Analysis (due care plan) to facilitate the redevelopment. If your project site needs cleanup, demolition, or abatement, please contact your grant administrator to discuss other funding options.

EVALUATION CRITERIA

- Will the environmental assessment determine if the project area is suitable for reuse and define environmental response activities necessary for, and limitations on, reuse?
- Does the project property have basic infrastructure in place that will encourage a developer to locate at this site?
- Does the project demonstrate feasible economic development potential?
- Are there potentially liable parties, or will a potentially liable party benefit from the expenditure of state funds?
- Does the applicant demonstrate public/private partnerships that will facilitate redevelopment after the site assessment is done?
- Does the applicant have an access agreement with the property owner?
- Does the project have well-defined objectives that can be completed in a reasonable time frame?

APPLICATION REVIEW AND AWARD PROCESS

- Applications are accepted after DEQ review of a project proposal.
- DEQ staff will review applications for completeness and eligibility and make a recommendation to DEQ management. The DEQ Director approves project applications.

AFTER A GRANT IS AWARDED

Before grant-funded work can begin, the grantee will be required to:

- Sign a grant contract. Costs incurred prior to signing a contract will not be reimbursed.
- Document site access.
- Submit qualifications of the recipient's preferred environmental or other contractor to the DEQ for approval.
- Provide a work plan describing the specific tasks to be completed, the cost, and the schedule for performing the tasks to the DEQ for approval. The DEQ will review the work plan and request changes or provide approval within 30 days. All expenditures must be approved in advance, in writing, by the DEQ, or costs may not be reimbursed.

After funding is awarded, the DEQ's grant coordinator may request a meeting with the project participants to view the project site and to discuss administrative procedures under the Brownfield Redevelopment Grant and Loan Program.

Costs must be incurred by the grant recipient before the expenses will be reimbursed by the DEQ. Grantees are required to submit progress reports and invoices with verification of all expenditures each calendar quarter. If progress reports are not submitted quarterly, the DEQ may withhold reimbursement or take other actions, including canceling the grant. Ten percent of the grant will be retained from the final invoice(s) pending the DEQ's final review of the project.

MICHIGAN BROWNFIELD REDEVELOPMENT PROGRAM

SITE ASSESSMENT GRANT APPLICATION

RICK SNYDER, GOVERNOR
C. HEIDI GRETHER, DIRECTOR
www.michigan.gov/deq #mibrownfields

Authority: Parts 195, 196, and 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended

Applicant and Project Information			
Name and address of the project (please include zip code)	Aircraft Maintenance Hangar Development 3961 East Airport Drive Oscoda, MI 48750	Amount of funding requested	$60,000
Applicant name and address (please include zip code)	Oscoda-Wurtsmith Airport Authority	Applicant's Federal Identification Number	38-3188103
Applicant representative's name, title, phone, and email address (the person authorized to sign contracts for the applicant)	Gary Kellan Airport Manager (989) 739-1111 oscairport@charternet.net	Applicant project contact's name, title, phone, and email address (the person who will manage the project for the applicant)	Gary Kellan Airport Manager (989) 739-1111 oscairport@charternet.net
State House of Representatives district number where the project site is located	State House District #106	State Senate district number where the project site is located	State Senate District 36
What is the property's State Equalized Value (SEV)?	$14,000	Size of the property	Approximately 300' x 800' (5.51 Acres)
Date of SEV	2018	Parcel code number	066-029-100-001-00

Did the applicant cause or contribute to contamination that is known or may be discovered at the project site?	To the best of my knowledge, the applicant: Did not cause or contribute to contamination ☒ May have caused or contributed to contamination ☐
If there is a developer, did the developer cause or contribute to contamination that is known or may be discovered at the project site?	To the best of my knowledge, the developer: Did not cause or contribute to contamination ☐ May have caused or contributed to contamination ☐ NA ☒

Environmental Outcomes

Latitude and longitude of the project site, to eight digits after the decimal	Hangar 10 -83.37381587 44.45353709 Hangar 11 -83.37233272 44.45414108	Is the property a known facility (i.e., contaminated) under Part 201 or a site under Part 213?	The site is contaminated and the U.S. Air Force has continuing clean-up responsibilities under NREPA Part 201 and CERCLA.
Who is the owner of the property and when was the property acquired?	Oscoda-Wurtsmith Airport Authority Property was transferred by the Air Force to OWAA on June 8, 1994	Is the owner or a leaseholder currently using the property, or is the property vacant?	The property is an undeveloped portion of an active airport that is developed with aircraft maintenance facilities.
If the property was acquired after June 5, 1995, was a BEA completed by the current owner?	The property was acquired prior to June 5, 1995. No BEA was completed.	List current and historical uses of the property, with dates if known	From 1923 until June 30, 1993 when the Base closed, the property was used as a U.S. military airfield.
Are there any known legal or title issues or liens or easements on the property that could affect the potential economic development? Please describe.		The U.S. Air Force and MDEQ have established land use restrictive covenants for the property (MDEQ Ref. No. RC-RRD-201-06-30). The purpose of said restrictions is to protect human heath, the environment and the remedies being implemented to monitor and clean up known environmental contamination.	
The requested funds are needed for the following eligible assessments:			

☒ Phase I/Phase II Investigation	☐ Lead / asbestos / mold survey
☒ Baseline Environmental Assessment	☐ Other (describe in the summary attachment)
☒ Response activity planning or Due Care compliance	

Provide a summary that briefly describes:

1. **The property in its current condition, including the known or suspected environmental condition of the property. Is contamination confirmed or suspected, and why? Are there known or suspected underground storage tanks? Will buildings be reused or do they need to be demolished? Is existing infrastructure adequate for the potential new use?**

   The previous use of the property was military airfield/airbase used by the US Air Force and its predecessors from 1923 until the Base closed on June 30, 1993. Air Force operations is known to have resulted in contamination that includes chlorinated solvents, fuels, and per- and polyfluorinated alkyl substances (PFAS). The Air Force currently has ongoing investigative and remedial activities addressing known contamination. There are no underground storage tanks suspected in the area of proposed development. Likewise there are no buildings on the property. Portions of the property are paved with tarmac or concrete. This proposed site investigation is in support of efforts to develop new buildings (two proposed hangars). The property is adequately served by existing infrastructure (road, municipal water, sanitary sewer, storm drain sewer, commercial electricity, commercial natural gas and telecommunications) in order to support the envisioned new development.

2. **The proposed environmental assessment, the reason for the extent of the assessment requested, and how the budget was determined. How will the assessment determine the site's suitability for reuse and define response activities and limitation on reuse?**

   The proposed work includes Phase I and Phase II assessments, a BEA, and a Due Care Plan. Two new hangars are proposed – the first to be built in 2019, and the second to be built in the early 2020s. The assessments will determine the extent of existing contamination at the site that remain from Air Force activities. The results of these assessments will limit liability for future hangar tenants/developers - - in regard to existing environmental contamination.

Economic Outcomes			
Is a developer committed to the project? Name of developer, if any	Airport tenant - Kalitta Air – is expressing interest in developing an additional aircraft maintenance hangar.	Are any local incentives committed to the redevelopment project?	The site is located within a State approved Tax Increment Finance District (TIF). Therefore, local taxing authorities are foregoing tax

			revenue in support of new development. The 'Tax-Increment' revenue is being invested in projects that maintain, rebuild and extend roads and utility services in support of further business development.
Does the community have a Brownfield Redevelopment Authority?	No	Has the applicant secured access to the property? This is required before assessment.	The applicant owns and retains access to the property.
Current zoning of the property	Aviation Support Activities	Projected zoning	Aviation Support Activities

Provide a summary that briefly describes:

1. **The property's economic development potential. Why was this property chosen for assessment? What type of reuse is being considered? Has a developer been identified?**

The property is located with the boundaries of an active airport with tenants that provide aircraft maintenance services. The airport is developed with nine aircraft maintenance hangars. Aircraft maintenance and support services within those hangars is scheduled into the foreseeable future and additional work is being turned away. As such, there is growing need for additional aircraft maintenance hangars. The envisioned hangars will have internal spatial areas ranging between 80,000 to 120,000 square feet. Each hangar is expected to generate 150 – 300 permanent jobs. The site to be investigated has been selected because it is accessible by large aircraft via an apron with load bearing capacity designed for heavy aircraft.

The Airport Authority's cornerstone tenant – Kalitta Air, is expressing significant interest in developing at least one of the described new hangars. Additionally, the Airport Authority is also promoting the development site for hangar development by aircraft painting companies.

2. **The neighborhood around the property. Are there other viable commercial businesses nearby? Is there a large amount of vacant, developable land in the community and/or the neighborhood, or is the supply of developable land relatively low? Is the demand for property in the community and/or neighborhood high?**

The development site is located within the boundaries of Oscoda-Wurtsmith Airport and is adjacent to a cluster of nine aircraft maintenance hangars. The Airport is also developed with a variety of other nearby aircraft maintenance support facilities. Establishing additional maintenance hangars will increase the capacity to deliver aircraft maintenance services from Oscoda-Wurtsmith Airport - - therefore generating business growth and additional jobs creation.

The approximate 2,200 acres that comprise Oscoda-Wurtsmith Airport continues to be underdeveloped and the aircraft parking aprons, taxiways and runway continues to be underutilized.

Likewise, Oscoda Township along with neighboring communities, schools, public service providers and local businesses are still recovering from the significant loss of population resulting from the closing of Wurtsmith Air Force Base. Therefore, said agencies and businesses continue to have the capacity to serve the envisioned inflow of workers and their families- - resulting from additional hangar development and business growth.

3. **Public-private or other local partnerships in place to market or facilitate redevelopment of the property after the site assessment is done.**

Oscoda-Wurtsmith Airport Authority (OWAA) is operated under the oversight of a seven member Board of Directors. That Board was established as a local multi- government 'Authority' under provisions of Michigan P.A. 206 of 1957 as amended. The incorporating municipalities comprising this Authority are Alcona County, Iosco County, Greenbush Township, Charter Township of AuSable and Charter Township of Oscoda. In accordance with its articles of incorporation, OWAA is to provide for the planning, promoting, acquiring, constructing, improving, enlarging, extending, owning, maintaining, and operating the landing, navigational and building facilities of Oscoda-Wurtsmith Airport.

Oscoda-Wurtsmith Airport – Local Development Finance Authority (OWA-LDFA): All properties located within the boundaries of Oscoda-Wurtsmith Airport have been designated as a 'Certified Alternative Energy Park'(CAEP) pursuant to the State of Michigan's 'Local Development Financing Act'- - P.A. 281 of 1986 as amended by Act P.A. 290 of 2012. In accordance with the cited Acts, the OWA-LDFA operations under

the direction of an eleven (11) member Board of Trustee. That Board of Trustees represents the agencies listed as follows:

Represented Agencies	Number of Appointees
Charter Township of Oscoda	7
Iosco County Board of Commissioners	1
Alpena Community College	1
Oscoda Area Schools	2

Also pursuant to provisions of the cited Acts, OWA-LDFA captures 'Tax Increment' revenue that is generated as a result of new land improvements and commercial development on Airport properties.

The OWA-LDFA Board of Directors has adopted a 'Tax Increment Finance Plan' which defines the management and use of 'Tax Increment' revenue. A primary goal of that Plan is to financially support OWAA with maintaining and further developing Oscoda-Wurtsmith Airport. In doing so, land and facility improvements are expected to enhance property values - - therefore accelerating further increases in the Taxable Value at a rate that would not otherwise be expected.

Sources of Project Funding

List sources, uses, and amount of all funds committed to or anticipated for the project. Budgets may include a 15% contingency.

In the Act 381 TIF, developer, or other source column, include anticipated state or local TIF, federal dollars, other state grants, future sale proceeds, liable party contributions, etc.

TASK	DEQ GRANT	Act 381 TIF (state and local), developer, or other source	TOTAL
Phase I and II site assessment	Phase I: $5,000 Phase II: $34,200	NA	Phase I: $5,000 Phase II: $34,200
Baseline environmental assessment	$4,500	NA	BEA: $4,500

Other (lead, asbestos, or mold surveys, additional investigation)	NA	NA	NA
Response activity plan / due care compliance	$16,300	NA	$16,300
TOTAL	$60,000	$0	$60,000

Attachments

Please attach the following to the completed application:

1. **An approximate schedule for conducting the site assessment and marketing or preparing the property for redevelopment. Include any deadlines or factors affecting implementation of the project, such as other funding sources or developer deadlines. If environmental cleanup is needed, how will that affect the schedule?**

   Phase I ESA (Environmental Site Assessment) – 30 days from Notice to Proceed

   Phase II ESA – 60 to 90 days after Phase I ESA

   BEA (Baseline Environmental Assessment) – 30 days (can begin once Phase II ESA laboratory data is received)

   Total time Phase I through BEA – 90 to120 Days

   Due Care Plan – 30 days (after developer selected)

2. **If the property is not owned by the applicant, an agreement between the property owner and the applicant that commits the property owner to cooperate with the applicant, including a commitment to allow access to the property to complete, at a minimum, the proposed eligible activities. If only a draft agreement is available now, please submit it. A final version of the access agreement will be required for the grant contract.**

   Oscoda-Wurtsmith Airport Authority initially acquired use and operator status of Oscoda-Wurtsmith Airport properties, including the subject development site, pursuant to a long-term lease from the U.S. Air Force - - which is dated November 24, 1993. The U.S. Air Force then transferred fee title ownership to the Airport Authority via quit claim deed that is dated September 28, 2006. A copy of that quit claim deed is provided as Attachment No. 2.

3. **A letter from the chief executive officer or highest-ranking appointed official verifying that the local unit of government supports the brownfield project and that the brownfield project complies with local zoning and planning ordinances.**

   A letter signed by the Supervisor of Charter Township of Oscoda is provided as Attachment No. 3 to this document.

4. **Street and parcel maps of the project area. If available, a site plan, historical assessments, site survey, a map or maps showing the location of the project area, site boundaries, buildings (please identify buildings or portions of buildings to be demolished), areas to be capped if known, proposed greenspace, new**

construction, and other site features or improvements. If these are not readily available, they do not need to be created for the grant application.

The requested site location documents are provided as Attachment Nos. 4-1, 4-2 & 4-3.

5. **Please email high quality, publishable digital photos of the site in jpg format to your grant administrator.**

Certification

The undersigned, as the representative of the applicant, certifies that the applicant will comply with all applicable state and federal statutes and regulations, including those associated with the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, its administrative rules, and those statutes related to civil rights, equal opportunity, labor standards, environmental protection, and historic preservation.

The undersigned, as the representative of the applicant, certifies that the property(ies) at which grant funds will be used are within the jurisdiction of the applicant.

The undersigned, as the representative of the applicant, certifies that within the last 24 months, the applicant has not had a grant from the Department of Environmental Quality (DEQ) revoked or terminated, and has not been determined by the DEQ to be unable to manage a grant.

The undersigned, as the representative of the applicant, certifies that a source of funding for ongoing maintenance and operation of the proposed project, if required, has been identified.

The undersigned, as the representative of the applicant, verifies that the applicant passed its most recent audit and acknowledges that the DEQ may review the auditor's conclusions posted on the Michigan Department of Treasury web site.

The undersigned, as the representative of the applicant, certifies that the information provided in this application and its attachments is true and complete to the best knowledge and belief of the applicant and the undersigned.

Gary W. Kellan
Typed name of Applicant's Representative

Airport Manager
Title

5 – 10 - 2018
Date

Please submit **an electronic copy of the application to**

DEQBrownfields@michigan.gov

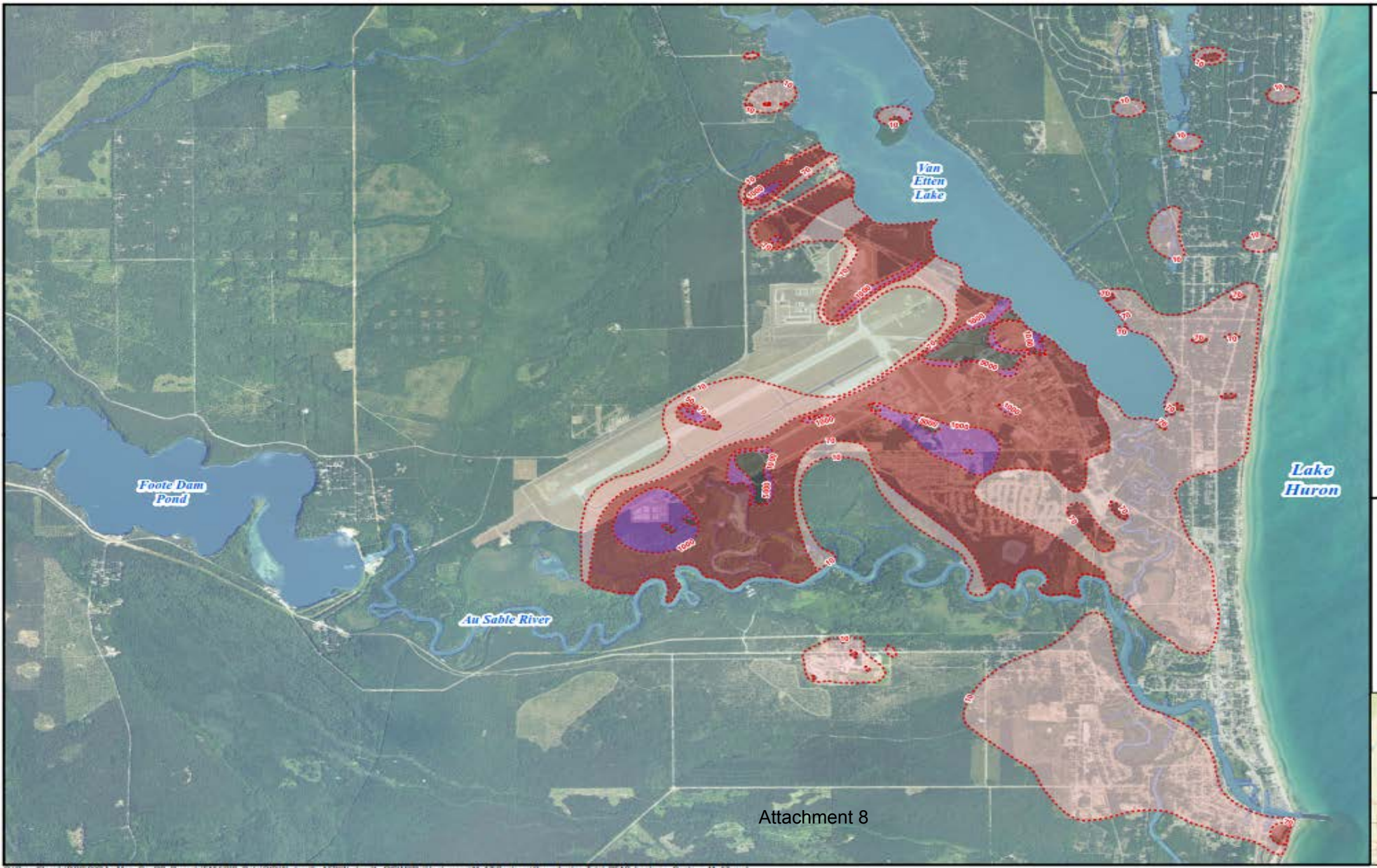
Please call 517-284-5113 with questions

FORMER WURTSMITH AIR FORCE BASE (WAFB) – RAB MEETING

UPDATED PLUME MAPS

Attachment 8

Updated Total PFAS Plume Map



DEQ

Attorney Client Privilege 5/8/2018

Total PFAS (ppt)

Total PFAS Plume Concentration (ppt)

- 10 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

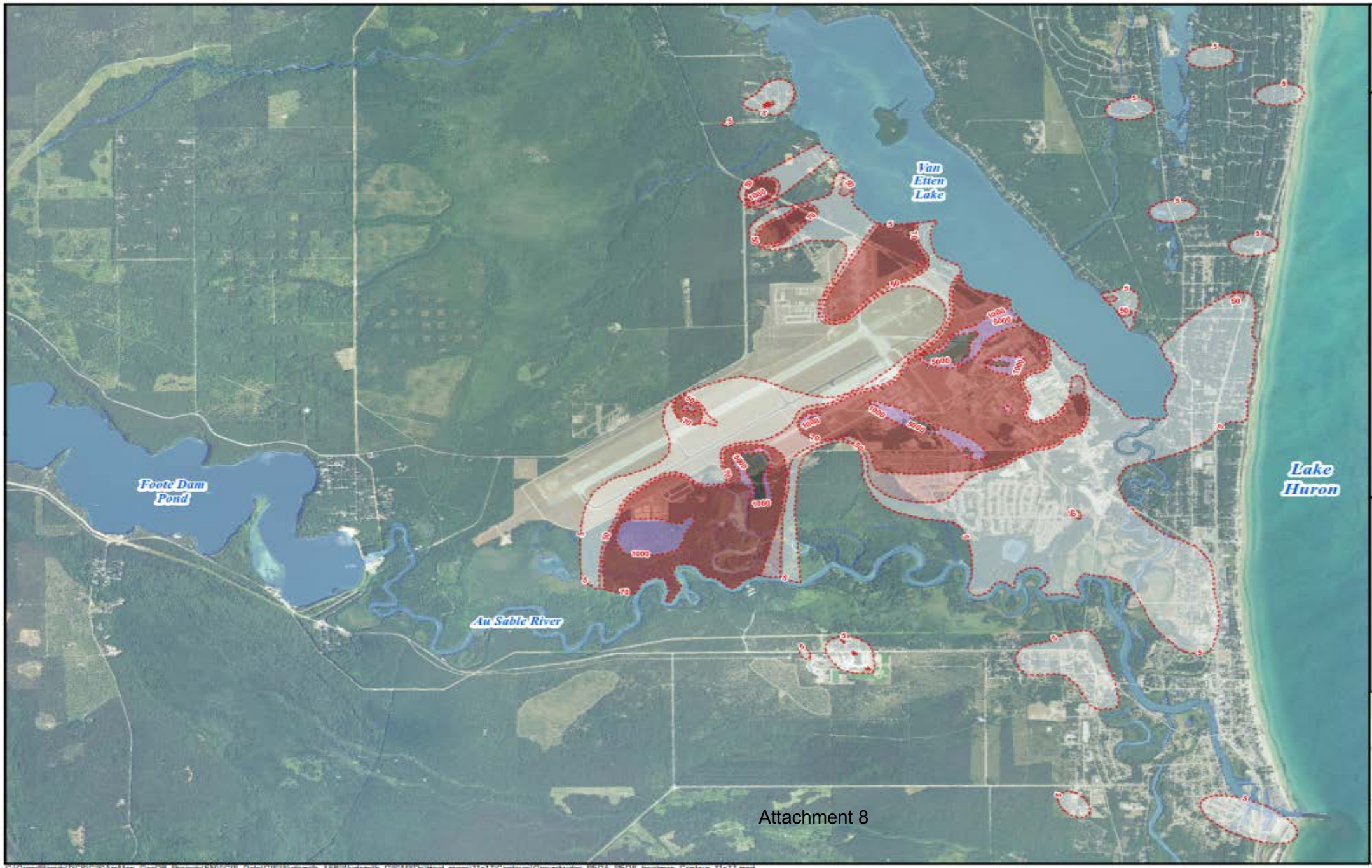
GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS TOTAL PFAS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

0 3,400 6,800
Feet

Attachment 8

Total PFOA + PFOS Plume Map



Attorney Client Privilege 5/8/2018

PFOA + PFOS (ppt)

PFOA + PFOS Plume

Concentration (ppt)

- 5 - <50
- 50 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS PFOA + PFOS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

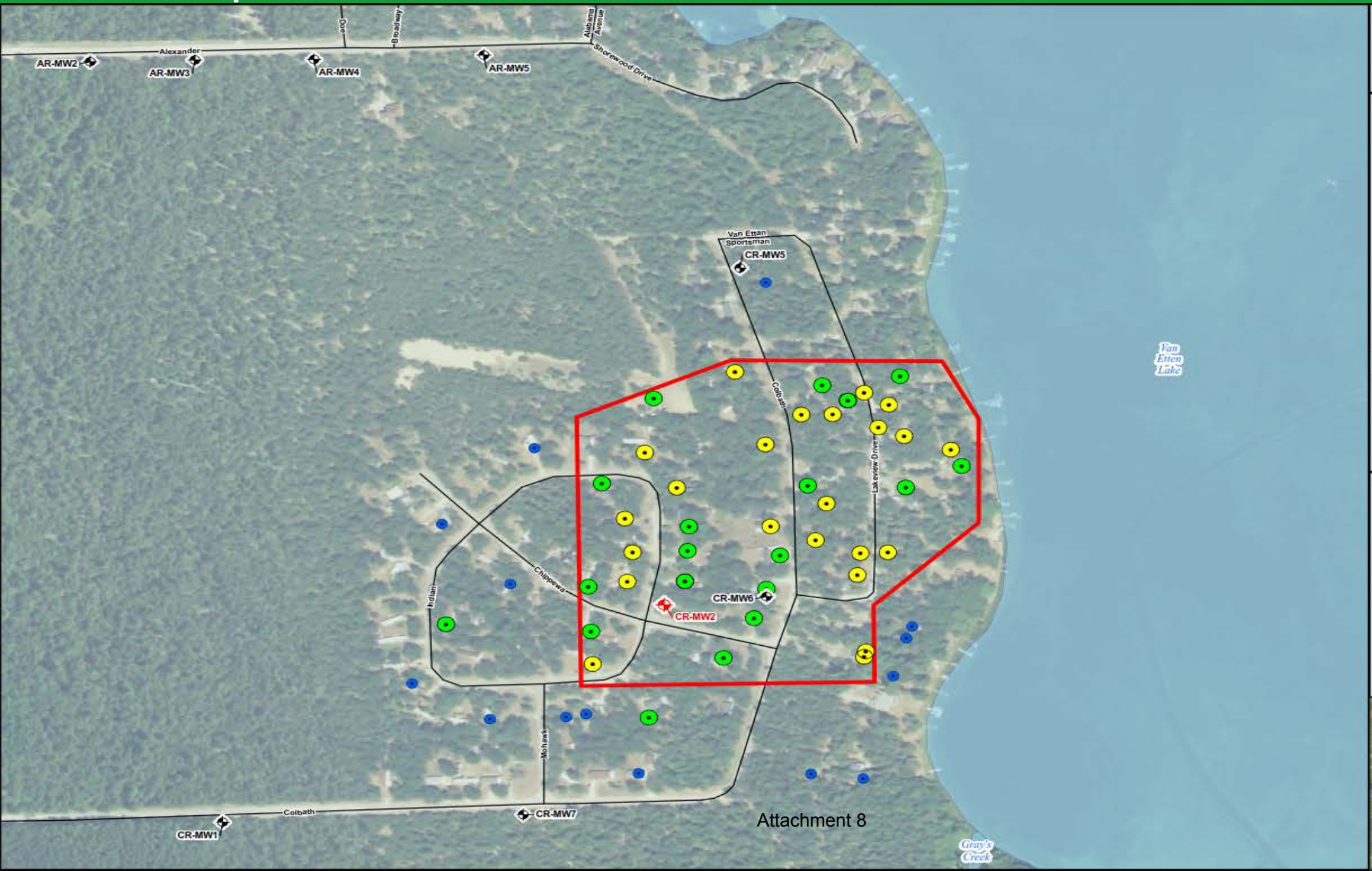
0 3,400 6,800
Feet

Attachment 8

COLBATH AREA UPDATE

Attachment 8

Colbath Area Update



DEQ

DRAFT

6/5/2018

Legend

Sampling Locations

- Sample Collected
- Planned Sample
- Previously Sampled - No Planned Re-Sample

Monitoring Well

- PFOA + PFOS Below MDEQ Drinking Water Criteria
- PFOA + PFOS Above MDEQ Drinking Water Criteria
- Colbath Canvas Area

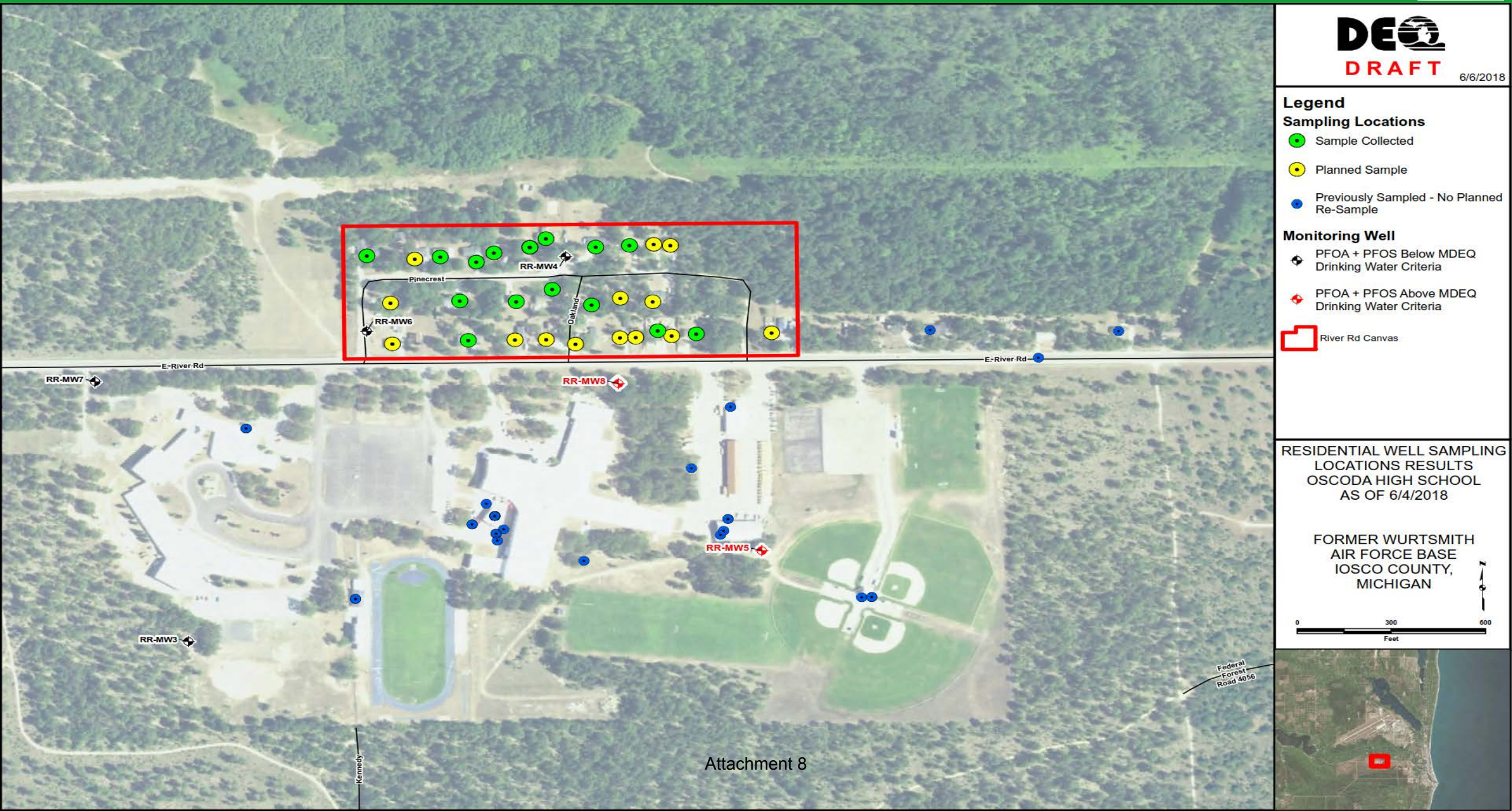
RESIDENTIAL WELL SAMPLING LOCATIONS RESULTS
COLBATH AREA
AS OF 6/4/2018

FORMER WURTSMITH AIR FORCE BASE
IOSCO COUNTY, MICHIGAN

0 310 620
Feet

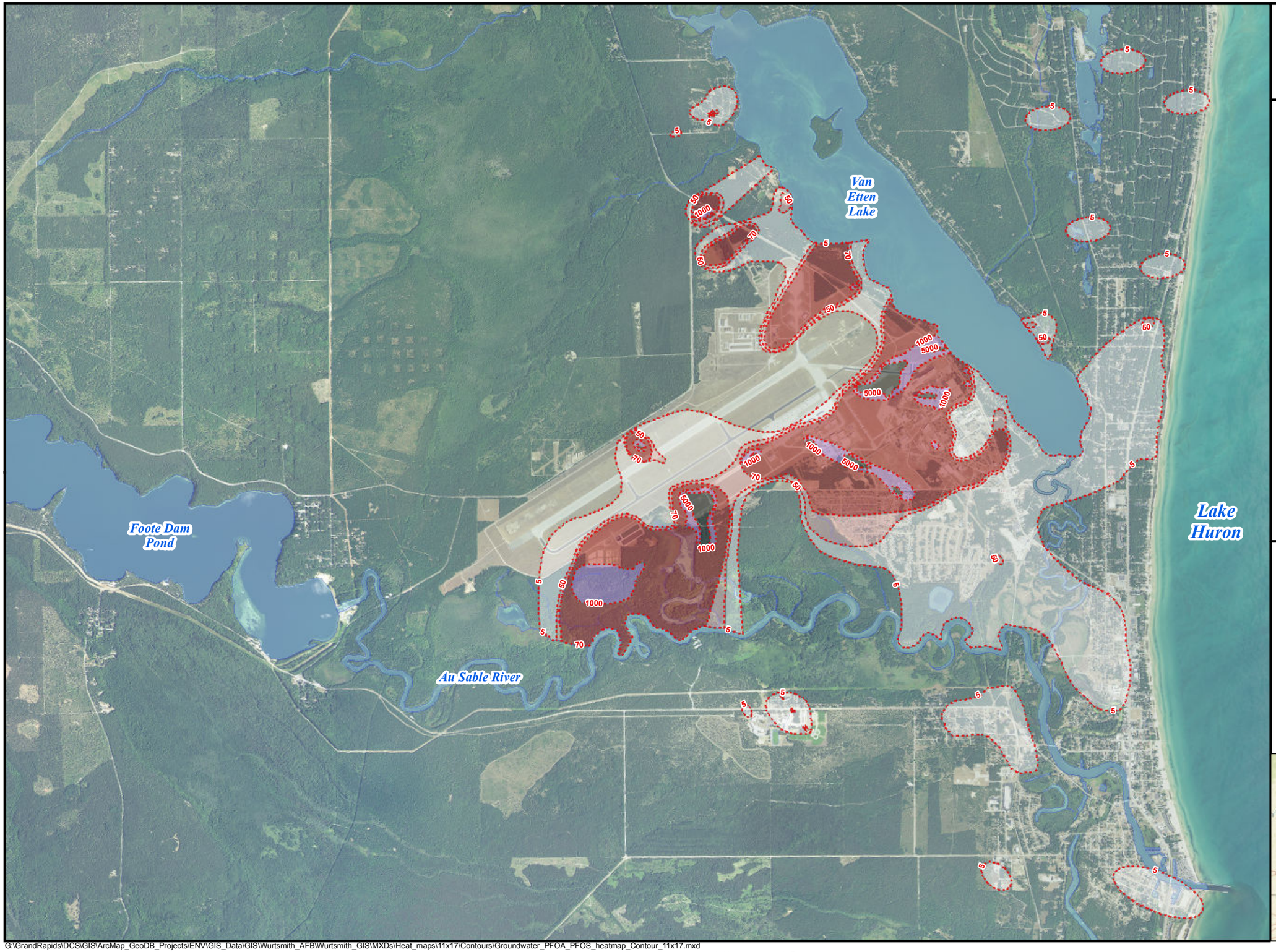
Attachment 8

RIVER ROAD AREA UPDATE



Attachment 8

- Fish & Deer Update
- FOAM – Pilot Test
- McDonald Field Work
- Surface Water Investigation
- Dispute Resolution
- SSI
- Plume Modeling
- VI Investigation



Attorney Client Privilege 5/2/2018

PFOA + PFOS (ppt)

PFOA + PFOS Plume

Concentration (ppt)

- 5
- 50
- 70
- 1,000
- 5,000

GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS PFOA + PFOS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

N

0 3,400 6,800

Feet

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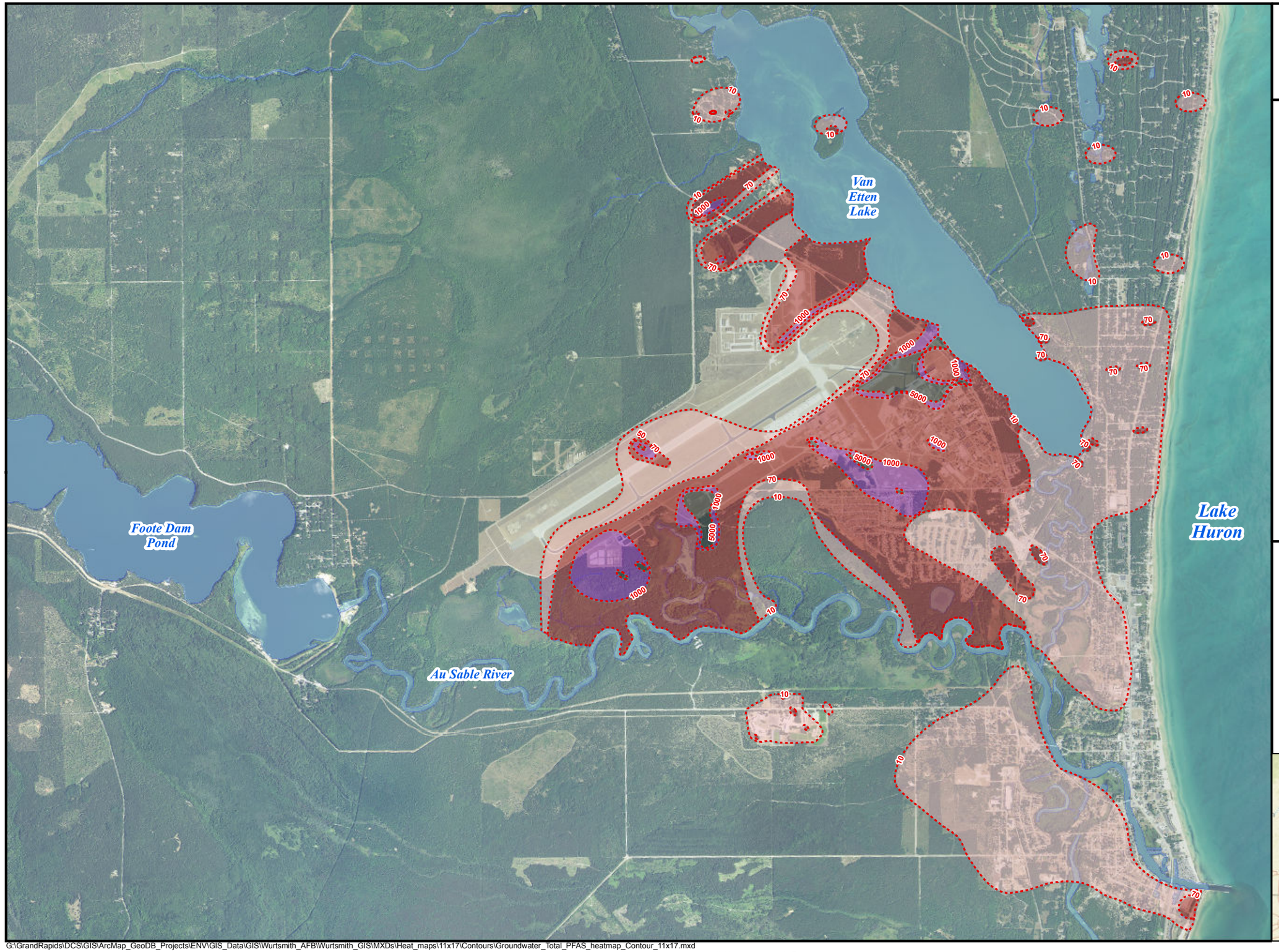

DEQ

Attorney Client Privilege 5/2/2018

Total PFAS (ppt)

Total PFAS Plume Concentration (ppt)

- 10
- 70
- 1,000
- 5,000

GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS TOTAL PFAS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

N

0 3,400 6,800

Feet

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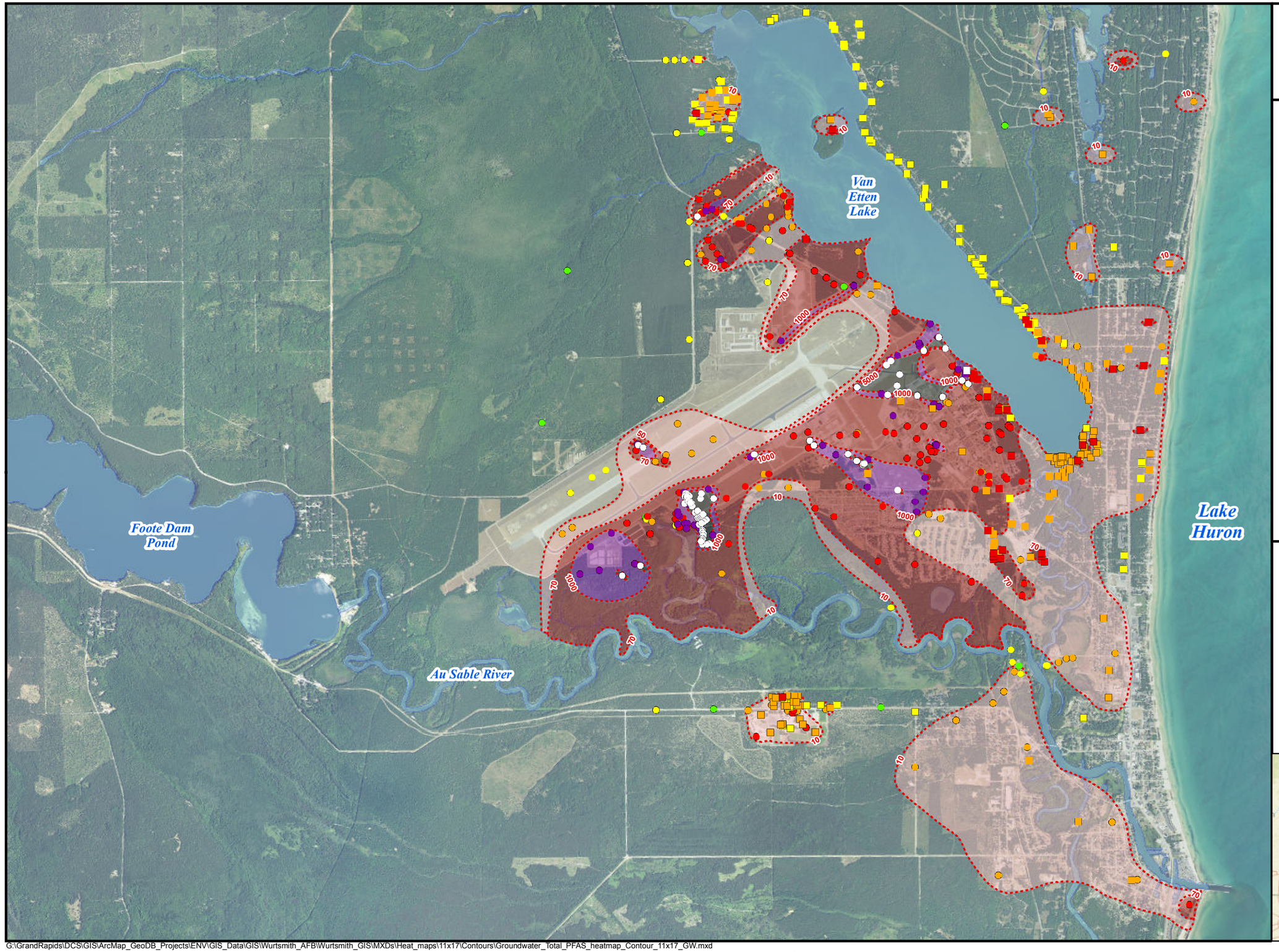

DEQ

Attorney Client Privilege 5/2/2018

Total PFAS (ppt)

Residential Wells

- Non-Detect
- <10
- 10 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

Groundwater Samples

- Non-Detect
- <10
- 10 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

Total PFAS Plume Concentration (ppt)

- 10
- 70
- 1,000
- 5,000

GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS TOTAL PFAS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

N

0 3,400 6,800

Feet

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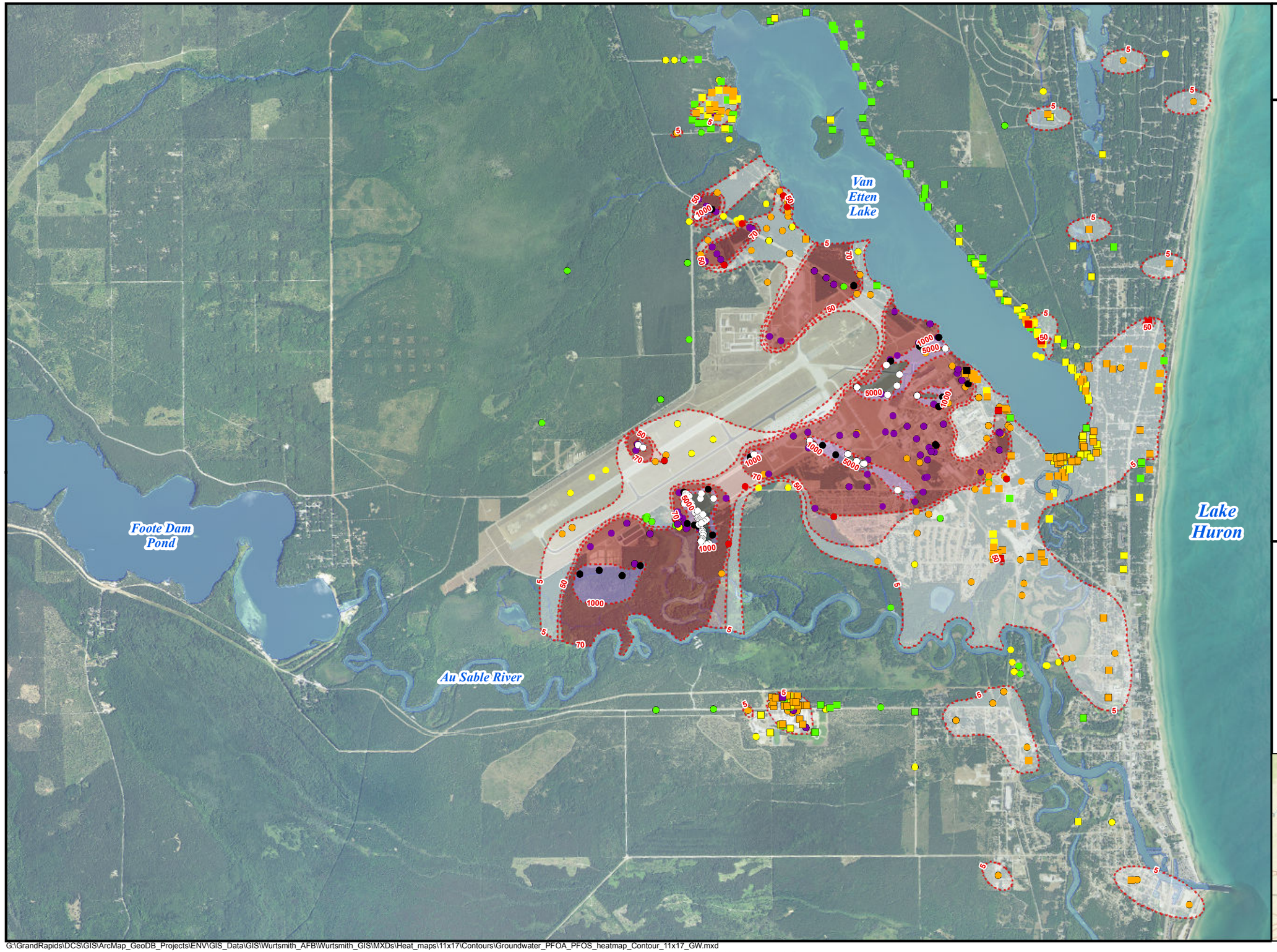
Attachment 9



Attorney Client Privilege

5/2/2018

PFOA + PFOS (ppt)

Residential Wells

- Non-Detect
- <5
- 5 - <50
- 50 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

Groundwater Samples

- Non-Detect
- <5
- 5 - <50
- 50 - <70
- 70 - <1,000
- 1,000 - <5,000
- >5,000

PFOA + PFOS Plume Concentration (ppt)

- 5
- 50
- 70
- 1,000
- 5,000

GROUNDWATER AND RESIDENTIAL SAMPLING RESULTS PFOA + PFOS CONTOURS

FORMER WURTSMITH AIR FORCE BASE IOSCO COUNTY, MICHIGAN

N

0 3,400 6,800

Feet

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Attachment 9

Former Wurtsmith AFB Restoration Advisory Board Action Item Tracker
OPEN ACTION ITEMS as of 6/11/18

No.	Date Created	Action Item	Comments/Resolution	Status	Owner	Due Date
13	13-Feb-18	Consider viability of including a conference call option at future RAB meetings.	Conference call option could be exercised in special circimstances as need arises. If so, a meeting room equipped with teleconference capability would be needed.	Open	Air Force (M. Marrs)	15-Jul-18
14	13-Feb-18	Provide GAC Treatment Plant plans to the Oscoda Planning Commission.	A disk with completed design could be provided to the planning board for their records.	Proposed for Closure	Air Force (M. Marrs)	6-Jun-18
17	13-Feb-18	Consider placing a boom, or another structure, on Van Etten Creek to capture the foam.		Open	MDEQ (B. Delaney)	18-Apr-18
20	13-Feb-18	Determine agency responsible for addressing sample results that exceed the EPA lifetime HA for PFOS/PFOA at the plumes near the high school.		Open	Air Force (M. Marrs), MDEQ (B. Delaney), and MDHHS (C. Bush)	18-Apr-18
21	18-Apr-18	Air Force and MDEQ collaborate to put in place mitigation actions to address PFOS/PFOA contamination until full CERCLA remediation action is determined and initiated.		Open	Air Force (M. Marrs) and MDEQ (B. Delaney)	Ongoing
22	18-Apr-18	Provide status of (and release) the MDEQ/MPART report entitled “Modeling of PFAS Plumes Migration and Source.”		Open	MDEQ (B. Delaney)	TBD
23	18-Apr-18	Air Force and OWAA coordinate to deconflict investigative/remedial activities and airport operations.		Open	Air Force (M. Marrs) and Mike Munson (OWAA)	Ongoing

No.	Date Created	Action Item	Comments/Resolution	Status	Owner	Due Date
24	18-Apr-18	Describe extent, and sources of, contamination on National Forest system land (specifically Clark's Marsh). Indicate which party was responsible for contaminating Clark's Marsh.	Clark's March is a part of the Air Force study as it is downgradient from the former Fire Training Area. In 2015, the Air Force installed a groundwater treatment system at the former fire training area to mitigate impact to Clarks Marsh. The Air Force's Supplemental Site Inspection work includes further investigation of the area.	Open	Air Force (M. Marrs)	Ongoing
25	6-Jun-18	Consider annual sampling of game fish, whitetail deer, and migratory birds. Publish results.		Proposed	TBD	TBD
26	6-Jun-18	Provide data pertaining to health impacts of PFOS/PFOA-contaminated water, which has moved from Clark's Marsh into the AuSable River.		Proposed	MDEQ (B. Delaney)	TBD
27	6-Jun-18	Convey the RAB members' request that the Assistant Secretary of the Air Force and the Assistant Secretary of Defense meet travel to Oscoda, MI to meet residents who have been impacted by PFOS/PFOA contamination.		Proposed	Air Force (M. Marrs)	TBD
28	6-Jun-18	Request environmental assessment of the Former Wurtsmith AFB.	Requested by Jeff Moss	Proposed	TBD	TBD