

Former Wurtsmith AFB Restoration Advisory Board Orientation and Site Tour

2 August 2017

3:00 – 7:00 pm

Robert J. Parks Public Library

FINAL Meeting Minutes

Members Present	Organization
Christina Bush	Michigan Department of Health and Human Services (MDHHS)
Jim Davis (Alternate)	Community Member
Robert Delaney	Michigan Department of Environmental Quality (MDEQ)
Irene Dunn (Alternate)	Community Member
Bill Gaines	Community Member
Martha Gottlieb (Alternate)	Community Member
Matthew Hegwood	Community Member
Catherine Larive (Alternate)	Community Member
Arnie Leriche	Community Member
Chuck Lichon	District Health Department #2 (DHD2)
Matt Marrs	Air Force Civil Engineer Center (AFCEC)/CIBE
Tony Martoglio	U.S. Department of Agriculture Forest Service
Joe Maxwell	Community Member
Jeff Moss	AuSable Township
Mike Munson	Oscoda-Wurtsmith Airport Authority (OWAA)
John Nordeen (Alternate)	Oscoda Township
Dan O'Conner (Alternate)	Community Member
Joe Plunkey	Community Member
Jerry Schmidt	Community Member
Dan Stock (Alternate)	Community Member
Robert Tasiar	Community Member
Aaron Weed (Alternate)	Oscoda Township
Cathy Wusterbarth	Community Member
Members Absent	Organization
Ryan Mertz	Community Member
Tim Cummings	Oscoda Township
Other Attendees	Organization
Paul Rekowski	AGEISS (Air Force contractor)
Saamih Bashir	Amec Foster Wheeler (Air Force contractor)
Beth Flynn	Amec Foster Wheeler (Air Force contractor)
Sean Robinson	Art Peerless
Ryan Morrish	Bay West (Air Force contractor)
Andrea Stawowy	Bay West (Air Force contractor)
Paul Walz	Bay West (Air Force contractor)
Breanne Humphreys	Cherokee (Air Force Public Affairs contractor)
Charlotte Singleton	Cherokee (Air Force Public Affairs contractor)
Jacob Bennett	Congressman Dan Kildee's office
Dale Corsi	DLZ (MDEQ contractor)
Leigh-Ann Fabianke	Galen Driscoll (Air Force contractor)
John Bradley	MDEQ
Jenny Haglund	Oscoda Press
Bill Palmer	Oscoda Township
Gary Kellan	OWAA
Mark Weegar	SPS (Air Force contractor)
Facilitator	Organization
Tim Sueltenfuss	Galen Driscoll (Air Force contractor)

Handouts Distributed at Meeting

RAB Welcome Letter (Attachment 1)

Agenda (Attachment 2)

Restoration Advisory Board (RAB) Orientation Meeting Slides (Attachment 3)

Wurtsmith RAB Operating Procedures (Attachment 4)

Wurtsmith RAB Applicant Pairings (Attachment 5)

Air Force Base Realignment and Closure (BRAC) Snapshot – Former Wurtsmith AFB (Attachment 6)

RAB Fact Sheet (Attachment 7)

Figure 2.3-1, Aqueous Film-Forming Foam (AFFF) Site Investigation (SI) Area Locations and Figure 1, Site Layout (Attachment 8)

Process Flow Diagram, Pump and Treat System at Site FT-02 (Attachment 9)

Welcome and Introductions

Mr. Tim Sueltenfuss, facilitator, called the orientation meeting to order at 3:00 pm and welcomed RAB members and others in attendance. Mr. Sueltenfuss introduced Mr. Matt Marrs, the Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) for the former Wurtsmith Air Force Base. Mr. Marrs discussed the reestablishment of the Wurtsmith RAB and thanked the RAB selection committee for helping to seat the current RAB members. Mr. Marrs described how he will be the Air Force “face” the RAB members will be working with and shared how he looks forward to working with this group. Attendees were then asked to introduce themselves.

Mr. Sueltenfuss introduced the proposed meeting ground rules, RAB members read them out loud and all members agreed to abide by these rules:

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

Mr. Sueltenfuss clarified that electronic versions of meeting materials such as presentations, maps, meeting minutes, etc. will be emailed to the team and posted to a website so RAB members and the public can access them. Meeting documents included in the RAB folders were then reviewed and discussed.

Former Wurtsmith AFB Installation Restoration Program (IRP) Overview ***Matt Marrs, Wurtsmith BEC, Air Force Civil Engineer Center (AFCEC)***

Mr. Marrs presented slides that reviewed the historical overview of the former Wurtsmith AFB and active IRP sites then discussed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly known as Superfund. CERCLA is the legal process used to identify, define and mitigate potential environmental contaminations at the former base. The CERCLA process ensures a thorough investigation of the contamination, leads to proper and complete clean-up actions, and promotes accountability, community involvement and long-term environmental protectiveness.

Mr. Bob Delaney, MDEQ, shared that the closing of the former Wurtsmith AFB is like the closing of a small town. Contamination from previous military practices started being addressed in the 1980s and remedies are in place for all previously identified sites.

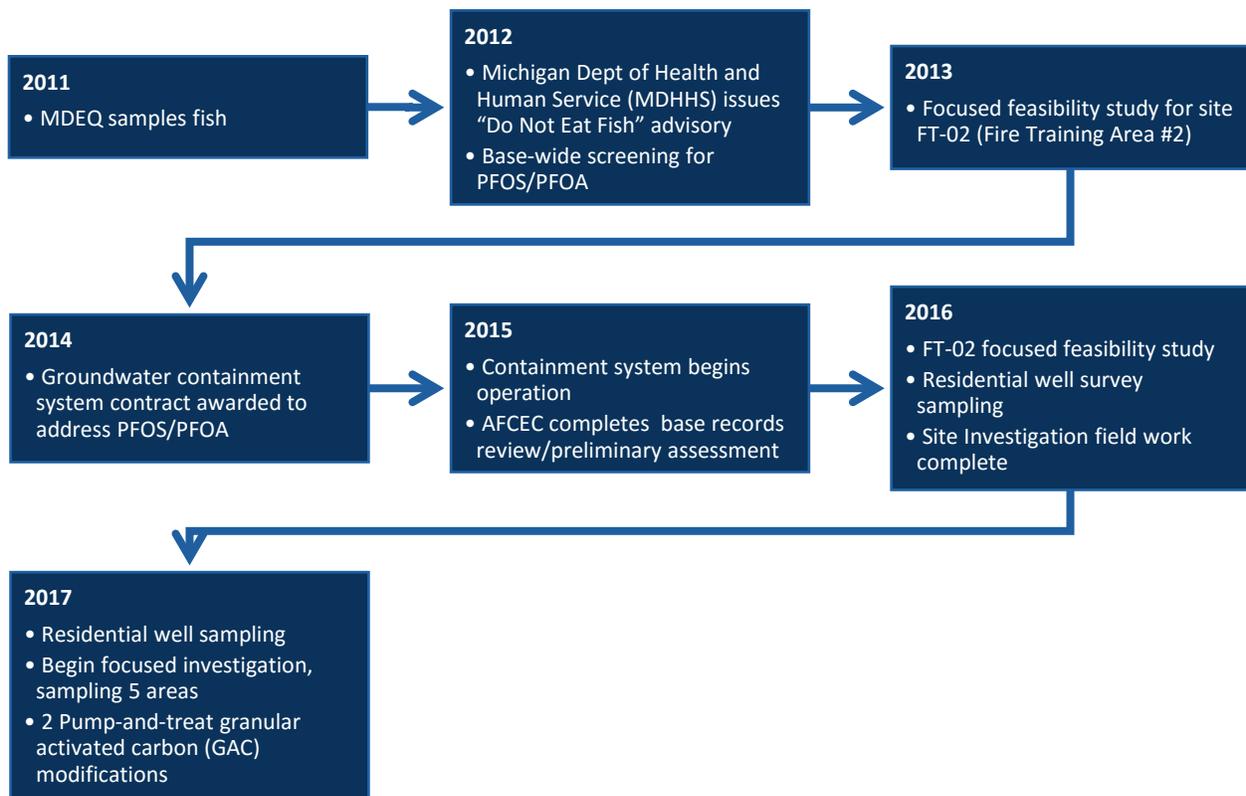
The emerging contaminants Perfluorooctyl Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) were introduced. PFOS/PFOA are synthetic fluorinated organic compounds used in many industrial and consumer products, including: nonstick cookware, waterproof fabric, some food packaging and the firefighting agent AFFF. AFFF is widely used to extinguish petroleum fires at public and military airports across the U.S., including Air Force bases which began using AFFF in 1970. In 2009, the Environmental Protection Agency (EPA) issued a lifetime health advisory (HA) for PFOS/PFOA of 70 parts per trillion (ppt; a concentration of one part of PFOS or PFOA for every trillion parts of water in which it is contained). EPA’s health advisory is non-enforceable, meaning EPA is not currently regulating the contaminant, but may choose to when more information about the contaminant is known. PFOS/PFOA are classified as “emerging contaminants” because they have reasonable pathways to reach drinking water sources, they present a potential unacceptable risk to human health, and the regulatory standards are evolving.

Mr. Delaney reiterated that the EPA HA is not the same as a law and mentioned MDEQ will be releasing a draft document containing “clean-up numbers”/screening levels for PFOS/PFOA in the fall of 2017 for public comment. He mentioned the MDEQ levels for PFOS/PFOA will be less restrictive than the EPA’s HA. It was also mentioned that other states are promulgating (putting into law) screening levels that are lower than EPA’s HA of 70 ppt. It was discussed that public drinking water is consistently tested for PFOS/PFOA and is delivered at acceptable levels for all perfluorinated chemicals (PFCs; PFOS/PFOA are considered PFCs) at around 10-15 ppt.

Mr. Marrs stated the Air Force is taking aggressive measures to reduce the risk of mission-related (Air Force use) PFOS/PFOA contamination to drinking water sources. In June 2009, the Department of Defense established policy and assigned responsibility for the identification, assessment, and risk management of these emerging contaminants. In 2010, AFCEC, which is responsible for the environmental clean-up of Wurtsmith, began a comprehensive assessment to determine if AFFF may have been released at the former Air Force Base. The Air Force is using a three-step approach to assess the potential for PFOS/PFOA contamination of drinking water:

- 1. Identify:**
 - Determine potential AFFF releases
 - Verify releases through water sampling
 - Determine if there is a pathway for PFOS/PFOA to contaminant drinking water
- 2. Respond:**
 - If water samples indicate that PFOS/PFOA is higher than the EPA HA of 70 ppt, then an alternate drinking water source will be provided
 - If water samples indicate that PFOS/PFOA is lower than the EPA HA of 70 ppt, then a monitoring schedule will be established to ensure levels do not get above the HA
- 3. Prevent:**
 - A new AFFF is being used with less risk for PFOS/PFOA contamination
 - The Air Force is working to properly dispose of the legacy AFFF
 - Fire vehicles and Air Force hangers are being retrofitted with the new AFFF

Mr. Marrs also reviewed the following Wurtsmith PFOS/PFOA investigation/mitigation timeline:



Of the 54 private, residential wells sampled in 2015/2016 for potential AFFF impacts, one well exceeded the EPA HA and that location was immediately hooked-up to the municipal water supply, paid for by the Air Force. The Air Force is currently resampling 53 of the 54 private, residential wells and two wells at Whispering Woods Trailer Park (both wells were below the EPA HA when originally sampled) to verify that they are all still below the HA levels. A RAB member mentioned that some of their neighbors' wells have not been tested. Mr. Marrs replied the Air Force paid to sample the original 54 wells and MDEQ is paying for sampling of other private wells. Mr. Delaney confirmed the RAB can access MDEQ's sampling results if requested. MDEQ is also creating an information sheet on PFOS/PFOA sampling so the public can understand data being collected. This document can also be shared with the RAB once completed.

Pump-and-treat and extraction systems to address PFOS/PFOA were also discussed. Extraction systems capture ground water before it migrates from the former base to private wells. While a pump-and-treat system has been operating at Wurtsmith since the 1980s, PFOS/PFOA contamination was not being treated because these were not known contaminants at the time, so the system was not set up to address them. These systems are now, or will soon be, configured to address PFOS/PFOA before the water is discharged. Wurtsmith uses a granular activated carbon (GAC) system at one site to address PFOS/PFOA contamination. This type of system has proven successful in addressing PFOS/PFOA. Mr. Jim Stratico, who works for Calgon Carbon the company that created the GAC system, shared that they have been successfully treating PFOS/PFOA-type contamination with similar GAC systems for over 15 years. Water pumped through the GAC system is sampled once-a-month to monitor PFOS/PFOA levels after the water passes through treatment. He stated more information on the pump-and-treat and GAC systems would be discussed on the site tour.

Mr. Marrs reviewed results from the Air Force's PFOS/PFOA Site Inspection (SI). The SI looked further at the 17 potential AFFF release areas that were identified in the initial Preliminary Assessment (PA) phase. The Air Force used the SI results to prioritize sites for further sampling and investigation and priority sites will be part of the focused investigation work to begin in fall of 2017. To recap, the Air Force is planning the following actions to address PFOS/PFOA at Wurtsmith:

- Install GAC system to treat effluent (liquid released as waste) from two pump-and-treat systems that discharge to Van Etten Creek
- Resample private drinking water wells (currently underway)
- If necessary, provide mitigations to any human drinking water exposures above the HA
- Initiate focused investigation at priority sites in fall of 2017

RAB Member Roles and Responsibilities

Tim Sueltenfuss, Facilitator

Mr. Sueltenfuss discussed the history and purpose of RABs in general, the history of the RAB at Wurtsmith and the rationale for the Air Force reestablishing the Wurtsmith RAB due to PFOS/PFOA concerns, to promote awareness of ongoing clean-up activities and to answer questions about the entire Wurtsmith restoration program. The DoD RAB Rule and RAB Rule Handbook, which provides legal guidelines for RABs, were reviewed. It was emphasized that the RAB provides an opportunity for the community to become involved in the Wurtsmith environmental restoration program and members can serve as a conduit to the greater community, and while RAB members can influence decisions related to the Wurtsmith environmental program, the RAB does not have the authority to make decisions regarding environmental clean-up activities at Wurtsmith.

RAB member roles and responsibilities for the Installation Co-Chair, which will be Mr. Marrs; the Community Co-Chair, which will be nominated and confirmed at an upcoming meeting; Community Members; and Agency Members were reviewed. The ways in which the Air Force will assist the RAB, including coordinating RAB meeting logistics, preparing meeting agendas, taking meeting minutes, responding to public comments and requests for information, etc. were also reviewed.

Mr. Sueltenfuss then discussed the draft Wurtsmith RAB Operating Procedures. RAB members were provided a hard copy of the procedures within their RAB packets and an electronic version will be emailed following the RAB orientation meeting. Members are encouraged to review this document and provide feedback so these procedures can be modified, adopted and instituted at the next RAB meeting.

RAB meeting documents will be emailed to members and uploaded to the Wurtsmith BRAC webpage at <http://www.afcec.af.mil/Home/BRAC/Wurtsmith.aspx> and available via hardcopy at the Robert J. Parks Public Library in Oscoda.

Next Steps

Tim Sueltenfuss, Facilitator

The group then discussed future RAB meetings and determined that another RAB orientation/training would be helpful so members could gain a better understanding of the Wurtsmith environmental program, the RAB process and procedures, and to fill-in some information gaps regarding PFOS/PFOA. The proposed date for this orientation/training is 19 September 2017, 5:00 – 7:00 pm; location to be determined. The first official RAB meeting will be scheduled at this second orientation.

RAB members then loaded buses for the site tour.

Site Tour

STOP 1: Fire Training Area #2

- FT-02 hosted weekly fire training exercises while in operation at Wurtsmith from 1958-1991. The 115-ft. diameter pit has a six-inch thick reinforced concrete cap and is underlain with polyethylene sheeting.
- This site is also undergoing remediation for volatile organic compounds (VOCs) using air sparging and soil extraction technologies.

KC-135 Crash Site

- On 11 October 1988, a KC-135 Stratotanker carrying 16 people crashed during descent on the runway. The plane caught on fire and the re-fueler broke apart. Wurtsmith firefighters quickly doused the flames with AFFF. Six crewmembers were killed, but 10 passengers managed to escape the burning wreckage.
- Prior to PFOS/PFOA discovery, this was an environmental restoration site (SS-51) for fuel; approximately 3,000 gallons of JP-4 jet fuel were in the tanks at the time of the crash. In January 2016, MDEQ agreed that remedial objectives for this site were met for petroleum-based contamination. This site is not closed due to PFOS/PFOA contamination from the AFFF release.

STOP 2: FT-022 GAC System

- The Air Force installed this GAC pump-and-treat remediation system in April 2015 to cut-off contaminant discharges from FT-02 into Clark's Marsh.
- Water pumped through the GAC system is sampled monthly to monitor PFOS/PFOA levels after the water passes through treatment.
- GAC filters are changed every three months.

STOP 3: Benzene Pump-and-Treat Plant

- The Benzene Plant began operation in May 1988 to treat VOCs like Trichloroethylene (TCE).
- The plant's air stripping system was deactivated in 2014 after the contaminants being treated in the plant decreased concentration to where air stripping was no longer required. It remained in operation to continue to capture contaminants in the groundwater to ensure they were not migrating off-site.
- Even though this plant is not yet configured to treat PFOS/PFOA, the purging well is hydraulically containing the contamination and preventing it from moving downgradient and migrating offsite into residential drinking water wells.
- In 2016, 71.2 million gallons of water were pumped through the system.
- The Air Force plans to upgrade this, and the Arrow Street plant, to treat PFOS/PFOA effluent before discharging into Van Etten Creek. Upgrades are scheduled to begin fall 2017.
- During the tour at the Benzene Pump and Treat plant stop, Mr. Paul Rekowski, Air Force contractor with AGEISS, was asked a question about the PFOS concentrations that are discharged from the plant into Van Etten Creek. Mr. Rekowski responded that it is about 100 ppt. Mr. Arnie Leriche, a RAB member, responded that he thought it was much higher than that and was around 1000 ppt. Mr. Rekowski provided a more specific number of 124 ppt after Mr. Saamih Bashir, Air Force contractor with Amec Foster Wheeler, looked-up the data in the Site Investigation report. **UPDATE:** After the tour Mr. Rekowski checked the most recent sampling results for PFOS, which has a promulgated State Standard under Rule 57 for Water Quality Values, and which the discharge exceeds (more information on Rule 57 can be found here: http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-11383--,00.html). He discovered that the 124 ppt was indeed the correct number for PFOS from the Benzene Pump and Treat plant and the following are the sampling results for PFOS in 2016 for both the Benzene Pump and Treat and Arrow Street Pump and Treat plants (PFOS/PFOA sampling results for 2017 have not been received):

- Benzene Plant Effluent (BPTS) PFOS 2016: 124 ppt
- Arrow Street Plant (APTS) Effluent PFOS 2016: 1440 ppt
- Combined BPTS and APTS at VE Creek Discharge PFOS 2016: 1200 ppt

During the tour as the effluent PFOS/PFOA discussion was taking place, Mr. Delaney explained that permits are required to discharge effluent into surface water. These permits set a specific limit on the amount of pollutants that can be discharged into surface water. At the time of the tour, Mr. Delaney stated that the Air Force was complying with permit requirements. Mr. Rekowski pointed out that the Air Force is exempt from permits under CERCLA. Mr. Delaney acknowledged this and said the Air Force is complying with the requirements under the law even though they do not have a permit. Although the exact level of allowable PFOS/PFOA discharge was not known, Mr. Delaney explained that based on the “best available technology” to remove PFOS/PFOA from the water/effluent, the Air Force was not exceeding their limit. (Best available technology is the trade-off of a reasonable removal of PFOS/PFOA versus the 100 percent removal of PFOS/PFOA from the effluent.)

STOP 4: Arrow Street Pump-and-Treat Plant/Focused Investigation

- This plant began operating in 1979 as a carbon treatment system, then as an air stripper in 1981.
- This plant is within one of the priority areas for further PFOS/PFOA investigation.
- The Air Force will conduct phased, focused investigations at these areas to fully map contamination, determine migration, and prevent future PFOS/PFOA downgradient drinking water exposures.
- The Air Force identified priority areas where contamination has the potential to impact private property downgradient from the former base. Focused investigation work will start in fall 2017; priority areas include six of the 13 confirmed release areas. Focused investigations for the remaining areas will take place in 2019-2021.

Wrap-Up and Adjournment

Mr. Sueltenfuss gathered everyone together after the tour to mention to the Air Force will work to schedule another RAB orientation/training for 19 September 2017 and follow-up emails addressing open action items and the September meeting will be sent to RAB members within the next couple weeks.

During the tour, a RAB member shared that special attention should be given to contaminated groundwater being discharged into surface water (local creeks and lakes) like Van Etten Creek. Mr. Sueltenfuss noted that this would be a future RAB meeting agenda item, along with updated information on fish advisories and studies:

- Update on release of PFOS/PFOA-contaminated effluent (from pump-and-treat systems) to surface water (reference permit and regulatory requirements).
- Discuss PFOS/PFOA impact to fish and other ecological receptors.

The RAB orientation and tour meeting was adjourned at approximately 7:00 pm.

August 2017 Action Items

#	Action Item	Who	Due	Status
1.	The Air Force will develop a Wurtsmith-RAB-specific acronym list for RAB members.	Air Force		Open/In draft
2.	The Air Force will provide an overview of the CERCLA process; explaining the process from site discovery to site closure.	Air Force		Open/In draft
3.	The Air Force will be sure to properly orient attendees to maps and figures when they are presented at RAB meetings and ensure that they are easily viewable.	Air Force	On-going	On-going
4.	The Air Force will create a frequently asked questions (FAQ) sheet concerning RABs and the Wurtsmith environmental program for RAB members.	Air Force		Open
5.	When the Air Force is discussing the EPA’s Heath Advisory for PFOS/PFOA or other regulatory standards, they will indicate what environmental media they are talking about (ex: groundwater, surface water, soil, air, etc.)	Air Force	On-going	On-going

#	Action Item	Who	Due	Status
6.	When the Air Force is discussing PFOS/PFOA levels, they will do their best to convert all measurements into parts per trillion.	Air Force	On-going	On-going
7.	The Air Force will email an electronic copy of the Draft Wurtsmith RAB Operating Procedures to the RAB members.	Air Force	Mr. Marrs emailed on 8/15/17	COMPLETED
8.	RAB members should review the draft Wurtsmith RAB Operating Procedures and email comments, questions and suggested changes to the Air Force prior to the 19 September 2017 RAB orientation/training. This input will be compiled then shared and discussed with the intent of adopting the Operating Procedures at the next RAB meeting.	RAB Members		Open
9.	As requested, the Air Force will email a copy of the former Pease AFB RAB Operating Procedures to the RAB members.	Air Force	Mr. Marrs emailed on 8/15/17	COMPLETED
10.	The Air Force will send out a link to the DoD RAB Rule and Handbook and the Wurtsmith BRAC webpages: RAB Handbook: http://www.denix.osd.mil/rab/home/unassigned/rab-rule-handbook/ DoD RAB Rule: https://www.gpo.gov/fdsys/granule/FR-2006-05-12/06-4246 Air Force Administrative Record: http://afcec.publicadmin-record.us.af.mil/ Wurtsmith BRAC webpage: http://www.afcec.af.mil/Home/BRAC/Wurtsmith.asp	Air Force	Mr. Marrs emailed on 8/15/17	COMPLETED
11.	The Air Force will specify points of contact for communicating with the RAB.	Air Force	Mr. Marrs covered in email on 8/15/17	COMPLETED
12.	The Air Force will email the Community RAB members requesting interested parties or nominations for the Community Co-Chair position.	Air Force	Mr. Marrs covered in email on 8/15/17	COMPLETED
13.	The Air Force will email the RAB members confirming the date, location and other items for the proposed RAB orientation/training on 19 September 2017.	Air Force		Open/Email on 8/15/17 specified the 19 th was tentatively scheduled and the RAB will receive an agenda at a later date
14.	The Air Force will email RAB members with the link containing more information regarding fish sampling at Wurtsmith. The MDHHS Wurtsmith webpage: http://www.michigan.gov/mdhhs/0,5885,7-339-71548_54783_54784_56159_77261---,00.html February 2017 PFOS Fish Sampling: http://www.michigan.gov/documents/mdhhs/WAFB_Fish_HC_Final_2-14-2017_552188_7.pdf	Air Force	Mr. Marrs included the MDHHS link in his email on 8/15/17	COMPLETED
15.	RAB members should draft questions, including what was asked during the August RAB orientation and tour, so the Air Force can provide answers.	RAB Members		Open