Meeting Minutes
Public Informational Meeting
Former K.I. Sawyer AFB, Gwinn, MI
May 22, 2019

Time: 7:00 pm
Location: K.I Sawyer Heritage Air Museum

Introduction – Kay Grosinske, from the Air Force Civil Engineer Center, introduced herself and the contractor team, then gave an overview of what was going to be presented. Brief self-introductions were made around the room. She reviewed the meeting agenda and meeting ground rules. She stated that the meeting minutes would be posted on AFCEC's Administrative Record website. http://afcec.publicadmin-record.us.af.mil/Search.aspx

Installation Restoration Program (IRP) Sites

Greg Brooks, from AECOM, introduced the Performance Based Remediation (PBR) contract and the sites covered under the PBR, which include Sites ST004, FT007, and SS017 and Landfills LF010/011, LF008 and XE027. Mr. Brooks updated the contract status at each site and then provided the group with an update of activities at all of the sites.

The following questions were asked during and after the IRP sites presentation:

ST004 Discussion

1. Public: What was the cause of the large fuel spill? Reply: Mr. Brooks replied that transfer, transportation, and handling resulted in the overall loss of thousands of gallons over time. The total amount of fuel released is unknown due to inaccurate accounting of inventory and is therefore estimated.
2. Public: Were there any underground tanks on the base? Reply: Mr. Brooks replied that there were underground tanks used at many sites across the base, but that there were none at the POL Yard (ST004).
3. Public: What bacteria are consuming petroleum contamination? What about seeding with bacteria? Reply: Mr. Brooks answered that naturally-occurring bacteria consume petroleum and that the sparge systems are supplying oxygen to stimulate the naturally-occurring bacterial growth.

Landfill Discussion

4. Public: Where is site LF010/011? Reply: Mr. Brooks showed where LF010/011 was located on the base map, alongside Kelly Johnson Memorial Drive. It contained mixed waste and the only contaminants being tracked are iron and manganese, which are actually naturally occurring.
5. .Public: A speaker recalled that wastewater treatment plant sludge was disposed of in LF010/011. Reply: Mr. Brooks replied that the waste in LF010/011 is likely influencing and

creating groundwater conditions that are causing the iron and manganese in soil to be dissolved into groundwater. Increased manganese concentrations may be due to higher water levels causing groundwater to come into contact with soil containing manganese.

6. Public: Where was the area that was cracking? Reply: Ms. Grosinske replied that the Air Force repaired all of the landfills and reseeded all of the landfill covers in 2011 and 2012. These repairs prompted the Air Force to program reserve projects for landfill repairs at all closed bases.
7. Public: What about the waste that was dumped along Hwy 94? Reply: Mr. Brooks answered that Landfill 2 (LF009) was the waste disposal area along Hwy 94. That waste was removed and placed in Landfill 1 (LF008) before it was covered.

SS017 Discussion

8. Public: Have soil samples been collected? Reply: Ms. Grosinske and Mr. Brooks confirmed that soil samples were collected at SS017, and no contaminants were observed above criteria, so contamination exists mainly in groundwater.

General Discussion

9. Public: A question was asked about past environmental releases. Ms. Grosinske replied that there were VOC plumes in the past. Those contaminants never left the base boundaries and have been successfully treated. Mr. Brooks added that two on-base wells were impacted with TCE at one point, and they have been remediated. There [were] sentinel wells located upgradient of the municipal wells that [were] sampled routinely to ensure contamination does not approach drinking water wells; [however, they were decommissioned in 2012].

Department of Health and Human Services PFAS Presentation

Ms. Sesha Kallakuri, MDHHS Toxicologist, presented slides on the properties and health effects of PFAS compounds in the environment and exposure pathways for human health. The USEPA Health Advisory and Michigan's Drinking Water Cleanup Criteria were explained as well as the basis used for their development. Slides from the DHHS presentation will be available on the Michigan PFAS Action Response Team (MPART) website: https://www.michigan.gov/pfasresponse

The following questions were asked during and after Ms. Kallakuri's PFAS presentation:

1. Public: Have you seen a study showing that low doses may cause cancer tumors to decrease? Ms. Kallakuri stated that she had not seen that study but would look for it.
2. Public: Does Michigan have the highest number of PFAS sites? Mr. Bill Farrell (MDHHS Toxicologist) answered that it seems as if Michigan has a high number of PFAS sites, but that may be because the state is actively looking for PFAS releases.
3. Public: Does the state plan to sample deer for PFAS? Mr. Farrell stated that they are testing deer in the Wurtsmith AFB and Parchment areas. There is currently a "do not eat" warning for deer at Wurtsmith AFB, and deer testing will continue there.

4. Public: Where were fish samples collected from Silver Lead Creek? Ms. Kallakuri did not have that information but stated that they were likely collected from locations near the surface water samples.

PFOS/PFOA Assessment Presentation

Andrew Smith, from Wood E&IS, gave a presentation overview, then went over the PFOS/PFOA investigation, samples collected and their locations in detail. He explained the Department of Defense approach and policy on the issue which is to determine if there was a release, assess the release, and then to take action to protect human health and the environment. The PFOA and PFOS screening levels were discussed with identification of the USEPA Health Advisory and Michigan's Drinking Water Cleanup Criteria.

Mr. Smith reviewed work conducted from 2015 through 2018. Fifteen areas were identified for further investigation in 2016. He then provided a summary of samples collected in late 2018 since the last RAB meeting, which included monitoring well installations and sampling. He also explained the maps presented don't show aerial imagery outside the base boundaries because the AF does not want to reveal personal identifiable information (PII). Members of the public provided input that it would be helpful to at least show roadways on the off-base maps to better understand them. Ms. Grosinske responded that she had already passed on this request to AFCEC leadership.

Mr. Smith explained the most recent assessment activities to characterize PFOS/PFOA contamination in groundwater downgradient of FT007. Additional monitoring wells are planned for on-base locations, including two shallow and one deep wells.

The following questions were asked during and after the PFOS/PFOA discussion:

1. Public: Are the [two] private wells installed at different depths, because the wells within the plume are non-detect while downgradient wells are impacted? Reply: Mr. Smith provided the approximate depths of the wells and noted that they are mainly water table wells. He also commented that the absence of PFOS/PFOA in some wells is admittedly puzzling, which is why the Air Force is continuing its investigation.
2. Public: How far will you chase the detections in surface water? Silver Lead Creek turns into the West Branch of Chocolay River, and a member of the public stated the eastern-most wells within the 4-mile boundary are north of Hwy 94 off Sporley Lake Road (County Rd. 545). Reply: The focus of the Air Force for this contract is the collection of groundwater samples for protection of drinking water, so the Air Force does not plan to collect any additional surface water samples at this time.
3. Public: There are artesian wells in the area, are you planning to sample them? Reply: Mr. Smith answered that the recent well inventory exercise identified many potential private wells, but some private wells may not exist on state databases, so will not be easy to identify; but, that if

drinking water artesian wells were identified within the downgradient area, the Air Force would sample them.

4. Public: Are the two residential wells shallow or deep? Reply: Ms. Schneider, from Wood E&IS, stated that they are considered shallow, water table wells.
5. Public: Will the slides be available publicly? Reply: Mr. Smith answered that the DHHS slides will be available on the MPART web page. Ms. Grosinske stated that she will check if the Air Force presentations can be provided.
6. Public: The Municipal Well #10 was pumped a lot just after it was installed years ago. Could it have drawn PFAS contamination to it? Reply: Mr. Smith stated that Well #10 has been tested for PFOS/PFOA and that concentrations have consistently been non-detect and are not expected to increase. Monitoring wells with PFOS/PFOA impacts over multiple sampling events have also shown consistent results over time. Mr. Schenden, KI Sawyer International Airport Director of Operations, stated that the County samples the municipal wells often.
7. Public: Has the State seen any other PFAS sites in the area? Reply: Ms. Kallakuri answered that the DHHS is not aware of other PFAS-related sites in Marquette. Mr. Schenden indicated that other fire-training areas in the county have been tested and found to have no impacts.
8. Public: What kind of foam does the airport use now? Reply: Mr. Schenden answered that the airport uses foam that contains a lower percentage of PFAS with short-chain type compounds. The airport is also fitting its fire engines with equipment to allow fire fighters to practice without using foam.
9. Public: Can we request that the Air Force inspect or test our well? Reply: Ms. Grosinske stated that the Air Force efforts are focused on the downgradient area from the suspected source within 4-miles of the installation boundary. The questioner's well is at Martin Lake (up-gradient from the former AFB).
10. Public: Are you (Ms. Grosinske) involved in any other SAC bases in Michigan? Reply: Ms. Grosinske responded that she is not involved with the former Wurtsmith AFB, but that she is the program manager for Defense Fuel Supply Point Escanaba, and that KI Sawyer has very few problems compared to some other bases.
11. Public: When were PFAS discovered to be bio-accumulative and by whom? Reply: Mr. Farrell responded that it was discovered sometime in the mid 1990's. 3M was a manufacturer and started to become aware of the health effects of PFAS.
12. Public: How are samples collected from private wells? Reply: Ms. Schneider answered that they are collected from the nearest point to the well, usually near the pressure tank, and from the primary drinking water tap, usually in the kitchen.
13. Public: There are many more private wells at Big Trout Lake than are shown on the proposed well map shown. Reply: Ms. Grosinske asked that if anyone in the audience knew of any other wells in the area of current investigation, to please let her know.

Ms. Grosinske asked whether this presentation was helpful? The overall response was that it was helpful and informative. Ms. Grosinske also asked whether an afternoon or evening time was preferred. The consensus was that an afternoon time was preferable.

Ms. Grosinske thanked everybody for attending and thanked the KI Sawyer Museum manager for allowing the use of the facility. She also noted that if anybody had further questions they could contact her or Mr. Petrie of Michigan Department of Environment, Great Lakes, and Energy.

Members of the Air Force and State of Michigan Team Attendance Sheet

Attendees
Kay Grosinske – AFCEC- Co-Chairperson
Sesha Kallakuri – Michigan DHHS
Bill Farrell – Michigan DHHS
Steve Schenden – Marquette County
Sarah Schneider – Wood E&IS
Andrew Smith – Wood E&IS
Greg Brooks - AECOM
Ken Brown – AECOM
Sabina Chowdhury - BAH