

Meeting Minutes
Wurtsmith BCT Meeting
8 September 2021
Teleconference

Contract No. LCES20S003
Location: Teams Call

Meeting Date: Wednesday, 8 September 2021
Meeting Time: 0900-1225 EST

MEETING ATENDEES:

Teleconference

Catharine Varley, PhD	AFCEC	Beth Place	EGLE-RRD - Superfund
Steven Willis	AFCEC	Matt Baltusis	EGLE-RRD - Superfund
Jay Mullett	Wood	Nick Shorkey	EGLE-RRD - Superfund
Saamih Bashir	Wood	John Bradley	EGLE-RRD - Superfund
Dora Chiang	Wood	David Kline	EGLE-RRD - Superfund
Justin Gal	Wood	Matthew Siler	EGLE-WRD - Bay City
Nick Robb	CTI	Amanda Armbruster	EGLE-WRD - Bay City
Nick Butzin	CTI	Ann Person	EGLE-WRD - Bay City
Jay Harbin	LATA	Andrea Keatley	MDHHS
Mark Weegar	Cherokee Nation	Puneet Vij	MDHHS
Lee Major	Cherokee Nation	Mounica Nandula	MDHHS
Andrea Stawowy	Cherokee Nation	Jeremiah Morse	AECOM
Ryan Morrish	Cherokee Nation	Doran Bogdan	AECOM
Paula Bond	Aerostar		
Paul Walz	Bay West		
Dirk Pohlman	Bay West		

Note:

AFCEC: Air Force Civil Engineer Center
EGLE: Michigan Department of Environment, Great Lakes and Energy
MDHHS: Michigan Department of Health and Human Services
RRD: Remediation and Redevelopment Division
WRD: Water Resources Division

The Base Realignment and Closure (BRAC) Cleanup Team (BCT) meeting was held via teleconference. The meeting began at 0900 hours eastern standard time (EST) on 8 September 2021 and adjourned at 1225 hours EST. The Meeting agenda is attached.

1. Opening Remarks/General Discussion

- a. J. Mullett opened the meeting with a greeting and introductions. The meeting purpose was to discuss environmental restoration program work at the former Wurtsmith Air Force Base (AFB).
- b. C. Varley introduced Steve Willis and explained that he was going to share Wurtsmith Base Environmental Coordinator (BEC) duties, he will oversee the operation and maintenance (O&M) and Military Munitions Response Program (MMRP) tasks.

2. United States Air Force (USAF) Updates

- a. **USAF- Items being worked, priorities, upcoming meetings**
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- i. C. Varley stated Air Force is trying to get a “dig and haul” under contract for FT002 which should be in place by 20 September 2021 to stop contamination from the fire training area (FTA) from migrating to Clark’s marsh. Public comments from Van Ettan Lake proposed plan are currently under USAF review. The interim Record of Decision (ROD) at Clarks Marsh is currently under legal review and will hopefully be provided to Michigan Department of Environment, Great Lakes, and Energy (EGLE) by 10 September 2021 (end of the week).
- ii. C. Varley stated the next Restoration Advisory Board (RAB) meeting will be scheduled for 17 November 2021 (initially stated 14 November 2021 and subsequently corrected). C. Varley stated that Aerostar and USAF will visit with the airport at the end of September to brief them on the progress.
- iii. B. Place stated that she would appreciate if USAF coordinated the RAB dates with EGLE as early as possible so she could plan for the quarterly town hall meetings and confirm attendance.
- iv. B. Place stated that she had received an email regarding the waste characterization going on at FT002 and asked if that was part of the Time-Critical Removal Action (TCRA) or the Remedial Investigation (RI). P. Bond replied that the sampling was being conducted in preparation for the TCRA and that they needed to collect waste characterization samples for the receiving facility. B. Place asked if it was primarily per- and polyfluoroalkyl substances (PFAS) sampling? P. Bond replied, it was the full scan of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, PFAS, and Toxicity Characteristic Leaching Procedure (TCLP) for everything. B. Place asked if they are being collected in-situ. P. Bond replied yes, they are being collected in-situ because Aerostar wants to direct load during the TCRA instead of stockpiling. B. Place requested a written scope of work including any documents or written plans pertaining to the work being performed at the FT002 TCRA. C. Varley replied that they are still working on the contract, and they would draft a work plan and get it to her as soon as they could. In addition, an Action Memorandum will be completed for the TCRA. M. Weegar stated, for clarification, that the TCLP samples that are being collected are for analytes other than PFAS as there are no regulatory TCLP standards for PFAS in Resource Conservation and Recovery Act (RCRA).

b. CTI/Wood –BRAC Environmental Construction and Optimization Services (BECOS)

- i. J. Mullett stated that CTI/Wood had initially taken over operation and maintenance (O&M) of the LF 030/031 and FT002 treatment systems on 28 June 2021 and subsequently taken over O&M of the Mission Pump and Treat System (MPTS) and Central Treatment System (CTS) on 1 August 2021. CTI/Wood has been operating the systems and sampling in accordance with the Substantive Requirements Documents. J. Mullett stated that CTI/Wood performed a carbon changeout on Tank 2 at the FT002 system on 11 August 2021, as well as some well rehabilitation at FT002. CTI/Wood also completed tree clearing around Pond 1 at EWTS and have line jetting scheduled at the Benzene Plant on 14 September 2021. All sampling results have been submitted to MiWaters and August 2021 results will be submitted in a couple of weeks. B. Place asked for clarifications on the well rehabilitation, as well as more information on the line jetting at the Benzene Plant. N. Butzin replied that FT02-PW3 had a gasket replaced on the pit less adapter. J. Mullett also replied that the flows coming from the Benzene Purge Wells have been low at the CTS and historically line jetting has been done in the past to increase the flow rates. If line jetting does not increase the flow rates, then CTI/Wood will look at rehabbing/replacing

pumps.

- ii. J. Mullett stated that Wood is waiting on direction from USAF on how they are planning to share the Monthly Technical Status Report (MTSR) with EGLE. C. Varley asked if EGLE has completed preparation of the list of documents that they would like to have access too. B. Place stated she thought it was just a list of data, however, she will make sure to put together a document list as well (**ACTION ITEM**). B. Place asked about access to the BECOS SharePoint site. S. Bashir confirmed that the site is online and if anyone does not have access to please let him know.
- iii. J. Mullett stated that CTI/Wood re-mobilized on 7 September 2021 to wrap up the annual LTM sampling event. The sampling sequencing is available and was previously sent to EGLE. CTI/Wood will have two separate crews sampling over a period of 3-4 weeks. B. Place asked if the wells being sampled included the wells that are proposed to be removed. J. Mullett confirmed that CTI/Wood is planning to sample everything in accordance with the approved 2019 sampling plan.
- iv. J. Mullett stated that once all the system maintenance is completed (well/pump rehab and line maintenance) and the systems have a chance to re-stabilize, CTI/Wood is planning to conduct the annual groundwater gauging event in October 2021. The date has not been confirmed.
- v. B. Place asked J. Mullett if the Document Tracker would be discussed in detail, primarily the Optimized Exit Strategy (OES) plans and if EGLE could include them on the list of documents to review. M. Weegar replied that the OES reports are internal USAF documents that do not go to the regulators. B. Place replied that they have been provided in the past and were also posted to the Administrative Record (AR), and questioned if these new OES Plans would also be posted to the AR? M. Weegar stated that the OES Compendium guidance document states that these documents remain internal. B. Place requested a copy of the OES Compendium. M. Weegar stated that any decision recommended in an OES document that triggers future work is used by contracting to execute new work. Any new work would have work plans and reports generated that the regulators would have a chance to review. C. Varley replied OES Reports would not be provided if they are strictly used for contracting. B. Place reiterated that she would like a copy of the guidance, as this would represent a change in how things were previously conducted. B. Place stated that contractors have referenced these OES documents in the past in plans and reports. M. Weegar stated that there is much more information in the subsequent work plans and reports. B. Place reiterated that these reports have been put on the AR in the past. She gave a few examples and asked if this will occur going forward. C. Varley stated that USAF does not plan to remove anything off the AR, and she will look into this, as she cannot speak to how it was done in the past. M. Weegar stated that adding regulatory review on these types of documents would potentially result in change orders. B. Place stated that she thought that the BECOS contract offered this type of flexibility. C. Varley stated that it would be based on the availability of funds.
- vi. J. Mullett requested that a list of data and documents that EGLE would like to receive, and review be created and submitted to USAF (**ACTION ITEM**). B. Place stated they will put together a letter and list and submit it to USAF. Regardless of whether EGLE has been submitting multiple separate requests via email, C. Varley requested a letter from EGLE to include a comprehensive list in an organized format that she can share with the Contracting Officer (CO), G. Smith and herself (**ACTION ITEM**). S. Willis will contact the CO and get specifics on what

needs to be included on the letter, which will list the documents EGLE would like access to or receive copies of **and** provide the information to EGLE (**ACTION ITEM**).

- vii. J. Mullett mentioned the BECOS Quality Assurance Project Plan (QAPP) is going into internal review this month. The goal is to have a draft to USAF for review by the end of September 2021 and to submit it EGLE for review by late November/early December 2021.

c. **Bay West – PBR**

- i. P. Walz opened with saying that Bay West is essentially done with all field work aside from some drums of drill cuttings at LF030/031. The analysis showed that the PFAS concentrations in the drill cuttings are all non-detect or below criteria. Bay West will be having someone empty the drums and spread the soil in the next few weeks in the LF030/031 area.
- ii. **SS017 Closure Memorandum** – P. Walz stated that Bay West sent a recommendation to USAF to prepare an Explanation of Significant Differences (ESD) in support of obtaining Site Closure. USAF had some comments, Bay West is responding to those comments. Bay West should have a response out to USAF in the next couple of weeks. Hopefully, there will be a path forward and work on the ESD or the ROD amendment that will be required in support of obtaining Site Closure will commence.
- iii. **Annual Reports** - P. Walz stated Bay West received comments from EGLE regarding the 2018 Pump and Treat System (PTS) Annual Report, 2019 Long-Term Monitoring (LTM) Annual Report, 2019 Systems Annual Report, 2019 PTS Annual Report, and the 2020 LTM Annual Report. They have also submitted response to comments (RTCs) to USAF for all five reports. Once RTC concurrence is received, the RTCs will be submitted to EGLE. M. Weegar stated that the RTCs under his review.
- iv. B. Place asked if the SS017 Closure Memorandum (ESD or ROD Amendment) will be reviewed by EGLE. M. Weegar replied yes, but he reminded EGLE that they had already approved the Closure Memorandum, and USAF Legal is requiring Bay West to submit either an ESD or ROD Amendment to formally close the site. Additional information to justify an ESD is currently being developed by Bay West. B. Place recommended a change to the document tracking schedule. S. Willis replied yes, the tracker will be updated.
- v. **Five-Year Review** - M. Weegar stated the Five-Year Review was still under USAF review. B. Place asked if EGLE can expect to receive the Five-Year Review in October 2021 to which M. Weegar replied that it was highly unlikely. B. Place asked if there was a date EGLE could anticipate receiving it, M. Weegar replied not at this time. There are numerous documents that are currently under USAF review, and it will be prioritized accordingly. In addition, there are multiple Five-Year Reviews in the queue that were all submitted for review at the same time. This is also impacting review schedules. It is not expected to be back to EGLE before 1 December 2021. B. Place requested that the tracker be updated with anticipated dates for EGLE review of documents. C. Varley stated that A. Stawowy will keep the tracker updated along with a field schedule. J. Mullett recommended adding into the remarks an anticipated month for EGLE review so they can plan more accordingly, C. Varley agreed. B. Place stated she would prefer another column. S. Willis stated they would take a look to make it more clear with projected dates (**ACTION ITEM**). B. Place requested that the document tracker and field work

schedule are uploaded to one SharePoint site, so everything is in the same place. B. Place requested a list of field work dates and have everything in one place. C. Varley stated we will develop the field work schedule and share it accordingly (**ACTION ITEM**). C. Varley did reiterate that the field work is dynamic, and things change based on access, etc.

- vi. **2019 LUC Report** - P. Walz stated as the document was final in July 2021.
- vii. **2020 LUC Report** – P. Walz stated it is under AFCEC review.
- viii. **WP004 and SS008 OES Effectiveness Report** – P. Walz stated it has been submitted to USAF and Wood has the lead on those two documents. S. Bashir mentioned they have received comments and RTCs will be submitted back to USAF either today or tomorrow for concurrence.
- ix. **Draft Volatilization-to-Indoor Air Pathway Remedial Investigation Addendum Report** – S. Bashir stated they received comments in July 2021 and are working on the RTCs which should be submitted back to USAF Friday or Monday of next week for concurrence. B. Place asked when this report will be ready for EGLE review. J. Mullett stated that potentially October 2021 based on Subject Matter Experts’ and Legal Department’s back check of RTCs. S. Bashir stated that based on schedules, November 2021 may be more likely.

2020 Systems and PTS Annual Report – P. Walz stated it is ready to be submitted to USAF, however, they are waiting on a couple revisions based upon comments and RTCs to the 2019 reports.

- x. **Draft FT002 RAC Report** – P. Walz stated it is scheduled to be submitted to USAF this week.
- xi. **Draft FT002 UST Removal Tech Memo** – P. Walz stated it is scheduled to be submitted later this month.
- xii. **Draft SS072 Revised Risk Assessment and Updated FS** - P. Walz stated the Revised Risk Assessment is almost complete, they are working on the Feasibility Study (FS) and getting a combined document submitted to USAF in November 2021.
- xiii. **Draft LF030/031 OES Effectiveness Report** – P. Walz stated it will be submitted to USAF in early October 2021.
- xiv. **Draft PTS OES Effectiveness Report** - P. Walz stated it will be submitted to USAF in early October 2021.

Overall B. Place reiterated the importance of understanding the timing on when EGLE would receive documents for review. It certainly looks to be a very busy end of the year and the more EGLE can be prepared for these reviews the better.

- d. Aerostar – PFAS RI and Interim Remedial Action (IRA)
 - i. **Field Work** – P. Bond stated that soil sampling is still ongoing, and they are finishing up at the BOA. Today or tomorrow, they are scheduled to grab waste characterization samples from FT002 and then Aerostar will be moving to SS071.
 - ii. B. Place asked if EGLE had all the updated figures at this point to which P. Bond responded yes;

- everything is posted on [box.com](https://www.box.com). B. Place asked if step outs are complete at any of the locations. P. Bond replied she doesn't have the final data, but she does have the Defense Reutilization Management Office (DRMO) data which is available at [box.com](https://www.box.com). P. Bond said that the vertical aquifer sampling (VAS) will start at the less contaminated areas first and proceed to the more contaminated areas. She added that Aerostar and Air Force is currently working on getting the off-site access agreement completed and signed. Therefore, those off-site locations will be completed later. The US Forest Service locations will also be completed later since no access agreement is in place. P. Bond said the VAS will start with only one drill rig and a second drill rig will be added later.
- iii. **RI UFP QAPP** – P. Bond stated Aerostar is expected to submit the full list of response to comments to EGLE next week.
 - iv. **Van Etten Lake Proposed Plan** – P. Bond stated it was finalized on 23 July 2021. The Public meeting was held on 31 August 2021, Aerostar is responding to comments and working through the responsiveness summary as well as developing the Interim Record of Decision (IROD).
 - v. **Van Etten Lake Record of Decision** – P. Bond stated there is not an expected submittal date at this time, but Aerostar is working as fast as they can to get it to USAF for review.
 - vi. **Clarks Marsh Proposed Plan** – P. Bond stated it was final on 15 March 2021.
 - vii. **Clarks Marsh Record of Decision** – P. Bond stated USAF has completed their review and it should be submitted to EGLE tomorrow.
 - viii. **Risk Assessment Work Plan** – P. Bond stated Aerostar is currently going through and responding to the comments, they should be completed in a couple of weeks. USAF will then have to review them.
 - ix. **Risk Assessment UFP-QAPP Addendum** – P. Bond stated that based on EGLE comments on the QAPP Data Quality Objective (DQOs), the delineation DQOs and the biota sampling DQOs will be separated. They are preparing this document specifically for the Risk Assessment and the biota sampling, so that there will be an addendum to the current QAPP and the current QAPP will be for delineation. It has not been submitted to USAF for review yet, but Aerostar is hoping to have it completed in the next week or so.
 - x. **Remedial Action Work Plan Clarks Marsh** – P. Bond stated that it is currently under EGLE review.
 - xi. **Remedial Action Work Plan Van Etten Lake** - P. Bond stated they are going to re-submit this to USAF in the next couple of weeks.

3. EGLE/MDHHS Updates

- a. **EGLE RRD – Superfund Section Updates** - No new Information to share.
- b. **EGLE – Bay City District Updates** - R. Morrish stated that during the 18 August 2021 inspection he and

M. Siler met at the CTI/Wood Oscoda office to discuss the letter received from EGLE regarding CTS and FT002 treatment system classifications and was wondering the status of a response to their recommendations in the letter. M. Siler replied that Davis Roster is planning on updating that letter.

A. Armbruster stated they are still waiting on the July 2021 groundwater monitoring results and are most likely doing their next groundwater monitoring event in October 2021. EGLE is still trying to secure access to the McDonalds store property where they had hoped to do some work this year. They are also trying to secure access to a property that is northwest of Van Ettan Lake for soil and groundwater sampling. A. Armbruster said that monitoring well "RIMW33" 13–18-foot interval was destroyed but the other interval is sound.

- c. **EGLE WRD Updates** – M. Siler stated that there are no updates at this time. B. Place asked if there were any groundwater monitoring wells in the vicinity of the Oscoda wastewater treatment plant and if so, could any information on those wells be shared. M. Siler replied that there are monitoring wells and Oscoda Township is sampling those wells as part of their permit. B. Place asked if they could get the construction logs for those wells, M. Siler said he will look into it. C. Varley mentioned that USAF would benefit from the construction logs as well. **(ACTION ITEM)**
- d. **MDHHS Updates – Field Work and New Data** - P. Vij stated that everyone should have access to a revised map that covers the three-mile coverage area, as well as the final report and frequently asked questions. The revised deer and fish signs should be posted soon.

4. Technical Discussion LTM Sampling Discussion SS021 (Arrow Street Site)

a. Data Summary

b. Rationale for elimination of wells

c. EGLE's Response to this rationale –

- i. B. Place stated that EGLE wants to understand what wells are being used to look at the plume, as well as a current plume configuration. EGLE is not opposed to dropping off wells from the long-term monitoring plan, but EGLE needs a better understanding of what is being monitored and why. J. Mullet asked what type of information EGLE is requesting. B. Place replied EGLE wants to look at what wells are being used to monitor the flow and why those wells are being used over other wells. EGLE wants to make sure that the VOC plumes outside of the PFAS request are still being adequately monitored and understand what that monitoring is. They are looking for a commonsense approach to monitoring the plume and that may be happening, but EGLE does not think it is being documented very well.

d. Discussion/Agreement

- i. M. Baltusis stated that EGLE is aware that wells over time have dropped off because of meeting certain requirements, but it is the monitoring that is important for them. EGLE likes to see the trend graphs and would like to know where the locations of these wells are in relation to the capture zone or relative to the contamination. J. Mullet replied that the plan is to continue to sample wells that will monitor the site but there are a lot of wells that are redundant and/or below criteria.
- ii. P. Walz stated there was a comment made that wells are just dropped off because they have not had concentrations above criteria for a certain number of events, and that that is only part of the story. The other part of the story is that the pump and treatment system has been

- operating for decades and every Annual Report documents that hydraulic control is being maintained and concentrations in many of the wells that have historically had detects above criteria are below criteria and have been below criteria for numerous years. Given the shrinking nature of the VOC plumes and the documented hydraulic control of these plumes, it is normal and natural for the level of groundwater monitoring to be reduced over time. This additional information was added to the minutes for clarity. M. Baltusis reiterates that he agrees that the plumes have shrunk over time; however, the capture zones are interpreted. He would recommend keeping any well close to the current interpreted plume lines. A. Stawowy reiterates that the capture zones and interpreted plume lines are developed with the gauging data. These wells near the interpreted plume lines would remain in the gauging network to verify plume capture.
- iii. A. Stawowy stated that the only thing USAF is recommending is stopping the VOC sampling in the wells that have been clean for 12-20 years. Not abandon the wells, but to just discontinue VOC sampling. B. Place replied that EGLE would like to have a holistic approach to that. J. Mullet replied that the QAPP is going to have a work plan for each site that will lay out the proposed LTM. J. Mullet asked if additional information is provided, will EGLE be more favorable on eliminating some of these wells that have been below criteria for over a decade? B. Place replied instead of focusing on what USAF plan to eliminate, EGLE wants to understand what is being monitoring, a list of wells being used to monitor, and why the monitoring is taking place to better understand the need for these wells. The concentration, location and depth of those wells will supplement that. B. Place mentioned that monitoring something that is non detect is just as important as monitoring something that has a detection.
- iv. D. Bogdan stated that when a well is to be dropped off, EGLE will be reviewing the documents, and some of these wells do not have trend graphs, so that might be a potential issue. A. Stawowy replied asking how they would make a trend graph of a well if nothing is above criteria. If it is all non-detect, a trend graph can't be created. Every year a well was sampled, it is included in the data hit table. If there were no trend graph, it is listed as less than or non-detect on the data hit table. P. Walz added that according to the decision document, there is a need to continue to complete groundwater monitoring after the cleanup criteria is met across the site, and the system is shutdown. The groundwater monitoring program that would be done during a well shutdown period would become more expansive than the groundwater monitoring program at a site where the absence of contaminant migration is supported by both the hydraulic containment data and the groundwater analytical data. If extraction wells are turned off either because cleanup criteria have been met across the site or in support of transitioning to a MNA remedy, it is assumed that both the number of wells and the frequency of monitoring would increase for a period of time, to assess and document the presence/absence of contaminant rebound. This additional information was provided for clarity.
- v. D. Pohlmann suggested adding a "sample rationale" in the LTM plan where this information could be documented (e.g., that well data is redundant to well X). This approach might provide the information EGLE is looking for.
- vi. P. Walz mentioned that perhaps part of the reason more rationale was not provided is that the tables were prepared under the assumption that there is a common understanding

among the authors and the reviewers that the plumes are shrinking over time. If the plumes are shrinking and concentrations are declining within the plume, then how long do they need to continue to monitor these points? Recommended changes to the sampling program are based upon the thought process that everyone is working from the same conceptual site model. This includes everyone concurring that hydraulic control has consistently been maintained at the site, plume size has been reduced, and concentrations have been declining for 20 years.

- vii. J. Mullet stated that he was hoping to come to some sort of consensus but does not think it is going to happen on this call. B. Place agreed stating that she does not think it is quite there yet. C. Varley reiterates that the BECOS contract primarily relates to BECOS and optimization of VOCs on these legacy sites. B. Place states that regardless, EGLE will still make a comment on PFAS at these sites. J. Mullet states that Bay West will provide some additional detail in their RTCs on the Annual Reports and CTI-Wood will provide some additional detail in the QAPP. J. Mullet continued that this is certainly the direction on where the Air Force is moving with their optimization and future discussions will be required. M. Weegar expressed his concern with how EGLE wants to revisit how these wells are being eliminated as these protocols were set in the Decision Documents. B. Place stated that she disagrees, and the monitoring program is not well documented.
5. **Next Meeting** scheduled on 27 October 2021 at 0900-1200 Teams Teleconference. The proposed 1 December 2021 Meeting works for ELGE virtually.