

**Meeting Minutes  
Wurtsmith BCT Meeting  
20 November 2019  
Teleconference**

Bay West Project No. J150073  
Location: Teleconference

Meeting Date: Wednesday, 20 November 2019  
Meeting Time: 0900-1025 EST

**MEETING ATTENDEES VIA TELECONFERENCE:**

Dan Medina	AFCEC	Lee Major	Cherokee Nation
Mark Weegar	Cherokee Nation	Bill Harmon	EGLE
Beth Place	EGLE	Matt Baltusis	EGLE
Mike Jury	EGLE	Charlie Bauer	EGLE
Matt Siler	EGLE	Amanda Armbruster	EGLE
Dale Corsi	DLZ	Jeremiah Morse	AECOM
Andy Karg	EGLE	Paul Walz	Bay West
Andrea Keetley	MDHHS	Dirk Pohlmann	Bay West
Saamih Bashir	Wood	Beth Flynn	Wood
Andrea Stawowy	Bay West	Ryan Morrish	Bay West

The meeting was held via Skype. The meeting began at 0900 hours on 20 November 2019 and adjourned at 1025 hours. The meeting agenda is attached and posted to the Bay West Collaborative Website.

**INTRODUCTION**

D. Medina opened the meeting with a greeting and introductions. The meeting purpose was to discuss environmental restoration program work at former Wurtsmith AFB.

**23 October 2019 BCT Review**

The 23 October 2019 BCT Meeting Minutes were sent to EGLE on 19 November 2019 and are still being reviewed by EGLE. EGLE will submit comments by 22 November 2019, the Meeting Minutes will be updated accordingly and then posted to the Collaborative Website. **NOTE:** The above work has been completed.

B. Place requested the BCT Meeting Minutes be submitted to EGLE closer to the meeting date. The Air Force will submit the minutes within approximately 2 weeks after the meeting, and agendas will be distributed at least one week prior to the meeting.

**Action Items from October BCT:**

**EGLE**

- EGLE submitted the Draft Five-Year Review Interview Questionnaire to the Air Force, the final will be sent upon EGLE Management approval.
- **NOTE:** EGLE submitted final, Management approved, Five-Year Review Work Plan comments and Interview forms on 26 November 2019.
- Annual Reports – 2017 and 2018 LTM and 2017 PTS are under review at EGLE. Comments should be available the week of 09 December 2019.
- At one time the Air Force was going to include the MMRP sites in the Five-Year Review. This decision has been reversed and the MMRP sites will not be included in the Five-Year Review. This is consistent with the previous three Five-Year Reviews.
- EGLE Water Resources Division (WRD) to provide results from 21 August 2019 Split Sampling event. EGLE is targeting the week of 02 December 2019 to provide this information.

## Air Force

- Provide EGLE with the AFFF IDW guidance document. The guidance was provided by D. Medina.

### **DOCUMENT SUBMISSION SCHEDULE**

#### Bay West

- RTC process to EGLE comments was discussed. Process consists of RTCs being reviewed/approved by the Air Force, RTC submittal to EGLE with a red line strike out (RLSO) version of the document, RTC concurrence/resolution with EGLE, and publishing/posting the Final report to the Collaborative Website. Line numbers will be added to all future reports on each page to facilitate EGLE's review. Bay West is willing to schedule a conference call to discuss RTCs and/or reports to expedite reviews.
- Draft 2017 LTM and 2018 Annual Reports, Draft 2017 PTS Annual Report, and Draft Five-Year Review Work Plan – EGLE to provide comments on all documents within the next 90 days.
- Draft 2017 and Draft 2018 Systems Annual Report – EGLE provided comments on 18 October 2019. Bay West is preparing RTCs for Air Force review.
- Draft 2018 PTS Annual Report will be submitted to the Air Force for review in December 2019.
- The Final SS-17 DGI Completion Report was submitted on 3 October. A Closure Memorandum is under review by the Air Force.
- SS-57 ESD RTCs and Draft SS-72 Proposed Plan are in Air Force legal review.
- Bay West is completing the Senior Level Review on the Five-Year Review it should be submitted to the Air Force in December 2019

#### Wood

- The 4<sup>th</sup> Private/Public Drinking Water Monitoring Report will be submitted to the Air Force in November. Samples collected in October. After Air Force approval, the report will be submitted to EGLE.
- Draft ESI report submitted to the Air Force on 7 November 2019 and will be submitted to EGLE on 31 December 2019. An ESI review meeting is scheduled in Lansing with EGLE on 11 December 2019. A VI meeting will take place 12 December 2019.
- B. Place inquired about updates to the residential drinking water data. D. Medina will follow up. D. Medina stated B. Place can share the bar graph data from the dispute resolution with MDHHS. B. Place will check the MPART website to see what correspondence is posted on the website.

### **FIELD WORK UPDATE AND SCHEDULE**

**FT-02 Carbon Change out** – The 18<sup>th</sup> GAC change out is scheduled for 22 November 2019, 91 days since the last change out. D. Corsi asked how fast the change out takes place after trace detections are observed in the effluent. P. Walz stated 1-2 weeks, depending on the Subcontractor's schedule.

**LF30-PW7** – the replacement wells LF30-PW7R was installed the week of 21 October. Pump/motor installed in the well are not operational. Replacement is scheduled to be installed and the well returned to service during the week of 25 November 2019. Information regarding this work will be summarized in the 2019 Systems Report. In advance of this report, Bay West will submit well construction details to EGLE after the Air Force reviews and approves.

**SS-57 RAWP Implementation** – This first injection in all three trenches was the week of 21 October 2019. Biweekly Performance Monitoring was completed on 6-7 and 20-22 November 2019. A Remedial Action Construction Report is being prepared and will be submitted to EGLE after Air Force review and approval.

**FT-02 RAWP Implementation** - Field work is on hold pending an Air Force decision regarding the final disposition of the concrete pad after demo work is complete. The Air Force published a new guidance document regarding AFFF IDW management. Bay West has provided the Air Force with a ROM for transportation and disposal at a Subtitle C landfill.

**2019 Annual Groundwater sampling** – Annual sampling started on 6 May 2019 and was completed on 18 October 2019, Sites completed include: FT-02, LF-27, LF-30/31, OT-16, OT-24, SS-06, SS-21, SS-57 and SS-72.

**2019 Annual Groundwater gauging event** – Was completed the 11-16 November 2019, a total of 6 days approximately 457 locations were gauged out of 470. Not all locations were accessible to do inclement weather. It was noted that Clark’s Marsh is at record high levels, and the Forest Service has been notified. If the Air Force feels it’s an issue, and a blockage needs to be removed, M. Jury offered to discuss with the MDNR and USFS; however, the process for notification within and between the state and federal agencies should be clarified. B. Place will forward the contact information for the new ranger, Jessica Stuntenbeck.

**VI Update** –A phone call is scheduled for tomorrow, followed by a face to face meeting on 12 December in Lansing. EGLE comments decision tree comments are pending.

**Wood Field Work**– Nothing to report.

## **AIR FORCE UPDATES**

**RAB Update** – The next RAB meeting is tentatively scheduled for the week of 27 January 2020.

**Central Treatment System (CTS) Status** – Operating as normal. No concerns or issues for a GAC change out.

**Mission Street (MS) Treatment Plant Status-** On schedule to have all construction completed in December 2019, no changes to current projection. C. Bauer stated that EGLE Water Resources Division (WRD) hasn’t received any groundwater modeling to support the infiltration gallery discharge and EGLE WRD does not support the groundwater discharge. C. Bauer also stated the Air Force needs to have a discussion on the storm sewer discharge with the Township soon to avoid any delays. D. Medina stated at this time the discharge will be to the storm sewer, and the Air Force understands the need to discuss the discharge process.

**WSA DRC’s** – D. Medina is working on providing EGLE the DRC information before the Thanksgiving break.

**Office Business-** D. Medina is the interim BEC. The Air Force intends to bring on Dave Gibson in the next few weeks as the permanent BEC. D. Medina will still be involved once Dave is on board.

D. Medina stated that the BCT meetings have been on a monthly cycle, but the Air Force wants to work toward bimonthly meetings (every other month) during slow field or reporting timeframes. There could be situations that out of cycle meetings are needed, or teleconferences to discuss field work. B. Place agreed a December 2019 BCT meeting isn’t needed but would like to discuss the bimonthly meeting schedule with her management.

**LF-30/31 FFS Status** – The Air Force has submitted comments to the contractor.

## **EGLE PFOA and PFOS UPDATE**

**Transducer update** – A preliminary memorandum has been drafted by EGLE contractor, EGLE will submit by the end of the year. B. Place inquired about the status of the Conceptual Site Model (CSM) will be ready for review. This will be included in the ESI review. B. Place asked if Wood can provide the gauging data

near the dam in advance, S. Bashir stated all transducer data has been submitted to EGLE. Bay West took the elevation of the lake on 16 November 2019 and will send that information to B. Place.

D. Medina will provide a copy of the OSD Memo that was signed October 2019 to include as an attachment to the BCT Minutes. D. Medina and B. Place will discuss offline.

**District Update - Field work** – A. Karg stated EGLE resampled the wells from previous EGLE investigations and is evaluating the summary data for this investigation work should be available in December 2019.

**Kings Corner Road Dump** – A. Armbruster stated two more residential wells in the Kings Corner Dump area were sampled, and results were below criteria. Oscoda Township and EGLE are in communication regarding the funding for an investigation, since Oscoda Township doesn't have the funds to support this work.

**Next Meetings:**

VI – 12 December 2019

BCT – 22 January 2020 0900-1100 EST

SRD - will be scheduled after the next CTS GAC change out.

RAB – Week of 27 January 2020

**ACTION ITEMS:**

- EGLE
  - Provide comments or approval of documents submitted for review in accordance with the schedule provided.
  - Provide letter and system sampling results from the 21 August Split sampling event.
  - Forward contact info for new USFS ranger.
  - Follow up on MPART website postings.
  - Discuss bimonthly BCT meeting frequency with EGLE management.
- Air Force
  - Provide BCT meeting minutes within two weeks of meeting.
  - Provide BCT Agenda to the team within one week prior to the meeting.
  - Provide EGLE the DRC information
  - Provide a copy of the OSD Memo that was signed October 2019.
- Bay West
  - Provide EGLE with LF-30/31 Purge Well 7 construction details.
  - Provide Van Etten Lake Elevation from 16 November 2019.

**AGENDA**  
**BRAC Cleanup Team**  
**Teleconference**  
**20 November 2019, 0900 EST**

Item	Time
<p><b>23 October 2019 BCT Review</b></p> <ul style="list-style-type: none"> <li>• Comments to 23 October 2019 BCT Meeting Minutes.</li> <li>• Action Items:</li> <li>• EGLE <ul style="list-style-type: none"> <li>• Provide comments or approval of Wurtsmith documents submitted for review in accordance with the schedule.</li> <li>• Provide results from 21 August System Treatment Systems Split Sampling event to the Air Force.</li> </ul> </li> <li>• Air Force <ul style="list-style-type: none"> <li>• D. Medina ask Air Force management if EGLE can receive a copy of the new AFFF IDW guidance document. (Provided to EGLE by D. Medina)</li> </ul> </li> </ul>	9:00
<p><b>Document Submission Schedule and Status</b></p> <ul style="list-style-type: none"> <li>• Annual Reports <ul style="list-style-type: none"> <li>○ Draft 2017 LTM Report submitted to EGLE on 21 November 2018. EGLE to provide comments before 15 November 2019.</li> <li>○ Draft 2017 Systems Report submitted to the EGLE on 30 January 2019. EGLE provided comments on 18 October 2019. Bay West provided RTCs to the Air Force for review on 11 November 2019.</li> <li>○ Draft 2017 PTS Report submitted to EGLE on 5 March 2019. EGLE to provide comments before 15 November 2019.</li> <li>○ Draft 2018 LTM Report submitted to EGLE on 4 April 2019. EGLE to provide comments before 15 November 2019.</li> <li>○ Draft 2018 Systems Report – submitted to EGLE on 1 August 2019. EGLE provided comments on 18 October 2019. Bay West provided RTCs to the Air Force for review on 11 November 2019.</li> <li>○ Draft 2018 PTS Report – Draft scheduled for submittal to Air Force in November.</li> <li>○ Draft Five-Year Review Work Plan - submitted to the EGLE on 26 February 2019. EGLE to provide comments before 15 October 2019.</li> </ul> </li> <li>• SS-57 – Air Force Legal has determined ESD will be prepared. RTCs to Air Force Legal comments at Air Force for review.</li> <li>• Draft SS-072 Proposed Plan – pending.</li> <li>• Five-Year Review – Covers 30 May 2014 through 30 May 2019. Will be submitted to the Air Force for review in November 2019.</li> <li>• The 4<sup>th</sup> Private/Public Drinking Water Monitoring Report will be submitted in October to the Air Force for review.</li> <li>• The Draft ESI report was submitted to the Air Force review on 7 November 2019.</li> </ul>	9:15
<p><b>Field Work Update and Schedule</b></p> <ul style="list-style-type: none"> <li>• FT-02 Carbon change out event was completed on 23 August, the next change-out event scheduled for 22 November. (91 operational days since the last change out)</li> <li>• LF-30/31 purge well PW-7R is installed and connected to the EWTS. Full time operation will begin the week of 25 November, after the annual water level gauging event has been completed.</li> <li>• SS-57 RAWP Implementation – GPR and DGI investigation completed 3-7 June. <ul style="list-style-type: none"> <li>IAB Trench installation –3-7 September</li> <li>Performance monitoring well installation – completed 23-27 September</li> <li>Baseline/Annual sampling – completed 7-15 October</li> <li>First Injection - completed the week of 21 October.</li> <li>Biweekly Performance Monitoring - completed 6-7 and 20-22 November.</li> </ul> </li> <li>• FT-02 RAWP Implementation – Pending. Air Force evaluating options and costs for temporary concrete storage on-site that will allow the VOC remedy to proceed. Correspondence submitted to Air Force with approach and budgetary cost estimate. Budgetary estimate to dispose of concrete in accordance with AFFF IDW Guidance also submitted to the Air Force.</li> <li>• 2019 Annual Groundwater Sampling – complete at all IRP sites.</li> </ul>	9:30

<ul style="list-style-type: none"> <li>• 2019 annual groundwater gauging event took place the week of 11 November 2019, approximately 450 locations were gauged, not all wells on the list were completed due to snow and freezing conditions.</li> <li>• VI Update</li> <li>• Wood Field Work Update – No field work to report.</li> </ul>	
<b>Air Force Updates</b> <ul style="list-style-type: none"> <li>• RAB Updates</li> <li>• Central GAC Treatment Plant Status</li> <li>• Mission Street Treatment Plant Status</li> <li>• WSA DRC's</li> <li>• Office Business</li> <li>• LF-30/31 FFS Status</li> </ul>	10:00
<b>EGLE PFOA &amp; PFOS Update</b> <ul style="list-style-type: none"> <li>• Transducer Data Update</li> <li>• Field work and sampling results.</li> <li>• Kings Corner Road Dump</li> </ul>	10:30
<b>Schedule Next BCT Meeting:</b> <ul style="list-style-type: none"> <li>• Date, time, and location.</li> </ul>	10:50



## ASSISTANT SECRETARY OF DEFENSE

3500 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3500

OCT 15 2019

### SUSTAINMENT

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS,  
ENERGY AND ENVIRONMENT)  
ASSISTANT SECRETARY OF THE NAVY (ENERGY,  
INSTALLATIONS AND ENVIRONMENT)  
ASSISTANT SECRETARY OF THE AIR FORCE  
(INSTALLATIONS, ENVIRONMENT AND ENERGY)  
DIRECTOR, NATIONAL GUARD BUREAU (JOINT STAFF, J8)  
DIRECTOR, DEFENSE LOGISTICS AGENCY (INSTALLATION  
SUPPORT)

SUBJECT: Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense  
Cleanup Program

The Department of Defense (DoD) conducts cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Defense Environmental Restoration Program (DERP). Our goal is protection of human health and the environment in a risk-based, fiscally-sound manner. This memorandum provides clarifying technical guidance on the investigation of perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanesulfonic acid (PFBS). This guidance is applicable to investigating PFOS, PFOA, and PFBS at Environmental Restoration Account-funded, Base Realignment and Closure Account-funded, and Operation and Maintenance accounts for the National Guard-funded sites.

PFOS, PFOA, and PFBS are part of a larger class of chemicals known as per- and polyfluoroalkyl substances (PFAS). PFAS shall be addressed in the same manner as other contaminants of concern within the DERP.

Under CERCLA, site-specific regional screening levels<sup>1</sup> (RSLs) for PFOS and PFOA are calculated using the Environmental Protection Agency (EPA) online calculator using the oral reference dose (RfD) of 2E-05 mg/kg-day. The RSL for PFBS is calculated using the EPA Provisional Peer Reviewed Toxicity Value (PPRTV) RfD of 2E-02 mg/kg-day, or it may be read off the tables available on the EPA RSL website. The values are provided in the attachment. These RSLs should be used for screening to determine if further investigation in the remedial investigation (RI) phase is warranted or if the site can proceed to site closeout. When multiple PFAS are encountered at a site, a 0.1 factor is applied to the screening level. For example, in cases where there are multiple PFAS, the screening level for PFOS and PFOA individually in tap water is 40 parts per trillion (ppt) ( $0.1 \times 400 \text{ ppt} = 40 \text{ ppt}$ ) and for PFBS it is 40 parts per billion (40,000 ppt).

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<sup>1</sup> For sites on the National Priorities List, the DoD Components will use the EPA site specific screening levels, if provided.

During the RI phase, the RfDs for PFOS, PFOA, and PFBS and the oral cancer slope factor (CSF) for PFOA of  $0.07 \text{ (mg/kg-day)}^{-1}$  will be used to conduct site specific risk assessments in accordance with Risk Assessment Guidance for Superfund Volume I, Part A (EPA/540/1-89/002, December 1989). Site-specific risk assessment results will be used to determine if any necessary remedial actions are required in accordance with CERCLA, DERP, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

My point of contact for this matter is Ms. Deborah Morefield at 703-571-9067 or [deborah.a.morefield.civ@mail.mil](mailto:deborah.a.morefield.civ@mail.mil).

A handwritten signature in black ink, appearing to read 'R. McMahon', with a long horizontal line extending to the right.

Robert H. McMahon

Attachment:  
As stated



**Attachment: Risk Screening Levels Calculated for PFOS, PFOA, PFBS in Groundwater or Soil Using EPA’s RSL Calculator**

Chemical	Carcinogenic Slope Factor - Oral (SF) (mg/kg-day) <sup>-1</sup>	Non-Carcinogenic Reference Dose (RfD) (mg/kg-day)	Residential Scenario Screening Levels Calculated Using EPA RSL Calculator								Industrial/Commercial Composite Worker Screening Levels Calculated Using EPA RSL Calculator			
			Tap Water (µg/L or ppb)				Soil (mg/kg or ppm)				Soil (mg/kg or ppm)			
			HQ = 0.1	HQ = 1.0	ILCR = 1E-06	ILCR = 1E-04	HQ = 0.1	HQ = 1.0	ILCR = 1E-06	ILCR = 1E-04	HQ = 0.1	HQ = 1.0	ILCR = 1E-06	ILCR = 1E-04
PFOS	NA	2.00E-05	0.040	0.40	NA	NA	0.13	1.3	NA	NA	1.6	16	NA	NA
PFOA	7.00E-02	2.00E-05	0.040	0.40	1.1	111	0.13	1.3	7.8	775	1.6	16	33	3,280
PFBS	NA	2.00E-02	40	400	NA	NA	130	1300	NA	NA	1600	16000	NA	NA

HQ=Hazard Quotient

ILCR=Incremental Lifetime Cancer Risk

NA=Not available/applicable

**NOTES:**

- The table represents screening levels based on residential and industrial/commercial worker receptor scenarios for either direct ingestion of groundwater (residential scenario only) or incidental ingestion of contaminated soil (both residential and composite worker scenarios).
- All values were calculated using slope factors or reference doses for PFOS and PFOA published by EPA Office of Water in support of the LHA, and default exposure assumptions for each potential receptor scenario, contained in EPA's RSL Calculator on April 6, 2018.
- Peer reviewed toxicity values considered valid for risk assessment exist for PFBS, and the screening levels may be found in EPA’s RSL table or EPA’s RSL calculator used to develop them.
- Other potential receptor scenarios (e.g., recreational user, site trespasser, construction worker) are not included in the above table, but could be relevant receptors at a site potentially contaminated with PFOS, PFOA and/or PFBS. These receptors, and their associated exposure scenarios, should be further considered in the scoping phase and completion of the Baseline Human Health Risk Assessment typically completed during an RI.
- The shaded values represent conservative screening levels for PFOS and PFOA in groundwater or soil that when exceeded should be considered a contaminant of potential concern in the risk assessment process and calculations of site-specific risk posed.