

**Travis Air Force Base
Environmental Restoration Program
Restoration Program Manager's
Meeting Minutes
19 April 2018, 1400 Hours**

Mr. Lonnie Duke of the Air Force Civil Engineer Center (AFCEC) Restoration Installation Support Section (ISS) conducted the Restoration Program Manager's (RPM) meeting on 19 April at 1400 hours in Building 248 at Travis AFB, California. Attendees included:

Lonnie Duke	AFCEC/CZOW
Glenn Anderson	AFCEC/CZOW
Milton 'Gene' Clare	AFCEC/CZOW
Angel Santiago Jr.	AFCEC/CZOW
Monika O'Sullivan	AFCEC/CZOW
Haekyung Kim	AFCEC/CZRW
Kurt Grunawalt	60 AMW/JA
Dezso Linbrunner	USACE-Omaha
Sarah Miller	USACE-Omaha
Adriana Constantinescu	RWQCB
Ben Fries	DTSC
Nadia Hollan Burke	USEPA
Indira Balkissoon (via telephone)	Techlaw, Inc.
Tony Chakurian	CH2M JACOBS
Mike Wray	CH2M JACOBS

Handouts distributed prior to or at the meeting, discussions, and presentations included:

Attachment 1	Meeting Agenda
Attachment 2	Master Meeting and Document Schedule
Attachment 3	SBBGWTP Monthly Data Sheet (March 2018)
Attachment 4	CGWTP Monthly Data Sheet (March 2018)
Attachment 5	LF007C GWTP Monthly Data Sheet (March 2018)
Attachment 6	ST018 Monthly Data Sheet (March 2018)
Attachment 7	Presentation: Sites SD043 and SS046 Remedial Action/Remedial Design (RD/RA) Work Plans
Attachment 8	Presentation: Program Update (March 2018)

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The Draft Meeting Minutes were accepted as Final with no changes.

B. Action Item Review

Action items from March 2018 were reviewed.

Action item 1 is ongoing: Ms. O'Sullivan to provide updates on perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). 21 April 2018 update: Ms. O'Sullivan presented a figure showing the 17 areas of the base that were sampled. Groundwater and soil were sampled in 14 areas. PFOS/PFOA were detected in groundwater in all 14 of those areas, as well as the influent and effluent from the South Base Boundary Groundwater Treatment Plant. PFOS/PFOA were not detected in sediment samples. The review of the SI report is taking longer than expected. Comments on the SI will not be responded to or addressed with the next version of the SI, but instead will be incorporated into the RI Work Plan. Ms. O'Sullivan and Ms. Kim stressed that drinking water at the base has not been impacted; Mr. Duke added that for this reason, this site is not among the highest priority sites for the Air Force. Ms. Constantinescu noted that because her agency considers groundwater off-base as a drinking water source, she needs assurance that the PFOS/PFOA aren't migrating beyond the base boundary. Ms. Kim stated that additional sampling will be conducted. Ms. O'Sullivan requested that the Water Board document the request for additional sampling related to groundwater migration off-base in a letter, so that the request can be elevated appropriately.

Action Item 2 is ongoing: Mr. Duke will continue to provide design and construction information for the new KC-46 Hangar construction project for agency input ahead of the Air Force/Civil Engineering awarding the construction contract. April 2018 update: Mr. Duke stated that the design subcontractor will complete borings to help with horizontal well replacement in order to simplify contracting. They also plan on using the same passive barrier/venting design as the other 2-bay hangar at the base. Ms. Burke noted that the EPA will be providing comments on the horizontal boring, as well as the vapor intrusion pathway, indicating that data will be needed, and that the 2-bay hangar design may not be adequate. Ms. Constantinescu agreed with Ms. Burke's concerns related to the VI pathway and collection of additional vapor data, noting that there may still be VI risk once soil and groundwater are clean, and that the passive barrier proposed may not be adequate. Ms. Constantinescu mentioned the 2014 EPA's Memorandum that changed the decision-making process for TCE VI risk, as TCE now poses acute risk to pregnant women. Since it is acute risk, we must ensure that there is affectively no exposure of TCE to workers at the hangar. Ms. Constantinescu added that a different venting system might be in order depending on results of sampling;

additional soil gas sampling can be performed during the geotechnical investigation. Mr. Duke reminded the team that a barrier or venting system underneath the hangar bays is not possible, because the floor would not be strong enough; but that the bay doors would be open when work was being done. He added the passive venting/barrier will only be necessary in the offices, which will be in a building overlying tight clay soils, and upgradient of the plume. Mr. Duke stated that the 95% design will be complete soon, and he will find out more details about the planned VI barrier design. He requested that the agencies provide comments related to the VI barrier design and horizontal well as soon as possible in order to have their concerns adequately addressed in the final design.

Action Item 3: Mr. Santiago and Mr. Duke will check past TPH-G data for the CGWTP influent samples. April 2018 update: TPH-G is detected in influent samples sporadically at low concentrations, but there was no trend observed. Mr. Santiago and Mr. Duke will continue to monitor influent detections at this GWTP in future reports. This action item is closed.

Action Item 4: Mr. Duke will follow up on 1,4-dioxane detections in the Subarea LF007C GWTP effluent. April 2018 update: 1,4-dioxane is detected in effluent samples sporadically at low concentrations, but no trend has been observed. Mr. Santiago and Mr. Duke will continue to monitor effluent detections at this GWTP in future reports. This action item is closed.

C. Master Meeting and Document Schedule Review (see Attachment 2)

The Travis AFB Master Meeting and Document Schedule (MMDS) was discussed during this meeting (see Attachment 2).

Travis AFB Annual Meeting and Teleconference Schedule

The next RPM meeting will be held on Wednesday 16 May 2018, at 0930 hours.

Reminder: The annual RAB tour (which historically has been held in October) will not be formally scheduled and will instead be individual tours given when an interested party would like to see field work. As a result, all agencies agreed to move the October RPM meeting from Thursday, October 18, to Wednesday, October 17, at 0930.

Travis AFB Master Document Schedule

- Community Relations Plan Update (CRP): No change to the schedule. EPA and DTSC comments have been received; Water Board defers to EPA comments. This document is lower in priority than others so the schedule will likely change.

- Amendment to the WABOU Soil ROD for Travis AFB ERP Sites DP039, SD043, and SS046: No change in the schedule. The Air Force is working on responses to EPA comments.
- Amendment to the NEWIOU Soil ROD for the Travis AFB ERP Sites SS016 and SD033: The Draft to Agencies date was changed to 16 May 2018. The rest of the schedule was changed accordingly.
- Site SD031 Soil Remedial Investigation/Feasibility Study: The submittal date of the pre-draft version was changed to 25 May 2018; the rest of the schedule was changed accordingly.
- Site SD043 Remedial Design/Remedial Action Work Plan: The Draft to Agencies date was changed to 10 April 2018 based on the actual delivery date. The rest of the schedule was changed accordingly.
- Site SS046 Remedial Design/Remedial Action Work Plan: The Draft to Agencies date was changed to 12 April 2018. The rest of the schedule was changed accordingly.
- Site SS016 Remedial Design/Remedial Action Work Plan: This is a new schedule for this document; the intent is to expedite the field work upon finalization of the NEWIOU ROD amendment.
- Potrero Hills Annex (FS, PP, and ROD): No change was made to the schedule.
- Data Gap Investigation Results Technical Memorandum for Soil Site SS016: Response to comments due date changed to 23 April 2018. The rest of the schedule was changed accordingly.
- Site SS015 Soil Sampling Plan: The Draft to Agencies date was changed to 30 April 2018. The rest of the schedule was changed accordingly.
- Quarterly Newsletters (June 2018): This is a new schedule for the July 2018 issue.
- 2017 Annual GRISR: The pre-draft date was changed to 9 May 2018. The rest of the schedule was changed accordingly.
- Monitoring Well Installation Technical Memorandum for Site DP039, Addendum to the Site DP039 Remedial Action Construction Completion Report: Draft to Agencies date was changed to 19 April 2018 to reflect actual submittal date. The rest of the schedule was changed accordingly.
- Sites LF006, SS030, and SD031 Aquifer Test Activities Technical Memorandum: No changes were made to the schedule.
- Site FT005 Extraction System Optimization Report: The Draft to Agencies date was changed to 1 May 2018. The rest of the schedule was changed accordingly. The Air Force manager for this document was changed to Gene Clare.
- 2017 Annual CAMU Monitoring Report: No changes were made to the schedule.

- Emulsified Vegetable Oil Sites FT004, SS015, SD031, and SD036 Optimization Injections Report: No changes were made to the schedule.
- Site LF044 Sediment Sampling Report. The Predraft to the Air Force/Service Center date was changed to 12 April. The rest of the schedule was changed accordingly.
- POCO Evaluation/Closure Report for DERA-funded Oil/Water Separators OW040, OW047, OW048, OW049, OW052, OW050, OW052, OW055, OW056, and OW057: No changes were made to the schedule. Ms. Constantinescu noted that the first NFA letter that they will issue will combine OWSs OW051, OW053, and OW054. The remaining nine (9) OWSs have not been reviewed yet.
- Area of Concern TA500 Data Gap Investigation and Closure Report: The Response to Comment due date and the Final Due date were changed to 4 April to reflect actual submittal date. Ms. Constantinescu noted that the Water Board approves NFA for Site TA500.
- The following documents were moved to History:
 - Site TS060 Removal Action Completion Report
 - Site SS035 Site Closure Report

2. CURRENT PROJECTS

Treatment Plant Operation and Maintenance Update

South Base Boundary Groundwater Treatment Plant, March 2018 (see Attachment 3)

The South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 99.7% uptime, and 6.2 million gallons of groundwater were extracted and treated in March 2018. All treated water was discharged to Union Creek. The average flow rate for the SBBGWTP was 145.4 gallons per minute (gpm). Electrical power usage was 20,247 kWh, and approximately 15,783 pounds of CO₂ were created (based on DOE calculation). Approximately 0.87 pound of volatile organic compounds (VOCs) was removed in March. The total mass of VOCs removed since startup of the system is 499.0 pounds.

No optimization activities are reported for the month of March 2018.

The SBBGWTP was temporarily shut down in March 2018 to backwash the lead GAC vessel. Troubleshooting and maintenance was performed on three wells at the SBBGWTP in March 2018.

Central Groundwater Treatment Plant, March 2018 (see Attachment 4)

The Central Groundwater Treatment Plant (CGWTP) performed at 100% uptime with approximately 1,245,530 gallons of groundwater extracted and treated in March 2018. All treated water was discharged to the storm sewer system which discharges to Union Creek. The average flow rate for the CGWTP was 28.0 gpm. Electrical power usage was 2,673 kWh for all equipment connected to the Central Plant, and approximately 2,866 pounds of CO₂ were generated. Approximately 2.69 pounds of VOCs were removed from groundwater by the treatment plant in March. The total mass of VOCs removed since the startup of the system is 11,486 pounds.

Optimization Activities for CGWTP: The DP039 bioreactor continues to operate in a four-week “pulsed mode.” No other optimization activities are reported for the month of March 2018.

Two extraction wells were temporarily offline because the OSA vault was flooded. Rainwater was pumped out and the wells were restarted. Maintenance and upgrade activities included replacement of bag filters, installation of an emergency on/off button, and replacement of a damaged power supply for two extraction wells.

LF007C Groundwater Treatment Plant, March 2018 (see Attachment 5)

The Subarea LF007C Groundwater Treatment Plant (LF007C GWTP) performed at 100% uptime with approximately 99,228 gallons of groundwater extracted and treated in March 2018. All treated water was discharged to the Duck Pond for beneficial reuse. The average flow rate was 4.4 gpm. Approximately 9.26 x 10⁻⁴ pound of VOCs was removed from groundwater by the treatment plant in March. The total mass of VOCs removed since the startup of the system is 174.39 pounds. There was no electrical power usage statistics as this plant operates on solar power only.

Per agreement between the Air Force and agencies during the March RPM meeting, due to ongoing issues related to the recent TPH results for this treatment plant, the March 2018 sampling event for this treatment plant has been modified as follows:

- SVOCs were analyzed for influent and effluent samples
- Samples taken from extraction wells EW614x07, EW615x07, and monitoring well MW210x06, and were analyzed for TPH-D, TPH-G, TPH-MO, VOCs and SVOCs
- All TPH-D and TPH-MO samples were split between two laboratories for analysis for comparison purposes, to assist with determination of the source of the TPH recently noted in the effluent.

These results will help determine an appropriate sampling plan for this site going forward.

No optimization activities are reported for the month of March 2018.

Note: The sump in the LF007C treatment compound is open to the atmosphere. Accumulated rain water must be pumped out by hand. This is done as part of the post-rain event inspections. An automatic pump has been installed to minimize down-time in the future.

ST018 Groundwater (MTBE) Treatment Plant, March 2018 (see Attachment 6)

Site ST018 (MTBE) Treatment Plant (ST018 GWTP) performed at 99.6% uptime with approximately 261,200 gallons of groundwater extracted and treated in March 2018. All treated water was discharged to the Fairfield – Suisun Sewer District. The average flow rate for the ST018 GWTP was 6.1 gpm. Electrical power usage for the month was 151 kWh for all equipment connected to the ST018 GWTP. The total CO₂ equivalent, including an estimate for the carbon change-out, equates to approximately 112 pounds. Approximately 1.11 pound of MTBE, BTEX, VOCs, and TPH was removed in January by the treatment plant, and approximately 0.12 pound of MTBE was removed from groundwater. The total BTEX, MTBE and TPH mass removed since the startup of the system is 44.6 pounds, and the total MTBE mass removed since startup of the system is 10.8 pounds.

Note: Electrical power use at the ST018 GWTP is only for the alarm system and a pump that pushes water through the GAC vessels for treatment. The four groundwater extraction pumps in the system are all solar powered.

No optimization activities are reported for the month of March 2018.

3. Presentations:

A) Sites SD043 and SS046 Remedial Design/Remedial Action (RD/RA) Work Plans (Attachment 7)

Mr. Tony Chakurian provided an overview of the upcoming work planned for Sites SD043 and SS046 this summer. Please refer to Attachment 7 for details. Additional points noted or clarified throughout the presentation include:

- The concrete pad at Site SD043 will not be replaced.
- Soil from 5 small areas will be excavated at Site SS046. There are borings between them with sampling results that indicate that the source of contamination is not contiguous.
- LUCs can be officially removed after the RACR is complete. This will be documented in the annual report, which will make it clear that there are no LUCs to inspect in these areas.

- The Site SD043 soil site can be closed after the remedial action, at which time the groundwater site can also be closed. There is no contamination in the groundwater, so there will be no groundwater LUCs,
- There is no impact to groundwater at Site SS046.

B) Program Update: Activities Completed, In Progress, and Upcoming (see Attachment 8)

Mr. Wray reported on the status of fieldwork and documents which are completed, in progress, and upcoming. Please refer to Attachment 8 for the full briefing.

4. New Action Item Review

No new action items were identified.

5. PROGRAM/ISSUES/UPDATE

There are no additional program issues or updates at this time.

6. Action Items

Item #	Responsible	Action Item Description	Due Date	Status
1.	Monika O’Sullivan	Ms. O’Sullivan to provide updates on PFOS and PFOA as she becomes aware of them.	Ongoing	Open
2.	Lonnie Duke	Mr. Duke will continue to provide design and construction information for the KC-46 Hangar for agency input ahead of the Air Force/Civil Engineering awarding the construction contract.	Ongoing	Open