

**Travis Air Force Base
Environmental Restoration Program
Restoration Program Manager's
Meeting Minutes
20 March 2019, 0930 Hours**

Mr. Lonnie Duke of the Air Force Civil Engineer Center (AFCEC) Restoration Installation Support Section (ISS) conducted the Restoration Program Manager's (RPM) teleconference on 20 March 2019 at 0930 hours in Building 248 at Travis AFB, California. Attendees included:

Lonnie Duke	AFCEC/CZOW
Glenn Anderson	AFCEC/CZOW
Milton 'Gene' Clare	AFCEC/CZOW
Haekyung Kim (via telephone)	AFCEC/CZRW
Sarah Miller (via telephone)	USACE
Paul Gedbaw (via telephone)	USACE
Merrie Schilter-Lowe	Travis AFB/PA
Ben Fries (via telephone)	DTSC
Adriana Constantinescu (via telephone)	RWQCB
Nadia Hollan Burke (via telephone)	EPA
Indira Balkissoon (via telephone)	TechLaw, Inc.
Mike Wray	CH2M/JACOBS
Leslie Royer	CH2M/JACOBS
Jeff Gamlin (via telephone)	CH2M/JACOBS
Jill Dunphy (via telephone)	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 (February 2019)
Attachment 4	CGWTP Monthly Data Sheet (February 2019)

Attachment 5	ST018 Monthly Data Sheet (February 2019)
Attachment 6	Presentation: Enhancement Plan for Site SD034 Technology Demonstration
Attachment 7	Presentation: Program Update

1. ADMINISTRATIVE

A. Previous Meeting Minutes

Ms. Constantinescu asked that Action Item 1 on page 2 be changed to say "...the Water Board can accept the work plan and proposed work may be phased based on findings" rather than "accept the work plan in phases."

Ms. Burke from EPA noted that Action Item 4 on page 3 should say "LUCs will remain in place" rather than "LUCs will be put in place."

B. Action Item Review

Action items from January 2019 were reviewed.

Action item 1 is ongoing: Ms. O'Sullivan to provide updates on perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). March 2019 update: Mr. Duke had no updates, but indicated that the letter received from the Water Board was somewhat confusing, so the Air Force is having follow-up conversations with Ms. Constantinescu and David Elias. The Water Board will be sending a new letter requesting offbase sampling of private drinking water wells to comply with CERCLA.

Action Item 2 is ongoing: Mr. Duke will continue to provide design and construction information for the new KC-46 Hangar construction project. March 2019 update: The design is complete, and the remedial design/remedial action supplemental work plan has gone out for review. The Air Force cannot start related soil work yet due to ongoing issues with finalizing the NEWIOU Record of Decision Amendment, which has been out for review for an extended period of time.

Action Item 3: Ms. Royer will let EPA know which of the Site ST027B wells showed rebound and led to planned reinjections. March 2019 update: Ms. Royer provided the necessary information. This action item is now 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).

Mr. Duke stated that there is a very serious issue with getting documents through the review process and finished on time, and that there are consequences. The topic was brought up at the recent Tier 2 meeting and must be addressed. If documents aren't finished on time, the Air Force's response-complete goals, and the promises made therein to taxpayers and Congress, will not be met by the contract deadline. As a result, the funding is jeopardized; the Air Force will need to return funds if the work is not done and goals are not met.

Mr. Duke reminded the team that the Federal Facilities Agreement allows 60 days for all teams within an agency to review: RPM, specialists, and legal departments. Air Force responses to those comments are to be reviewed and resolved quickly. If multiple iterations of the comment/response process are necessary, it is to occur within these 60 days; the clock does not reset for additional iterations once the Air Force responses are submitted. Time is allowed after each RPM meeting to discuss any concerns, and this should be taken advantage of. He added that the Air Force cannot respond to comments until comments from all agencies are received (to assess and address any conflicting or overlapping comments); therefore, a delayed response by one agency holds up the progress of a document.

Mr. Duke stated that at this time, several documents are multiple months behind schedule. Release of a new Toxicity Criteria Regulation during this delayed timeframe is causing additional, now excessive, delays. The new regulation would not have caused issues had the documents been finalized as scheduled. Unfortunately, there are conflicting messages between and among agency RPMs, agency management, review teams, and legal counsel regarding how and when to proceed. Mr. Duke suggested that the regulators check to see if the new regulation impacts the COCs at Travis AFB and let him know as soon as possible. If a meeting with all agencies' attorneys will resolve the issue, he is willing to schedule it.

Mr. Duke noted that the agencies as well as the Air Force share the responsibility for the delays, as well as actions to keep documents on schedule or get delayed documents finalized as soon as possible. He assigned the action item that everyone do what they can within their own organizations to elevate and resolve this situation as soon as possible.

Travis AFB Annual Meeting and Teleconference Schedule

The next RPM meeting will be an in-person meeting held on Thursday, 18 April 2019 at 1400. The annual Restoration Advisory Board meeting is scheduled for that evening at 1900.

Travis AFB Master Document Schedule

Mr. Anderson reinforced Mr. Duke's position regarding document review delays, noting that there are several more documents forthcoming throughout 2019.

Mr. Duke added that there have been issues with the Travis AFB email system since 12 March; any comments sent since then may not have been received. The situation is expected to be resolved within the next 24 hours or so.

- Community Relations Plan Update (CRP): There was no change to the schedule. This document is a low priority until some others are completed.
- Amendment to the NEWIOU Soil ROD for the Travis AFB ERP Sites SS016 and SD033: There was no change to the schedule. The Air Force continues to work on additional follow-on comments from the regulatory agencies as well as the ARAR table amendments that affect State water regulations. **This is a super-critical document** due to site work supporting planned KC-46 hangar construction, and it has been **delayed excessively**. Ms. Burke noted that she was instructed not to review any more RTCs until the request to add the new DTSC Toxicity Rule as an ARAR has been resolved. The Water Board is also resolving ARARs issues with the Air Force attorney.
- No Further Action ROD for Old Skeet Range (TS060 and TS060A MRA): There is no change in the schedule. Responses to comments were sent to the acting Air Force Legal staff in early February and were resent two weeks ago. **This is becoming a critical document, because it affects two site closures.**
- Site SS016 Remedial Design/Remedial Action Work Plan: There was no change in the schedule. This document won't go final until the final Amendment to the NEWIOU Soil ROD is published. This excavation project is located within the footprint of the future new KC-46 hangar, so **this document is critical and is delayed due to extensive delays on the Amendment to the NEWIOU Soil, Sediment and Surface Water ROD.**
- Site SD031 Soil Remedial Investigation/Feasibility Study: No change was made to the schedule. The document lead was changed to Rick Sturm. **This document is important but not time-critical.**
- Fourth Five-Year Review Report for Multiple Groundwater, Soil, and Sediment Sites: No change was made to the schedule. Responses to comments are with Air Force Legal for review. **This document is very important but not critical.**
- Addendum to the Site SS016 Groundwater Remedial Design/Remedial Action Work Plan: The Draft to Agencies and Draft to RAB due dates were changed to 22 February 2019. Ms. Burke indicated that the EPA is hoping to respond before 25 March. Mr. Fries said that he provided DTSC's comments on 7 March. Ms. Constantinescu added that Water Board comments would be submitted by the due date.

- Potrero Hills Annex (FS, PP, and ROD): No change was made to the schedule; Ms. Constantinescu had no additional updates.
- Quarterly Newsletters (April 2019): No change was made to the schedule. DTSC, EPA, and Travis AFB Public Affairs provided comments, the Water Board will not be submitting comments. This newsletter announces the April RAB Meeting so must be delivered a few weeks prior to that.
- 2017 Annual Groundwater Remediation Implementation Status Report (GRISR): No change was made to the schedule. EPA will review Air Force responses to comments by 8 April. Ms. Constantinescu will confirm that the Water Board responded to the Air Force responses to their comments.
- 2018 Annual GRISR: This is a new document. The Pre-Draft to Air Force Service Center was set at 9 May 2019, all other dates were set accordingly. Mr. Duke and Ms. Miller noted that this document must be ready to be finalized before August so that funds are not jeopardized. Ms. Miller added that her team will expedite their review turnaround time, and added that she is concerned about the manpower issue at DTSC discussed earlier. With Mr. Fries retiring in early July, she would like the process for DTSC review in place by the April RPM meeting. Mr. Duke added that vacation season is approaching and requested that everyone have their backup plan for reviews in place well before the summer.
- Site SS015 Soil Sampling Results Technical Memorandum. The Response to Comments meeting date was changed to 13 February 2019; all other dates were changed accordingly. This document is still on schedule.
- Site LF006 Technology Demonstration Construction Completion Report: The Draft to Agencies due date was changed to 5 March 2019 based on actual submittals.
- Site SD043 Remedial Action Completion Report: This is a new document. The Predraft to Air Force Service Center was set at 29 March 2019. All other dates were set accordingly.
- Site SS046 Remedial Action Completion Report: This is a new document. The Predraft to Air Force Service Center was set at 5 April 2019. All other dates were set accordingly.
- 2018 Annual Site LF007 Corrective Action Management Unit Inspection, Monitoring, and Maintenance Report. This is a new document and, at present, all due dates are TBD.
- Subarea LF007C Total Petroleum Hydrocarbon Chromatogram Review Technical Memorandum: The Response to Comments and Final due dates were changed to TBD, because the Water Board is still waiting for laboratory information. Ms. Constantinescu indicated she would send correspondence to the Air Force by 28 March.

- Site SS014 POCO Subsites 4 and 5 Closure Report. This is a new document. The Predraft to Air Force Service Center due date was set at 4 April 2019; all other dates were set accordingly.
- No documents were moved to History this month.

2. CURRENT PROJECTS

Treatment Plant Operation and Maintenance Update

South Base Boundary Groundwater Treatment Plant, February 2019 (see Attachment 3)

The South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 23.1% uptime, and 1.3 million gallons of groundwater were extracted and treated in February 2019. All treated water was discharged to Union Creek. The average flow rate for the SBBGWTP was 148.8 gallons per minute (gpm). Electrical power usage was 3,856 kilowatt hours (kWh), and approximately 4,453 pounds of CO₂ were created (based on DOE calculation). Approximately 0.3 pound of volatile organic compounds (VOCs) was removed in February. The total mass of volatile organic compounds (VOCs) removed since startup of the system is 512.4 pounds.

Several sampling events were conducted following the exceedance of 1,2-DCA in the effluent noted in January 2019. As a result, the SBBGWTP was taken offline on 6 February 2019. The carbon from the lead GAC vessel was changed out and the system tested again. Results from this sampling event showed no detections of VOCs in the effluent sample. Full details can be found in Attachment 3.

Troubleshooting activities were performed on several extraction wells in February 2019. Details can be found in Attachment 3.

No optimization activities are reported for the month of February 2019.

Central Groundwater Treatment Plant, February 2019 (see Attachment 4)

The Central Groundwater Treatment Plant (CGWTP) performed at 96.7% uptime with approximately 997,776 gallons of groundwater extracted and treated in February 2019. All treated water was discharged to the storm sewer system which discharges to Union Creek. The average flow rate for the CGWTP was 28.7 gpm. Electrical power usage was 1,980 kWh for all equipment connected to the Central Plant, and approximately 2,353 pounds of CO₂ were generated. Approximately 2.2 pounds of VOCs were removed from groundwater by the treatment plant in February. The total mass of VOCs removed since the startup of the system is 11,512 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 February 2019.

LF007C Groundwater Treatment Plant, February 2019

The Subarea LF007C Groundwater Treatment Plant (LF007C GWTP) has been shut down due to the presence of vernal pools above the treatment area. There is no report for February 2019.

ST018 Groundwater (MTBE) Treatment Plant, February 2019 (see Attachment 5)

Site ST018 (MTBE) Treatment Plant (ST018 GWTP) performed at 100% uptime with approximately 202,220 gallons of groundwater extracted in February 2019. All groundwater was discharged to the Fairfield – Suisun Sewer District. The average flow rate for the ST018 GWTP was 5.0 gpm. Electrical power usage for the month was 116 kWh for all equipment connected to the ST018 GWTP. The total CO₂ equivalent, including an estimate for the carbon change-out, equates to approximately 86 pounds. Approximately 0.31 pound of MTBE, BTEX, VOCs, and TPH was removed in January by the treatment plant, and approximately 0.10 pound of MTBE-only was removed from groundwater. The total BTEX, MTBE and TPH mass removed since the startup of the system is 46.9 pounds, and the total MTBE mass removed since startup of the system is 11.4 pounds.

Note: Electrical power use at the ST018 GWTP is only for the alarm system and a pump that pushes water influent tank to the Fairfield-Suisun Sanitary Sewer line. The four groundwater extraction pumps in the system are all solar powered.

There were no shutdowns of the ST018 GWTP in January 2019; however, because of consecutive cloudy, foggy, and/or rainy days, the extraction wells experienced decreased production throughout the monitoring period.

No optimization activities are reported for the month of February 2019.

3. Presentations:

A) Enhancement Plan for Site SD034 Technology Demonstration (see Attachment 6)

Mr. Gamlin discussed the planned enhancements to the aerobic “washboard” subgrade biogeochemical reactor (SBGR) technology demonstration at Site SD034. Full details of the presentation can be found in Attachment 6. Highlights include:

- Currently the system pumps on a variable frequency throughout the week and relaxes over the weekend, essentially raising and lowering the water table across the light non-aqueous phase liquid (LNAPL) source area and site. This helps with oxygenation; it stirs things up and promotes biodegradation.
- The extraction wells currently employ iSOCs (oxygen infusion devices) to add more oxygen plus vitamins and nutrients in a slurry of calcium peroxide into the ground then into the aquifer.
- The technology demonstration currently includes two extraction groups; one which operates 3 days per week, and another that operates 2 days per week. The system rests over the weekend (with no groundwater extraction).
- Currently, the system is generating dissolved oxygen (DO), but it is consumed by the bacteria in the SBGR trenches. The calcium peroxide added to the SBGR trenches in the original construction should work for about 2 years to increase DO levels. Indications are that the calcium peroxide is spent; however, perforated pipe was installed during construction of the SBGR trenches so that a biosparge system could be added later.
- The planned enhancement includes addition of a small blower to add additional oxygen to maintain treatment efficiency, since the current supply of calcium peroxide is almost at its end of design life cycle.
- The extraction rate at extraction well EW01x34 is almost zero. It is in an important location and we would like to extract more water from that area, so it will be decommissioned and replaced with a replacement well. The new flow rates will hopefully be more comparable to other wells.
- Monitoring well MW02x34 is in the plume hot spot; it has a steady concentration of VOCs and low dissolved oxygen. A more aggressive plan is needed here in order to capture contaminants before they get to the well. The plan is to add a new extraction well upgradient of this well.
- We would like to keep the technology demonstration moving forward in a slightly more aggressive manner to demonstrate that the site can be cleaned up faster than the original selected remedy.
- The nearby hangar is undergoing a big construction project that will maybe take a year or more. Mr. Wray added that they have met with the contractors there to develop a plan for accomplishing the technology demonstration enhancements.
- Ms. Burke asked if there will be any documentation, such as an addendum to the work plan, to show the location of the new extraction well upgradient of MW02x34. Ms. Royer said that the 2018 GRISR will recommend enhancement and include the details just presented. The way the work is done will be consistent with the work plan. The 2019 GRISR will document the work, including surveyed locations, and sampling data.

B) Program Update: Activities Completed, In Progress, and Upcoming (see Attachment 7)

Mr. Wray reported on the status of fieldwork and documents which are completed, in progress, and upcoming. Mr. Gamlin reported on the progress of the ongoing technology demonstrations. Please refer to Attachment 7 for the full briefing.

4. New Action Item Review

1. All PMs for all agencies will elevate to their management any suggestions for keeping document reviews on schedule going forward.
2. Ms. Constantinescu will provide Mr. Duke with a list of information needed to match the list of underground storage tanks to current sites.

5. PROGRAM ISSUES/UPDATE

Mr. Fries/DTSC noted that he is retiring in early July 2019. He can review documents received by late May. After that, Mr. Duke will include a note on cover letters sent to DTSC to ensure all reviews stay on track while a replacement is determined. Dominique Forrester will work with the Air Force to ensure all documents are reviewed on time.

Mr. Duke noted that vacation season is approaching and requested that, in light of the document scheduling and delay issues, that everyone have their backup plan for reviews in place well before the summer.

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

3.	All	All PMs for all agencies will elevate to their management any suggestions for keeping document reviews on schedule going forward.	Ongoing	Open
4.	Adriana Constantinescu	Ms. Constantinescu will provide Mr. Duke with a list of information needed to match the list of underground storage tanks to current sites.	March 29, 2019	Open