Joint Base McGuire-Dix-Lakehurst (JB MDL)
Restoration Advisory Board (RAB) Final Meeting Minutes
Meeting No. 67 – 25 March 2021

SUBJECT: Restoration Advisory Board (RAB) Meeting No. 67 – Meeting Minutes

1) Place: Virtual Meeting via MS Teams

2) Date/Time: Thursday, 25 March 2021; 6:30 PM

3) Co-Chairs: Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL
Mr. Michael Tamn, Resident, Southampton Township, New Jersey

4) Attendees:

Mr. Tom Besselman	RAB Community Member
Mr. Frank Storm	RAB Community Member
Ms. Branwen Ellis	NJ Pinelands Commission, RAB Member
Mr. Andrew Gold	Pinelands Preservation Alliance, RAB Member
Ms. Carla Struble	US Environmental Protection Agency, Region II (EPA)
Mr. Doug Pocze	US Environmental Protection Agency, Region II (EPA)
Mr. Bill Friedmann	US Environmental Protection Agency, Region II (EPA)
Mr. Haiyesh Shah	NJ Department of Environmental Protection (NJDEP)
Ms. Kristine Iazzetta	NJ Department of Environmental Protection (NJDEP)
Mr. Curt Frye	U.S. Air Force, AFCEC, Installation Section Support
Mr. Michael Figura	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. King Mak	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. Jim Richman	JB MDL, AFCEC/CZO, Environmental Restoration Program
Ms. Jalise Wright	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. John Montgomery	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. Michael Wierman	JB MDL, AFCEC/CZO, Environmental Restoration Program
Ms. Susan Trussell	US Army Corps of Engineers
Mr. Gene Fowler	Pinelands Municipal Council, Jackson Township
Mr. Craig Fisher	JB MDL, 87 OMRS/SGXB, Bioenvironmental Engineering Flight
Mr. Jeff Sagnip	Rep. Chris Smith's Office
Mr. Chris Hansell	Rep. Chris Smith's Office
Mr. Tom Crone	Arcadis
Mr. Kevin Jago	Leidos
Ms. Katrina Harris	Bridge Consulting Corp./Arcadis

5) Handouts

- JB MDL Restoration Advisory Board, Meeting No. 67, 25 March 2021, Agenda
- JB MDL Restoration Advisory Board, Meeting No. 67, 25 March 2021, Presentation Slides

6) Call to Order:

The meeting was called to order by Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL. He welcomed everyone and thanked everyone for attending the second virtual meeting of the RAB in fiscal year 2021.

7) Minutes of Previous Meeting and Review of Agenda Items:

Mr. Michael Tamn, RAB Community Co-Chair, asked for any comments on the minutes from the December 3, 2020 meeting. A motion was made, seconded, and passed to approve the minutes.

Mr. Jim Richman noted the meeting was being recorded for purposes of preparing the minutes.

Mr. Richman reviewed two action items from the last meeting.

Mr. Richman said Mr. Tamn had asked for more information about the 1970 plane crash on the McGuire approach and the potential use of AFFF. Mr. Richman noted Mr. King Mak had provided newspaper articles at a previous meeting. Mr. Richman said discussions had recently been held with the base historian who confirmed the C-130 crash on October 10, 1970; no details regarding the use of foam or AFFF were mentioned in the newspaper articles. Mr. Richman noted follow-up was also conducted with the McGuire Fire Chief who confirmed AFFF was not used at the crash due to the date of the incident; if foam were used it would have been a protein-based product per the military specification (MILSPEC) before AFFF was issued in 1969 and authorized in 1970. Mr. Richman said existing foam supplies would likely have been in use in October 1970. Mr. Richman explained that protein-based foam contains no fluorocarbon surfactants, which are found in PFOS/PFOA and is produced from naturally-occurring hydrolyzed proteins combined with foam stabilizers bactericides, corrosion inhibitors, and other additives. Mr. Richman displayed photos of the newspaper articles (PowerPoint slides #4 and 5).

Mr. Richman noted the second action item was a question by Mr. Andrew Gold about obtaining a copy of the PFOS Remedial Investigation contract to understand the scope of work. Mr. Richman reviewed the scope of the Phase I Remedial Investigation which includes 21 validated sites with a few unvalidated sites not included in the current scope of work. Mr. Richman explained the scope of work is developed by the Air Force and then given to the Army Corps of Engineers to develop the Performance Work Statement. He explained the scope of work includes a programmatic Quality Assurance Project Plan and Facility-Specific Field Sampling Plans; these plans will be made available to the public in the Administrative Record when they are finalized.

Mr. Richman reviewed the key Performance Work Statement Objectives:

- Delineate the nature and extent of PFAS in all on- and off-base media (soil, groundwater, surface water, and sediment);
- Determine the source strength of residual soil in unsaturated soil at release areas;
- Identify exposure pathways to receptors; and,
- Develop a Conceptual Site Model.

Mr. Richman noted base-specific draft Remedial Investigation Reports are due within 48 months of contract award which was September 2020. He added this scope of work does not include a Risk

Assessment which will be part of a future contract for a Phase II Remedial Investigation.

Mr. Richman displayed aerial photographs showing the McGuire PFAS Sites including one unvalidated site, the Fort Dix PFAS Sites which includes three unvalidated sites, and the Lakehurst PFAS Sites.

Mr. Richman reviewed a list of project stakeholders/document reviewers, in addition to the JBMDL Environmental Restoration Program, who are providing oversight and ensuring objectives are met.

Mr. Richman discussed the legal aspects of obtaining contract acquisition documents through a Freedom of Information Act request and noted a contractor can redact any proprietary information.

Mr. Gold stated he appreciated the information and asked about the process of validating sites. Mr. Richman explained the Air Force requires the base to go through a process as part of the Preliminary Assessment/Site Inspection to meet certain thresholds for a site to be validated. Mr. Richman said the first threshold was whether preliminary sampling results exceeded EPA's health-based advisory level. He explained the next threshold was whether there is a continuing source issue; these sites have been held back until the Air Force takes additional actions such as engineering controls. Mr. Gold asked what would be a continuing source since AFFF is being phased out. Mr. Richman noted the current AFFF has a very small PFOA concentration so there could still be a current release as it moves through the waste water treatment system to the land application area and golf course. Mr. Richman said the base is still working with the Air Force to get all the sites validated and included in the current contract.

Mr. Storm asked if the manufacturer of the AFFF has any liability for the remediation. Mr. Richman responded that he is aware of this type of litigation, but the base is not currently involved in such litigation.

Mr. Tamn asked for information about EPA's health-advisory level and impacts from exposure to AFFF. Mr. Doug Pocze of EPA advised the Agency for Toxic Substances and Disease Registry has fact sheets about PFAS; he noted there are also ongoing studies but EPA is using 70 parts per trillion as the current standard. Mr. Pocze advised EPA could provide websites with more information. Mr. Curt Frye mentioned there had been handouts at previous RAB meetings, and the base will see if there are any updates and distribute these handouts. (PowerPoint slides #6-10).

8) <u>Performance-Based Remediation Contract Update</u>:

Mr. Tom Crone, Deputy Project Manager for Arcadis, reviewed a list of topics to be covered in his presentation.

a) Site LF019 Time Critical Removal Action (PowerPoint slides #14-26)

Mr. Crone first discussed the progress at Site LF019, Landfill No. 5, (part of McGuire Operable Unit 3) where a time critical removal action is underway. He explained a time critical removal action is allowed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to remove hazardous substances that pose an immediate risk to human health, safety, or the environment. He said at Site LF019 there is a disposal area within the landfill where 106 millimeter recoilless rifle rounds were observed during a topographic study; only this immediate hazards was addressed during the time critical removal action.

Mr. Crone reviewed the project objectives which are to remove material potentially presenting an explosive hazard (MPPEH) from the slope; confirm removal of MPPEH through metal detector

response; inspect and destroy (if needed) MPPEH on site via detonation; containerize, secure, and dispose of all material documented as safe (MDAS); and, prepare a Site-Specific Final Report to document the action.

Mr. Crone showed photos of the site location and the location of the cartridge casings, as well as a photo of the casings.

Mr. Crone advised that since the last meeting, the three-week field effort was completed in February 2021. He noted more than 500 items were encountered, and 723 items were removed. He explained not all the items could be removed due to the overall number and site conditions (frozen ground and coverings of ice and snow) which presented a safety hazard. He continued explaining that the action will be resumed in the summer of 2021. Mr. Crone said once the action is completed, it will allow for the LF019 Record of Decision to advance in the signature process and the landfill to be capped.

Mr. Crone reviewed the on-site activities which began with the mobilization of unexploded ordnance technicians who then inspected each item to determine if safe to move, processed and classified each item, and ensured the items were securely stored until de-militarized and recycled. Mr. Crone noted no on-site demolition operations were required thus far, although the team was prepared for this possibility, and all 723 items were recycled. He noted there were no unexpected finds/conditions encountered, with the items appearing to have been dumped down the slope many years ago and became covered with leaf litter and soil. He advised some non-munition metallic debris was found such as a steel tank and car bumper. Mr. Crone stated an estimated 1,500 to 2,000 items remain.

Mr. Crone showed photographs from the three-week field effort.

Mr. Crone summarized Phase 2 of the removal action which will include remobilizing this summer with a similar team and larger equipment (excavator), removal of all remaining items, demolition and disposal as needed, confirmation of removal of MPPEH through metal detector response, munition constituent sampling, soil backfill and site restoration, and preparation of an After Action Report.

b) McGuire National Priorities List Sites (begins on PowerPoint slide #30)

Mr. Crone next discussed the McGuire National Priorities List Sites which have been divided into nine Operable Units (OU). Mr. Crone advised OUs 1-8 are included in Arcadis' contract and would be discussed tonight. Mr. Crone noted additional site history and information is contained on the slides for reference. He reviewed the sites included in each of the OUs:

- OU-1 Three sites (primarily former landfills--northern part of the Base)
- OU-2 Nine sites (primarily former maintenance areas--on the Base)
- OU-3 Four sites (primarily former landfills--eastern end of the Base)
- OU-4 One site (active bulk fuel storage tanks--center of the Base)
- OU-5 Three sites (various activities--center of the Base)
- OU-6 One consolidated site (aircraft operations--aircraft apron)
- OU-7 Four sites (former maintenance operations--western part of Base)
- OU-8 Six sites (former operations--on the airfield itself)
- OU-9 Military Munitions Response Program Sites

(i) OU1: At the Record of Decision phase of the CERCLA process with the Air Force circulating the Record of Decision for signature. The Remedial Design is underway, and the Remedial Action is planned for the summer/fall of 2021. The Remedial Action includes enhanced soil covers with land use controls and long-term monitoring at LF003 and LF004 and land use

controls at ST007.

(ii) OU2: At the Feasibility Study phase of the CERCLA process. The Feasibility Study which evaluates potential alternatives is under regulatory review, and a Proposed Plan is planned for release for public comment in fiscal year (FY) 2021, followed by a Record of Decision in FY2022. Remedies likely to be proposed at the nine sites include excavation of soils to residential standards, in-situ chemical oxidation injections, directed groundwater recirculation, monitored natural attenuation, multi-phase extraction, passive light non-aqueous phase liquid recovery, air sparge/soil vapor extraction, land use controls, and long-term monitoring.

(iii) OU3: At the Remedial Design phase of the CERCLA process, with the Remedial Design being reviewed by the Air Force. Implementation of the remedy is planned for the summer/fall of 2021 and includes two foot thick soil caps over the landfills, land use controls, groundwater institutional controls, and long-term monitoring of groundwater and surface water, and PCB-impacted soil hotspot removals.

(iv) OU4: At the Record of Decision phase of the CERCLA process, with a signed Record of Decision planned for FY21, followed by Remedial Design and then implementation of the remedy in FY2022. The preferred alternative is natural source zone depletion, non-aqueous phase liquid skimming, mass removal optimization, long-term monitoring, and land use controls.

(v) OU5: At the Proposed Plan phase of the CERCLA process, with a Proposed Plan to be released for public review anticipated in the summer of 2021; the Proposed Plan is currently under review by the regulators. The remedy likely to be proposed is monitored natural attenuation for solvents with land use controls, removal of pesticide-impacted soils, and no further action at one site.

(vi) OU6: At the Feasibility Study phase of the CERCLA process, with the Feasibility Study currently under regulatory review. A Proposed Plan is planned for the fall/winter of 2021. The draft Feasibility Study rates a combination of in-situ chemical oxidation, monitored natural attenuation, and land use controls as the best alternative.

(vii) OU7 and OU8: At the Feasibility Study phase of the CERCLA process, with the Feasibility Studies under Air Force review. A Proposed Plan is planned for FY22.

Mr. Tamn stated the length of time mentioned for some of the remedies ranges from 38 to 50 years; he asked if the cost of such long remedies is taken into consideration. Mr. Crone responded that the Proposed Plan will contain the timeframes and associated costs for each alternative. He noted once a remedy is implemented, CERCLA requires reviews at least every five years to ensure the remedies are on track and protective.

(c) McGuire State Led Sites (PowerPoint slides #90-92)

Mr. Crone displayed an aerial photograph showing the location of the active sites. He reviewed a chart showing 23 sites have been completed to date, leaving seven active sites. Mr. Crone stated ongoing active remediation was underway at five sites, monitored natural attenuation ongoing at one site, and one site being prepared for closure this year.

(d) Dix State Led Sites (PowerPoint slides #93-95)

Mr. Crone displayed an aerial photograph showing the location of the active sites. He reviewed a chart showing 12 sites have been completed to date, leaving eight active sites. Mr. Crone reviewed

the remediation underway at six of the sites, with two sites being prepared for closure this year.

(e) Lakehurst Sites (PowerPoint slides #96-103)

Mr. Crone noted a detailed update of the Lakehurst Sites had been given at the August 2020 meeting. He stated the air sparge/soil vapor extraction systems at Areas A/B/C continue to operate well, and ongoing optimizations (injection of powder activated carbon) are delivering positive results. Mr. Crone reviewed activities at Areas D, I/J, K and noted concentrations in the groundwater continue to decrease. He advised at Area H the treatment system was shut down two years ago for the Plume Stability Study, and the plume appears stable. Mr. Crone noted a report is under preparation detailing the two-year study.

(f) Site Closures Achieved Through the Performance Based Remediation Contract

Mr. Crone displayed a list of site closures achieved through the performance based remediation contract and the total of sites closed to date, noting that 33 sites have been closed at McGuire, 51 at Dix, and 35 at Lakehurst.

Mr. Archer said Mr. Crone had done a fantastic job getting through a lengthy presentation and presenting the information in an articulate manner that was easy to understand. Mr. Archer said he was also impressed with the amount of work Arcadis had accomplished by year seven of a ten year contract. He noted the Air Force would be meeting with the regulators to discuss how to advance work over the next three years to get as much remedial work in place before the end of the contract. Mr. Archer stated that perhaps this discussion could be summarized at the next RAB meeting.

9) RAB and Public Comments:

Mr. Tamn asked about the drainage system from McGuire and confirmation that it ends in North Run; he asked if that is correct, whether the groundwater contamination would end up in North Run. Mr. Richman responded that McGuire has two large drainage systems to North Run and to South Run, with North Run being much smaller. Mr. Richman said a few sites that Mr. Crone had discussed would flow into North Run. He noted there is a groundwater divide between North Run and South Run (between TU13 and TU03). Mr. Tamn asked how recently the surface water had been sampled in North Run and South Run. Mr. Richman responded that he would have to check on the dates, but those surface water bodies have been sampled as part of the Remedial Investigations. He noted the PFAS Site Inspection also included surface water sampling. Mr. Richman stated the Drinking Water Protection Study is a very large, comprehensive document which identifies groundwater flow across the base and will be used as part of the PFAS investigations moving forward. Mr. Richman said with the possible exception of North Run, surface water contamination has been confined to the base. He explained than when the remedies for OU1 and OU3 are implemented later this year, the North Run surface water will be sampled routinely as part of the long-term monitoring program.

Mr. Gold referenced the natural gas pipeline being constructed close to the base. He said over the past year, there have been several inadvertent returns where drilling fluid escaped underground and moved into streams and a nearby residence. Mr. Gold asked if the base has looked at how these incidents might impact environmental issues at the base such as exacerbating groundwater contamination. Mr. Richman said he is aware of the pipeline construction, but not aware of some of the information discussed by Mr. Gold. Mr. Richman said he has not been notified of any concerns, but he will look into the issue and discuss at the next RAB meeting.

Mr. Tamn asked about the timing for an update to the Community Involvement Plan and noted the

last update resulted in a great document. Ms. Harris responded that she had just begun work on the next update and will be conducting interviews with stakeholders and RAB members. Mr. Tamn suggested new RAB members be provided with a copy of the last plan as a reference for making comments for the next update. Mr. Tamn asked about the timing of the update, and Ms. Harris estimated it would be available for review within the next six months.

Mr. Gene Fowler referenced meetings that were held in the 2016-2017 timeframe regarding the PFAS issue and asked if meetings would be held in the future (after COVID restrictions are lifted) to provide results or planned future actions. Mr. Richman said late summer might be the best time for an update; he said updates have continued to be provided at RAB meetings, but another poster session for the community might be possible.

Mr. Tamn asked for additional questions from RAB members and then from members of the public observing the meeting. No other comments were offered. Mr. Tamn asked for any topics for the next meeting and none were offered.

10) Meeting Adjourned:

Mr. Tamn asked for a motion to adjourn the meeting. A motion was made, seconded and unanimously passed to adjourn the meeting at 8:26 PM.

The tentative date for the next meeting is July 2021.