

Joint Base McGuire-Dix-Lakehurst (JB MDL)
Restoration Advisory Board (RAB) Final Meeting Minutes
Meeting No. 62 – 14 March 2019

SUBJECT: Restoration Advisory Board (RAB) Meeting No. 62 – Meeting Minutes

- 1) Place: Edward Holloway Senior Citizen Community Center, 5 Cookstown Browns Mills Road, Cookstown, New Jersey
- 2) Date/Time: Thursday, 14 March 2019; 6:30 PM
- 3) Co-Chairs: Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL
Mr. Michael Tamm, Resident, Southampton Township, New Jersey

4) Attendees:

Mr. Tom Besselman	RAB Community Member
Mr. Rich Bizub	RAB Community Member, Pinelands Preservation Alliance
Mr. Frank Storm	RAB Community Member
Ms. Branwen Ellis	NJ Pinelands Commission
Ms. Carla Struble	US Environmental Protection Agency, Region II (EPA)
Mr. Philip Cole	NJ Department of Environmental Protection (NJDEP)
Ms. Donna Gaffigan	NJ Department of Environmental Protection (NJDEP)
Mr. Haiyesh Shah	NJ Department of Environmental Protection (NJDEP)
Mr. Michael Figura	JB MDL, AFCEC/CZO, Environmental Restoration Program
Mr. Curt Frye	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. Dan Showell	Resident
Mr. Claire Showell	Resident
Mr. Tom Crone	Arcadis
Mr. Bob White	Arcadis
Mr. Dave Heuer	Arcadis
Ms. Katrina Harris	Bridge Consulting Corp./Arcadis

5) Handouts

- ✓ JB MDL Restoration Advisory Board, Meeting No. 62, 14 March 2019, Agenda
- ✓ JB MDL Restoration Advisory Board, Meeting No. 62, 14 March 2019, Presentation Slides
- ✓ JB MDL, List of Documents Provided to Mr. Tamm as of 13 March 2019

6) Call to Order:

The meeting was called to order by Mr. Christopher Archer, Deputy Base Civil Engineer, JB MDL. He advised Col. Altwies was not able to attend the meeting. He said Col. Altwies would be finishing his two-year tour at JB MDL soon and heading back to the Pentagon. He stated Col. Altwies would be replaced by Col. Tiffany Warnke, and she would attend the next RAB meeting scheduled after her

arrival. He welcomed everyone and thanked everyone for attending.

Mr. Archer stated the KC-46 \$146 million project continues to move forward. He noted construction renovations have begun and will continue for 18 to 24 months. Mr. Archer advised the first KC-46 will arrive in about two years, and the KC-10 aircraft will be retired.

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

Mr. Tamn, RAB Community Co-Chair, asked for any comments on the minutes from 6 December 2019 meeting. A motion was made, seconded, and passed to approve the minutes.

Mr. Curt Frye noted the meeting was being recorded for purposes of preparing the minutes.

8) Performance-Based Remediation Contract Update:

Mr. Tom Crone, Deputy Project Manager for Arcadis, stated he would be providing a summary of progress on the National Priorities List (NPL) sites at McGuire, State-led sites at McGuire and Dix, and NPL Sites at Lakehurst.

Mr. Crone began with the NPL Sites at McGuire. He noted these sites involve large, complex documents, but good progress is being made. He advised key goals for this year are to sign Records of Decision for Operable Units (OUs) 1 and 3.

- OU-1: Operable Unit 1 consists of two former landfills and a former recycling yard located in the northern portion of the base, outside the secure area. A Proposed Plan and public meeting are targeted for Spring/Summer 2019, followed by a Record of Decision in the fall of 2019 and remedy implementation in 2020.
- OU-2: Operable Unit 2 consists of 10 sites which range in complexity from former aircraft maintenance facilities with significant contamination to sites of former oil/water separators with partial contamination. The draft Feasibility Study has been reviewed by EPA and NJDEP, and their comments are being addressed in the preparation of a draft final Feasibility Study. A Proposed Plan and public meeting are anticipated in the winter of 2019, followed by implementation of remedial action in 2021/2022.
- OU-3: Operable Unit 3 consists of three former landfill sites and one sludge disposal site. The Proposed Plan was finalized and a public meeting was held. Some expended 106mm cartridges were found in a limited area (60 feet by 40 feet) at LF019. No impact on the proposed soil cover remedy is anticipated, and the Air Force is putting together a contract for a time-critical removal action to hopefully take place in 2019. Once the removal action is complete, LF019 will be addressed in a second Record of Decision and has been removed from the Record of Decision addressing the other three sites. Work on the Remedial Design will proceed while the removal action takes place with the objective of including LF019 in the Remedial Action with the other three sites in 2020. A Preliminary Design Investigation will begin soon to assess the thickness of soil at the landfills.
- OU-4: Operable Unit 4 is the bulk fuel storage area. Comments on the draft Feasibility Study have been received from the regulators and are being addressed in a draft final Feasibility Study. A Proposed Plan is under development. Installation of wells within the secondary containment area is planned for Spring 2019 which will provide data on groundwater directly beneath the tanks.
- OU-5: Operable Unit 5 consists of one former aircraft maintenance facility and two former

pesticide handling areas. Comments on the internal draft Feasibility Study have been received from the Air Force and addressed; the draft will be sent to EPA and NJDEP in April 2019. A Proposed Plan and public meeting are anticipated in the winter of 2019, followed by implementation of remedial action in 2021.

- OU-6: Operable Unit 6 addresses historical fuel releases under the aircraft apron. The final Remedial Investigation Report is with EPA for their approval. Responses to Air Force comments on the internal draft Feasibility Study are being reviewed by the Air Force; the draft will be sent to EPA and NJDEP soon. A Proposed Plan and public meeting are anticipated in 2020, followed by implementation of remedial action in 2021/2022.
- OU-7 and OU-8: The Remedial Investigation Reports have been finalized, and Feasibility Studies are under development in coordination with the Air Force. The Feasibility Studies will be submitted to the regulators this fiscal year, a public meeting is targeted for Spring 2020, and Records of Decision are planned for fiscal year 2021.

Mr. Crone next discussed the petroleum sites at McGuire where NJDEP is the lead regulatory agency. He displayed a chart showing the sites and their status. He advised there are 30 compliance sites included in Arcadis' contract, with 15 of those sites already having met site close-out, unlimited use/unrestricted exposure requirements. He noted of the remaining 15 sites, several are ready for close out pending the completion of some paperwork. Mr. Crone discussed the status of SS502, noting that a soil removal action was completed in January 2019 to remove 303 tons (about 15 dump trucks) of soil impacted by polyaromatic hydrocarbons (PAHs) from historic discharge. He said the excavated soil was taken to Soil Safe in Logan, New Jersey, a permitted disposal site. He stated the areas excavated were backfilled with clean material and seeded. He advised the action is being documented and moving towards closeout.

Mr. Crone displayed a chart showing the status for the Dix State-Led Sites. He advised of the 20 sites, three have moved into the site close-out phase, and several more sites are ready to go to closure pending completion of paperwork. Mr. Crone stated optimization of groundwater remedies is underway at Sites NW044 and TU019a. He noted a public meeting on site NW042 had been held earlier in the evening, and the public comment period has begun. Mr. Crone said a groundwater treatment and recirculation pilot test has been completed at SS007, Mag 1, where bioremediation had been used to treat the groundwater with some success. Mr. Crone said the pilot study indicated the treatment and recirculation technology will work at the site, and an initial presentation has been given to NJDEP. Mr. Shah asked for confirmation that the technology includes carbon treatment and recirculation, and Mr. Crone agreed. He advised surface water standards and sampling results for surface water at SS025 had been reviewed with NJDEP the prior week, and it looks like the site is at the compliance point and will be going to closeout. Mr. Crone said NJDEP has also approved LF033 for no further action so this site will be going to closeout.

Mr. Tamn asked about the impact on pH from putting chemicals into the ground at Mag 1 to treat the groundwater. Mr. Frye stated there have been no injections for several years, the treatment system was shut down for the rebound study, and the expectation has always been that the groundwater system will attenuate over time to return to natural conditions. Mr. Frye acknowledged the potential for a temporary adjustment to the natural pH level, but it is necessary in order to remediate the site. Mr. Tamn stated there had been concerns about other compounds added to the site, and Mr. Frye said nutrients and amendments were added to the site which is a standard remediation technology. Mr. Frye said a shift in the remediation strategy for the site is to use the same extraction and injection wells to re-circulate groundwater through activated carbon before it is re-injected into the ground so there will be no further active bioremediation at the site. Mr. Frye explained the Record of Decision

would need to be modified through an Explanation of Significant Difference and suggested a presentation at a future RAB meeting once the document has been prepared. Mr. Frye added that at a recent meeting with NJDEP, the Air Force agreed to include pH levels at each well in annual reports. Mr. Shah suggested information be presented at the next RAB meeting on the current pH level now that the system has been shut down for some time.

Mr. Crone gave an update on the four sites at Lakehurst. He advised the air sparge/soil vapor extraction systems continue to operate well, and results show declines in trichloroethene (TCE) concentrations. He said the goal is to close out the sites in 2021/2022. Mr. Crone stated the pump and treat system at Area H was shut down this month for a two-year plume stability study to determine the next remediation phase. He said sentinel wells will be monitored to make sure no contamination moves beyond a certain point, and contingencies are in place to turn the system back on if needed. Mr. Crone advised semi-annual or annual groundwater sampling is ongoing at the remaining Lakehurst sites every April and November.

Mr. Crone showed an updated list of sites where site closure has been achieved under the Arcadis contract. He advised site closure means remedial goals have been achieved, site restoration infrastructure has been removed, and the site is released for unrestricted use. He noted 18 sites have moved to site closure to date, with a total of 31 sites projected for completion in 2019.

Mr. Shah suggested a chart be prepared showing all the sites closed out, including those prior to the Arcadis contract, and Mr. Frye said the Air Force would put together such a chart.

Mr. Archer asked for confirmation that Arcadis' contract is for 10 years, and Mr. Crone confirmed the contract extends until 2024. Mr. Archer asked for an estimate of whether the contract is on track. Mr. Frye said overall the contract is on track, with the State-led sites being ahead of schedule, the Lakehurst NPL Sites being on track, and McGuire NPL sites running behind primarily due to the dispute over the Pinelands standards but the team is working on catching up. Mr. Frye noted the remedies were in place at Lakehurst prior to the Arcadis contract, but were not at McGuire, and therefore there are many more documents involved at the McGuire sites. Mr. Archer said it seems as if the entire team is working well together but coming up to the point where there will be a lot of critical documents, including Records of Decision, being sent to EPA and NJDEP for review. He asked if there is any concern on the part of NJDEP or EPA as far as having the resources needed to advance these documents. Mr. Cole said there had been some staffing shortages at NJDEP, but several positions have been filled and more staff is anticipated by the end of June. Mr. Cole said he is optimistic sufficient resources will be in place at that time. Ms. Struble noted EPA had lost several project managers; replacements have been requested but are not yet in place. She advised EPA had also lost some technical support staff, including half of their geologists. Mr. Archer said he would be glad to initiate any needed conversations with senior management at NDJEP and EPA to try and bring more resources to bear. Mr. Shah noted that three Records of Decision will take a significant level of effort and resources, and NJDEP would appreciate discussion with upper management at that point. Mr. Archer suggested at the next RAB meeting there be a projection about when Records of Decision will be submitted for review.

9) McGuire Operable Unit 3/LF019 Time Critical Removal Action:

Mr. Crone showed a map of JB MDL and pointed out the location of OU3 and LF019. He reminded the RAB this OU had progressed to the Record of Decision stage, where the remedy of a two-foot thick soil cover over the landfills had been selected to limit exposure. He said the four sites have now been divided into two Records of Decision. He explained material potentially presenting an explosive hazard (MPPEH) had been found at LF019, so this site will be addressed in a separate Record of Decision from the other three sites after the MPPEH has been removed.

Mr. Crone discussed the background of LF019, noting it was used for disposal of mixed waste between 1970 and 1973. He said the disposed materials may have included construction debris, domestic waste, coal ash, wood, waste metal, spent artillery casings, and drummed liquid waste; however, there is no evidence of high-hazard military-specific waste. He said the amount of waste disposed at the landfill is estimated at 82,000 cubic yards.

Mr. Crone explained there is a drainage swale that runs along and through LF019 where approximately 200 MPPEH items need to be addressed. Mr. Crone showed several photographs of the items. He continued explaining that the items are believed to be low-explosive hazards which were dumped and then covered by leaves and soil erosion. He stated a few items had been removed when initially found, and there were no projectiles.

Mr. Crone said the removal action is planned for the summer/fall of 2019. He stated a work plan and planning documents will be prepared, followed by the items being removed. Mr. Crone noted the work will also confirm the conceptual site model of surficial dumping of these items.

Mr. Frye stated a separate contract is being awarded for Arcadis to conduct the removal action as their performance-based contract excludes unexploded ordnance work. Mr. Frye advised the Air Force is working on getting a contract in place this summer so the removal action can proceed, and LF019 can then be included in the OU-3 remedial action. Mr. Frye said he hoped the removal action work would be completed by the fall.

Mr. Shah asked if funding had been received, and Mr. Frye said funding had been received and a statement of work is being reviewed.

10) BOMARC Update:

Mr. Bob White of Arcadis stated he would be discussing the status of documents, the project schedule, and remedy enhancements since the Proposed Plan was issued.

Mr. White said the Proposed Plan for BOMARC was finalized in February 2018, and a public meeting was held on February 22, 2018. He advised a draft Record of Decision was submitted for review, and the Remedial Design is being prepared. He said the target date for implementing the remediation is the fourth quarter of this year so he would like to discuss some changes to the remedy design.

Mr. White showed an aerial photograph and pointed out the site location, noting it was about a 20 minute drive east of the meeting location.

Mr. White explained there are two groundwater plumes, OT016 and WP005. Mr. White said at OT016 there was not one event that created the contamination, but a series of stormwater drains and daily operations contributed to the TCE contamination. Mr. White stated the TCE would percolate into the ground where there is a layer of clay and underlying lignite. He said while there are no continuing sources of contamination at OT016, the TCE has accumulated in the clay and contributes to the plume seen today. He noted the lignite locks the TCE into place. Mr. White stated if no remediation was done at the two-acre site, the site would remediate itself in about 100 years.

Mr. White said a similar situation exists at WP005, but on a smaller scale. He explained at WP005 there was an unlined pit where residual TCE is within the clay/lignite over about a third of an acre. He stated the amount of TCE at WP005 is considerably less than the amount at OT016, and there are no concentrations above 100 parts per billion at WP005. Mr. White stated if no remediation was done

at the two-acre site, the site would remediate itself in about 40 years.

Mr. White discussed the remedy described in the Proposed Plan which proposed using air sparge technology to cut off the source at the head of the plume and prevent migration downgradient and also to attenuate the plume in ten years. Mr. White explained a revised air sparge network is now being proposed for WP005 where the number of wells would be doubled from four to eight and the OT016 strategy utilizing two sets of transects would be copied. Mr. White stated the revised strategy would achieve remediation of the dissolved phase plume in four years. Mr. Archer asked if there would be a re-assessment after four years, and Mr. White responded that the system would be shut down after four years and a re-assessment would be conducted.

Mr. White asked about detections in the stream from OT016. Mr. White said there were detections in 2014 in the stream at about 20 to 30 ppb; in 2018 three surface water samples were collected, with two showing no detections and one at 10 to 20 ppb. Mr. Frye said he would include a figure that shows the surface water data at the next RAB meeting. Mr. King added that the concentrations in the surface water also dissipate quickly as the water moves downgradient.

Mr. Tom Besselman asked about the impact of earlier treatment, and Mr. White said the impact was not as great as had been hoped.

Mr. White discussed the major components of the remedy which will be air sparging, monitored natural attenuation, compliance and performance monitoring, and land use controls until remediation goals are reached. Mr. White showed a schematic of the site layout. He noted the design is taking into consideration the nearby Pinelands and minimizing any potential for impact to the wildlife aspects of the Pinelands.

Mr. Rich Bizub asked what the remediation concentration goal is, and Mr. White said it is 1 ppb.

Ms. Branwen Ellis asked if the transects had to be installed below the frost line. Mr. White said it was not necessary to install the air sparge system below the frost line as it would be with an extraction system.

11) Military Munitions Response Program (MMRP):

Mr. Mike Figura noted he had given a complete update on the Military Munitions Response Program (MMRP) at the last meeting so he would be focusing on the former McGuire Skeet Range (Site TS875) and the upcoming removal action. Mr. Figura showed the site location on an aerial photograph, noting it was just outside the front main gate of McGuire, across Wrightstown-Cookstown Road.

Mr. Figura stated the former recreational skeet range is approximately 55 acres. He explained it was sub-divided into four Muniton Response Sites based on the results of the Comprehensive Site Evaluation. He noted one site, TS875, is being addressed under the Installation Restoration Program NPL Site LF003. He stated the other three areas are being addressed for elevated lead in surface soil.

Mr. Figura advised an Action Memorandum and a Work Plan for the removal action are being reviewed by the regulators. He stated the Work Plan includes a Quality Assurance Project Plan, a Storm Water Pollution Prevention Plan, a Soil Erosion and Sediment Control Plan, and a Community Involvement Plan. He explained the steps for the removal action will be vegetation clearance, contamination delineation and characterization, soil excavation and off-site disposal, site restoration, and a final report. Mr. Figura said the goal of the removal action is to achieve unrestricted use and unlimited exposure for the off-base portion of the property plus a 30-foot buffer onto the base.

Mr. Figura discussed the field effort. He stated vegetation clearance will begin the following week as the trees need to be cut prior to 1 April 2019 due to bird/bat nesting restrictions. He said the next step would be to do pre-confirmation soil sampling to determine the depth and the area in each grid for excavation. He explained the soil would be loaded into trucks, and non-hazardous soil will be taken to Pure Soil Technologies in Jackson Township or to the Middlesex County Landfill in East Brunswick. Mr. Figura said the site will be restored and backfilled with clean fill, and there will be vegetation re-planting. He noted the contractor will replace any vegetation that does not survive the first year, and per NJDEP requirements, the Air Force will monitor the area for five years to ensure it is vegetating properly.

Mr. Figura said the schedule is for the documentation to be completed in April, and the work to commence in May or June 2019. He noted the final report will be prepared within 60 days of completing the action.

Mr. Figura advised the balance of the site will be addressed through the remedial action steps of the CERCLA process including the Feasibility Study, Proposed Plan, and Record of Decision.

Mr. Figura offered to conduct a site visit for anyone interested in seeing the site.

12) Perfluorinated Chemicals (PFCs) Update:

Mr. Bizub asked for an update on PFCs.

Mr. Frye stated there were no major developments since the briefing at the last RAB meeting. He advised the off-base quarterly sampling program continues with no significant change in numbers. He said there are approximately 30 properties of the 188 properties sampled where there was a detection of either PFOS or PFOA, and these properties are monitored quarterly. He advised the number of exceedances of the EPA health advisory level (70 parts per trillion) remains at five, and all of these properties are in the Lakehurst area. Mr. Frye stated the replacement of JBMDL-Lakehurst's shallow back-up wells is proceeding with the planned installation of a new deep well, and an ion-exchange resin treatment system is in place and going through start-up. Mr. Frye said the cost is just over \$4 million including the treatment system building.

Mr. Archer noted the Air Force at the JB MDL had been able to mobilize quickly, meet with local officials, focus on off-base private wells, and quickly address any issues in coordination with EPA and NJDEP. He advised that AFFF has been removed out of all vehicles at the JB MDL, and this week he received verification that all of the hanger suppression systems have been changed out.

Mr. Bizub asked about the status of the work U.S. Geological Survey will be doing to take water level measurements and whether it is in progress. Mr. Frye responded there is a drinking water protection study underway which is a detailed look at the basewide conceptual site model. He said the study is looking at the regional groundwater flow, flow paths, and geology and performs modeling. Mr. Frye said the project contractor has done two rounds of water level measurements and gauged about 600 wells. He advised USGS is doing some off-base work around the perimeter of the base. Mr. Frye said USGS experienced some set-back due to the partial government shutdown. Mr. Frye said the project will take about two-years so there are no quick answers.

Mr. Bizub asked about the basewide PFC Site Inspection report, and Mr. Frye stated it has been published and is in the administrative record. He said a copy is on the disc provided to Mr. Tamn this evening, and there is a link to the administrative record on the web site at www.envirorestorejbmdl.com. Mr. Frye explained there are three separate administrative records for

Dix, McGuire and Lakehurst; basewide documents are placed in the McGuire record.

Mr. Shah asked about the approximate timing for proceeding to a Remedial Investigation. Mr. Frye responded that the Air Force has not made a decision on the timing or funding; he said no funding has been provided for the current fiscal year. Mr. Shah stated the JB MDL has to address the recently issued NJ interim groundwater standards for PFOS and PFOA, and Mr. Frye said the applicability of those standards is being evaluated by the Air Force.

13) RAB and Public Comments:

Mr. Tamn asked for questions from RAB members and then from members of the public observing the meeting.

Mr. Tamn asked if there had been any investigation of the old incinerator site on Dix. Mr. Archer advised it is scheduled for demolition in about a year and has been offline for 12 to 15 years. Mr. Tamn said he would be interested in knowing if there had been sampling for mercury at that site, and Mr. Frye said he would check.

14) 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 8:34 PM.

The tentative date for the next meeting is summer 2019.