

**Former Twin Cities Army Ammunition Plant (TCAAP)
Restoration Advisory Board Meeting
Conducted Virtually using Microsoft Teams
May 17, 2022**

Time/Place: 7:00 pm, May 17, 2022 – Microsoft Teams

Attendees: Eighteen people attended the meeting including four Restoration Advisory Board (RAB) Community Members and six Government RAB Members. Names of attendees are included in the attachment.

Agenda: Review/Approve Minutes from Last Meeting, Old Business, Cleanup Status Update, New Business, Next Meeting Agenda, and Public Comments.

Introduction: Ms. Cathy Kropp took attendance. Mr. Forrest Kelley, called the meeting to order at 7:08 pm. Ms. Linda Albrecht provided plans for the evening.

Review/Approve Minutes of Last Meeting

- Draft minutes from the previous meeting were sent out to RAB members. No changes were requested.
- The meeting minutes were accepted as is and will be finalized.

Old Business

- The Army is currently revising contracts to allow EA Engineering to coordinate with the industrial well owners that want the Army to abandon their industrial wells and connect them to the municipal water supply.
- EA Engineering anticipates the annual OU2 groundwater sampling to be completed in May 2022 and OU1 in June.
- The Army planned to host a tour of the Source Groundwater Recovery System (SGRS) facility in June, however, due to construction delays the tour will need to be postponed to July or August. Scheduling can be discussed later to determine what will work best for the RAB members.

TCAAP Cleanup Status Update, Linda Albrecht (USAEC)

- In February, the Draft Final Annual Performance Report (APR) and the Round Lake Record of Decision (ROD) were submitted to the Minnesota Pollution Control Agency (MPCA) and the U.S. Environmental Protection Agency (USEPA). The Army received comments back from the regulators and is in the process of revising the documents.
- A technical working group (TWG) meeting was held in May to discuss the comments on the ROD. The RAB community co-chair attended the TWG to represent the RAB.

Prairie du Chien Plume:

- At the last RAB meeting, a member asked how the Prairie du Chien Plume had changed over time. The Army included a slide in the meeting presentation to show the progression from 1990 to 2021 (Slide 7) which indicates a reduction in plume size over time.

Jorden Plume:

- 2021 was a minor sampling year with very few wells sampled. The plume map has been updated, however, there were no significant changes.

Operable Unit 1 (OU1) Optimization:

- No change since the last meeting.
- The Army is still having discussions with New Brighton. Well installation is delayed while funding negotiations are ongoing.
- There is full containment with the wells that are currently pumping. However, the Army would like to add a well so that the amount of contamination removed is increased.

Operable Unit 2 (OU2):

- Construction on the SGRS building continues. There have been schedule delays due to supply chain issues. Expected completion is late June/early July.
- The interior process piping, and electrical installation is in progress
- The installation of the extraction well pumps is in progress.
- The exterior of the two pump houses at Site G and I is complete.
- The Advanced Oxidation Reactor (AOR)/Air stripper have been installed.

OU2 – Site K:

- No change since the March 2022 RAB presentation.
- The U.S. Geological Survey (USGS) is continuing the treatability study and continue to do quarterly and performance monitoring. The most recent quarterly sampling was completed in May.
- USGS will give a presentation at the August RAB on what they are seeing at Site K.

OU2 – Site G:

- The University of Iowa, under the Environmental Security Technology Certification Program (ESTCP), will study phytoremediation at Site G. They are looking at using poplars and willows that are very root intensive trees to prove that phytoremediation can be used to remediate 1,4 Dioxane and TCE. The Army is not their funding source.

Operable Unit 3 (OU3) – Off Post:

- No significant change.
- There is continued monitored natural attenuation.
- The Army is currently conducting the annual groundwater sampling for this year.
- Updated maps are available in the FY 2021 APR, however, 2021 was a minor sampling year so there are no significant changes in the plume map.

Round Lake – Off Post:

- The ROD was submitted to the regulators in February 2022 and the Army is revising and will return the documents to the EPA and MPCA by the end of May.
- The Responsiveness Summary is included with the ROD.
- After there is acceptance of the ROD there will be another TWG meeting to discuss the contracting strategy for the design and construction of the remedial action.

What's Next

- OU1 – The Army will continue discussions with New Brighton. It is unlikely that a well will be installed in FY 2022.
- OU2 – Upcoming actions include:
 - Completing abandonment of 40 monitoring wells (most are in OU2) and completing the installation of three monitoring wells.
 - Optimization of the monitoring network to verify that wells being sampled are able to provide the most important data on the plume. The Army will be conducting the risk assessment for unrestricted land use and the Engineering Evaluation/Cost Analysis.
- OU3 – Continued groundwater monitoring.
- Round Lake – Publish the ROD.

New Business

- Members recommended the following topics for future RAB meetings:
 - The function of the SGRS and how the system is working.
 - The Army would like USGS to provide an update on Site K at the August meeting.
 - Ms. Kropp noted that RAB community member participation was declining and recommended discussing preferred nights for meetings at the August RAB meeting, to ensure continued participation.
 - Meeting dates for the upcoming year will be scheduled.
- Ms. Albrecht proposed the second week in July for a tour of the SGRS (July 11–15). Since several members were absent, the RAB agreed to have members propose any alternative dates in the meeting minutes [during review of the current minutes].
- If the RAB agrees, the Army would like to conduct the August RAB meeting in-person. Kay Toye spoke with the City of Arden Hills, and they were amenable to the RAB holding the meeting in the Arden Hills City Hall Community Room.
- The RAB agreed that the Community Room is a convenient location and would be suitable for the next meeting.
- The RAB Community Co-chair requested that additional communication go out about the SGRS tour and about the August meeting being in person.
- The Army agreed and noted that these items can be addressed in the email that is sent with the draft meeting minutes.

Next Meeting Agenda

- Review/Approve minutes of the last meeting
- Cleanup Status Update
- New Business
- Next Meeting Agenda
- Public Comments

QUESTIONS AND ANSWERS

TCAAP Cleanup Status Update, Linda Albrecht (USAEC)

- **Q: Were there any substantive comments to the report (draft record of decision)?**
- **A:** Most of the comments had to do with minor wording clarifications. There was some dialogue about ensuring state listed species were accounted for, and some conversations regarding what is legally required in the ROD versus what has been agreed upon formally (Forrest Kelley, RAB Community Co-Chair).

OU2:

- **Q: Does the updated map for the OU2 unconsolidated sediment plume show the entire population of wells (including the ones not being pumped)?**
- **A:** Yes (Linda Albrecht, USAEC).
- **Q: Can you explain what Site I and G well buildings are?**
A1: The main SGRS building is at Site D. At Site G and I, the control for the wells is at small pump house buildings. The electrical and control panels are in those buildings for easy access (Linda Albrecht, USAEC).
A2: The actual treatment occurs at the SGRS building but the water has to be pumped to it from I and G. Due to the weather, there needs to be an enclosed structure for the controls (Cathy Kropp, USAEC).
- **Q: When you say the piping is in progress, does that include the piping to get the water from Site I and Site G to the SGRS building?**
A: That piping is finished. The piping that is in process is the piping that is interior to the buildings (Linda Albrecht, USAEC).
- **Q: What is the advanced oxidation reactor? Is the idea to eliminate most of the Trichloroethylene (TCE) and other organics going into the air?**
A: Yes, however, it will primarily remove the 1,4 Dioxane. It will not remove 100% of the TCE, that is why there is an air stripper (Linda Albrecht, USAEC).
- **Q: Is that water then returned back into the ground [after treatment]?**
A: The water goes from the the treatment system to the sand and gravel pit which is the discharge point. It is also the discharge point for TGRS. The treated water is discharged to an area with water where it will saturate the ground and then go to the groundwater (Linda Albrecht, USAEC).
- **Q: What aquifer are the pumps pulling water from?**
A: OU2 pumps from the Prairie du Chien aquifer (Linda Albrecht, USAEC).
- **Q: At what depth is the water released to the sand and gravel and how quickly does it infiltrate?**
A: The Army will confirm and include related information at the next RAB meeting (Linda Albrecht, USAEC)

OU2 – Site G:

- **Q: Will the phytoremediation study be pumping water to this area or is it more of an in-situ remediation?**
- **A:** Normally it would be in-situ, but the contamination is down about 100 feet and tree roots will not go down that far. The agreement is that ESTCP team will bag the trees and the Army will give them some of the water as it is pumped up to the Site G pumphouse, so they do not have to do any active pumping. The Army wants the trees to be completely self-contained so the effluent can be sampled without running the risk of contaminating the upper part of the aquifer [if it is not working] (Linda Albrecht, USAEC).

What's Next

- **Q: Can you briefly explain the 135 Primer Tracer Area and what engineering analysis will be conducted?**
A: If GSA is unable to sell the Primer Tracer Area (it will likely be up for auction in June), then the Army would like to conduct an engineering and cost analysis to evaluate the potential removal of the facilities. To demolish buildings using restoration funds, an analysis must be completed to justify why the buildings need to be demolished.
- **Q: When talking about unrestricted land use, is that specific to certain areas within the property?**
A: Yes, the county property is primarily unrestricted apart from areas that have a cap as a component of the remedy. Areas with a cap will remain restricted. On the Army National Guard ("the Guard") property, the remedial goals were originally established at industrial levels/standards. The Guard would like the land to ultimately be restored to residential standards (unrestricted use) (Linda Albrecht, USAEC).
- **A2:** Ms. Kropp explained [and Restoration Counsel for USAEC clarified] that the Army's cleanup goals are based on land use. If the intent is for recreational use or residential use, the Army's intent is to clean up so that the land can have unrestricted use and unlimited exposure with no risk to human health. Sometimes that isn't possible, or it takes a very long time. If the land is going to be used for military/industrial use or commercial use, the Army would cleanup to those standards and cleanup goals would be established based on the standards reflected in the ROD, which includes current and proposed future use of the lands and sets the cleanup goals accordingly (Cathy Kropp, USAEC).

New Business

- **Q: At what point will the RAB hear about the contracting for design of the Round Lake project?**
A: From a schedule standpoint the Army will try to keep the RAB updated at every meeting. From the standpoint of who will be contracted and what the technical requirements of the contract will be, information will likely be available around November/December after the contract is developed and has gone out for bid.
- **Q: Are there any meetings scheduled before the SGRS tour?**

A: There may be a TWG meeting on Round Lake, but it would not involve the whole RAB (Linda Albrecht, USAEC).

- **Q: Will the SGRS tour be open to the public?**

A: Yes, the tour will be open to the public (Linda Albrecht, USAEC).

- **Q: Are there requirements for people to submit names or other information in advance of the tour [which is on the TCAAP property] for security considerations?**

A: The names and the number of people should be all that is needed. The Guard will provide two 15 passenger buses. The Guard will transport everyone.

- **Q: What is the date of the next meeting?**

A: The next RAB meeting is 16 August 2022.

ATTENDEES

Government RAB Members Present

1. Linda Albrecht (Acting Army Co-chair)
2. Brigitte Hay (MPCA)
3. David Brown (Northrop Grumman)
4. Melissa Collins (DNR)
5. Kyle Axtell (Rice Creek Watershed District)
6. Nicole Menard (USFWS)

Community RAB Members Present

1. Forrest Kelley (Community Co-Chair)
2. Sara Frantz
3. Paul Bloom
4. Lyle Salema

Army and Army Contractors Present

1. Cathy Kropp (USAEC)
2. Robert Reine (USAEC)
3. Susan Elrod (USAEC)
4. Paul Muethling (DCS G9)
5. Kay Toye (ERG)
6. Arthur Peitsch (EA Engineering)

Visitors

1. Jeff Port
2. Emily Otto