NEW MEXICO
ENVIRONMENT DEPARTMENT

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 29, 2021

George H. Cushman
Headquarters, Department of the Army
Office of the DCS, G-9
Army Environmental Office, Room 5C140
600 Army Pentagon
Washington, DC 20310-0600

RE: APPROVAL WITH MODIFICATIONS
SECOND RESPONSE TO THE APPROVAL WITH MODIFICATIONS
RESPONSE TO APPROVAL WITH MODIFICATIONS, FINAL REVISION 1 GROUNDWATER PERIODIC MONITORING REPORT, JULY THROUGH DECEMBER 2018
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-19-004

Dear Mr. Cushman:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Second Response to the Approval with Modifications, Response to Approval with Modifications, Final Revision 1 Groundwater Periodic Monitoring Report, July Through December 2018* (Response), dated February 16, 2021. NMED has reviewed the Response and hereby issues this Approval with Modifications with the attached comments. The Permittee must address all comments in the attachment to this letter and submit a response letter no later than **May 31, 2021**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

Should you have any questions, please contact Michiya Suzuki of my staff at 505-476-6046.

Sincerely,

Kevin Pierard

Digitally signed by Kevin Pierard
Date: 2021.03.29 08:29:59 -06'00'

Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
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A. Whitehair, Southwest Region BIA
G. Padilla, Navajo BIA
J. Wilson, BIA
B. Howerton, BIA
R. White, BIA
C. Esler, Sundance Consulting, Inc.
M. Falcone, USACE

File: FWDA 2021 and Reading

Attachment

1. **Permittee's Response to NMED's Approval with Modifications Comment 1, dated November 5, 2020**

   Permittee Statement: "Regarding the requested southern area monitoring report, the Army did not submit the data because they had been collected without a work plan, and based on previous NMED responses to other site deliverables at FWDA, the Army did not believe that either the data collected or the report for these data would have been admissible or approved."

   NMED Comment: Comment 1 in the NMED's *Disapproval Final Parcel 3 Groundwater RCRA Facility Investigation Report,* dated October 17, 2018, required a submittal of the Parcel 3 groundwater investigation report; NMED, in 2018, directed the Permittee to provide the data collected. NMED requires submission of this data. In addition, the Permittee was required to submit a work plan for the Southern Area Groundwater monitoring approximately two years ago; NMED has not received the document to date. Failure to provide the Southern Area Groundwater Report, as well as the work plan, constitutes noncompliance and may result in an enforcement action.

2. **Permittee's Response to NMED's Approval with Modifications Comment 1, dated November 5, 2020**

   Permittee Statements: "As an interim measure, the Army is now respectfully submitting both data tables and an electronic searchable database for the groundwater samples collected in 2018 for NMED's files. The Army will also present these data in the first southern area monitoring report, in addition to the proposed eight (8) quarterly sampling events."
   and,
   "The abbreviated groundwater monitoring plan will be developed for NMED's approval following the installation of the additional monitoring wells, per the approved work plan."

   NMED Comment: The data tables and an electronic searchable database for the groundwater samples collected in 2018 were not included in the Response.

   Comment 1 of NMED's October 17, 2018 *Disapproval of the Parcel 3 Groundwater RCRA Facility Investigation Report* states,

   > "In Section 3.5.1, *Groundwater Sampling*, page 3-1, the Permittee states, "[a]s part of this [RCRA Facility Investigation] RFI, groundwater sampling was first performed from February to April 2017 (Event 1) on the newly installed monitoring wells following installation and development activities. During the second groundwater sampling in May 2017 (Event 2), all Study Area monitoring wells were sampled."
   >
   > On March 12, 2018, Mr. Saqib Khan of the U.S. Army Corps of Engineers (USACE) sent an

email to NMED requesting to delay submittal of the Report until after four rounds of sampling had been completed. On the same day, Mr. Ben Wear of the NMED responded to Mr. Khan stating that the request was not acceptable. In addition, Mr. Wear's response stated,

"[t]he purpose of the RFI report is to provide information on the advancement of borings, geophysics, and the installation, development, and first round of sampling of the new wells. Further monitoring will be reported in future periodic monitoring reports." This direction was not followed by the Permittee. Based on the noted problems with data reporting, a separate groundwater investigation report summarizing the Parcel 3 groundwater monitoring conducted between May and December 2018 must be provided to the NMED. Provide a detailed monitoring report for the 2018 sampling events no later than **April 2, 2019**. In addition, provide a groundwater monitoring plan separate from the Interim Facility-wide Groundwater Monitoring Plan (IFGMP) proposing eight quarterly monitoring events to be conducted at Parcel 3 no later than **April 2, 2019**.

NMED does not approve the data collected outside of the scope of work presented in the *Final Rev 1 Parcel 3 Groundwater RCRA Facility Investigation Work Plan* (Work Plan), dated September 15, 2016. Tables 3-1 and 3-2 of the Work Plan present the sampling locations and methods for the newly installed wells. The tables list all proposed potential wells and borings pertinent to this investigation. The only pre-existing groundwater monitoring well included as a part of this investigation is well CMW02, which is utilized as a background well. The data collected during the second groundwater sampling event (Event 2) includes data for several other pre-existing wells. The data collected in Event 2 must be presented in the separate groundwater investigation report. Remove all data and discussion that are not included in the scope of the Work Plan. The Report must be revised to summarize the outcome of field activities outlined in Section 4.4 of the Work Plan. Also, note that future approval of this Report does not constitute approval of the data that are not included in the scope of the Work Plan. In addition, the groundwater monitoring designated as Event 2 is actually the first full monitoring event that includes all Parcel 3 monitoring wells. Title the Event 2 and subsequent 2018 periodic monitoring as the Parcel 3 Groundwater Monitoring Investigation Report (Parcel 3 GMIR) with the dates of occurrence rather than as "Event 2"."

The Parcel 3 GMIR was required to be submitted to NMED no later than April 2, 2019; the Permittee has failed to submit the revised Report for almost two years. The work plan for quarterly monitoring was also required to be submitted to NMED no later than April 2, 2019; the Permittee has failed to submit the work plan for almost two years. The Permittee was required to conduct quarterly monitoring on all Parcel 3 wells and submit quarterly reports; the Permittee has failed to do so for approximately three years.

The Permittee must follow NMED's direction for submittal of the appropriate documents. NMED does not approve of combining reports. Continued failure to submit the required documents for the investigation and monitoring of groundwater in Parcel 3 constitutes noncompliance and may result in an enforcement action.

3. Permittee's Response to NMED's Approval with Modifications Comment 2, dated November 5, 2020

Permittee Statement: "The Army plans to provide an abandonment work plan to NMOSE in the second quarter of 2021."

NMED Comment: Provide a copy of the well abandonment work plan to NMED at the time it is submitted to the New Mexico Office of the State Engineer (NMOSE).

4. Permittee's Response to NMED's Approval with Modifications Comment 3, dated November 5, 2020

Permittee's Statement: "TMW02 has a probability to be a conduit between the alluvial and bedrock aquifers. There are several wells within the vicinity of TMW02 that would provide coverage if TMW02 is abandoned. The Army is also proposing to install two additional wells to replace TMW40S and TMW40D to ensure well network coverage."

NMED Comment: Wells TMW02, TMW40S, and TMW40D are located in close proximity and screened in three different depth intervals. Wells TMW02, TMW40S, and TMW40D are screened from 67.9 to 81.9, 50 to 60, and 135 to 155 feet below ground surface (bgs), respectively. These wells provide valuable information regarding vertical distribution of contaminants in the aquifers and must not be abandoned.

Regarding the Permittee's concern of TMW02 being a conduit between the alluvial and bedrock aquifers, the data demonstrates otherwise. For example, the nitrate concentrations in groundwater samples collected in alluvial wells TMW02 and TMW40S were recorded as 160 and 90 mg/L, respectively, while in bedrock well TMW40D were recorded as 1.9 mg/L during the April 2019 sampling event. The alluvial groundwater samples exhibit elevated nitrate concentrations while the bedrock groundwater sample does not. Similarly, the perchlorate concentrations in groundwater samples collected in alluvial wells TMW02 and TMW40S were recorded as 2.29 and 4.08 µg/L, respectively, while the concentration in the sample collected from the bedrock well TMW40D was recorded as 260 µg/L during the April 2019 sampling event. The bedrock groundwater sample exhibits elevated perchlorate concentration while the alluvial groundwater samples do not. Although each aquifer appears to be isolated and unaffected and well TMW02 does not appear to be a conduit, the Permittee may propose to submit a work plan to install a duplicate well within ten feet from the original location for verification purposes. However,

the Permittee must not abandon well TMW02 unless well TMW02 is confirmed to be a conduit.

In addition, the Permittee proposes to replace wells TMW40S and TMW40D to ensure well network coverage. However, wells TMW40S and TMW40D are functional and groundwater samples have been collected from these wells. The purpose of replacement is not clear. Provide a clarification in the response letter.

5. Permittee's Response to NMED's Approval with Modifications Comment 3, dated November 5, 2020

Permittee's Statement: "Army is requesting concurrence in installing a new bedrock background monitoring well in the vicinity of BGMW08, and is again proposing to decommission and replace BGMW08 due to consistent high turbidity, high matrix interference, and lack of water. Additionally, the very low recharge rate of BGMW08 does not produce sufficient volume to support collecting the analytical suite required by the monitoring program."

NMED Comment: The Permittee may propose to submit a work plan to install a new background monitoring well in the vicinity of BGMW08. However, the Permittee must not abandon well BGMW08 at this time. Retain well BGMW08 as a bedrock groundwater monitoring well and continue to monitor groundwater quality, as previously directed. If groundwater samples cannot be collected due to insufficient recharge, describe the sampling efforts in future groundwater monitoring reports.