



*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**



***Hazardous Waste Bureau***

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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

June 26, 2018

Mark Patterson  
BRAC Environmental Coordinator  
Fort Wingate Depot Activity  
13497 Elton Road  
North Lima, OH 44452

Steve Smith  
USACE  
CESWF-PER-DD  
819 Taylor Street, Room 3B06  
Fort Worth, TX 76102

**RE: DISAPPROVAL – REVOCATION OF APPROVAL WITH MODIFICATIONS  
RESPONSE TO FINAL GROUNDWATER SUPPLEMENTAL RCRA FACILITY  
INVESTIGATION WORK PLAN REVISION 4, ARMY’S RESPONSE TO  
COMMENTS, NEW MEXICO ENVIRONMENT DEPARTMENT APPROVAL  
WITH MODIFICATIONS LETTER DATED APRIL 18, 2018  
FORT WINGATE DEPOT ACTIVITY  
MCKINLEY COUNTY, NEW MEXICO  
EPA ID# NM6213820974  
HWB-FWDA-15-001**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final Groundwater Supplemental RCRA Facility Investigation Work Plan Revision 4, Army’s Response to Comments, New Mexico Environment Department Approval with Modifications letter* (Response Letter), dated May 22, 2018.

The Permittee was provided with an Approval with Modifications letter (AwM) on April 18, 2018, that approved the *Final Groundwater Supplemental RCRA Facility Investigation Work Plan Revision 4* (Work Plan) with specified modifications. The Permittee provided varied, but inadequate, reasons for not performing the modifications provided in the April AwM and proposed to perform the work originally outlined in Revision 4 of their Work Plan. Based on the Permittee’s dismissal of NMED’s required modifications, NMED hereby revokes its approval of the Work Plan. NMED has reviewed the Response Letter and provided comments. The Permittee

must address the following comments.

**The Permittee Response to NMED Comment 2**

The Permittee provided a response that included multiple inaccuracies and misleading information. Below, NMED presents quoted statements from the response and NMED's related comments.

- a) **Permittee Statement:** "Sporadic detections of organics have been recorded at well MW23 since the initial sampling conducted when the well was installed in 2011. MW24 has not had any detections of organics. The proposed location of BGMW11 is upgradient of MW24."

**NMED Comment:** The Permittee's statement is not accurate. The detected toluene concentration in the groundwater sample collected from well MW24 was 75 ug/L in April 2012. However, no organic contaminants have been detected in well MW24 in recent years. There are piezometers (e.g., PZ09) and water supply wells (e.g., Wingate 90) installed upgradient from the proposed location of BGMW11. Evaluate the use of these wells to screen for groundwater contamination in the revised Work Plan. If these wells are found acceptable for the use, propose to collect groundwater samples for analyses of organic constituents, perchlorate, and nitrate.

- b) **Permittee Statement:** "The intent of the background wells, such as BGMW11, is to assess the natural quality of groundwater with similar origins and from depths comparable to the water sampled within the alluvial groundwater monitoring wells. The alluvial groundwater monitoring wells within the northern plume are screened at depths comparable to MW24, not the deeper MW23. For the intended purpose as a background well, a single shallow well is appropriate."

**NMED Comment:** This statement is not accurate. The detections of contaminants in the groundwater samples collected from well MW23 indicate that the deeper groundwater may be the more contaminated zone within the alluvial formation. If two separate groundwater bearing zones are present within the formation, each zone must be investigated. In addition, not all alluvial groundwater monitoring wells within the northern plume are screened at depths comparable to MW24. Well MW23 is screened from 64 to 134 feet below ground surface (bgs) while well MW24 is screened from 16 to 66 feet bgs according to Appendix B in the *2011 and 2012 Monitoring Well Installation and Abandonment Report Version 1*, dated December 2012. Well TMW47, which was installed within the alluvium, is screened from 82.5 to 102.5 feet bgs. The screened interval of well TMW47 corresponds with that of well MW23, not MW24. Propose to investigate whether separate aquifers are present in the revised Work Plan. If both shallow and deep aquifers are distinctly present in the proposed location of well BGMW11, two separate background monitoring wells must be installed.



- c) **Permittee Statements:** “Reviewing water quality data from MW23 and MW24 since 2012 to current shows the values have been within a ten-percent range of each other.”  
“Though MW23 and MW24 are screened at different depths, the boring log from MW23 (attached) does not support the existence of two separate and distinct water-bearing zones.”

**NMED Comment:** The Permittee’s statement is not accurate. The water quality data is significantly different between wells MW23 and MW24. For example, the turbidity values for the groundwater in wells MW23 and MW24 were reported 96.46 and 0.08 NTU, respectively, in April 2015. Variances in the measurements between the two wells are expected to be present; however, the declarative statement is not supported by data. Similarly, soil boring logs for MW23 and MW24 indicate that water was detected at 75 and 14 feet bgs, respectively. The difference in the observed depths of saturation suggests potential presence of two separate aquifers in the region. Correct all declarative statements to be accurate and supported by the data. Both the water quality data and the boring logs suggest that there are two distinct aquifers within the alluvium at the proposed location of BGMW11.

- d) **Permittee Statement:** “MW23 has much different purpose as a sentinel well for a nearby private production well and has a well screen length and depth that is intentionally similar to that private well.”

**NMED Comment:** Wells Wingate 89, 90 and 91 are positioned upgradient from well MW23; therefore, well MW23 cannot serve as a sentinel well for these wells. If there is a production well downgradient from well MW23, provide detailed information regarding the production well in the revised Work Plan, including the boring log and well construction diagram. If the screened intervals of wells Wingate 89 and 90 are consistent with well MW23, propose to collect groundwater samples from these wells for analyses of organic constituents, perchlorate, and nitrate in the revised Work Plan. See Comment a.

- e) **Permittee Statement:** “The Army does not believe a separate investigation is needed proposes to forgo the investigation of multiple water bearing units within alluvium at the proposed BGMW11 location. The Army also proposes to install BGMW11 as stated in the above referenced work plan, with a targeted depth consistent with MW24, to achieve non-impacted native groundwater for the evaluation of groundwater background values.”

**NMED Comment:** Provide information regarding the depths of the screened intervals for piezometers PZ09 and PZ10. If the depths are consistent with the screened interval of MW24, propose to collect groundwater samples from these piezometers for analyses of organic constituents, perchlorate, and nitrate. See Comment a. If the analytes are not detected, the proposed location and depth of well BGMW11 may be appropriate for the evaluation of shallow groundwater background values. However, if two separate water bearing units are indicated within the formation, the evaluation of deep groundwater background values is warranted. Refer to Comment b.

f) **Figure 9-3**, Proposed Replacement Alluvial Background Wells

**NMED Comment:** The proposed location of well BGMW12 is depicted on the northwest corner of Parcel 14. In order to ensure that unaffected groundwater is collected for background evaluation, assess the possibility of installing well BGMW12 at the northeast corner of Parcel 14 or 25. Provide a discussion pertaining to the evaluation of alternative location in the revised Work Plan.

The Permittee must submit a revised Work Plan that addresses all comments contained in this Disapproval. For each submittal, the Permittee must include a response letter that cross-references where NMED's associated numbered comments were addressed. The Permittee must also submit an electronic redline-strikeout version of the revised Work Plan showing all changes that have been made to the Work Plan. The response letter must be submitted for NMED's review no later than **August 31, 2018**.

Should you have any questions, please contact Michiya Suzuki of my staff at (505) 476-6059.

Sincerely,



John E. Kieling, Chief  
Hazardous Waste Bureau  
New Mexico Environment Department

cc: D. Cobrain, NMED HWB  
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