



Memorandum

To: Lamb Lakes, M-2018-039, North Weld County Water District
Permit File

From: Bill Schenderlein

Date: February 13, 2023

Subject: Groundwater Monitoring

Dewatering of the groundwater pit lakes has not occurred and the Lamb Lakes groundwater monitoring plan has not been initiated. **No monitoring data is available at this time.**

For reference – From M-2018-039 permit file, Division of Reclamation, Mining and Safety (DRMS) Adequacy Review No. 2, dated October 16, 2018:

7. The applicant indicates specific alluvial groundwater conditions at the site are not available. In order to evaluate and monitor the impacts to the groundwater levels up-gradient, down-gradient and adjacent to the site, a baseline water monitoring plan and operational water monitoring plan will need to be devised. Please submit a groundwater level monitoring plan to include at a minimum:
 - i. Location of water monitoring wells. Please supply a map that accurately locates all proposed groundwater sample points.
 - ii. Monitoring well specification and completion information. If new wells will be installed, well completion information will need to be submitted after they are installed.
 - iii. Method of sampling and frequency of sampling. The Division will require quarterly sampling at a minimum.
 - iv. Reporting frequency to DRMS. The Division will require the operator to submit the water monitoring data each year with the annual report.
 - v. Trigger level for notification to DRMS and possible mitigation implementation. DRMS typically requires a permittee to notify the Division of a 2 foot change (rise or fall) of the seasonal high and low water level. Mitigation measures may then be implemented if necessary.
 - vi. A commitment to supply the baseline water level results to the Division prior to the installation of the slurry wall and/or pit dewatering. The Division will required at least five quarters of baseline water level sampling.
- b. **Blue Earth Solutions Response:** A monitoring plan was submitted following the recommendation presented in the Hydrologic Evaluation (Attachment B, adequacy response letter).
- c. **DRMS Response:** The Division has reviewed your response and the Hydrologic Evaluation submitted. Please address the following:
 - i. Please commit to submitting a Technical Revision, to the groundwater monitoring plan when the baseline groundwater levels have been collected and prior to initiating dewatering, mining or slurry wall construction. This revision shall include the results of the baseline water sampling, final well locations and construction information and proposed trigger points for possible mitigation.
 - ii. For any well located west of the river within 650 feet of the pit edge please attempt to obtain background water levels in these wells. This information should be included in the Technical Revision discussed above.
 - iii. Given the proximity of the pit edge to wells 60245, 150, 596, 595 and 15007, the Division will require water monitoring to occur on a monthly basis during dewatering. Please revise the groundwater monitoring plan to include monthly monitoring during dewatering.