



ADMINISTRATIVE RULES OF MONTANA

17.24.645 GROUND WATER MONITORING

- (1) Ground water levels, subsurface flow and storage characteristics, and the quality of ground water must be monitored based on information gathered pursuant to ARM 17.24.304 and the monitoring program submitted pursuant to ARM 17.24.314 and in a manner approved by the department to determine the effects of strip or underground mining operations on the recharge capacity of reclaimed lands and on the quantity and quality of water in ground water systems in the permit and adjacent areas. When operations may affect the ground water system, ground water levels and ground water quality must be periodically monitored using wells that can adequately reflect changes in ground water quantity and quality resulting from such operations. The information must be submitted to the department in a format approved by the department.
- (2) Monitoring must:
 - (a) include the measurement of the quantity and quality of water in all disturbed or potentially affected geologic strata within and adjacent to the permit area. Affected strata are all those adjacent to or physically disturbed by mining disturbance and any aquifers below the base of the spoils that could receive water from or discharge water to the spoils. Monitoring must be of sufficient frequency and extent to adequately identify changes in ground water quantity and quality resulting from mining operations; and
 - (b) be adequate to plan for modification of strip or underground mining operations, if necessary, to minimize disturbance of the prevailing hydrologic balance.
- (3) The department may require the permittee to expand the ground water monitoring system whenever a significant impact to the hydrologic balance of the permit and adjacent area is likely and the expanded monitoring is needed to adequately monitor the ground water system. As specified and approved by the department, additional observations and analyses, such as infiltration tests and aquifer tests, must be undertaken by the permittee to demonstrate compliance with this rule.
- (4) Whenever an applicant demonstrates by the use of the probable hydrologic consequences determination (see ARM 17.24.314) and other available information that a particular water bearing stratum in the proposed permit or adjacent areas does not have a significant role in maintaining the hydrologic balance within the cumulative impact area, the department may waive monitoring of that stratum.
- (5) Ground water monitoring must proceed through mining and continue until phase IV bond release. The department may allow modification of the monitoring requirements, except those required by the Montana pollutant discharge elimination system permit, including the parameters covered and sampling frequency, if the operator or the department demonstrates, using the monitoring data obtained under this rule, that:

- (a)
 - (i) the operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area;
 - (ii) water quantity and quality are suitable to support approved postmining land uses; and
 - (iii) the water rights of other users have been protected or replaced;
 - (b) monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under this rule; or
 - (c) with regard to monitoring related to an alluvial valley floor, monitoring of the essential hydrologic function of the alluvial valley floor is ensured under the modified program.
- (6) Methods of sample collection, preservation, and sample analysis must be conducted in accordance with 40 CFR Part 136 titled "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (July 2015) and the department's document titled "Department Circular DEQ-7, Montana Numeric Water Quality Standards," June 2019 edition. Copies of Department Circular DEQ-7 are available at the Department of Environmental Quality, 1520 E. 6th Ave., P.O. Box 200901, Helena, MT 59620-0901. Sampling and analyses must include a quality assurance program acceptable to the department.
- (7) Whenever monitoring reveals noncompliance with the permit, the Act, or the rules adopted thereunder, the permittee shall immediately take steps to minimize adverse effects. Those steps include, but are not limited to, accelerated or additional monitoring, abatement, and warning of all persons whose health or safety is in imminent danger. The permittee shall, within five days of discovery of noncompliance, notify the department of noncompliance and remedial measures taken.
- (8) Results of ground water monitoring activities must be reported to the department semiannually, and all monitoring data must be maintained on a current basis for inspection at the mine office. Any sample results indicating a permit violation must be reported to the department within five days of receipt of results.

Authorizing statute(s): 82-4-205, MCA

Implementing statute(s): 82-4-231, 82-4-232, MCA

History: NEW, 1980 MAR p. 725, Eff. 4/1/80; AMD, 1989 MAR p. 30, Eff. 1/13/89; AMD, 1994 MAR p. 2957, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 3042; AMD, 1999 MAR p. 811, Eff. 4/23/99; AMD, 1999 MAR p. 2768, Eff. 12/3/99; AMD, 2004 MAR p. 2548, Eff. 10/22/04; AMD, 2012 MAR p. 737, Eff. 4/13/12; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2017 MAR p. 602, Eff. 5/13/17; AMD, 2019 MAR p. 826, Eff. 6/22/19; AMD, 2024 MAR p. 258, Eff. 2/10/24.