

## IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

### 58.01.11 - GROUND WATER QUALITY RULE

#### DOCKET NO. 58-0111-0801 (FEE RULE)

#### NOTICE OF RULEMAKING - PROPOSED RULE

**AUTHORITY:** In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized by Sections 39-105, 39-107, 39-120, and 39-126, Idaho Code.

**PUBLIC HEARING SCHEDULE:** No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency.

Written requests for a hearing must be received by the undersigned on or before August 20, 2008. If no such written request is received, a public hearing will not be held.

**DESCRIPTIVE SUMMARY:** The purpose of this rulemaking is to clarify portions of the Ground Water Quality Rule to promote consistency in application of the rule to mining activities. The proposed rule addresses the following issues:

1. Adds definitions necessary to improve statewide consistency with interpretation and implementation of mining provisions of the Ground Water Quality Rule;
2. Develops a procedure and process to follow for setting the point(s) of compliance for ground water quality related issues at mining areas;
3. Ground water monitoring at mining areas;
4. Applicability of rule changes; and
5. Imposes a fee on mine operators making an application with the Department of Environmental Quality (DEQ) to set the ground water quality point(s) of compliance.

Mining industry, conservation groups, environmental protection groups, state and federal land management agencies, and concerned citizens of the state of Idaho may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality at the October 2008 Board meeting for adoption as a pending rule. The rule is expected to be final and effective upon the conclusion of the 2009 legislative session if adopted by the Board and approved by the Legislature.

**FEE SUMMARY:** This proposed rule includes a requirement that applicants submit a \$2500 fee at the time the application is submitted to DEQ (Subsection 401.02.a.). Imposition of the fee is authorized by Section 39-119, Idaho Code.

**NEGOTIATED RULEMAKING:** The text of the proposed rule has been drafted based on discussions held and concerns raised during negotiations conducted pursuant to Idaho Code Section 67-5220 and IDAPA 04.11.01.812-815. On April 2, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-4, pages 38 and 39, and a preliminary draft rule was made available for public review. Meetings were held on April 23, May 7, May 21, June 4, and June 30, 2008. Several members of the public participated in this negotiated rulemaking process by attending the meetings and by submitting written comments.

**IDAHO CODE SECTION 39-107D STATEMENT:** Section 39-107D, Idaho Code, also applies to a rule which "proposes to regulate an activity not regulated by the federal government." This rule amends portions of the Ground Water Quality Rule that address mining activities. Mining activities are regulated by the federal government. The federal government, however, does not have a regulatory program that specifically sets standards to protect ground water quality and beneficial uses of ground water as the Ground Water Quality Rule does. For this reason, DEQ believes Section 39-107D is applicable and that the amendments to the rule describe aspects of mining activities not regulated by the federal government.

The following is a summary of additional information required by Sections 39-107D(3) and (4), Idaho Code. Information relating to Section 39-107D(2) has also been provided.

**Section 39-107D(2)(a), Idaho Code.** *To the degree that a department action is based on science, the department shall utilize the best available peer reviewed science and supporting studies conducted in accordance with sound objective scientific practices.*

The proposed rule changes were initiated for clarification purposes rather than for reasons based on new scientific information. By clarifying the language in the Ground Water Quality Rule, DEQ is facilitating more efficient implementation of the Ground Water Quality Plan and the Ground Water Quality Rule thereby reducing the economic burden on the regulated community. Improved rules also allow the public to better understand the requirements imposed on the regulated community to protect human health and the environment. Thus, the changes to the rule describe an administrative process to determine the application of the Ground Water Quality Rule to mining activities. The administrative process requires the application of sound science and identifies the scientific factors that must be considered and analyzed by mining companies and DEQ when making decisions. DEQ has relied upon its experience, the experience of federal agencies, and input from mining companies and environmental organizations in drafting the proposed changes to the rule.

**Section 39-107D(2)(b), Idaho Code.** *To the degree that a department action is based on science, the department shall utilize data collected by accepted methods or best available methods if the reliability of the method and the nature of the decision justifies use of the data.*

This provision is not applicable because the proposed rule changes are based on clarifying existing rule language. Please see explanation above.

**Section 39-107D(3), Idaho Code.** *Any proposed rule subject to this section which proposes a standard necessary to protect human health and the environment shall also include in the rulemaking record requirements under chapter 52, title 67, Idaho Code, the following additional information:*

- (a) Identification of each population or receptor addressed by an estimate of public health effects or environmental effects;*
- (b) Identification of the expected risk or central estimate of risk for the specific population or receptor;*
- (c) Identification of each appropriate upper bound or lower bound estimate of risk;*
- (d) Identification of each significant uncertainty identified in the process of the assessment of public health effects or environmental effects and any studies that would assist in resolving the uncertainty; and*
- (e) Identification of studies known to the department that support, are directly relevant to, or fail to support any estimate of public health effects or environmental effects and the methodology used to reconcile inconsistencies in the data.*

The proposed changes to the rule set up an administrative process for DEQ to work with the mine operator and other interested persons to determine, on a site-specific basis, the application of the standards in the Ground Water Quality Rule in order to protect human health and the environment. This administrative process is not itself based upon any analysis of risk to specific populations or receptors, but rather sets out a process by which the risk to human health and the environment will be evaluated by DEQ as it reviews a specific mining site. Therefore, DEQ has no additional information relevant to this rulemaking pursuant to Section 39-107D(3).

**FISCAL IMPACT STATEMENT:** The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year: Not applicable.

**ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS:** For assistance on questions concerning the proposed rulemaking, contact Ed Hagan at ed.hagan@deq.idaho.gov, (208)373-0356.

Anyone can submit written comments by mail, fax or e-mail at the address below regarding this proposed rule. The Department will consider all written comments received by the undersigned on or before September 3, 2008.

Dated this 3rd day of July, 2008.

Paula J. Wilson  
Hearing Coordinator  
Department of Environmental Quality

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THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0111-0801

007. DEFINITIONS.

01. **Agricultural Chemical.** Any pesticide, nutrient or fertilizer used for the benefit of agricultural production or pest management. (3-20-97)

02. **Aquifer.** A geological unit of permeable saturated material capable of yielding economically significant quantities of water to wells and springs. (3-20-97)

03. **Beneficial Uses.** Various uses of ground water in Idaho including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, aquacultural water supplies, and mining. A beneficial use is defined as actual current or projected future uses of ground water. (3-20-97)

04. **Best Available Method.** Any system, process, or method which is available to the public for commercial or private use to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

05. **Best Management Practice.** A practice or combination of practices determined to be the most effective and practical means of preventing or reducing contamination to ground water and interconnected surface water from nonpoint and point sources to achieve water quality goals and protect the beneficial uses of the water. (3-20-97)

06. **Best Practical Method.** Any system, process, or method that is established and in routine use which could be used to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

07. **Board.** The Idaho Board of Environmental Quality. (3-20-97)

08. **Cleanup.** The removal, treatment or isolation of a contaminant from ground water through the directed efforts of humans or the removal or treatment of a contaminant in ground water through management practice or the construction of barriers, trenches and other similar facilities for prevention of contamination, as well as the use of natural processes such as ground water recharge, natural decay and chemical or biological decomposition. (3-20-97)

09. **Constituent.** Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance occurring in ground water. (3-20-97)

10. **Contaminant.** Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance which does not occur naturally in ground water or which naturally occurs at a lower concentration. (3-20-97)

11. **Contamination.** The direct or indirect introduction into ground water of any contaminant caused in whole or in part by human activities. (3-20-97)

12. **Crop Root Zone.** The zone that extends from the surface of the soil to the depth of the deepest crop root and is specific to a species of plant, group of plants, or crop. (3-20-97)

13. **Degradation.** The lowering of ground water quality as measured in a statistically significant and reproducible manner. (3-20-97)

14. **Department.** The Department of Environmental Quality. (3-20-97)

15. **Extraction.** Physical removal of ore or waste rock from mineral-bearing deposits. Extraction does not include processing, which is the removal of target minerals from ores by physical or chemical methods. ( )

**156. Ground Water.** Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (3-20-97)

**167. Ground Water Quality Standard.** Values, either numeric or narrative, assigned to any constituent for the purpose of establishing minimum levels of protection. (3-20-97)

**178. Highly Vulnerable Ground Water.** Ground water characterized by a relatively high potential for contaminants to enter and/or be transported within the flow system. Determinations of ground water vulnerability will include consideration of land use practices and aquifer characteristics. (3-20-97)

**189. Irreplaceable Source.** A ground water source serving a beneficial use(s) where the reliable delivery of comparable quality and quantity of water from an alternative source in the region would be economically infeasible or precluded by institutional constraints. (3-20-97)

**20. Mine Operator.** Any person authorized to engage in mining activities, including without limitation those authorized by law, lease, contract, permit, or plan of operation. It does not include a governmental agency that grants mineral leases or similar contracts or permits unless the agency is engaged in mining activities. ( )

**21. Mining Activity.** Recovery of a mineral from mineral-bearing deposits, which includes reclamation, extraction, excavation, overburden placement, and disposal of mineral extraction wastes, including tailings that are the result of extraction, waste rock, and other extraction wastes uniquely associated with mining. ( )

**22. Mining Area.** The area on or within which one (1) or more mining activities occur. The Department shall determine the boundaries of the mining area as provided in Section 401. ( )

**23. Natural Background Level.** The level of any constituent in the ground water within a specified area as determined by representative measurements of the ground water quality unaffected by human activities. (3-20-97)

**204. Person.** Any individual, association, partnership, firm, joint stock company, joint venture, trust, estate, political subdivision, public or private corporation, state or federal governmental department, agency or instrumentality, or any legal entity which is recognized by law as the subject of rights and duties. (3-20-97)

**25. Point of Compliance.** The vertical surface where the Department determines compliance with ground water quality standards as provided in Subsection 400.05 and Section 401. ( )

**246. Practical Quantitation Level.** The lowest concentration of a constituent that can be reliably quantified among laboratories within specified limits of precision and accuracy during routine laboratory operating conditions. Specified limits of precision and accuracy are the criteria listed in the calibration specifications or quality control specifications of an analytical method. (3-20-97)

**227. Projected Future Beneficial Uses.** Various uses of ground water, such as drinking water, aquaculture, industrial, mining or agriculture, that are practical and achievable in the future based on hydrogeologic conditions, water quality, future land use activities and social/economic considerations. (3-20-97)

**238. Recharge Area.** An area in which water infiltrates into the soil or geological formation from, including but not limited to precipitation, irrigation practices and seepage from creeks, streams, and lakes, and percolates to one (1) or more aquifers. (3-20-97)

**29. Reclamation.** The process of restoring an area affected by a mining activity to its original or another beneficial use, considering previous uses, possible future uses, and surrounding topography. The objective is to re-establish a diverse, self-perpetuating plant community, and to minimize erosion, remove hazards, and maintain water quality. ( )

**2430. Remediation.** Any action taken (1) to control the source of contamination, (2) to reduce the level

of contamination, (3) to mitigate the effects of contaminants, and/or (4) to minimize contaminant movement. Remediation includes providing alternate drinking water sources when needed. (3-20-97)

**2531. Site Background Level.** The ground water quality at the hydraulically upgradient site boundary. (3-20-97)

**(BREAK IN CONTINUITY OF SECTIONS)**

**400. GROUND WATER CONTAMINATION.**

**01. Releases Degrading Ground Water Quality.** No person shall cause or allow the release, spilling, leaking, emission, discharge, escape, leaching, or disposal of a contaminant into the environment in a manner that: (3-20-97)

**a.** Causes a ground water quality standard to be exceeded; (3-20-97)

**b.** Injures a beneficial use of ground water; or (3-20-97)

**c.** Is not in accordance with a permit, consent order or applicable best management practice, best available method or best practical method. (3-20-97)

**02. Prevention Measures.** (3-20-97)

**a.** When a numerical standard is not exceeded, but degradation of ground water quality is detected and deemed significant by the Department, the Department shall take one (1) or more of the following actions: (3-20-97)

**i.** Require a modification of regulated activities to prevent continued degradation; (3-20-97)

**ii.** Coordinate with the appropriate agencies and responsible persons to develop and implement prevention measures for activities not regulated by the Department; (3-20-97)

**iii.** Allow limited degradation of ground water quality for the constituents identified in Subsection 200.01.a. if it can be demonstrated that: (3-30-07)

(1) Best management practices, best available methods or best practical methods, as appropriate for the aquifer category, are being applied; and (3-20-97)

(2) The degradation is justifiable based on necessary and widespread social and economic considerations; or (3-20-97)

**iv.** Allow degradation of ground water quality up to the standards in Subsection 200.01.b., if it can be demonstrated that: (3-20-97)

(1) Best management practices are being applied; and (3-20-97)

(2) The degradation will not adversely impact a beneficial use. (3-20-97)

**b.** The following criteria shall be considered when determining the significance of degradation: (3-20-97)

**i.** Site specific hydrogeologic conditions; (3-20-97)

**ii.** Water quality, including seasonal variations; (3-20-97)

- iii. Existing and projected future beneficial uses; (3-20-97)
- iv. Related public health issues; and (3-20-97)
- v. Whether the degradation involves a primary or secondary constituent in Section 200. (3-20-97)

**03. Contamination Exceeding a Ground Water Quality Standard.** The discovery of any contamination exceeding a ground water standard that poses a threat to existing or projected future beneficial uses of ground water shall require appropriate actions, as determined by the Department, to prevent further contamination. These actions may consist of investigation and evaluation, or enforcement actions if necessary to stop further contamination or clean up existing contamination, as required under the Environmental Protection and Health Act, Section 39-108, Idaho Code. (3-20-97)

**04. Agricultural Chemicals.** Agricultural chemicals found in intermittently saturated soils within the crop root zone will not be considered ground water contaminants as long as the chemicals remain within the crop root zone, and have been applied in a manner consistent with all appropriate regulatory requirements. (3-20-97)

**05. Site-Specific Ground Water Quality Levels or Points of Compliance.** The Department may allow site-specific ground water quality levels, for any aquifer category, that vary from a standard(s) in Section 200 or Section 300, or may allow site-specific points of compliance, based on consideration of effects to human health and the environment, for: (3-20-97)( )

- a. Remediation conducted under the Department's oversight; (3-20-97)
- b. Permits issued by the Department; (3-20-97)
- c. Situations where the site background level varies from the ground water quality standard; ~~or~~ (3-20-97)( )
- d. Dissolved concentrations of secondary constituents listed in Section 200 of this rule. The Department may allow the use of dissolved concentrations for secondary constituents if the requesting person demonstrates that doing so will not adversely affect human health and the environment; or ( )
- ~~e.~~ Other situations authorized by the Department in writing. (3-20-97)

~~**06. Mineral Extraction.** Naturally occurring constituents found in ground water within a specified area surrounding an active mineral extraction area, as determined by the Department, will not be considered contaminants as long as all applicable best management practices, best available methods or best practical methods, as approved by the Department, are applied. (7-1-98)~~

**401. MINING.**

**01. Request for Setting Point(s) of Compliance.** At the request of a mine operator, the Department shall set a point of compliance, or points of compliance, at which the mine operator must meet the ground water quality standards as described in Subsection 150.01. If a request is not made, the mine operator must meet the ground water quality standards in ground water both within and beyond the mining area unless the Department establishes the point(s) of compliance consistent with Subsection 401.03. Mining activities must be managed using the level of protection appropriate for the aquifer category in accordance with Subsection 150.02 and Section 301. ( )

**02. Application Process.** ( )

**a.** If the mine operator requests a point of compliance, or points of compliance, the mine operator shall make written application to the Department. The application shall be accompanied by a fee of two thousand five hundred dollars (\$2,500). The application shall include the following information in sufficient detail to allow the Department to establish point(s) of compliance: ( )

- i. Name, location, and mailing address of the mining operation; ( )

- ii. Name, mailing address, and phone number of the mine operator; ( )
- iii. Land ownership status of the mining operation (federal, state, private or public); ( )
- iv. The legal structure (corporation, partnership, etc.) and residence of the mine operator; ( )
- v. The legal description, to the quarter-quarter section, of the location of the proposed mining operation; ( )
- vi. Evidence the mine operator is authorized by the Secretary of State to conduct business in the state of Idaho; ( )
- vii. A general description of the operational plans for the mining operation from construction through final reclamation. This description shall include any proposed phases for construction, operations, and reclamation and a map that identifies the location of all mining activities; ( )
- viii. A preconstruction topographic site map or aerial photos extending at least one (1) mile beyond the outer limits of the mining area, identifying and showing the location and extent of the following features: ( )
  - (1) All wells, perennial and intermittent springs, adit discharges, wetlands, surface waters and irrigation ditches; ( )
  - (2) All public and private drinking water supply source(s) within one (1) mile of the mining area; ( )
  - (3) All service roads and public roads; ( )
  - (4) All buildings and structures within one (1) mile of the mining area; ( )
  - (5) All special resource waters within one (1) mile of the mining area; and ( )
  - (6) All Clean Water Act Section 303(d) listed streams, and their listed impairments, within one (1) mile of the mining area; ( )
- ix. To the extent such information is available, a description and location of underground mine workings and adits and a description of the structural geology that may influence ground water flow and direction; ( )
- x. Information regarding the relevant factors set forth in Subsection 401.03; and ( )
- xi. A proposed point of compliance, or points of compliance. ( )
- b.** Within thirty (30) days of receipt of an application, the Department shall issue a written notice to the mine operator indicating; ( )
  - i. That the application is complete; or ( )
  - ii. That the Department is rejecting the application as incomplete. In such a case, the Department shall provide a list of deficiencies. Upon a determination that the application is incomplete, the Department shall refund one-half (1/2) of the application fee. ( )
- c.** The Department shall establish the point(s) of compliance within one hundred eighty (180) days after receipt of a complete application unless the Department determines that additional time is necessary due to unusual circumstances. ( )

**03. Setting the Point(s) of Compliance.** The point(s) of compliance shall be set as close as possible to

the boundary of the mining area, taking into consideration the relevant factors set forth in Subsections 401.03.i through 401.03.viii., but in no event shall the point(s) of compliance be within the boundary of the mining area. The mining area boundary means the outermost perimeter of the mining area (projected in the horizontal plane) as it would exist at the completion of the mining activity. The point(s) of compliance shall be set so that, outside the mining area boundary, there is no injury to current or projected future beneficial uses of ground water and there is no violation of water quality standards applicable to any interconnected surface waters. The Department's determination regarding the point(s) of compliance shall be based on an analysis and consideration of all relevant factors including, but not limited to: ( )

**a.** The hydrogeological characteristics of the mining area and surrounding land, including any dilution characteristics of the aquifer and any natural attenuation supported by site-specific data; ( )

**b.** The concentration, volume, and physical and chemical characteristics of contaminants resulting from the mining activity, including the toxicity and persistence of the contaminants; ( )

**c.** The quantity, quality, and direction of flow of ground water underlying the mining area; ( )

**d.** The proximity and withdrawal rates of current ground water users; ( )

**e.** A prediction of projected future beneficial uses; ( )

**f.** The availability of alternative drinking water supplies; ( )

**g.** The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water; and ( )

**h.** Public health, safety, and welfare effects. ( )

**04. Ground Water Monitoring and Reporting.** The Department may require ground water monitoring and reporting whenever the Department sets the point(s) of compliance. The Department shall not require ground water monitoring that duplicates ground water monitoring required by other state or federal agencies as long as the mine operator provides the data to the Department. ( )

**a.** A ground water monitoring system required under Subsection 401.04 shall be designed to: ( )

**i.** Represent the quality of background ground water that has not been affected by the mining activity; ( )  
and

**ii.** Represent the quality of ground water passing the point(s) of compliance in order to determine compliance with ground water quality standards or effectiveness of best management practices. ( )

**b.** When practicable, indicator monitoring wells or other devices may be required. Such indicator wells and other devices shall not be used to determine compliance with the ground water quality standards, but instead may be used to evaluate modeling results, to predict the quality of ground water at the point(s) of compliance, or to determine the effectiveness of best management practices. ( )

**c.** All monitoring wells shall be constructed (well depth, well screen size, well screen interval, gravel pack, etc.) and developed so that ground water samples represent the quality of ground water that is relevant to current and future beneficial uses. ( )

**05. Coordination with Other State or Federal Agencies/Public Notice.** Before setting the point(s) of compliance or requiring ground water monitoring, the Department shall coordinate with and seek recommendations from other state or federal agencies that have regulatory authority over the mining activities. The Department may provide public notice and an opportunity for public comment prior to setting the point(s) of compliance. The Department shall issue a public notice after it sets the point(s) of compliance. ( )

**06. Limitations.** Section 401 addresses only those contaminants that naturally occur in the mining area

ground water or in the surrounding rock or soil and are present in concentrations above the natural background level as a result of mining activities. ( )

**07. Application of Provisions.** The provisions set out in Section 401 apply to new mining activities or to an expansion of existing mining activities commencing after July 1, 2009. All consent orders, compliance schedules, and other agreements adopted or issued by the Department prior to July 1, 2009 pertaining to ground water protection at mine sites shall remain in full force and effect. ( )

**08. Change in Point(s) of Compliance/Ground Water Monitoring.** ( )

**a.** A change in the point(s) of compliance may be requested by the mine operator when there is a change in, or new information regarding, the mining activity or any of the factors set forth in Subsection 401.03. A change requested by the mine operator shall include an identification of the new proposed point(s) of compliance, a description of the cause for the change and any data supporting the change. The mine operator's request shall be handled as an application submitted pursuant to Subsection 401.02.a. and shall be subject to all other provisions of Section 401. ( )

**b.** The Department may initiate a change in the point(s) of compliance if there is a change in, or new information regarding, the mining activity or any of the factors set forth in Subsection 401.03, and the Department determines that the change is necessary to ensure there is no injury to current or projected future beneficial uses of ground water and no violation of water quality standards applicable to any interconnected surface waters. The Department shall notify the mine operator in writing of the Department's intent to change the point(s) of compliance. The Department shall make its final decision to change the point(s) of compliance within sixty (60) days of the notice to the mine operator unless the Department and the mine operator agree more time is necessary to make the decision. ( )

**c.** The Department may require additional or new ground water monitoring or indicator wells when the Department changes the point(s) of compliance. The Department may also require additional or different ground water monitoring or indicator wells if the Department determines, based upon a change in or new information regarding the mining activity or any of the factors listed in Subsection 401.03, that the monitoring no longer meets the requirements set forth in Subsection 401.04. The mine operator may also request a change in the monitoring. ( )

**401.2. -- 999. (RESERVED).**