

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

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TO: Water Quality Control Commission

FROM: Loretta Pineda, Division Director
David Berry, Director, Office of Mined Land Reclamation
Division of Reclamation, Mining and Safety

DATE: December 11, 2012

RE: FY 2011-2012 SB 89-181 Annual Report

The Division of Reclamation, Mining and Safety (DRMS) is pleased to submit its SB 89-181 Report for FY 2011-2012. DRMS continues to implement the statutorily mandated roles of promoting the development and use of Colorado's mineral and energy resources while protecting the public health, safety and the environment.

We appreciate the working relationship between DRMS staff and the Water Quality Control Division.

Attachments

SB 89-181 Annual Report FY 2011-2012

This annual report to the Water Quality Control Commission (WQCC) is required under the provisions of SB 89-181 and the Memorandum of Understanding (MOU) adopted by the Mined Land Reclamation Board (MLRB) and the WQCC. The Division of Reclamation, Mining and Safety (DRMS) is an implementing agency under the provisions of SB 89-181. As such, DRMS is responsible for ensuring that mine operators comply with state ground water quality standards. It is the responsibility of the WQCC to classify waters of the state and set standards for those classified waters.

If the WQCC has not set site specific ground water standards, DRMS is to use the numeric protection levels, referenced in the WQCC adopted narrative ground water standards, to set appropriate permit conditions to protect ground water uses.

Minerals Program

DRMS analyzes all operations that have the potential to be classed as Designated Mining Operations (DMO) to ensure that their operations are protective of ground waters. Under HB 08-1161, all conventional and in situ uranium mines have DMO status. DRMS also requires non-DMO mining operations, including some aggregate operations, to initiate ground water sampling where there is a potential for impacts to ground water quality.

As of this reporting period, the Minerals Program requires approximately 28 mine sites to conduct some type of ground water quality monitoring. Of these sites, 23 are hard rock mining operations, and five are construction material extraction operations.

(Please see the attached table for specific information about these sites.)

Coal Program

The DRMS Coal Program serves as the primary regulatory authority for coal mines in Colorado and functions under the Colorado Surface Coal Mining Reclamation Act (C.R.S. 34-33-101 et. seq.). In 1990, the Department of Public Health and Environment and the Department of Natural Resources entered into a "Memorandum of Agreement for the Implementation of SB 89-181 Amendments to the Colorado Water Quality Control Act Pertaining to the Regulation of Coal Mines." Section 5.1(h) of the Agreement requires that the DRMS Coal Program provide an annual update of its activities pertaining to water quality matters to the Water Quality Control Commission. This Annual Report describes the Coal Program's accomplishments during the last year, and objectives for the next year.

The Colorado Coal Program currently regulates a total of forty one coal mines, of which ten are actively producing mines and two are under construction, and one is an

active load out facility. A summary list of the mines is attached. The producing mines are both surface pit and underground operations. Twenty-one mines are in various phases of reclamation or temporary cessation. Six mines are reclaimed sites for which the permits were revoked. One new underground mine permit was recently approved, but the bond has not been posted, so permit issuance has not yet occurred pending bond submittal.

One new permit (load out) was recently issued but construction has not yet begun. Approximately 70 percent of Colorado's coal production derives from underground operations. The predominant method of underground mining is longwall mining.

An overview of the current active operations is included.

Accomplishments

During the 2011 - 2012 reporting period, the Coal Program accomplished the following functions:

1. The Coal Program effectively implemented various rules pertaining to ground water protection at Colorado coal mines. The Coal Program's current requirements for monitoring and detailed pre-disturbance permitting will continue to provide proper ground water quality protection.
2. The Coal Program conducted reviews of Annual Hydrologic Reports submitted by operators. This allows for timely identification of hydrology sampling anomalies and deficiencies, in addition to water quantity and quality trends.
3. The Coal Program continued to focus coal mine permitting activities on minimization of impacts to the hydrologic balance and prevention of material damage. These activities included the ongoing review and update of Cumulative Hydrologic Impact Analyses (CHIA).
4. The Coal Program continued to focus regular coal mine field inspections and monitoring activities on minimization of impacts to the hydrologic balance and prevention of material damage. During FY 2012, the Coal Program conducted 443 inspections.
5. The Coal Program and WQCD communicated periodically during the last year to discuss specific issues of mutual concern.

Objectives

1. The existing Cumulative Hydrologic Impact Analyses for the various river basins that contain coal mining will be reviewed and upgraded on an ongoing basis.

2. The Coal Program will continue to focus regular field inspection and monitoring activities, as well as permitting activities, on minimization of impacts to the hydrologic balance and prevention of material damage.
3. The Coal Program will continue to communicate with the WQCD, as needed, for the purpose of discussing and resolving issues of mutual concern.

Abandoned Mine Land Program

Nonpoint Source and Water Quality Improvement Projects

Since October 2011, construction work was completed or underway on eight mining-related water quality improvement projects. Completed projects include the Koehler Tunnel grouting project, Eveline Mine water treatment demonstration, Rico –Argentine Mine underground rehabilitation and investigation, the Pennsylvania Mine underground workings and portal rehab, Cinnamon Gulch water quality improvements (three mine sites), Tiger Tunnel repository maintenance, Sts John Tailings reclamation, and the Redwell Basin core-hole reclamation investigation. Additional investigations, characterization and project design work continue at 15 other partially completed or developing future water quality improvement projects.

In addition to these projects, the DRMS provides technical assistance to watershed groups and federal agency partners, and provides matching funds for additional projects sponsored by those groups. In 2012, DRMS and CDPHE continued implementing the statewide initiative to develop and bring mining related water quality improvement projects to a “shovel-ready” state on priority watersheds, using funding from the State Power Authority. The first of these projects is now under construction at the Sts John Mine above Montezuma in Summit County, where historic mill tailings are being reclaimed and wetlands re-established. Six other sites identified in the first phase initiative have been characterized and are in design, and six additional mining-impacted watersheds were added for characterization and assessment.

Additionally, Phase 1 of the 2011 CDPHE-DRMS initiative to inspect, and improve or make repairs to previously constructed mine waste and tailings reclamation projects conducted under the Non Point Source Program was performed in summer 2012. Inspections and documentation of the conditions at over 30 previously reclaimed sites, some dating back to 1989, were completed in 2012. All of the relatively few identified maintenance needs are slated for implementation in Spring-Summer 2013.

The NPS table includes details of these projects.