

# 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: October 14, 2011**

**RE: FY 2010-2011 SB 89-181 Annual Report**

The Division of Reclamation, Mining and Safety (DRMS) is pleased to submit its SB 89-181 Report for FY 2010-2011. 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 2010-2011**

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. 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.

### **Minerals Program**

As of this reporting period, the Minerals Program requires approximately 25 mine sites to conduct some type of ground water quality monitoring. Of these sites, 19 are hard rock mining operations, and six are construction material extraction operations. (Please see Table 1 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 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. Two new applications (one load out and one surface mine) are in review. Approximately 70 percent of Colorado's coal production derives from underground operations. The predominant method of underground mining is longwall mining.

### Accomplishments

During the 2010 - 2011 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 2010, the Coal Program conducted 396 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**

Construction was completed, or is nearing completion, on six Non-Point-Source (NPS) mining-reclamation projects since September 2009. Completed projects include the Ute-Ulay Tailings Reclamation Project, the Dinero Tunnel Bulkhead Project, the Tiger Tunnel Mine Waste Reclamation Project, the Carbonero Mine Flume Installation project, the Silver Ledge Project, and the Gilson Gulch Water Quality Improvement Project. Investigation, characterization and project design work continues at the Pennsylvania Mine Drilling Investigation project, the Cinnamon Gulch Project, the Standard Mine Underground Investigation Project, the Upper Trail Creek Project, the Amethyst Project and the Nelson Tunnel Source Controls Investigation. The attached NPS table includes details of these projects.

In addition to these projects, the DRMS provides technical assistance to watershed groups and provides matching funds for additional projects. These include the Sugarloaf Mountain, Little Frying Pan, and Venture mine projects in the Lake Fork of the Arkansas; the Porphyry Mountain project in the Lefthand Creek Watershed and work with watershed groups in the San Miguel and the Willow Creek watersheds.