

**STATEMENT OF BASIS AND PURPOSE FOR THE NOVEMBER 19, 2010  
RULEMAKING TO AMEND RULE 5.2.5.2 OF THE RULES AND  
REGULATIONS FOR THE MANAGEMENT AND CONTROL OF DESIGNATED  
GROUND WATER, RULE 2 C.C.R. 410-1**

**I. STATEMENT OF BASIS**

The only area of the alluvial aquifer of the Lost Creek Designated Basin that is currently not determined to be overappropriated under the Rules and Regulations for the Management and Control of Designated Ground water is located North of the line between Township 2 North and Township 3 North and West of the line between Range 61 West and Range 62 West, and is referred to herein as the alluvial aquifer in the Northern Area of the Lost Creek Designated Basin, [or simply the Northern Area].

Data demonstrates that the net average annual rate of depletion of ground water in the alluvial aquifer in the Northern Area of the Lost Creek Designated Basin is in excess of the allowable net average annual depletion rate because:

- a. depletions from the alluvial aquifer by wells currently permitted to pump are materially in excess of the reasonably anticipated average rate of future recharge; and
- b. new depletions from additional wells would result in the unreasonable lowering of the water table and existing water rights would experience unreasonable impairment.

Therefore the conditions of the aquifer warrant a determination that the aquifer is overappropriated and that a replacement plan is required for issuance of new large capacity well permits therein.

**A. Specific Statutory Authority**

The Commission's Rules and any amendments thereto are promulgated pursuant to Section 37-90-111 (1)(h), C.R.S. to carry out the authority and responsibilities of the Commission to supervise and control the exercise and administration of rights acquired to the use of designated ground water. The proceedings were conducted pursuant to the Commission's Rules for Procedure for All Hearings before the Colorado Ground Water Commission, 2 CCR 402-3, as modified herein.

The Commission published the required Section 24-4-103, C.R.S. notice and invited public comment and participation during the adoption process. The proposed rule, and the Statement of Basis, Purpose and Specific Statutory Authority were made available to the public at least five (5) days prior to the hearing as required by Section 24-4-103 (4), C.R.S.

The Commission complied with the Sections 24-4-103 (3) and 103.5, C.R.S. notice requirements by providing a notice to the Office of the Secretary of State

and publication thereof in the Colorado Register. Any written comments from the public concerning or resulting from the Notice of Rulemaking are included as an exhibit in the Rule hearing record.

The Hearing Officer for the Commission received reports and information on the proposal. In addition to the petitioners Lost Creek Land & Cattle Company (“Lost Creek”), Equus Farms, Inc. (“Equus”), and the Lost Creek Ground Water Management District (the “District”), requests for formal Party Status were received from Morgan County Quality Water District, PV Water III LLC, Sweetwater LLC, and Yokam Land Holdings, LLC. The last three listed parties did not participate in the Fact Finding hearing before the Hearing Officer. Yokam Land Holdings filed a notice that it would not participate in the oral argument rulemaking hearing before the Commission. Staff participates in the proceeding pursuant to Rule 4.E.5 of the Rules of Procedure for All Hearings Before the Colorado Ground Water Commission.

The petitioners Lost Creek, Equus, the District, and Commission Staff submitted a Stipulated Proposed Findings of Fact dated September 10, 2010. A Fact Finding Hearing was held before the Commission’s Hearing Officer on September 13, 2010. All parties participating in the Fact Finding hearing supported the petition. On September 14, 2010 the Hearing Officer issued a Findings of Fact adopting the Stipulated Proposed Findings of Fact and forwarding those facts to the Commission. On November 19, 2010, the Commission held a public hearing concerning the proposed amendment. Parties to the fact finding hearing as well as the general public were invited to make written and oral statements. All comments, both in oral testimony at the hearing and by exhibits which were made part of the rulemaking record, were considered and responded to by the Commission. The specific reasons for the Commission’s action are described in the record testimony and exhibits. All rule provisions resulting from these proceedings will be based upon the record of the November 19, 2010 public hearing.

The Commission states that each of the five standards required by Section 24-4-103 (4) (b), C.R.S. has been met. The record of this proceeding demonstrates the need for and the benefit to be derived from the adoption of the amendment to the Rule, and demonstrates that the amendment to the Rule needs to be adopted as directed by Colorado statutes pursuant to Section 37-90-111 (1)(h), C.R.S. To the extent practicable, the amendment is clearly and simply stated. The amendment to the Rule does not conflict with other provisions of law.

## **II. PURPOSE**

The purpose of the amendment to the Rule 5.2.5.2 is to determine that the alluvial aquifer of the Northern Area of the Lost Creek Designated Basin is overappropriated, and to require replacement plans for issuance of new large capacity wells therein.

### III. ANALYTICAL EVALUATION OF THE RATIONALE JUSTIFYING THE RULE

Rule 4.J.6 of the Rules of Procedure for All Hearings before the Colorado Ground Water Commission requires that after considering the relevant data presented at the public hearing, the Commission shall include as part of a rule or incorporate by reference in the rule adopted, a detailed, analytical evaluation of the scientific or technological rationale justifying the rule, if the proposed rule involves scientific or technological issues. Because the data supporting the amendment involves scientific and/or technological issues, the analytical evaluation is set forth below.

#### A. HISTORY AND OWNERSHIP IN LOST CREEK BASIN

1. The Lost Creek Designated Ground Water Basin (“Lost Creek Basin”) was established by the Ground Water Commission in 1968.
2. The Findings of Fact, Conclusions of Law, and Final Order of the Commission designating the Lost Creek Basin (“Designation Order”) are dated May 1, 1968.
3. The factual basis for the designation of the Lost Creek Basin was a report titled *Ground Water Resources of the Lost Creek Drainage Basin, Weld, Adams, and Arapahoe Counties, Colorado* dated June, 1967.
4. A large portion of the Lost Creek Basin generally known as the “Southern Area” of the Basin, was declared to be over-appropriated by the Ground Water Commission since at least 1992.
5. Another portion of the Lost Creek Basin generally known as the “Hay Gulch Area” of the Basin was declared to be over-appropriated by the Ground Water Commission at the May, 2010 meeting.
6. This Petition is a joint request made by the Lost Creek Land & Cattle Company, (LCLC), Equus Farms, Inc. (“Equus”), and the Lost Creek Ground Water Management District (“District”), to have the remaining portion of the Lost Creek Basin generally known as the “Northern Area” declared to be over-appropriated by the Ground Water Commission.
7. The Northern Area has a total surface area of approximately 71 square miles. Of that total, LCLC and Equus own approximately 60%.
8. There are currently 26 high capacity wells permitted in the Northern Area. Of that total, LCLC and Equus own 23.

## B. GEOLOGY AND HYDROLOGY OF LOST CREEK BASIN

1. The alluvial aquifer in the Northern Area consists of sand and gravel that was deposited in an old channel eroded into the local bedrock. Geologically, this is the same channel that originates several miles to the south, and flows beneath the Southern Area of the Basin.
2. Although there is a geologic and hydrologic separation between the Hay Gulch Area of the Basin and the Northern Area, there is no geologic or hydrologic separation between the Northern Area and the Southern Area, and ground water flows in a north-northeasterly direction through the alluvial aquifer from the Southern Area to the Northern Area.
3. The alluvial aquifer in the Northern Area is unconfined, and varies in thickness from less than 10 feet on the east and west sides, to approximately 120 feet in the deepest part of the channel.
4. The State of Colorado has been gathering water level data for the Lost Creek Basin and publishes an annual report that reflects these water level measurements. These reports include water level data for the Northern Area.
5. Data compiled from the State's annual water level reports show that the water level in the alluvial aquifer in the Northern Area is lower now than it was at the time of designation and has been trending downward in recent years.
6. The petitioner Lost Creek Land & Cattle Company has also gathered water level data from wells in the Northern Area. Data compiled from the Lost Creek Land & Cattle Company's water level measurements also show that the water level in the alluvial aquifer in the Northern Area is lower now than it was at the time of designation and has been trending downward in recent years.
7. The mean of the annual water level measurements taken in the Northern Area show a cumulative decline in water levels of 7.69 feet from 1990 to 2008.

## C. DEPLETION RATE IN NORTHERN AREA OF LOST CREEK BASIN

1. The average annual withdrawals by irrigation wells that currently pump from the alluvial aquifer in the Northern Area of the Lost Creek Basin is approximately 10,471 acre-feet per year, of which approximately 2,094 acre-feet per year returns to the aquifer as deep percolation, resulting in

- an average net depletion to the aquifer of approximately 8,377 acre feet per year.
2. The average annual amount of anticipated precipitation recharge to the alluvial aquifer in the Northern Area of the Lost Creek Basin is approximately 4,625 acre feet per year.
  3. Ground water inflows to the Northern area from the Southern Area, and out of the Northern Area, are similar.
  4. The depletions from the alluvial aquifer in the Northern Area of the Lost Creek Basin by wells currently permitted to pump are materially in excess of the reasonably anticipated average rate of future recharge by an amount of approximately 3,752 acre-feet per year..
  5. Water level declines have already adversely affected some permitted wells.
  6. There were approximately 548,000 acre-feet of water in storage in the alluvial aquifer in the Northern Area in 1967, and there were approximately 480,000 acre-feet of water in storage in the aquifer as of 2008. Water levels in the alluvial aquifer in the Northern Area of the Lost Creek Basin are currently declining and aquifer storage has been decreasing by approximately 3,770 acre feet per year. At this rate of decline, the aquifer would be totally depleted in 127 years, which equates to a depletion rate of approximately 79% over 100 years.
  7. If the alluvial aquifer in the Northern Area of the Lost Creek Basin is not declared to be over-appropriated, then new depletions from additional wells will result in the lowering of the water table at an accelerated rate, and existing water rights will experience additional adverse effects above those they would experience if the Northern Area was declared to be over-appropriated.
  8. The alluvial aquifer in the Southern Area and the Hay Gulch Area of the Lost Creek Basin has already been declared by the Ground Water Commission to be over-appropriated.