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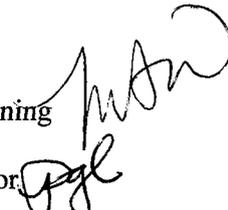
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DEPARTMENT OF NATURAL RESOURCES
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October 27, 1998

TO: File

THRU: Mary Ann Wright, Associate Director, Mining 

FROM: Pamela Grubaugh-Littig, Permit Supervisor. 

RE: Findings for Resolution of Cottonwood Spring Citizen Complaint and Recommendations as a Result of Reviewing Cottonwood Spring Information, PacifiCorp, Deer Creek Mine, ACT/015/018, Folder #3, Emery County, Utah

BACKGROUND

Citizen Complaint

On August 1, 1991, the Division received a letter from Mr. Jim Peacock stating that he was the owner of ranch property located about eight miles west of Orangeville, Emery County at the junction of Cottonwood Canyon and Straight Canyon (see attached letter). He had irrigated fields in this vicinity that were divided into:

- 1) Approximately 40 acres of cultivated fields that are irrigated from two water sources,
- 2) Approximately 18 acres irrigated from a gravity flow ditch taken from the Cottonwood River with a diversion approximately one mile up Straight Canyon, and
- 3) Approximately 22 acres irrigated from a gravity flow ditch from Little Cottonwood Creek in Cottonwood Canyon (this ditch irrigates approximately 15 acres that lie above the other ditch out of Cottonwood River.)

Mr. Peacock went on to explain that these irrigated fields were some of the earliest farms worked on in the Cottonwood Drainage and had been continuously farmed and irrigated since the 1880s. He also said that the Little Cottonwood Canyon water comes "primarily from one large spring (Cottonwood Spring) in the creek bed about one-half mile above Rhones Canyon (about 5-6 miles above the Peacock Ranches and the unction of the canyons). He also stated that "there has always been continuous water from Cottonwood Spring."

In his letter he stated that "the Cottonwood Spring totally dried up (partially in 1989, completely in 1990 and 1991) and that there isn't a drop of water in the whole creekbed area where the spring has run uninterruptedly for over 100 years of known and verified observation and use."

He explained his interest in the matter "only extends to the loss of irrigation water in Little Cottonwood Canyon and the solution I seek is a restoration of sufficient water to irrigate the approximately 22 acres that has been previously and continuously irrigated out of Little Cottonwood Creek." He

Cottonwood Spring
Findings for Citizen Complaint
Page 2

continued to state that "if the water has indeed been interrupted by a mining operation, then I must have replacement water brought out of the main Cottonwood River by a reconstructed higher-line ditch or pipeline or some other irrigation method."

On-Site Meeting

A memo dated September 11, 1991, by Division Hydrologist, Ken Wyatt, documented the on-site meeting and the results of the investigation (see attached memo). A meeting was held on August 20, 1991, in response to this concern with representatives from Cottonwood Creek Consolidated Irrigation Company, Emery Water Conservancy District, PacifiCorp, Mr. Peacock, Water Rights, and Division. The tour included observations of the Cottonwood Spring (a discharge pipe.) During the tour, Mr. Eugene Johansen indicated that this spring has been diminishing for 8 to 10 years.

The review memo continued, "USGS records from 1977 to 1982 indicated that the spring had flowed between 40 to 100 gpm continuously. The Cottonwood Creek between the spring and the Mountain Coal Mine was wet with very limited surface water." He made an analysis of stiff diagrams that were generated for the Cottonwood Spring and Cottonwood Creek, as well as a review of flow records, and geologic information presented in the PAP. This review suggested that intercepted ground water quantities may have caused the decreased flow, although six years of drought presented the possibility that the loss of this spring may have been drought related. In other words, a review of the information as well as the onsite tour was inconclusive.

Remedy - Request for Updated PHC

At that time, the Division requested PacifiCorp revise their Probable Hydrologic Consequence (PHC) because a review of the information was inconclusive. The revised PHC was submitted December 19, 1991, to address the citizen complaint. The Division sent a review of the PHC on February 10, 1992 and more information for the PHC was received on February 21, 1992, and March 23, 1992, including a drilling plan. The Division PHC review was sent on May 15, 1992. A revised drilling plan for Cottonwood Canyon was submitted July 15, 1992, and approved on November 6, 1992, and the wells were completed on January 19, 1993. The PHC was again revised (to include results of drilling and resistivity) and submitted on March 30, 1993. Deficiencies were sent on April 20, 1994. PacifiCorp responded on May 6, 1994 and submitted subsequent information to include aquifer test results on June 27, 1994. The Cumulative Hydrologic Impact Analysis (CHIA) was updated in September 1994.

Complaint Resolved

On May 6, 1994, Mr. Jim Peacock signed an agreement with PacifiCorp that resolved the dispute and water for irrigation was restored to Mr. Peacock as he had originally requested in the August 31, 1991, complaint. At that time, the complaint was resolved.

Material Damage to the Area of Cottonwood Spring

On July 7, 1998, the BLM, the USFS and OGM personnel met (the group meetings are known as the Interagency Coal Team or ICT) at the site of the pipe along Cottonwood Creek, which was the alleged site of the Cottonwood Spring. The pipe had no flow but seeps were observed by others along the stream cut. A fairly large area (perhaps ½ - 1 acre) of mesic vegetation was observed on the flat area above the

pipe and stream bank, perhaps indicating that the area was sub-irrigated. As a result of discussions at the site that day, the USFS offered to have their biologist review the stretch of Cottonwood Creek and make a finding of impact of spring and stream flow loss on the vegetation along that stretch of the stream.

On September 9, 1998, Carter Reed of the Forest Service reported in the ICT monthly call that their biologist, Bob Thompson, had been out to the site and conducted a survey. Mr. Thompson reported verbally to Carter Reed that he saw no effect on the vegetation (signs of change or stress) in the area due to the spring loss or stream flow decrease. (DOGM asked that Mr. Thompson or Mr. Reed write up that observation or finding into a memo and send it to the agencies.) Other than the lack of water coming from the loose pipe in the stream bank, no signs of damage to the vicinity or area have been noted or otherwise documented. Thus, after a lengthy review and study in regard to this issue, no material damage has been cited.

FINDINGS AND RESOLUTION OF CITIZEN COMPLAINT

On May 12, 1998, during an interagency conference call, the Cottonwood Spring was discussed and the question of whether or not the citizen complaint had been resolved was raised. It was discovered, through a review of Division records, that a finding for the resolution of the citizen complaint had not been made. This document serves as the needed finding.

The original citizen complaint was submitted to the Division for the loss of irrigation water in Little Cottonwood Canyon and the solution Mr. Peacock sought was restoration of sufficient water to irrigate the approximately 22 acres that had been previously and continuously irrigated out of Little Cottonwood Creek. Mr. Peacock entered into an agreement with PacifiCorp on May 6, 1994, that resolved the dispute of loss of irrigation water in Little Cottonwood Canyon and restoration of sufficient water to irrigate out of Little Cottonwood Creek. Therefore, the citizen complaint was resolved in 1994.

RECOMMENDATIONS

Discussions about this spring have been continuing since May 1998. Division Hydrologist, Ken Wyatt, reviewed and analyzed all the documents available at the Division on the Cottonwood Spring (see memo dated October 16, 1998). No conclusive findings can be made as a result of Mr. Wyatt's report, but there are some recommendations that can be made and taken into consideration in the near future in the course of Division and ICT business:

- 1) DOGM should update the Cumulative Hydrologic Impact Analysis (CHIA) for East Mountain;
- 2) In-mine drilling activities should be approved by the BLM, or other appropriate coal leasing agency;
- 3) DOGM should consider requiring monitoring springs outside the permit area; and
- 4) In the instance of impact to the hydrologic regime, such as in the crossing of a graben, the coal permittee must be proactive in providing necessary information to all appropriate agencies (e.g. DOGM for the PHC/CHIA process, and BLM as in the case of lease stipulations).