## REMEDIATION AND WATER QUALITY<sup>1</sup>

## Stan Christensen<sup>2</sup>

<u>Abstract:</u> Under a 1994 consent decree, the California Gulch Superfund site was divided into 11 geographic and one non-geographic operable units. Acid mine and rock drainage was severely impacting water quality and the ecosystem in the Arkansas River. The potentially responsible parties, EPA, and Colorado Department of Public Health and Environment were not able to negotiate acceptable water quality standards for the site. OU 12 was created in the consent decree to evaluate the effectiveness of clean up activities on the site and set final water quality goals.

After more than 10 years of clean up efforts, substantial reductions in metal loading to the Arkansas River have been achieved and the ecosystem is recovering. The question remains, is the recovery adequate or is more remediation required?

Paper was presented at the 2006 Billings Land Reclamation Symposium, June 4-8, 2006, Billings MT and jointly published by BLRS and ASMR, R.I. Barnhisel (ed.) 3134 Montavesta Rd., Lexington, KY 40502.

<sup>&</sup>lt;sup>2</sup> Stan Christensen, Remedial Project Manager, U. S. Environmental Protection Agency, Region 8, Denver, Colorado 80202. (303) 312-6694 Email: <a href="mailto:Christensen.Stanley@epa.gov">Christensen.Stanley@epa.gov</a>.