Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Engineering improvement of bioreactor effectiveness for We Like, Sidney, Mother Lode, and Upper Constitution mine sites

Type of Project: <u>Research</u>

Funding Agency: Bureau of Land Management

Effective Dates: 09/01/04 – 08/31/06

Funding Amount: \$66,256

Investigators and Agency Representative (include name, address, phone, email):

Fritz R. Fiedler, P.E., Ph.D. Civil Engineering, University of Idaho Moscow, Idaho 83844

(208) 885-2980, fritz@uidaho.edu

Project Abstract:

The purpose of this work is to facilitate and improve the effectiveness of the installed bioreactors in treating heavy metals by an engineering analysis of their performance using existing hydraulic and water quality data. Presently, installed bioreactors are located at: We Like, Sidney, Mother Lode, and Upper Constitution Mines. In doing so, we will incorporate micro-scale process knowledge generated in past and ongoing research by University of Idaho (UI) researchers. Engineering information will be used to evaluate feasibility of possible future passive water treatment systems in Coeur d' Alene and elsewhere.

Outcomes with completion dates (reports, publications, workshops, videos, etc.):

A final report summarizing research and findings will be provided at the conclusion of the grant period. Two copies of each report will be provided, one for Idaho SO, and one for Coeur d'Alene Field Office. Reports will be provided in hardcopy and digital format. The report will include an executive summary, photos, figures, and clear conclusions and recommendations for improvement of water treatment systems.

Keywords: Acid Mine Drainage, Metals Treatment, Bioreactors

For Administrative use only: Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: