

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Sequencing and Analysis of DNA from Water Collected in Bighorn Lake (Montana and Wyoming)

Discipline: Natural
Type of Project: Technical Assistance/Research
Funding Agency: USGS
Other Partners/Cooperators: Montana State University
Student Participation:
Effective Dates: 01/15/2016 - 01/14/2018
Funding Amount: \$7,000.00

Investigators and Agency Representative:

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Project Abstract: The goal of this study is to provide the sequencing and analysis of DNA extracted from sediment water filters collected from sites in Big Horn Recreation Area (BICA). The objective is to provide scientists and resource managers with a means to evaluate the effective management and monitoring of sediment and mercury remediation efforts. The project will be carried out in close partnership with USGS researchers. Working with the CESU collaborators USGS researchers will summarize the results of the DNA sequencing of microbial communities and identify commonalities between microbial community diversity and the distribution of metals in sediment and water. In addition, the parties will work towards a scientific manuscript reviewing these approaches and acquiring further research funding for additional work. Sharing and dissemination of data will follow USGS guidelines for data management and peer review, and will be done in a collaborative manner.

Keywords: Bighorn Lake, DNA, sequencing, analysis, water, USGS, University of Montana