

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Support for Water Quality and Watershed Management Issues at Glacier National Park

Discipline: Natural

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: University of Montana

Effective Dates: 9/25/2005 - 5/1/2010

Funding Amount: \$100,000.00

Investigators and Agency Representative:

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Project Abstract:

The North Fork of the Flathead River originates in the Canadian province of British Columbia approximately 40 miles north of the international border and flows south into Montana where it forms the western boundary of Glacier National Park. Mining in the British Columbia Flathead first came to the attention of Glacier NP and NPS during the 1980s when Sage Creek Coal Company proposed opening a large open pit mine in the drainage just 8 miles from the park's northern boundary. The potential for cross border impacts to water quality, fisheries and other aquatic resources were of sufficient concern that both the US and Canada agreed to refer the matter to the International Joint Commission (IJC) which in turn appointed an international group of scientists to assess the issue. The NPS strongly supported such IJC involvement and NPS specialists participated on several IJC investigative committees. In 1988, the IJC recommended that the Sage Creek Mine as proposed not be approved and that the governments consider, with the appropriate jurisdiction, opportunities for defining and implementing compatible, equitable and sustainable development activities and management strategies for the drainage.

This project has three goals:

1. Establish a valid baseline bioassessment of the North Fork and its tributaries in and around GLAC during two year period (2006-2007),
2. Establish baseline water quality (including loadings) at two or three gaging stations on the North Fork in and around GLAC over a two year period (2006-2007),
3. Integrate these baselines with plans for long term ecological and cumulative effects monitoring of flowing water, lakes, wetlands, groundwater and landscapes.

Outcomes with Completion Dates:

- 1) Detailed Scope of Work, budget, and sampling plan, due February 1, 2006.
- 2) Baseline bioassessment data for the North Fork of the Flathead River drainage.
- 3) Baseline water quality at two gaging sites on the North Fork of the Flathead River
- 4) A final report including analysis and interpretation of the bioassessment and gauging station data and recommendations for long term ecological and cumulative effects monitoring of flowing water, lakes, wetlands, groundwater and landscapes.
- 5) Bioassessment and baseline water quality data (including raw data and quality assured and controlled data entered into standard NPS databases such as NP STORET and the GLAC/ROMN water quality database - note this is a cooperative project and NPS and Univ. of Montana will have joint responsibility for this product).

Keywords: water quality, watershed management, Glacier National Park, University of Montana, North Fork of the Flathead River, coal mine impacts

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: