Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Socioeconomic Analysis for Middle Fork Avalanche Hazard Mitigation EIS

Discipline: Social Science Type of Project: Technical Assistance Funding Agency: National Park Service Other Partners/Cooperators: University of Montana Effective Dates: 6/1/2005 - 7/30/2006 Funding Amount: \$49,985.00

Investigators and Agency Representative:

NPS Contact: Mary Riddle, Glacier National Park, West Glacier, MT 59936, (406)888-7898, mary_riddle@nps.gov

Investigator: John Duffield, University of Montana, Missoula, MT 59812, 315 S 4th St. East, Missoula, MT 59801, bioecon@montana.com, John.duffield@mso.umt.edu

Project Abstract:

Burlington Northern Santa Fe (BNSF) Railroad tracks run adjacent to the southern border of Glacier NP, Montana. The railroad tracks travel through John Stevens Canyon, which is characterized by avalanche chutes along an eleven mile section of the canyon. These chutes are located in Glacier National Park. Avalanche danger is high during and after snowstorms and weather conditions frequently create snow instability.

Historic reports of avalanches along the railway are common. A system of nine snowsheds was constructed in the early 1900's, effectively lowering the avalanche danger in these chutes. Seven active chutes lack snowshed structures and continue to pose considerable danger to trains and BNSF personnel. The railroad line can be closed for long periods of time (hours or days) awaiting cleanup efforts or waiting for avalanche hazard to subside. Derailments due to avalanches are timeconsuming and expensive for the railroad not only in personnel time, but in lost transit time on the route between Seattle and Chicago.

BNSF Railroad requested Emergency Special Use Permits from Glacier National Park during the winters of 2004 and 2005 to perform emergency avalanche control using explosives. However, snow conditions during the permitted periods did not warrant explosive avalanche hazard control. Currently, BNSF Railroad has proposed to develop an avalanche management plan that includes regular explosive use in Glacier National Park. The National Park Service- Glacier National Park Planning and Compliance Office is preparing an Environmental Impact Statement concerning the issuance of a Special Use Permit for this program. This document will analyze the impacts of alternatives for avalanche hazard mitigation in John Stevens Canyon, Flathead County, Montana.

The purpose of this project is to fully disclose the potential environmental impacts associated with the proposed alternatives for avalanche hazard reduction and mitigation activities conducted by BNSF Railroad, using a socio-economic approach.

The EIS will serve to inform decision-makers and the public of the range of alternatives to address the issue of avalanches and train travel in John Stevens Canyon. Ultimately, it will be used by the NPS to reach a decision regarding avalanche hazard reduction in the project area.

The Cooperators are only responsible for preparing specific sections of the EIS, not the entire document.

Outcomes with Completion Dates:

- Affected Environment-Socioeconomic (Task 1)
- Environmental Consequences-Socioeconomic Analysis (Task 2)
- Responses to internal review questions and public comments on Draft EIS. (Task 3)
- Revised affected environmental and environmental consequences for Final EIS (Task 4)
- **Keywords:** EIS, socioeconomic analysis, Middle Fork Flathead River, John Stevens Canyon, avalanche control, Burlington Northern Santa Fe Railroad, Glacier National Park, University of Montana

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Date Annual Report Received: Date Final Report Received: Publications, etc. on file: