

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Projecting the impacts to grizzly bears and wolverine of the proposed Lodgepole coal mine and coal bed methane development in the upper Flathead River drainage in British Columbia

**Type of Project:** Research  
**Discipline:** Natural Resources  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** University of Montana  
**Effective Dates:** 4/1/2008 - 12/31/2012  
**Funding Amount:** \$186,474

**Investigators and Agency Representative:**

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**Project Abstract:**

The waters of the Flathead are world famous for their clarity and incredible water quality. Streams flow cold and clear from glaciers and high-mountain vistas that attract visitors from around the world to Glacier Country. Flathead Lake and the streams of the Flathead River system support one of the last strong holds of bull trout (ESA listed) and west slope cutthroat trout. Iconic species of the west; grizzly bear (ESA listed), wolverine, wolves (ESA listed), mountain lions and lynx (ESA listed), roam through the unspoiled landscape much as they did during the time of Lewis and Clark.

The Cline Mining Corporation of Canada is proposing to mine over 40 million tons of coal, 2 million tons per year for 20 years, from deposits under Foisey Creek, a tributary of the North Fork Flathead River. As part of a long-term strategy by mining interests, there is currently exploration underway in the Lillyburt deposit, located downstream of the Lodgepole/Foisey mine site and directly under the Flathead River. Furthermore, Cline Mining holds the lease for mining the 100+ million tons of coal from the Sage Creek deposit that is only 5 miles from Glacier National Park and was the subject of the IJC investigations in the 1980's. The proposed Lodgepole/Foisey Creek Mine, coupled with mining of the Lillyburt and Sage Creek deposits would result in over 100 years of coal mining at the edge of Glacier National Park with coal mine seepage draining into Park waters and down to Flathead Lake. A history of coal mining in the nearby Elk River in Canada and preliminary data from the North Fork strongly suggest that sediment and water pollution from the proposed mine will degrade waters in the USA. Lost aquatic habitat will impact spawning bull trout coming up river from Flathead Lake to spawn. In addition to the proposed coal mine, British Petroleum is proposing to drill for coal bed methane (CBM) in the upper Flathead drainage in the same area as the proposed coal mine. This CBM production would produce millions of gallons of water contaminated with heavy metals and salts that could enter the Flathead drainage. Development of CBM would require construction and regular use of hundreds of miles of roads throughout the upper Flathead drainage with increased displacement and mortality risk for resident terrestrial species. The rich carnivore populations of the North Fork and Glacier National Park appear to be highly dependent on the connectivity and wildness across the transboundary Flathead.

Objectives:

University of Montana cooperators propose to summarize existing information and collect additional ecological data for grizzly bears and wolverine in the area of the proposed mine and coal bed methane development and adjacent to this area to: 1) quantify the current baseline conditions for grizzly bears and wolverine regarding their distribution, density, seasonal habitat use patterns, movement patterns, dispersal requirements, and the status of the prey species they depend on; and 2) assess and project the cumulative impacts on these species of proposed coal mine and coal bed methane development, transportation route development, and human site developments at 3 scales: site-specific, watershed, and regional. These impacts will be measured using data about survival, habitat use, movement and dispersal in order to assess impacts on ecosystem function, integrity, and connectivity.

**Outcomes with Completion Dates:**

December 31, 2008 - Annual Report  
December 31, 2009 - Annual Report  
December 31, 2010 - Annual Report  
December 31, 2011 - Annual Report  
December 31, 2012 - Final Report

Since this project is contingent upon yearly appropriations, each year can be a stand-alone project. If work is discontinued after one or more succeeding years, a final report will follow one year after the fiscal year final funding runs out.

**Keywords:** bears, wolverines, coal mine and coal bed methane development, upper Flathead River drainage, Glacier National Park, University of Montana