

## Project Profile

<b>Project Name:</b>	Natural Recovery on Low Impact Seismic Lines in Northeast British Columbia
<b>Project Number:</b>	BCIP-2016-18
<b>Proponent:</b>	Golder Associates and Explor Geophysical Ltd.
<b>OGRIS Funding Envelope:</b>	Research and Effectiveness Monitoring Board (REMB)
<b>Timeframe:</b>	April 1, 2016 to January 30, 2017

## Project objectives

The objectives of this project are to:

- Assess recovery of mulched lines in a way useful for both developing targeted management recommendations for future seismic programs, as well as bookkeeping needs for vegetation recovery timing in land use forecasting
- Quantify natural structure and composition of natural recovery of vegetation relevant to caribou, caribou predators and alternate prey along low-impact seismic (LIS) lines.
- Compare the influence of light penetration, soil conditions, disturbance and compaction on natural recovery of vegetation along LIS lines.

## Project description

The Project will provide an estimate of recovery success and timing for LIS construction methods in British Columbia that account for landcover type and line width. Such data will assist managers in developing new Best Operating Practices for restoration during the clearing and operational phases of projects and inform current barriers to detailed line recovery estimates and strategic planning in NE BC.

## Project approach

A mensurative approach will be used to estimate LIS line recovery trajectories in NE BC and test a series of hypotheses on recovery of mulched lines. In particular we will assess the influence of surrounding forest cover on vegetation structural and compositional recovery timing controlling for line preparation year, surrounding forest type, and whether the line was a new or existing disturbance. We will also test the following hypotheses:

1. Winter operations recover more quickly than summer operations;
2. Wider mulched lines recover more quickly than narrower mulched lines;
3. Line orientation influences recovery trajectories; and
4. New cut mulched lines recover more quickly than reopening existing lines.

## **Project deliverables**

The following project deliverable will be provided:

1. Final report detailing Best Management and Operations practices for LIS line preparation in NE BC;
2. Presentation detailing project, key findings and recommended Best Management and Operations practices for LIS line preparation; and,
3. Publishable manuscript prepared for peer-reviewed publication (e.g., Biological Conservation).