

PROSPERITY

A Gold-Copper Project of Taseko Mines Limited

Prosperity Project

Socio-Economics

Williams Lake

April 2010

 **Taseko Mines Limited**



Archaeological Impact Assessment

Background

- Heritage Conservation Act
- Permits to conduct archaeology fieldwork
- Archaeology Branch, Ministry of Tourism, Culture and the Arts
- *Archaeological Impact Assessment Guidelines*
- Curation of artifacts

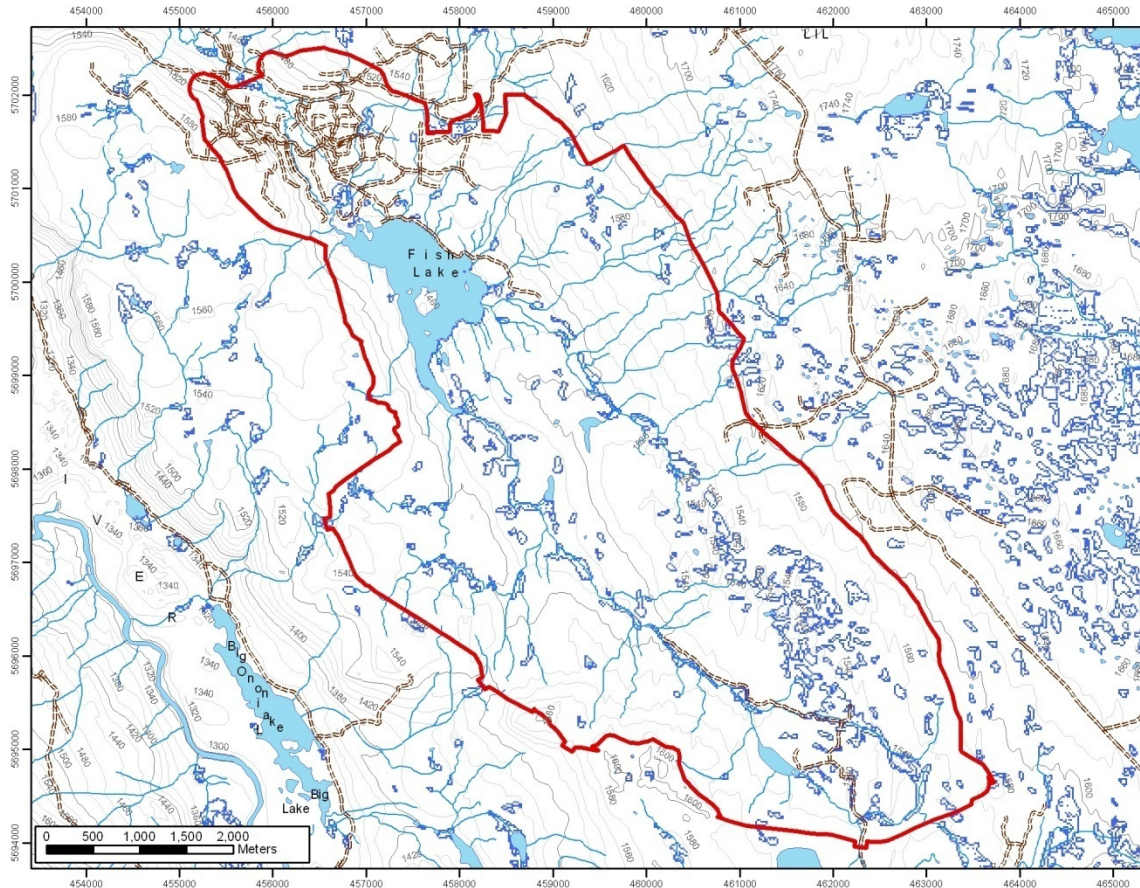
Archaeological Studies

- Archaeological Overview Assessment
- Archaeological Impact Assessment
- Archaeological Mitigation

Archaeological Impact Assessment

Identify and record archaeological sites within the proposed mine footprint in order for these cultural resources to be managed in light of the proposed mine development

Study Area



Area Assessed 3,476 ha

Previous Archaeology

Two previous archaeological field studies:

- 1993 AIA by Tyhurst in the mine site area and an overview assessment of the proposed transmission line
- 1998 Archaeological field study by Klassen in advance of proposed test pits and geotechnical drilling

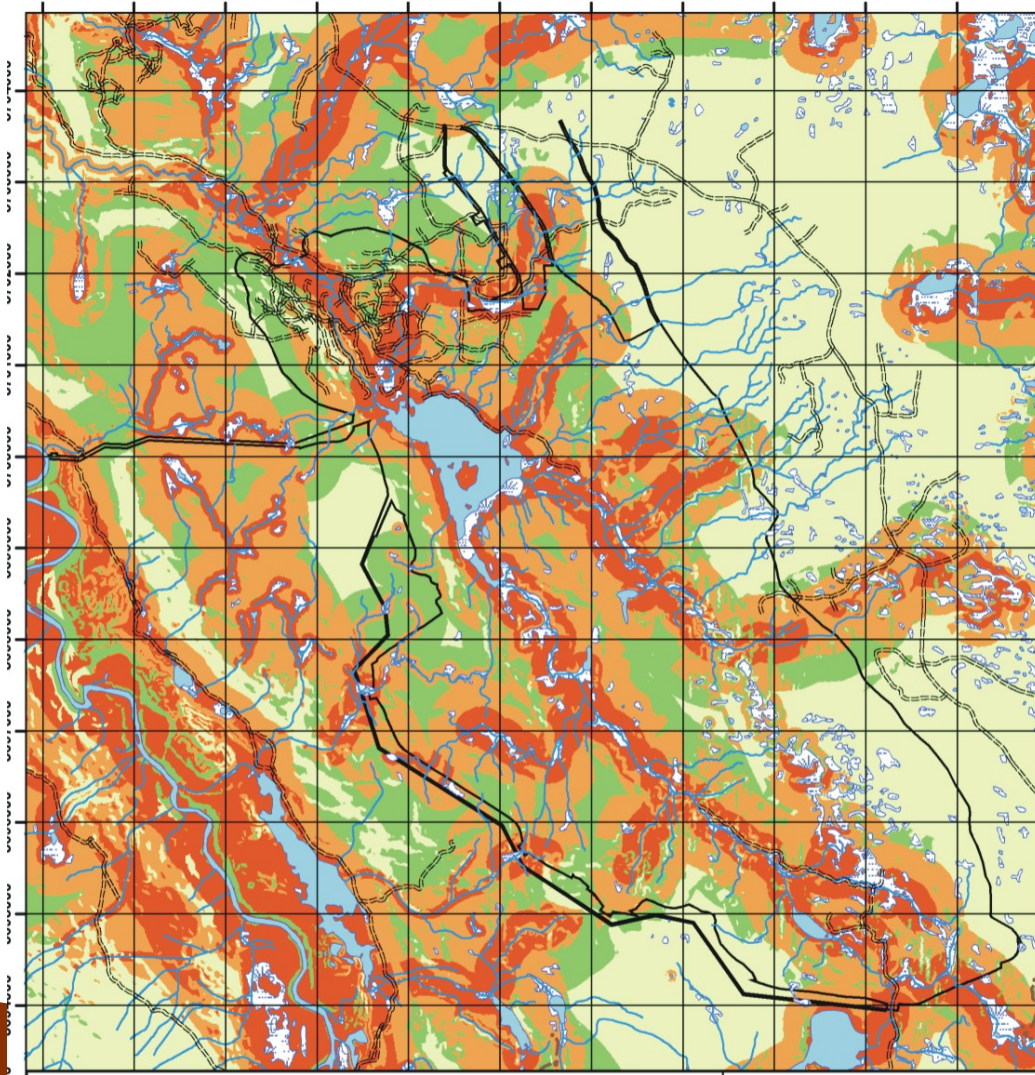
One previous data gap analysis and workplan:

- 1999 Archaeological data gap review and work plan by Alexander *et al.*

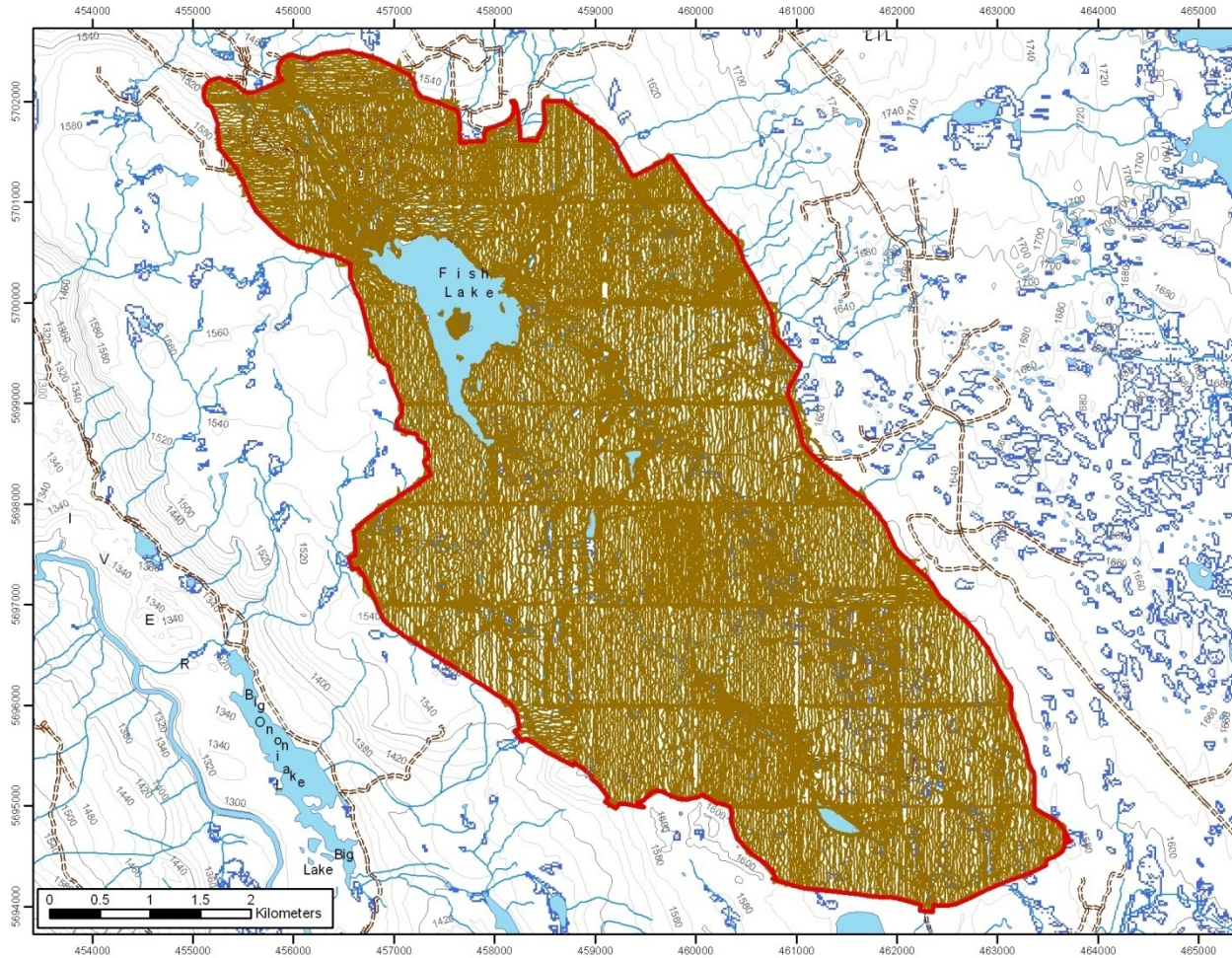
Methodology

- Did not utilize office based AOA to guide fieldwork
- Entire proposed footprint subject to pedestrian surface survey
- 15,887 subsurface tests conducted

AOA Sample



Survey Coverage



Survey Coverage continued

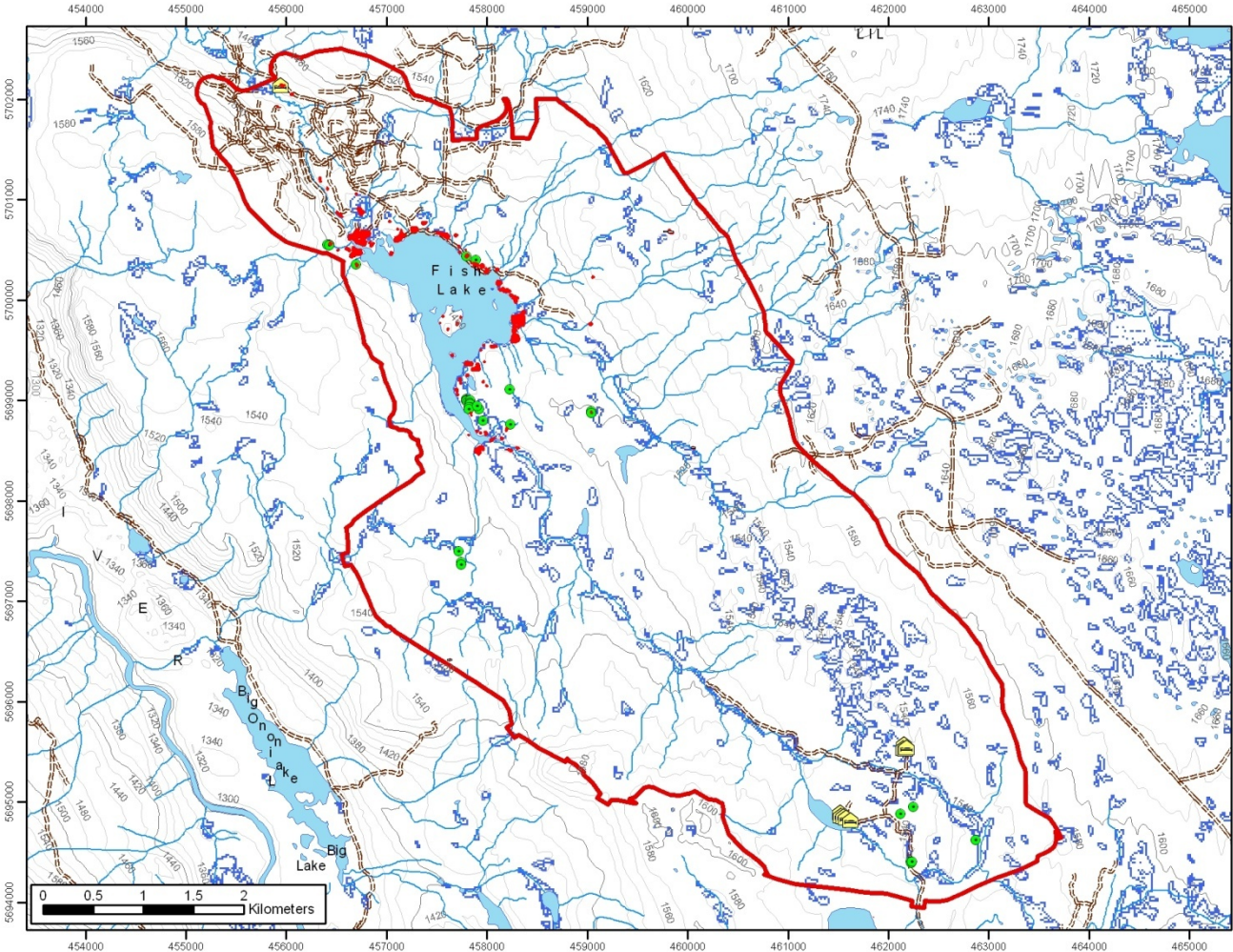


Crew survey coverage and intensity indicated by GPS tracks

Results

- 79 protected archaeological sites recorded
 - Lithic scatters
 - Cache pits
 - Roasting pits
 - House pit
 - Burial
- 15 historic sites
 - 9 Cabins
 - 4 Corrals
 - 1 Fenceline
- 34 post-1846 culturally modified trees

Results continued



Sample of Findings



Projectile Point
5,500 – 3,500 years BP
Recovered from Site EiRv-003



Projectile Point
3,500 – 2,400 years BP
Recovered from Site EiRv-040

Impact Assessment

Proposed mine development will likely result in the loss or severe disturbance of all 79 archaeological sites identified within the present study area

Mitigation Program

- Systematic Data Recovery
- Lake Bottom Survey
- Lithic Sourcing
- Burial

Specific Issues

- Graves
- Island Pit Houses
- Stone Pipe

Island Survey Coverage



Stone Pipe



Stone Pipe
Recovered from Site EiRv-035

Socio- Economics

Assessment Methodology

- Our task as indicated in the TOR was to identify Project effects, determine significance and propose mitigation.
- TOR asks for an assessment of impacts, as its title implies.
- Practical problems using CBA have led to the impact assessment framework.

General Approach

- Economic: determine distribution of Project spending and potential incremental costs.
- Social/health: determine population and other impacts and how they might affect provision of services.
- Land/resource use: identify direct impacts on the land base and how those might affect values of other users.

Information Sources

- Statistical data.
- Literature: baseline, base case, other projects.
- GIS.
- Interviews with service providers, land users and land managers.

Major Conclusions - Economic

- Base case unlikely to change from baseline, except forestry - MPB will adversely affect the economy.
- Effects:
 - positive economic effects during all phases
 - government revenues would increase
 - benefits to business development

Major Conclusions - Social

- MPB effects (e.g. mill closures) are likely to contribute to worker/family out-migration, future population loss and loss of services.
- Effects:
 - Incremental demand similar to late 1990 levels
 - Potential to maintain services at current levels
 - Risk behaviours will require intervention

Major Conclusions – Resource Use

- Base case will be altered by MPB, especially forestry, but other land uses as well.
- Effects:
 - Loss of Fish Lake as a special place
 - Some displacement of hunting, fishing, recreation
 - Emphasis is on mitigation to resolve issues

Commitments

3. Business development, employment, training

19. Hiring that:

- maximizes social benefits
- provides opportunities for Cariboo-Chilcotin candidates
- provides opportunities for local First Nations
- encourages local suppliers/contractors to hire locally

20. Enrolment in Mining: Your Future

Commitments

21. Develop business development policies that:

- maximizes benefits of local procurement, including First Nations
- encourages entrepreneurship, innovation, productivity gains
- commit to invest locally through purchasing, hiring practices

22. Health and Safety

- comprehensive health and safety program
- Occupational Health and Safety Committee
- Transportation Access and Management Plan

Issues Identified by FONV

- Our TOR - identify project effects that become the responsibility of the federal and provincial Crown, so they are able to address those accordingly.
- We have been asked to address impacts that might be expected, not incremental impacts from the broader social perspective.
- Net loss of electricity purchases: Not the proponent's liability or the Panel's responsibility to assess the pricing of electricity that is set through public policy.

Issues Identified by FONV

- Net benefits and costs of Sustainable Development: Vol. 6 responds to the requirements set out in Sec 7 of the EIS Guidelines.
- Employment income: An analysis of SOCL were not required in the TOR.
- Net benefits of tax payments: our view is that not all tax revenues are offset by increased expenditures on the Project.

Issues Identified by Mining Watch

- Admissible SEA effects: TOR require justification for accepting adverse impacts, not justification for the project. Spatial effects are addressed in all values.
- Scope of analysis and study areas: EA guidelines ask that the LSA be where effects are evident or concentrated. No reason to presume this would be the same for all values.
- How to evaluate SEA impacts: many parameters mentioned are addressed. Many may also be positive, not just negative. Mitigation is important for dealing with tangential effects.

Issues Identified by Mining Watch

- Sustainable development: not evident that the Panel needs to address project justification.
- Cost/benefit approach: an EA impact assessment requires examination of Project's effects on publicly-owned resources and communities. As long as adverse effects are mitigated to the Panel's satisfaction, then project has met the working definition of sustainability. BCA is not required.
- Prior consent: Taseko has valid tenure and has conducted activities according to public policy and law.

Issues Identified by Mining Watch

- Local capacity for more population: current state of indices is a direct result of public policy and public choices about resource allocation. These will occur in the base case. Mitigation in the form of communicating timing and scope with those agencies is proposed.
- Monitoring program for socio-economic effects: Table of Commitments has been proposed by the province.
- Effects of mine closure: mine closure plan would address these issues. Experience in BC is that mine closures are much better handled than other sectors.

PROSPERITY

A Gold-Copper Project of Taseko Mines Limited



Questions?