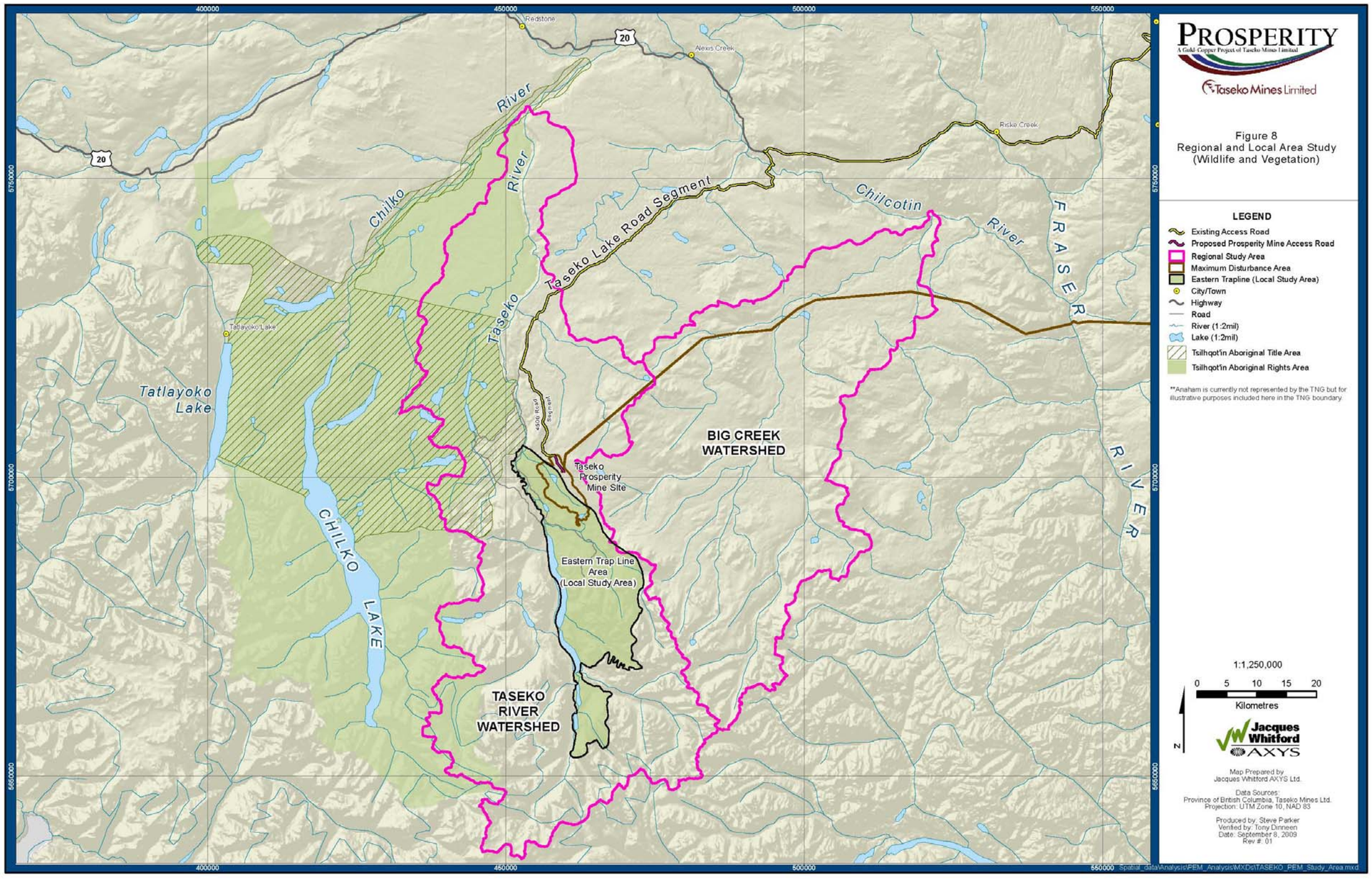
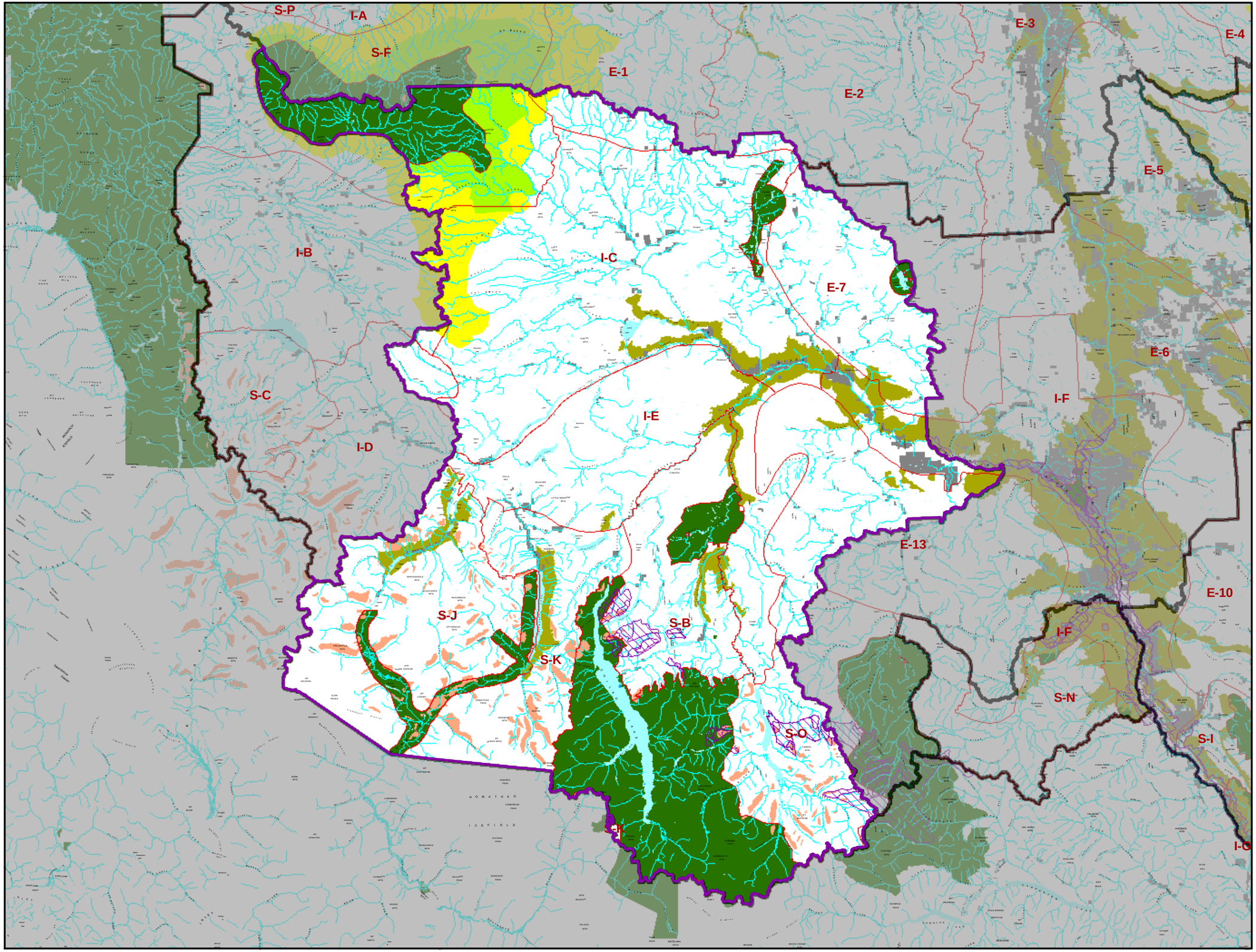
Figure 9: Regional and Local Area Study





Chilcotin

Sustainable Resource Management Plan

MAP 6

Ungulate Management Areas

- Sheep Winter Range & Natal Areas
- Mule Deer Winter Range
- Goat Winter Range & Natal Areas
- Caribou Modified Harvest
- Caribou No Harvest
- Private
- Park
- CCLUP Resource Management Zones
  - E - ERDZ (Enhanced Resource Development Zone)
  - S - SRDZ (Special Resource Development Zone)
  - I - IRDZ (Integrated Resource Development Zone)

DRAFT

This map is for strategic planning purposes only and is not to be used for operational planning.

* Moose

Moose are addressed through key wetlands and riparian management; no moose winter ranges are set. (see Map 7)

Scale = 1:902,000

0 4.5 9 18 27 36

Kilometers

N W E S

British Columbia
Ministry of Agriculture and Lands

Integrated Land Management Bureau

Projection/Datum: Albers, Nad 83
Created by: Williams Lake Contact Centre, <mm>
map6_ungulate_winter_range.mxd_Chilcotin
03/02/2006 2:43:28 PM

Nancy J. Turner and Richard J. Hebda, Royal British Columbia Museum, Victoria B.C.

Chilcotin (Tsilhqut'in) Ethnobotany

The Chilcotin (Tsilhqut'in), an Athapaskan group of central British Columbia, retain much of their traditional economy based on hunting, fishing, and gathering plants. In 1988 we undertook preliminary field interview and literature search to document the role of plants in Chilcotin language and culture. Chilcotin elders and younger band members recognized and named about 100 different types of indigenous plants. Many plants are still used today.

Important species are: *Claytonia lanceolata* and *Erythonium grandiflorum* ("root foods"); *Pinus contorta* (inner bark eaten); *Heracleum lanatum* (green vegetable); *Amelanchier alnifolia, Fragaria irriguum, Rubus idaeus, Shepherdia canadensis, Vaccinium caespitosum, and V. membranaceum*, (fruits); *Ledum groenlandicum* (tea); *Veratrum viride and Cicuta douglasii* (toxic plants); *Betula occidentalis* (wood, bark fiber); *Juniperus scopulorum* (wood, scent, medecine); *Picea glauca* (wood, pitch source, medecine); *Populus balsamifera* (wood); *Salix spp.* (wood); *Elaeagnus commutata* (fiber); and *Urtica dioca* (medicine). Some Chilcotin plant names (e.g. "grass," "spruce") are cognate with those of distant Athapaskan langages such as Chipewyan and Navajo.

Vegetation

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For the purpose of this assessment, **it is assumed that once vegetation cover is removed during tree cutting and clearing, and grubbing is complete, subsequent activities will not add greatly to the additional loss or alteration of vegetation.**

From: Vol. 5 Section 5

5.2.3 Approach and Methods for the Assessment

5.2.3.1 Ecosystem Mapping

Pg 5-24

Ecosystem mapping (TEM and SEI) for this Project involved the stratification of the landscape into map units, according to a combination of biophysical and ecological features, including climate, physiography, surficial material, bedrock geology, soil, and vegetation. Each mapping product prepared for the Project has a specific mapping scale and survey intensity target.

Terrestrial Ecosystem Mapping—Mine Site Regional Study Area

The TEM in the mine site RSA was completed by Madrone Consultants in 1997 and

following British Columbia standards in place at the time (RIC 1995; RIC 1996) and was
developed to meet the requirements of an environmental effects assessment (Appendix 5-
5-B). It is characterized as follows:

• TEM of the 18,266.9 ha mine site areas was completed by Madrone Consultants in
1997 using 1993 (1:15,000 scale) colour photography and was presented at 1:20,000
scale. Mapping was completed directly onto 1993 hardcopy airphotos

• the field program conducted in 1997 and 1998 sampled 33% of the 1252 polygons in
the RSA (survey intensity level [SIL] 3)

• in the mine footprint, 36% of the estimated 500 polygons were field checked (SIL 3)

pg. 5-27

There are 1244 mapped polygons in the mapping area, for a total area of **11,458.92 ha** or
about 115 km2. The average polygon size is about 12 ha. However, for certain wetlands,
the polygons are as small as three or four hectares. Some old forest polygons are
significantly larger**. Mapped polygons represents about <u>one third</u> of the project area**, the
rest of the area largely being mesic Douglas-fir and pine forest. <u>Following an aerial</u>

overflight of the proposed transmission line corridor in May 2006, a total of 65 formal
sampling plots were established, spread geographically across the project area. Numerous
visual plots were also made, including informal notes indicating ecosystem identification,
and/or wildlife and landform. Additional details are provided in the transmission corridor
amping report (Appendix E.3). Ecosystems mapped in the transmission corridor RSA are
summarized in Table 5.3-4 and depicted in Figure 5.3-2.

Appendix 5-5-G

2.2.3 Rare Plant Surveys along the Transmission Corridor

In August, twenty plots were established along the proposed transmission corridor.

pg 2-4

4.1 Conclusions

This is the second rare plant survey that has been completed at this site (including
Madrone 1999) making this area one of the most thoroughly surveyed for rare
plants in the Cariboo region. Although Madrone (1999) did not find any rare

plants during their surveys, **four provincially Blue-listed plants were found in the**
recent 2006 surveys. The provincial status of all of these plants, except for the
moss, *Schistidium heterophyllum*, are probably not threatened by mine or transmission line development as they are probably widespread in similar, yet
non-inventoried areas nearby. **However, the provincial status of *Schistidium***
***heterophyllum* may be threatened** as it appears rare in the province and this is an
unusual outlier population

pg 4-1

First Nations:
Volume 6 Appendix 65A

pg 6-72
6.4 Summary and Conclusions
This report presents baseline data concentrations measured in soil, sediment, water,
vegetation that have been collected over the past decade in the Project area. This is a

robust data set upon which a quantitative baseline assessment of potential risk to humans
and the ecological environment was conducted.
The purpose of the baseline human health and ecological risk assessment was to establish
whether or not concerns arise out of baseline conditions that should be further scrutinized
during the assessment of potential effects in the Project case for the environmental
assessment.
The baseline human health risk assessment determined baseline soil concentrations were
**below guidelines protective of health, while baseline water concentrations were below
drinking water quality guidelines. Therefore, these exposure pathways were not
quantitatively assessed in this report.** A quantitative assessment of baseline risk to health
from ingestion of country foods was undertaken, as no guidelines for consumption of
metals in this exposure pathway exist.
Both mean and 95 percentile modeled concentrations of metals in a number of country
foods were assessed for their potential risk to human consumption.
**Although arsenic and
methyl mercury were determined to be above risk based standards for fish and moose**

consumption, they were within exposure limits that would commonly be found in store-
bought foods. The remaining metal concentrations in country foods assessed did not pose
an unacceptable risk.
Overall, it was determined that First Nations or subsistence hunters in the area would not
be at an undue risk from ingestion of country foods and fish in the study area.
A baseline risk assessment was also conducted for terrestrial mammals, avian species,
soil invertebrates and plant species using available baseline concentrations in environmental medium. It was determined that baseline conditions do not pose a potential
risk to mammals, birds or soil invertebrates in the study area. Although baseline soil
conditions were elevated for some plant species, field surveys did not indicate any
evidence of stressed vegetation
Overall it was determined that there was no risk posed to ecological receptors under
baseline conditions.

Baseline Metals Concentrations in Country foods

The amount of metal ingested by each receptor is dependent on the metal concentration in the selected country food and the daily intake rate of each CoPC in the selected country food.

Tables 6-15 to 6-18 provide a summary of metal concentrations found in each of the country foods identified for this assessment. Metal concentrations for fish, Labrador tea, and blueberries where determined from the dataset described in Section 6.3.3. **No empirical data was collected for moose, muskrat and Willow ptarmigan, therefore tissue concentrations were modeled from the soil, water and vegetation data described in Section 5.3.3 using equations found in US EPA (2005). Modeled metal concentrations are equivalent for both Moose and Muskrat**.

[711] Human carrying capacity can be roughly defined as the number of individuals an environment can sustain or support, taking into account the technologies of resource exploitation adopted by the population. The plaintiff's **demography expert estimated the carrying capacity of the whole Claim Area at 100-1000 persons:** Mathis Wackernagel, "Assessment of Human Population Carrying Capacity prior to European Influence and Trade of the Brittany Triangle and Xeni Gwet'in Trapline Areas in the Nemiah Valley, British Columbia" (the "Claim Area"), December 2004.

Other statements made in the above Supreme Court Judgment:

Aboriginal title land is not "Crown land" as defined by provincial forestry legislation. **The provincial Forest Act does not apply to Aboriginal title land**. The jurisdiction to legislate with respect to Aboriginal title land lies with the Federal government pursuant to s. 91(24) of the Constitution Act, 1967.

The Province has no jurisdiction to extinguish Aboriginal title and such title has not been extinguished by a conveyance of fee simple title.

Tsilhqot'in people have an Aboriginal right to hunt and trap birds and animals throughout the Claim Area for the purposes of securing animals for work and transportation, food, clothing, shelter, mats, blankets and crafts, as well as for spiritual, ceremonial, and cultural uses. This right is inclusive of a right to capture and use horses for transportation and work.

Tsilhqot’in people have an Aboriginal right to trade in skins and pelts as a means of securing a moderate livelihood.
These rights have been continuous since pre-contact time which the Court determines was 1793.

Land use planning and forestry activities have unjustifiably infringed Tsilhqot’in Aboriginal title and Tsilhqot’in Aboriginal rights.