

# Ası Edee T'seda Dıle: Tłchọ Nation Traditional Knowledge and Use Study

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## Acronyms and Abbreviations

AAA	American Anthropological Association
AANDC	Aboriginal Affairs and Northern Development Canada
DAR	Developer's Assessment Report
EIA(s)	Environmental Impact Assessment(s)
E-W	East-West
Firelight Group or Firelight	Firelight Group Research Cooperative
IAIA	International Association for Impact Assessment
KIRs	key indicator resources
LSA	local study area
RSA	regional study area
TEK	traditional ecological knowledge
the Agency	Canadian Environmental Assessment Agency
the proponent	Fortune Minerals Ltd.
TUS	traditional use study or studies
UOM	use-and-occupancy mapping
VC(s)	valued component(s)

# Section 1 Outline of the Report

## 1.1 Introduction

This report provides information and assessment based on available Tłıchǵ knowledge and land use data in the vicinity of the NICO Mine Project (the NICO Project or the Project) proposed by Fortune Minerals Limited (Fortune or the proponent) within the traditional lands of the Tłıchǵ.

The Project (defined in Section 2) would be a Cobalt-Gold-Bismuth-Copper mine 160 kilometres northwest of Yellowknife, 50 kilometres northeast of Whatı, 70 kilometres southeast of Gamèı, 145 kilometres southwest of Wekweèı, and 88 kilometres north of Behchokò, in the heart of the Tłıchǵ region of the Northwest Territories.

The primary goal of this study is to articulate available Tłıchǵ knowledge and use values related to the proposed Project area including:

- use by and importance of the area to Tłıchǵ citizens (historical, current and future);
- existing areas of lost use resulting from impacts by past developments in the area; and
- how the Project is likely to influence Tłıchǵ knowledge and use, including the practice of aboriginal and treaty rights, within and adjacent to the proposed Project footprint.

The report integrates information from multiple sources, including primary data from a 2012 mapping study, secondary literature reviews, evidence of use from previous Tłıchǵ studies, as well as additional and supplemental Tłıchǵ information and analysis. The report is intended for consideration as part of the NICO Project's environmental assessment under the *Mackenzie Valley Resource Management Act (MVRMA)*, and to inform consultation between Tłıchǵ and the Crown regarding the proposed Project.

The project lease of Fortune Minerals is completely surrounded by Tłıchǵ lands. However, the Project itself is on Crown lands that pre-dated the Tłıchǵ land claim.

## 1.2 Overview

The report is organized into six sections.

- Section 1 outlines the report, including goals and limitations.
- Section 2 provides a summary description of the NICO Project, based on information filed by the proponent with the Mackenzie Valley Environmental Impact Review Board (MVEIRB). It also

includes consideration of how the proponent addresses effects on Tłı̨chǫ knowledge and use within their Developer Assessment Report (DAR) and subsequent filed documents on the public record for the environmental assessment.

- Section 3 provides contextual information regarding the Tłı̨chǫ, including a general ethno-historical summary, a brief discussion of Tłı̨chǫ government and rights.
- Section 4 presents the methods used for baseline data collection and impact assessment.
- Section 5 provides baseline information and impact assessment predictions regarding Tłı̨chǫ knowledge and use within the NICO footprint, local study area (LSA), and beyond within the RSA (regional study area). It includes an identification of site-specific and non-site specific values.
- Section 6 summarizes the findings and conclusions.

### 1.3 What is a Project Specific Traditional Use Study (TUS)?

A project-specific traditional use study (TUS) is the “the collection of interview data about traditional use of resources and occupancy of lands by First Nations persons, and the presentation of those data in map form” within a geographically-bounded area (Tobias, 2000:iv). A project-specific TUS is a systematic and evidence-based form of investigation that applies traditional knowledge and social science to accomplish goals. The goals of a project-specific TUS often include:

- Describing the knowledge, use and interests of a community in relation to a proposed project or area;
- Assessing potential project effects; and
- Identifying mitigations or recommendations that may reduce negative effects and maximize positive ones.

For the purposes of this study, only the first two points will be addressed. It is understood that further dialogue between the Tłı̨chǫ Government, Fortune, the Review Board and other parties to the environmental assessment will occur based on the findings of this Report, at which time appropriate mitigation and monitoring measures may be identified.

Mapping is a critically important component of a TUS as it provides an easy to visualize picture of how complex land use practices relate in space to each other and to potential developments.

*“First Nations people carry maps of their homelands in their heads. For most people, these mental images are embroidered with intricate detail and knowledge, based on the community’s oral history and the individual’s direct relationship to the traditional territory and its resources. Land use and occupancy mapping is about documenting*

*those aspects of the individual's experience that can be shown on a map..." (Tobias, 2000: 1)*

Good community mapping practice emphasizes individual map biography interviews in which individuals are interviewed about their own use of the land during their lifetimes, and should include documentation of prior informed consent, and well documented methods for data collection and management (Tobias 2010; see Appendices 4 through 6).

## **1.4 Limitations of the Report**

This report is based on research conducted by the Firelight Group Research Cooperative (Firelight) and the Tłıchǫ Government. It is part of a project-specific Tłıchǫ knowledge and use study conducted in response to the proposed Project. This study was designed to meet these immediate needs.

Information provided herein is the most current available to the Tłıchǫ. It is based on the understandings of the authors, and is not intended as a complete depiction of the dynamic and living system of use and knowledge maintained by Tłıchǫ elders and members. Absence of data does not mean absence of use or value. Additional studies are necessary to fill information gaps regarding Tłıchǫ knowledge and use, and the resources, criteria, thresholds, and indicators necessary to sustain meaningful practice of Tłıchǫ rights into the future.

This report integrates and includes information from several sources (see Section 4), including primary data collection, and review of secondary literature. This report is specific to the NICO Project, and should not be relied upon to inform other projects or initiatives without written consent of the Tłıchǫ Government.

This report has focused primarily on the knowledge of Tłıchǫ elders. The reasons for this are discussed in more detail below in Section 4.1.3. Because of this, the study did not focus on present day users of the area. The study does conclude that there is present use of the area by Tłıchǫ citizens, however, the extent to which present use is captured within the study results is limited. This study does not include a review of the archaeology that links the oral history to the found sites of the area. This is a gap that should be filled in the future.

Nothing in this submission should be construed as to waive, reduce, or otherwise constrain Tłıchǫ rights within, or outside, regulatory processes. Nor should it be construed as to define, limit, or otherwise constrain the treaty or aboriginal use or rights of other First Nations or aboriginal peoples.

## **1.5 The Authors**

Rachel Olson, the lead author of this report, is currently a PhD Candidate in Social Anthropology from the University of Sussex in England. Ms. Olson has more than 15 years' experience working in the fields of community-based research, and traditional use and traditional knowledge studies with First Nations.



Ms. Olson has worked with several First Nations communities in the North (including northeastern British Columbia, northern Alberta, and the Yukon) on various research projects relating to traditional land uses, environmental health, and oral history studies. In 2002, she completed a Masters of Research in Social Anthropology at the University of Aberdeen, focusing on consultation process with First Nations and the Oil and Gas Industry. Rachel has also worked as a consultant for the LINKS (Local and Indigenous Knowledge) program at UNESCO in Paris, France. In 2009 Ms. Olson co-founded the Firelight Group Research Cooperative, of which she is currently a Director.

Interviews specific to this report were conducted by Rachel Olson, Alistair MacDonald, and Justin Bourke of the Firelight Group, and were completed with the support and assistance of staff from Tłı̨chǫ Government, including Georgina Chocolate, Rita Wetrade, Shirley Beaverho, and Kerri Garner. Tłı̨chǫ translation services were provided by James Rabesca, Jonas Lafferty, Mary Adele Wetrade, and Francis Zoe Fish. Cartography was provided by Steven DeRoy, who has been working since 1998 with aboriginal communities in North America, focusing on cartography, GIS, community training, and technical services (see Appendix 6 for CV). Support with maps was also provided by Ryan Chenkie, Lands Department.

An internal peer review of the draft report was completed by the Firelight Group. Additional review and support was provided by Dr. Craig Candler and Carolyn Whittaker of the Firelight Group. The draft report was also reviewed by the Kwe Beh Working Group of the Tłı̨chǫ Government. While others have assisted, reviewed and made suggestions, the opinions and conclusions expressed herein are those of the primary author, Rachel Olson.

The Tłı̨chǫ Government has reviewed the Firelight Group report, and designed recommendations and mitigation measures, as well as made its own estimations of significance.

## Section 2 The Project

### 2.1 Description of Fortune Minerals NICO Mine Project

Fortune Minerals Limited (Fortune) is proposing to develop a poly-metallic mine (the NICO Project) 160 kilometres northwest of Yellowknife and 50 kilometres northeast of Whatì, 79 kilometres from Gamètı, 145km from Wekweètı, 88 kilometres from Behchokò, and 170 kilometres from Yellowknife. The proposed mine is wholly surrounded by Tłı̨chǫ Lands, as defined through the Tłı̨chǫ Land Claim and Self Government Agreement (the Tłı̨chǫ Agreement).

The project would be built in roughly 12 to 18 months. The mine would operate for approximately 19 years as an open pit mine, with underground mining for the first two years. The rock from the mine and

the tailings from the processing of the rock that has ore in it will be placed in layers beside the mine (called the co-disposal facility). Water from the co-disposal facility will be collected for use in the process plant, or treated for safe release.

The project would include up to 269 jobs (during the two years when underground and surface mining occurs) and then 188 jobs for the 17 years thereafter. These figures were presented at the Review Board Hearings in August, 2012. The numbers for Tłı̨chǫ people have not been confirmed to date.

The proposed project is located within *ası ede t'seda dile*<sup>1</sup>, and is about 10 kilometres away from K'ı̀àgotı (Hislop Lake).

## 2.2 Existing Proponent Studies

The proponent conducted Traditional Knowledge studies in 2011-2012 and used those in their assessments of impact. Excerpts from these studies are included in Section 5 of the DAR. The Tłı̨chǫ Government issued a Technical Report on the proponent's report (Insufficiency Report: Fortune Mineral's Traditional Knowledge Study) which found significant gaps in the ability of the Fortune Study to capture the importance of the Project area to Tłı̨chǫ citizens. Fortune's TK study focused on the historical and recent TLU and TK of the Tłı̨chǫ and Métis. TLU and TK data were incorporated into the DAR in a range of sections, including Fish and Habitat (Section 12), Vegetation (Section 14), Wildlife (Section 15) and the Human Environment (Section 16).

### 2.2.1 Findings of Fortune Mineral's TK Study

Full review of the TK report findings submitted by Fortune Minerals is not included here. However, in the proponent's TK report, the following findings were noted:

- Interviewees identified many concerns with mining (such as leaks, harm to water quality or wildlife and people) in Section.3.1.
- The proponent found evidence of current and past hunting and trapping of both the local and regional study area. Hunting and trapping summary continue to occur within the RSA and LSA, including areas overlapped by the NICO project (pg. 5-12). The data from the proponent identifies a range of animals used for fur and meat.
- Interviewees found differences in animal health between now and the past, especially in caribou (Section 5.3.2.6). In this section, the loss of use of the area around Rayrock Mine is also described. Elders interviewed also indicated that the caribou migration may change because of mining related noise.

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<sup>1</sup> Spelling of Dene terms were used in conjunction with <http://tlichol.ling.uvic.ca/users/main.aspx>

- The area is used extensively for fishing, and a range of species are noted in Section 5.3.3 of the DAR. Fishing occurs in both the local and regional study areas, and the names of lakes are provided in English (in 5.3.3.2).
- Fish appearance, taste and overall fish health have changed, and in particular near Rayrock mine, people are not harvesting fish or drinking water.
- Plant harvesting is found throughout the regional study area and the local study area, and these species are identified (including berries and medicinal plants) in Section 5.3.4.
- Cabins, camps and culturally important sites are identified in the local and regional study area in Section 5.3.5.
- Burial sites were identified in the regional study area, but not in the local study area (of Section 5.3.5.5)
- No cultural areas were identified in the research directly in the area (5.3.5.6).
- Trails and travel routes were identified in the local and regional study area (5.3.6).

## **2.2.2 Utilization of TK within Project Design**

Fortune Minerals has cited concerns with water quality as a key factor to relocating the processing facility to the south (Saskatchewan). This means fewer chemicals would be transported into the region and used in the processing that takes place in the first stages of separation of the rock from the ore.

Fortune Minerals has also agreed to keep the height of the co-disposal facility low enough that it cannot be seen from K'ìàgotì.

## **2.2.3 Contribution to Impact Assessment**

The findings of the developer's TK report have been used in a variety of assessments of the DAR, including in:

- Wildlife (Section 15.3.5)
- Caribou (Section 8.3.2.3)
- Vegetation (Section 14.2.1.4)
- Fish and Aquatic Health (Section 12.2.6.3)
- Closure and Reclamation (9.4.2)
- Human Environment (Section 16)

## Section 3 Tłıchǫ Nation

The Tłıchǫ are an Athapaskan-speaking group of Dene or Northern Athapaskans who inhabit an area of nearly 295,000 square kilometres, located between Great Slave and Great Bear lakes in the Northwest Territories of Canada (Andrews, 2011). The Tłıchǫ leader Chief Monfwi defined the area known as Mǫwhì Gogha Dè Nı̄ttèè as the traditional area of the Tłıchǫ.

Tłıchǫ population is approximately 4,000 and they live primarily in the four Tłıchǫ communities: Gamètı, Behchokǫ, Whatì, and Wekweètı. Behchokǫ is the largest Tłıchǫ community with approximately 1950 people as of 2011. Behchokǫ houses the central offices for the Tłıchǫ Government and the Tłıchǫ Community Services Agency. The communities of Gamètı, Wekweètı and Whatì are isolated, smaller communities located inland off the main NWT highway system. They are only accessible by regular scheduled commercial air service all year round. However in the winter, from January through March, an ice road highway is built across the tundra and frozen lakes joining these communities (Tłıchǫ Government, 2012).

### 3.1 Culture and History

The following summary of culture and history of the Tłıchǫ is a brief overview. For more detailed ethnographies of the Tłıchǫ, please refer to the works of June Helm (1972, 1981, 1994), Alice Legat (2001, 2007, 2012), and Tom Andrews (2011). In an entry for the Canadian Encyclopedia, Helm and Andrews describe the following:

“From ancient times to the present, Tłıchǫ have hunted the barren-ground caribou in the boreal forest during winter and followed them to the edge of the barrens in spring, where they meet them again in the fall. Moose and hare of the forest, and migratory waterfowl and fish have also been important food resources for the Tłıchǫ ....

Fort Rae (1852), on the north arm of Great Slave Lake, was the first trading post established on the Tłıchǫ lands and the Tłıchǫ began to be drawn into the fur trade around the beginning of the 19th century. Roman Catholic missionaries began the conversion of Tłıchǫ in 1859. Schools that were established at Tłıchǫ settlements during the late 1950s facilitated access to southern schooling and prepared children for non-traditional occupations. Behchokǫ (formerly Rae-Edzo) has transformed into a

year-round settlement for (the majority) of Tłı̨chǫ .... the traditional reliance on hunting, fishing and fur trapping remains vital.” (p. 1)

The area around K’ı̀à g’otì is a part of this cultural history. The early fur trade almost completely destroyed the beaver and muskrat populations in the Marion River, and beavers were reintroduced to the region. When settlements were being established in Gamètı and Behchokò, some Tłı̨chǫ families decided to settle permanently in this already established occupancy area. As John B. Zoe explains:

“Near the mouth of the river that flows into K’ı̀à g’otì, there is an old village, evidenced by crumbled stone fireplaces. It was an encampment, a staging area for harvesting of fish, moose, caribou, small game and fur-bearing animals. The group’s harvest was transported to the trading posts, in exchange for goods and equipment related to survival on the land. The K’ı̀à g’otì Whaido kogola is one of similar villages located north and south of the historical site. They are all located at strategic areas that can sustain the community livelihood as well as for trade.

In the 1960’s, social assistance and incentives for building log houses were extended by government to attract people from the bush, to facilitate and introduce children to modern education. The present day sites for the communities of Gamètı was chosen by the community leaders. People started to settle in year round settlements, and in a short period, the nomadic follow the seasonal lifestyle had come to an end. Harvest for food and trapping continues, by hunters and trappers on a seasonally, based from their communities.

Since August 4th, 2005, the recognition of the Tłı̨chǫ Agreement and the establishment of the Tłı̨chǫ Government has been about self-determination. There is every intention to reinvigorate community self-reliance, building on traditional strengths, to give recognition for the re-establishment of traditional pursuits.

In time, when people choose to re-establish their communities, the land should continue to sustain the people again.

Sometime after Gamètı was being set up, people decided to build cabins, there was another group that wanted to build cabins in that area, Hislop Lake. So it was happening during the same time, a year or two apart, Gamètı was set up and you had the other group, they had their cabins built [near Hislop Lake]. Because it was a federal program to get people out of the bush and into, into communities or establishments, give them addresses I guess for the first time, a lot of the people wanted to stay where they were. And so when they chose the site of Gamètı, they built cabins. And another group chose Hislop Lake, built their cabins.”

The remnants of the stone chimneys are still present around Hislop Lake as well as many distinctive *dèetsy* [wooden fish caches sites] along the Gòlo Tì Deè River. As this report will detail, this area was once a larger settlement of the Tłı̨chǫ Nation and is still used by Tłı̨chǫ citizens.

## 3.2 Tłı̨chǫ Government and the Tłı̨chǫ Agreement

The Tłı̨chǫ Land Claims and Self-Government Agreement was signed on August 25 2003, 82 years after Treaty 11 was signed by Chief Mǫwhì in 1921. The Agreement was signed by representatives of the Dogrib Treaty 11 Council, the Government of the Northwest Territories (GNWT) and the Government of Canada. The Tłı̨chǫ Agreement is the first combined land claim and self-government agreement in the Northwest Territories.

The Tłı̨chǫ Government is the governing authority within Tłı̨chǫ Lands. The Tłı̨chǫ Government has the power to pass laws, enforce its own laws, delegate its powers and authority, and establish structure of Tłı̨chǫ Government and its internal management. The powers and authority of the Tłı̨chǫ Government came into effect in 2005, and are reviewed in Section 2.1 of the Tłı̨chǫ Constitution.

2.1 The purpose of the Tłı̨chǫ Government and its institutions is to act in the best interest of the Tłı̨chǫ and to respect all laws including Tłı̨chǫ laws, by among other thing, acting to preserve, protect and promote our Aboriginal and Treaty rights and way of life – including our culture, language, heritage, lands, economy and resources – for all Tłı̨chǫ today and for future generations to come for as long as the land shall last.

## 3.3 Tłı̨chǫ Traditional Knowledge

In this section, a brief description of some key concepts will be explored. First, it is important to contextualize the term “knowledge” and “traditional knowledge” within the Tłı̨chǫ system of both having knowledge and being knowledgeable. This understanding is critical because it is directly tied to the landscape and the ability to experience and use Tłı̨chǫ lands.

### 3.3.1 Dè

The first concept is “*dè*”. This terms is commonly been translated as “land”, however, as Legat (2012) notes, *dè* is a “living entity and is in constant flux as a result of the lives and interactions of all beings” (p. 2). In 1994, elder Phillip Zoe described the *dè* in this way:

There are no empty spaces. All spaces are used by something: fox, fish, trees, humans, wind, northern lights. It may look empty, but all the *dè* is used. (Cited in Legat, 2012: p. 96)

Tłı̨chǫ traditional knowledge is rooted in understanding the *de* through experience on the land. As Legat (2012) describes, “to know is to maintain proper, respectful relationships with all that is part of the *dè*” (p. 18). Travelling through and experiencing the *de* is central to the Tłı̨chǫ way of knowledge.

By travelling through the landscape, “youth are educated and socialized in Tł̓ch̓q culture” (Andrews, 2011: p. 34).

### **3.3.2 Place names**

Andrews (2011) notes that the Tł̓ch̓q landscape is codified at various levels with place names and that these names are:

“...associated with narratives that relate knowledge pertinent to the rules and moral codes of society, history and mythology, worldview, kinship, relationships with neighboring groups, relations with other-than-human persons, resources and their distribution, and other aspects of society, culture, and environment.” (p. 34)

In the area of the proposed project, this study recorded 46 place name values within the project RSA. The following map (Figure 1) shows these place names. The study has also used passed work of the Tł̓ch̓q Government place names as a base layer for all the maps throughout this report. It is important to understand that these place names are important “indicators of bio-geographical knowledge” (Legat et. al, 2001: p. 20). As John B. Zoe explained, “Place names is not something that... they just slap on for no purpose. It's [got to] have a reason for it”.

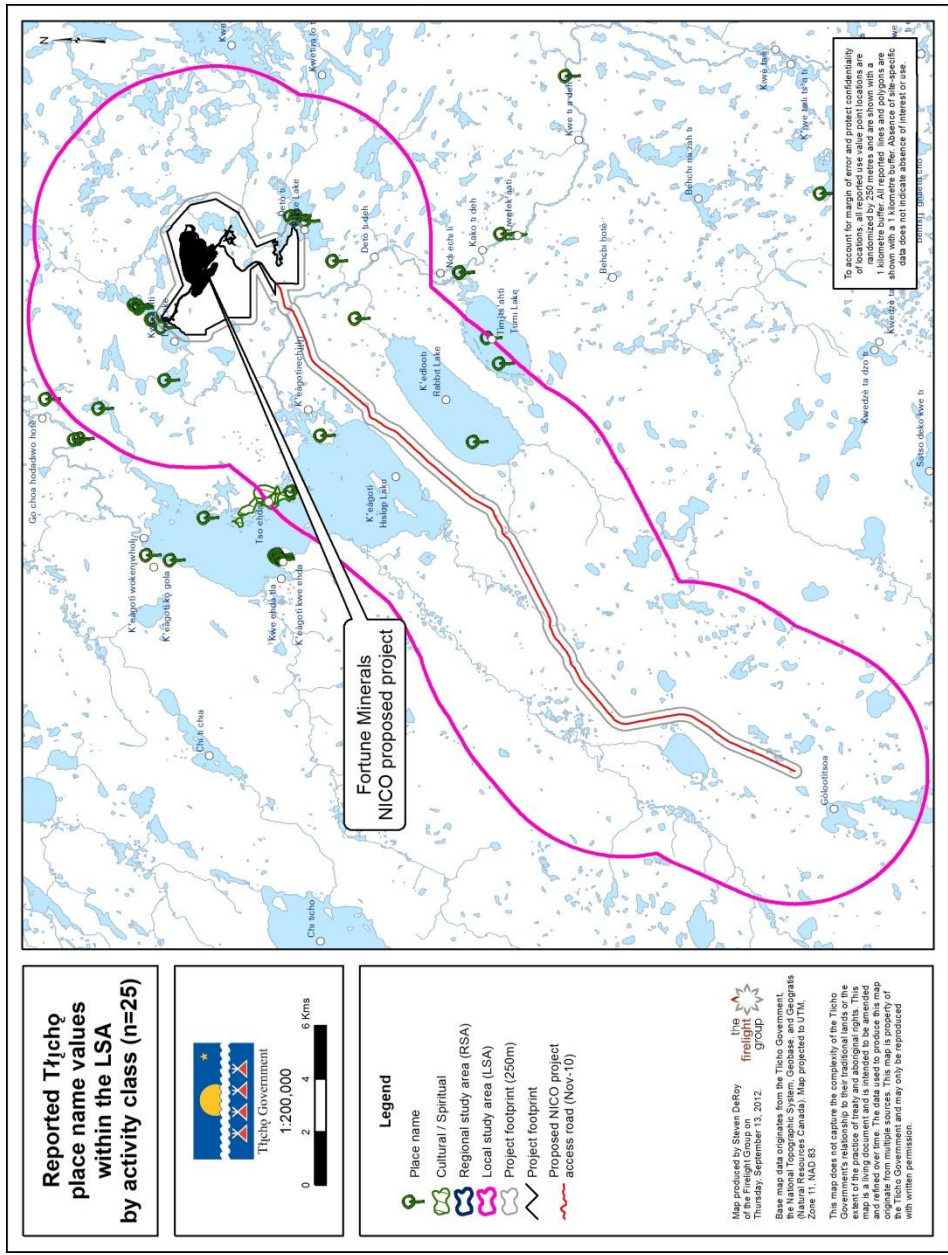


Figure 1: Reported Tłı̨chǫ place name values within the LSA



### 3.3.3 Ası ede t'seda dıle

*Ası ede t'seda dıle* is translated as “the place we go where we can survive”. The proposed NICO project is located within the area referred to in this way. The concept of *ası ede t'seda dıle* can refer to the Tłıchǫ cultural landscape as a whole, however, in the context of the LSA, this term is applied specifically to this place for a number of reasons given by the elders interviewed for this study. Elders spoke of their ancestors telling them that *ası ede t'seda dıle* was a place of refuge, where there is an abundance of fish all year round, so if the caribou were scarce, this was a place you could depend on to “have a good life” and a “future”.

Depending on who you are speaking with, the region of Hislop Lake is referred to as k'ı̀agotı or eka g'otı and as k'a gotı. When Elders and land users refer to this area, they are referring to the drainage area that goes to Behchokǫ. A map from the Tłıchǫ Lands Department reveals the area that is being referred to when people speak of the k'ı̀agotı region.

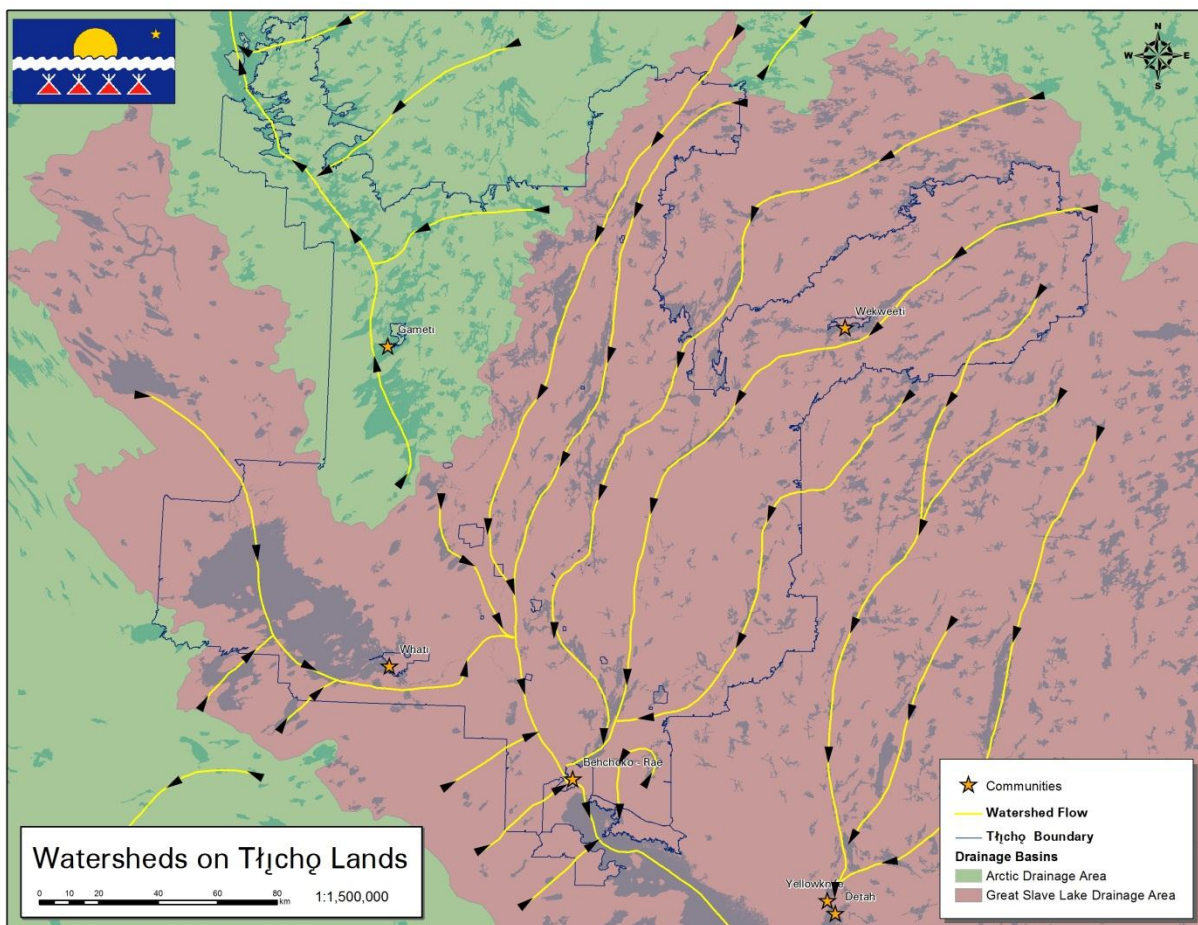


Figure 2: Watersheds on Tłıchǫ lands (map provided by the Tłıchǫ Government)

### 3.3.4 Idaa Trail

Ası ede t'seda dıle is also located along the main travel route of the Idaa trail. As noted above, travel and knowledge are inextricably linked within the Tłıchǫ cosmology and cultural landscape. The Idaa trail will be discussed in further detail below (Section 5.2.1), however, it is important to emphasize here the centrality of Ası ede t'seda dıle within this important travel route. The following map shows the vital use of the Idaa Trail which is the darkest location below Great Bear Lake. It demonstrates the use of the area in the 1970s and 1980s.

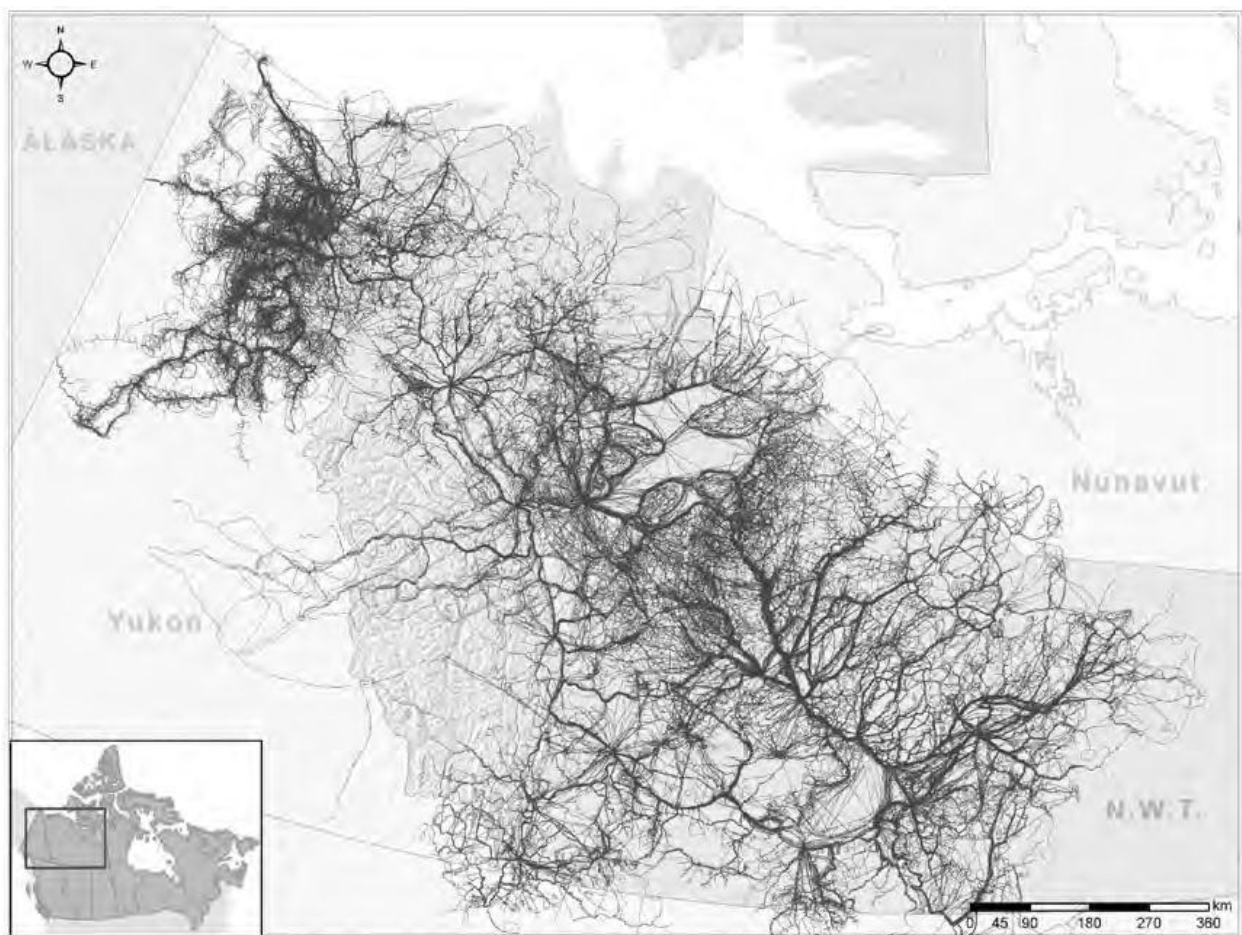


Figure 3: Dene Mapping Project trails for 600 trapper/hunters interviewed by the Dene Nation in the 1970s and 1980s. Used with permission of the Grand Chief.

# Section 4 Baseline Data Collection and Assessment Methods

## 4.1 Baseline Data Collection Methods

Baseline data collection for the study involved confirming key themes and VCs, defining temporal and spatial boundaries of assessment, and compiling and collecting baseline information. The latter included a scoping process, document review, gap analysis, and use and occupancy mapping interviews. The methods used for baseline data collection and timeline are summarized below in Table 1.

**Table 1: Baseline Data Collection**

<b>Steps for baseline data collection</b>	<b>Description</b>
Step 1: Confirmation of themes and methodology	A meeting was held with Tł̓ch̓ Government leadership and staff on May 31 <sup>st</sup> , 2012 to confirm key themes, identify likely industry interactions for further investigation, and begin defining the sample for participation.
Step 2: Gather information about key themes	Review and compilation of information from existing sources (transcripts, reports, and spatial data) to identify spatial information within 5 km, 25 km, and downstream within the RSA, and to characterize baseline condition of key themes.
Step 3: Data collection to fill gaps, community review, analysis, and confirmation	31 individual mapping interviews were conducted with 31 elders and land users from all four Tł̓ch̓ communities in the summer of 2012. Project-specific reporting was reviewed, and analysis and findings reviewed. Community verification is ongoing.
Step 4: Verification meeting	A meeting with the Kwe Beh Working Group on September 12-13 reviewed findings, verified place names and verified key terms for the region.

### 4.1.1 Identification of Key Valued Components

A Valued Component (VC) is defined as an important aspect of the environment that a project has potential to affect, and, consistent with standard assessment practice, is considered within an environmental assessment (Hegmann et al., 1999)<sup>2</sup>. VCs may include tangible or biophysical resources

<sup>2</sup> Valued ecosystem component (VEC) is a term frequently used to designate a similar concept, but is focused on biophysical resources. This report uses VC in relation to Tł̓ch̓ knowledge and use values, as VC is a more general term.

(e.g. particular places or species), as well as more social or knowledge based VCs (e.g. place names or traditional knowledge regarding a particular area).

In the context of Tłı̨ch̨ knowledge and use, the identification of VCs provides a way to focus on what is most important with respect to a particular project. The VCs for this assessment were determined through:

- consideration of past work with Tłı̨ch̨ community members and staff;
- review of materials from past Tłı̨ch̨ studies; and
- meeting held with Tłı̨ch̨ leadership and staff.

#### **4.1.1.1 Site-specific Values**

For the purpose of this report, site-specific values include values that are reported as specific and spatially distinct, and that may be mapped (though exact locations may be considered confidential). Site-specific values, such as cabins or kill sites, reflect specific instances of use that anchor the wider practice of livelihood within a particular landscape. For example, a particular moose kill site may be mapped with a precise point, but that value is correctly interpreted as an anchor or focal point for a wide spectrum of other related livelihood practices and values, including:

- wider hunting areas covered in efforts to find the moose;
- practice of navigation and tracking in order to access the moose;
- religious or ceremonial practices that may be associated with the hunt;
- food processing and preparation techniques to utilize the moose; and
- the range of social relationships and knowledge transmission (teaching) activities that are required for a successful hunt to occur.

In other words, every mapped site-specific value implies a much wider range of activities and a wider geographic area upon which the meaningful practice of that use relies. Therefore, the area covered by recorded site-specific use values should be understood as a tiny portion of the area actually required for the meaningful practice of Tłı̨ch̨ livelihood. (Candler et al, 2010)

Site-specific VCs for baseline collection include five classes of site-specific values:

- subsistence values (including harvesting and kill sites, plant food collection areas, and trapping areas reported within the LSA and RSA);
- habitation values (including temporary or occasional, and permanent or seasonal camps and cabins reported within the LSA and RSA);
- cultural/spiritual values (including burials, village sites, ceremonial areas, and medicinal plant sites reported within the LSA and RSA);
- transportation values (including trails, water routes, and navigation sites reported within the LSA and RSA); and
- environmental feature values (including specific highly valued habitat for moose and caribou reported within the LSA and RSA).

#### **4.1.1.2 Non-site-specific Values**

For the purpose of this report, non-site-specific values are those that may be specific to a resource or other concern, but are spatially indistinct or difficult to map. Non-site-specific values often represent the critical conditions or elements that must be present for the continued practice of aboriginal rights, such as hunting and gathering of wild foods. As such, non-site specific values range from the direct presence of traditionally hunted animals and other wild foods on the land, to continued access to traditional hunting areas and non-contaminated sources of wild foods. Non site-specific values include intangible cultural resources, such as the transmission of knowledge across generations and the continued use of traditional place names.

Non-site-specific VCs included in this assessment are:

- Trails and transportation corridors;
- Waterfowl, fur bearing and tapping;
- Caribou and moose;
- Water, Wild Foods, Medicinal Plants and Contaminants; and
- Intangible cultural resources (including Tłı̨ch̓ transmission of knowledge and language).

#### **4.1.2 Temporal and Spatial Boundaries of Assessment**

The temporal boundaries for baseline data collection include past, present, and planned future Tłı̨ch̓ knowledge and use. For the purpose of this study:

- a past value refers to an account of knowledge and use prior to living memory;
- a present value refers to an account of knowledge and use within living memory; and
- a planned future value refers to anticipated or intended knowledge or use patterns by the individual or their expectation for use by their descendants.

Spatial boundaries for baseline collection include:

- the Project lease boundary, extended by a 250m zone of influence (ZOI) to represent edge effects ;
- the LSA, defined as an area within 5 km of the Project footprint, within which intense project-related disturbance can be expected; and
- the larger RSA (defined below), within which project-related effects may interact with Tłı̨ch̓ values (see Figure Two).

A 250 m ZOI around the industrial footprint is used to document site-specific impacts on VCs, based on evidence that this distance is a reasonable approximation for a zone within which the abundance of wildlife and land use by humans may be altered (Management and Solutions in Environmental Science, 2010).

Five km (just over three miles) is an approximation of the distance easily travelled in a day trip from a point (such as a cabin, camp or other location) by foot through bush, as when hunting, and returning to

the point of origin (Candler et al. 2010: 29). It is used as a reasonable approximation of the area of regularly relied-upon resource use surrounding a given transportation or habitation value

The RSA is a broader area within which direct or indirect effects of the Project may be anticipated, such as noise, dust, odors, access management activities, traffic, effects on water, and other forms of disturbance experienced by Tł̥ch̥ citizens. For this project, the RSA is defined by a 25 km area around the Project Lease Boundary. Attention to downstream effects is based on Tł̥ch̥ concerns regarding loss of use due to increased fear or concerns regarding waterborne contamination caused by the Project. Due to the potential displacement of Tł̥ch̥ land use, it is also possible there will be indirect project effects outside the RSA as Tł̥ch̥ members avoid areas perceived to be affected by the Project.



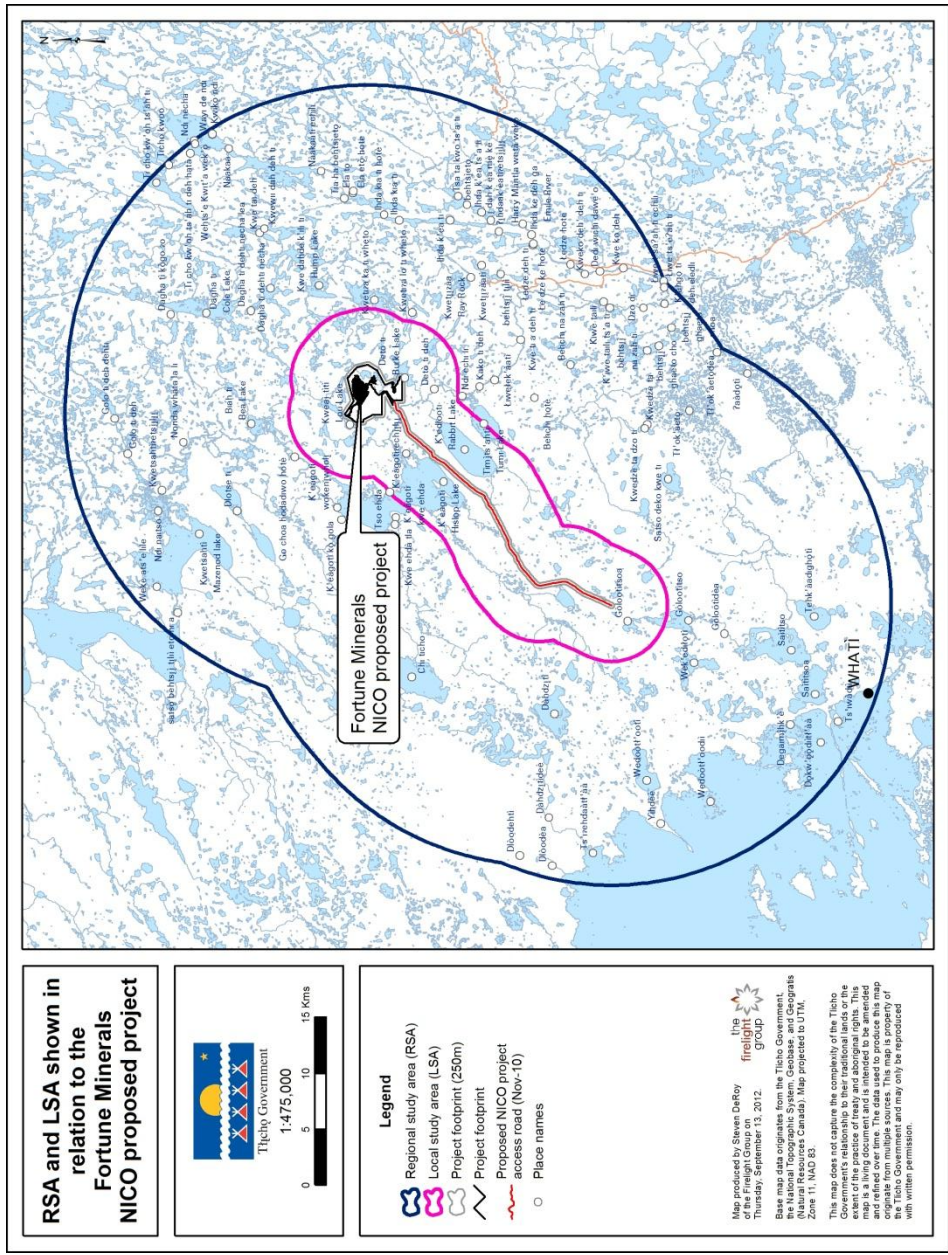


Figure 4: RSA and LSA shown in relation to Fortune Minerals NICO proposed project

### 4.1.3 Interview Methodology

A total of 31 interviews with elders and land users from the four Tłchq communities were conducted in the summer of 2012. The initial participant sample was developed based on community identification of knowledge holders and land users conducted during initial scoping. The majority of the interviews were conducted with elders in each of the communities, in keeping with community protocols. It is important to note that because the majority of the study population was over 65 years of age, the temporal range of use did not include many younger, current land users. The participants interviewed did indicate that the area is presently used by Tłchq citizens, and future research is recommended. Please see Table 2 for a list of the Tłchq citizens interviewed for this assessment. All interviews, except three, were conducted in Tłchq with simultaneous translation. Data collection focused on the Project LSA, but extended into the RSA as necessary. In addition, The Firelight Group conducted a focus group with Tłchq citizens on September 12, 2012. Because of time constraints, map verification was completed by the Kwe Beh Working Group, and community verification of data is recommended. No GPS based field verification of interview data was conducted, however, it is recommended that this work continue to include this component of the study.

**Table 2: List of Participants**

Name	Community	Name	Community
Fred Mantla	Gamètı	Madeline Judas	Wekweètı
Liza Mantla	Gamètı	Joseph Judas	Wekweètı
Romie Wetrade	Gamètı	Robert Mackenzie	Behchokò
Joe Mantla Senior	Gamètı	Francis Williah	Behchokò
Alfonse Apples	Gamètı	Annie Black	Behchokò
Louis Zoe	Gamètı	Charlie Mantla	Behchokò
Jonas Nitsiza	Whatì	John B. Zoe	Behchokò
Joe Champlain	Whatì	Phillip Huskey	Behchokò
Sophie Williah	Whatì	Charlie Apples	Behchokò
Pierre Beaverho	Whatì	Harry Apples	Behchokò
Rosa Romie	Whatì	Melanie Weyallon	Behchokò
Dora Nitsiza	Whatì	Phillip Dryneck	Behchokò
Jimmy Nitsiza	Whatì	Gabriel Gon	Behchokò
Elizabeth Arrowmaker	Wekweètı	Clifford Daniels	Behchokò
Liza Tom	Wekweètı	Mary Jane Daniels	Behchokò
Rosa Pea'a	Wekweètı		

All mapping interviews were conducted with individuals, included documentation of prior informed consent (see Appendix One), and used a standardized interview guide designed to meet the needs of the study and to provide a consistent, but flexible, framework for soliciting and recording responses (see Appendix Two). Interview and mapping protocols were based on standard techniques (Tobias, 2010). Where data were location-specific, they were mapped using a direct to digital process at



1:50,000 scale or finer, using points, lines or polygons. The direct-to-digital mapping method is described in Appendix Three. Interview data was coded in such a way that disaggregation of individual participant data is possible, and first hand and second hand information is distinguishable.

All mapping interviews were recorded using digital audio recording and digital video recording of the map surface, and through interview notes captured on interview forms or in notebooks. Questions were designed to gain an understanding of the participant's background and relationship to the study areas, patterns of avoidance and use (including hunting, trapping, fishing, and related practices), and how the participant's use has changed over time. Where data was location-specific, it was mapped using points, lines, or polygons. Temporal information regarding season and year was recorded where possible. Coding of data took place on screen so that it could be reviewed as it was entered. Interviews averaged approximately one and a half hours. For some participants, there was not adequate time to address their use and occupancy in relation to the entire study area. Where this was the case, areas in closest proximity to proposed Project footprints were emphasized.

## **4.2 Impact Assessment Methods**

### **4.2.1 Summary**

Assessing the impact of the Project involved identifying key VCs, defining temporal and spatial boundaries of assessment, and identifying anticipated effects on VCs based on a mixture of the density and importance of use and occupancy values, the location of the values in relation to the proposed Project, and what land users had to say about potential effects.

### **4.2.2 Valued Components for Assessment**

VCs for assessment are the same as those noted above for baseline collection. See Section 4.1.1.1 for site-specific VCs, and Section 4.1.1.2 for non-site-specific VCs.

### **4.2.3 Temporal and Spatial Boundaries for Assessment**

The temporal and spatial boundaries for assessment correspond to those for baseline collection (see Section 4.1.2 and Figure 2).

It is important to note that, like many social and ecological values, First Nations traditional use values exist within an ongoing process of interdependent environmental, cultural, economic, and social change that is rooted in the past and extends into the future. The assessment of impacts provides a prediction of likely future change resulting from the Project given available information. Th̓ch̓ knowledge and use involve complex and dynamic cultural and ecological systems, and it is important to note that what may appear to be minor changes in a single component may have larger and unexpected consequences for the whole.

# Section 5 Fortune Minerals NICO Mine Project Baseline and Assessment

This section provides baseline and assessment of likely effects specific to the Project on Tłchq knowledge and use.

## 5.1 Baseline Summary for Site-specific VCs within the NICO LSA and RSA

Figure 3 provides a map of Tłchq site-specific data reported within the NICO Project LSA including 72 site-specific use values within the proposed Project Lease Boundary. 179 site-specific use values were identified within the LSA (within 5 km of the proposed NICO footprint), including subsistence values, and 39 habitation values clustered primarily at the mouths of the Golotı Dee at the north and east sides of K'ı̀gotı Temporary habitation, including overnight camping sites, are located in and around the Project footprint.

The pattern and density of occupation sites indicates the area is both a major Tłchq transportation, and an ecological focal point within which patterns of Tłchq cultural practice are focused. While not every site-specific value includes time information, reported time of last use for habitation values within the LSA range from the 1960s to today.

There were 358 Tłchq use, occupancy and other values were identified in the RSA, the majority of them in the area of Ası edee t'seda dıle, and in the surrounding lakes and watershed. All mapped values are based on the use and knowledge of Tłchq citizens.

All Tłchq data (points, lines and polygons) are shown with no buffers. Table 3 provides an account of reported Tłchq site-specific values inside or within 250 m of the NICO Lease Boundary, within the LSA, and RSA.

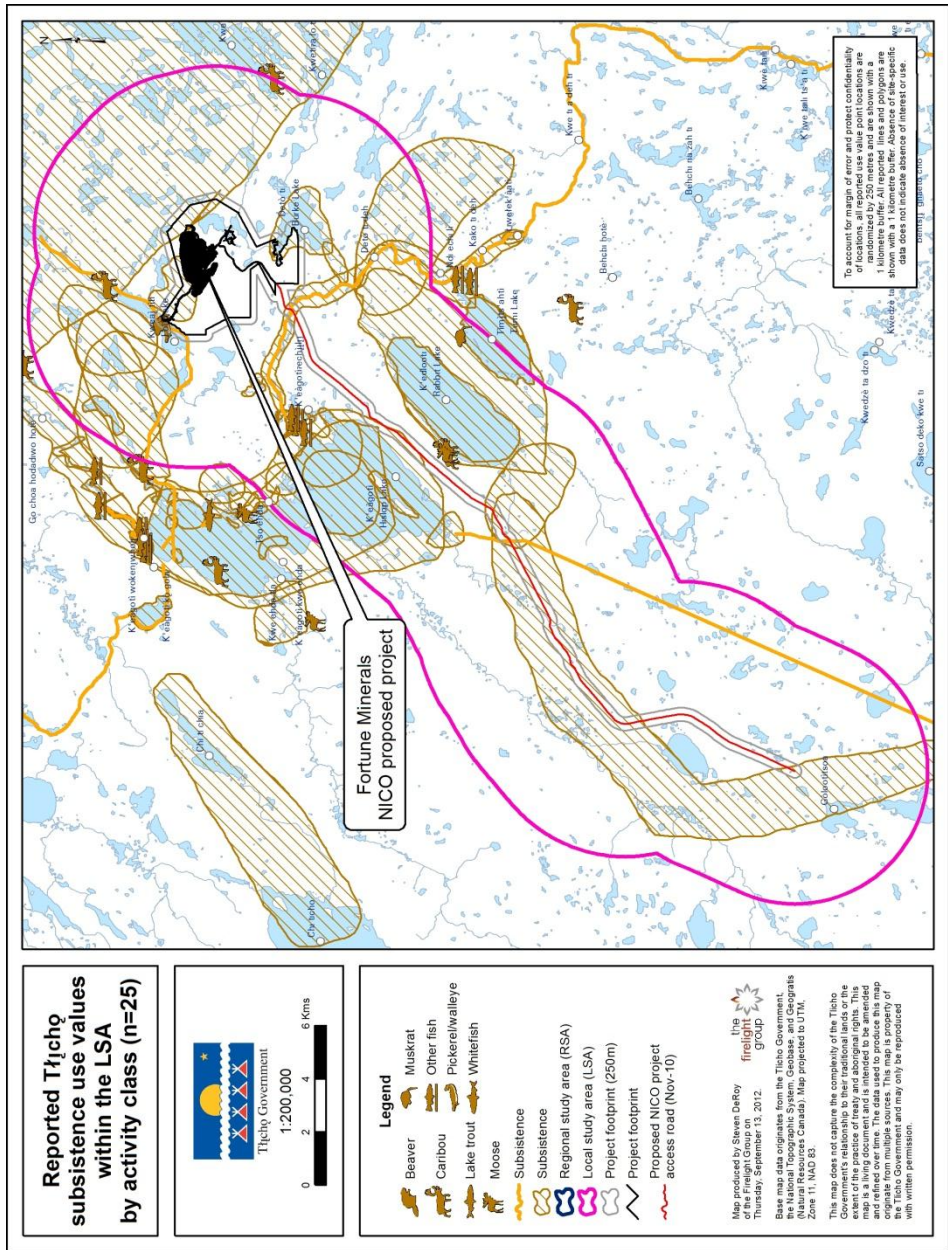


Figure 5: Reported Tłı̨cẖ subsistence values within the LSA by activity class

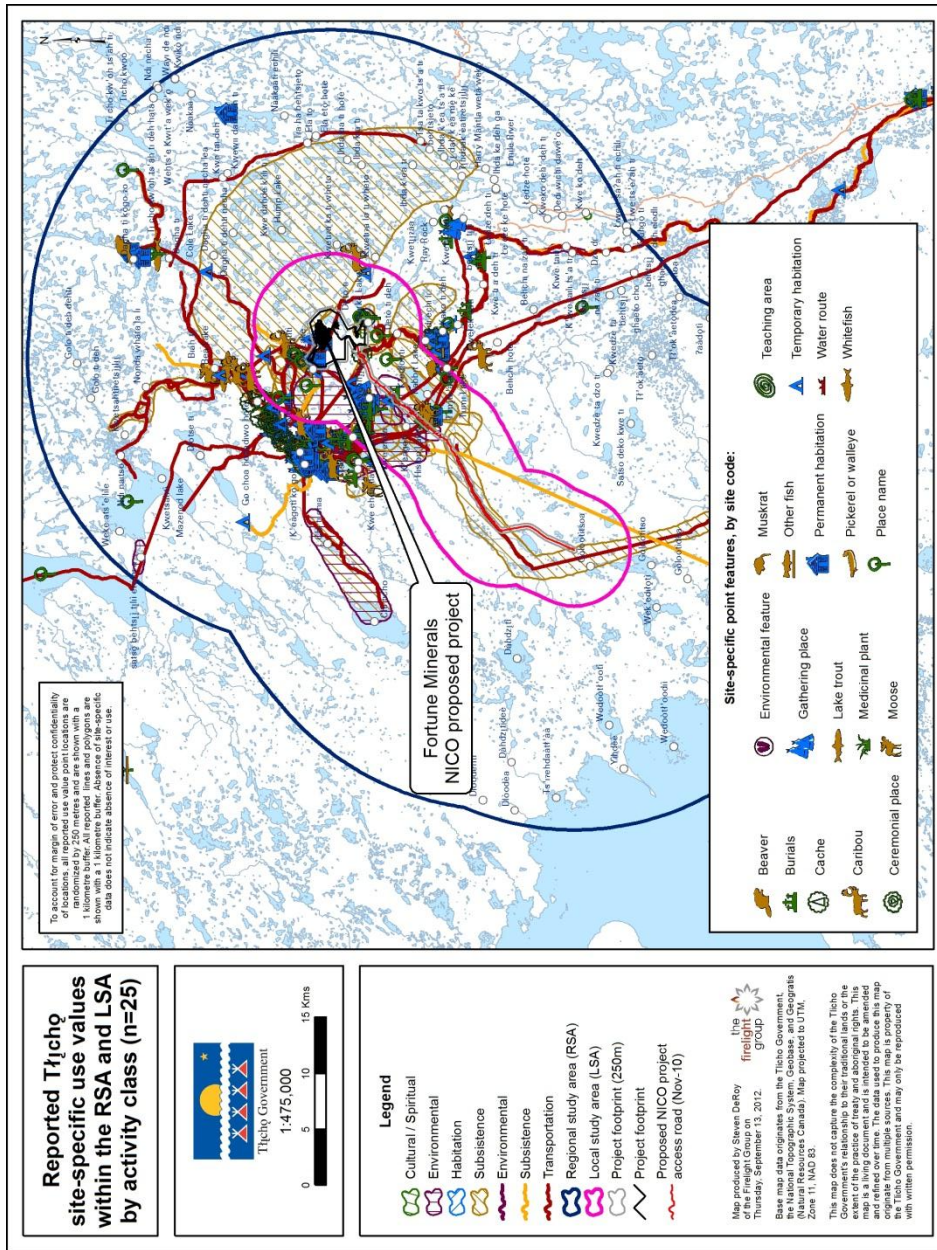


Figure 6: Reported Tłı̨chǫ site-specific use values within the RSA and LSA



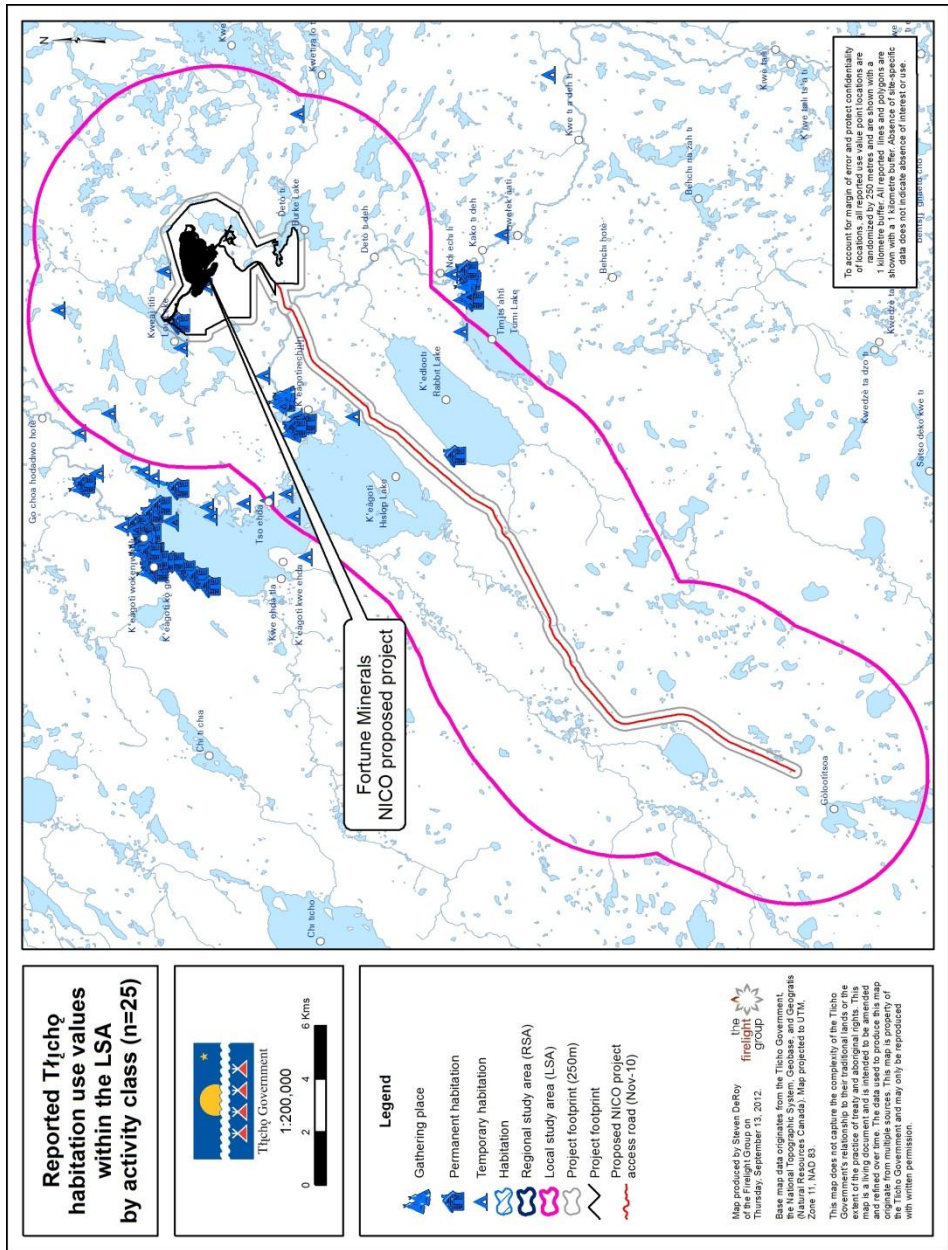


Figure 7: Reported Tłı̄chǫ habitation use values within the LSA

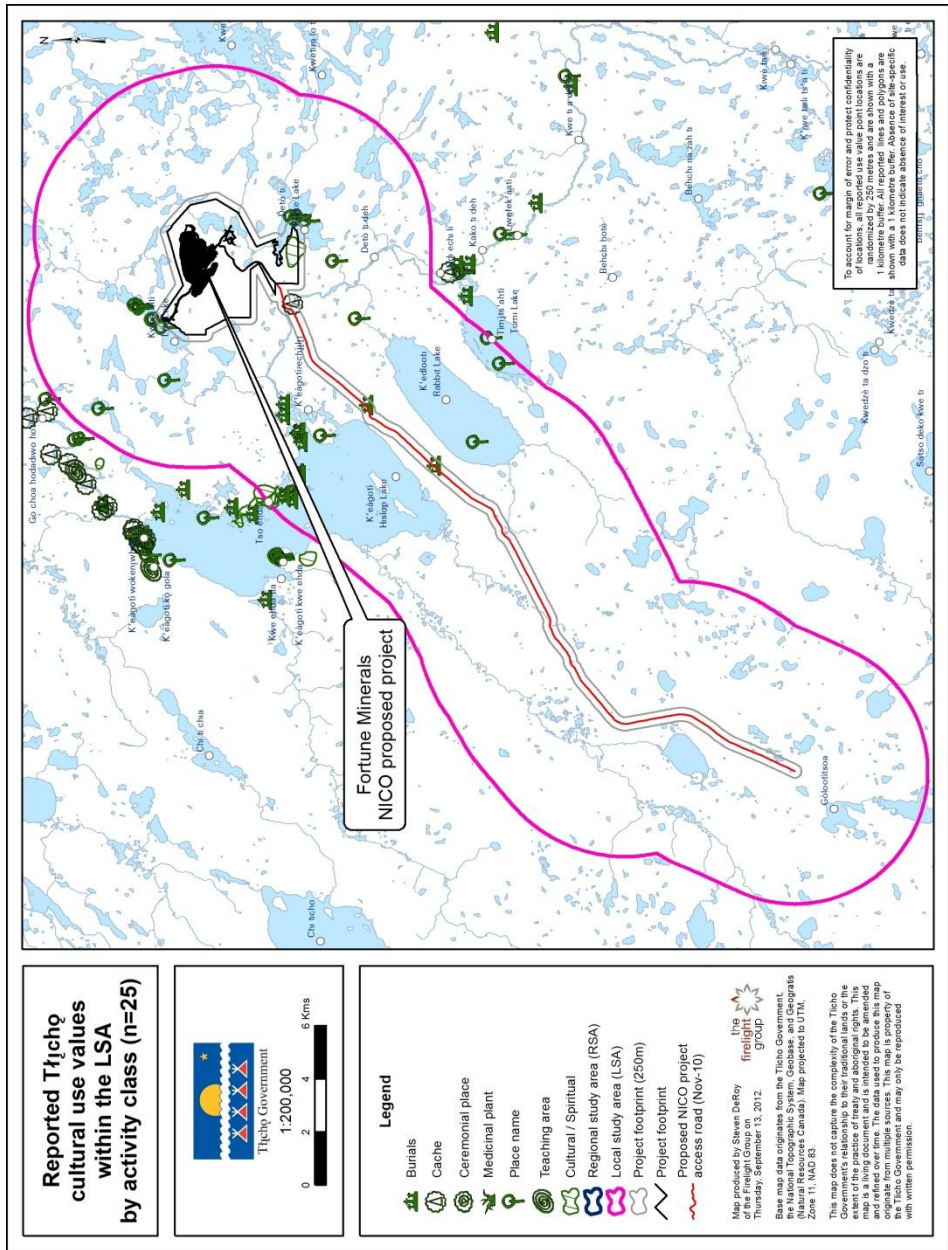


Figure 8: Reported Tłı̨chǫ cultural use values within the LSA

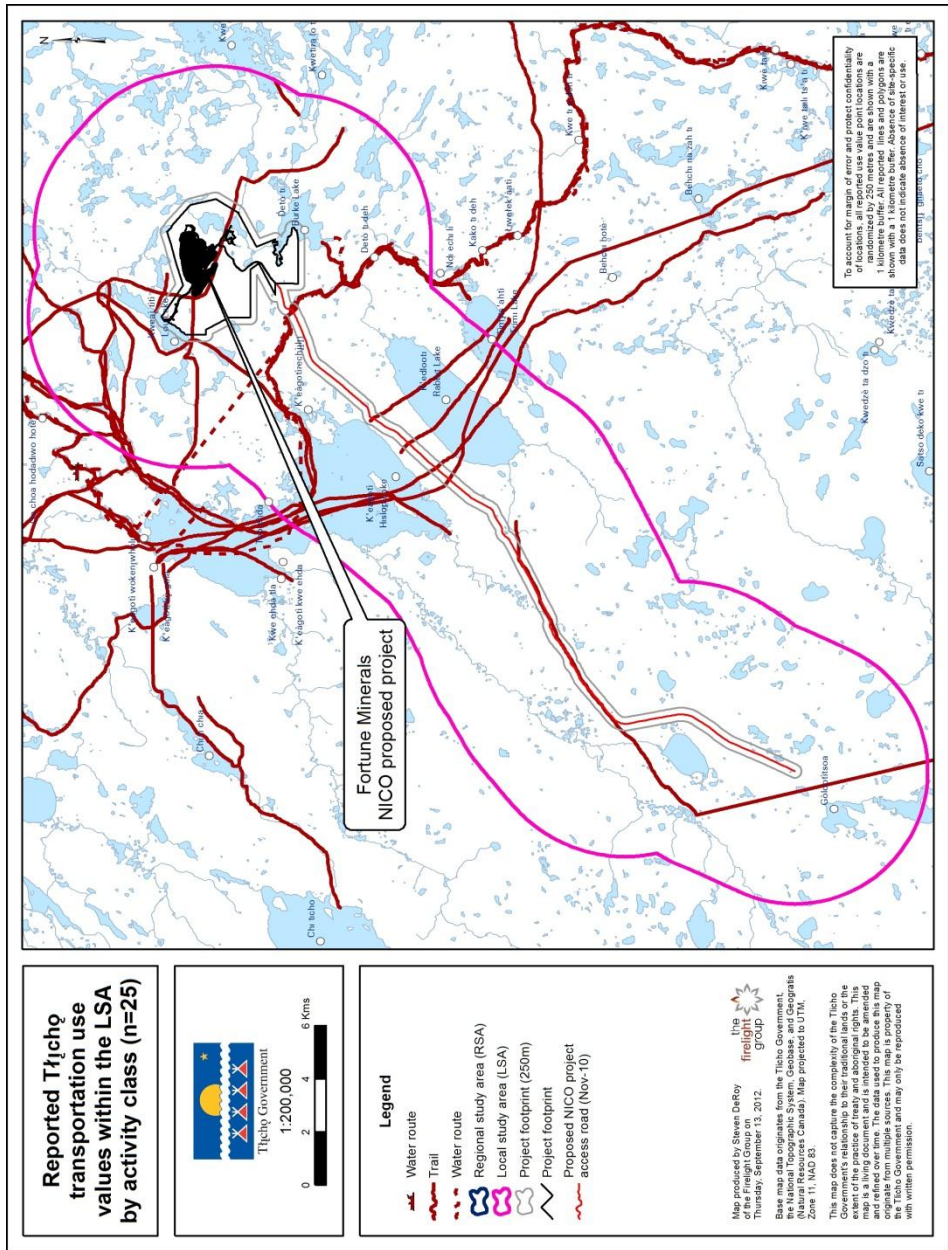


Figure 9: Reported Tłı̨chǫ transportation use values within the LSA



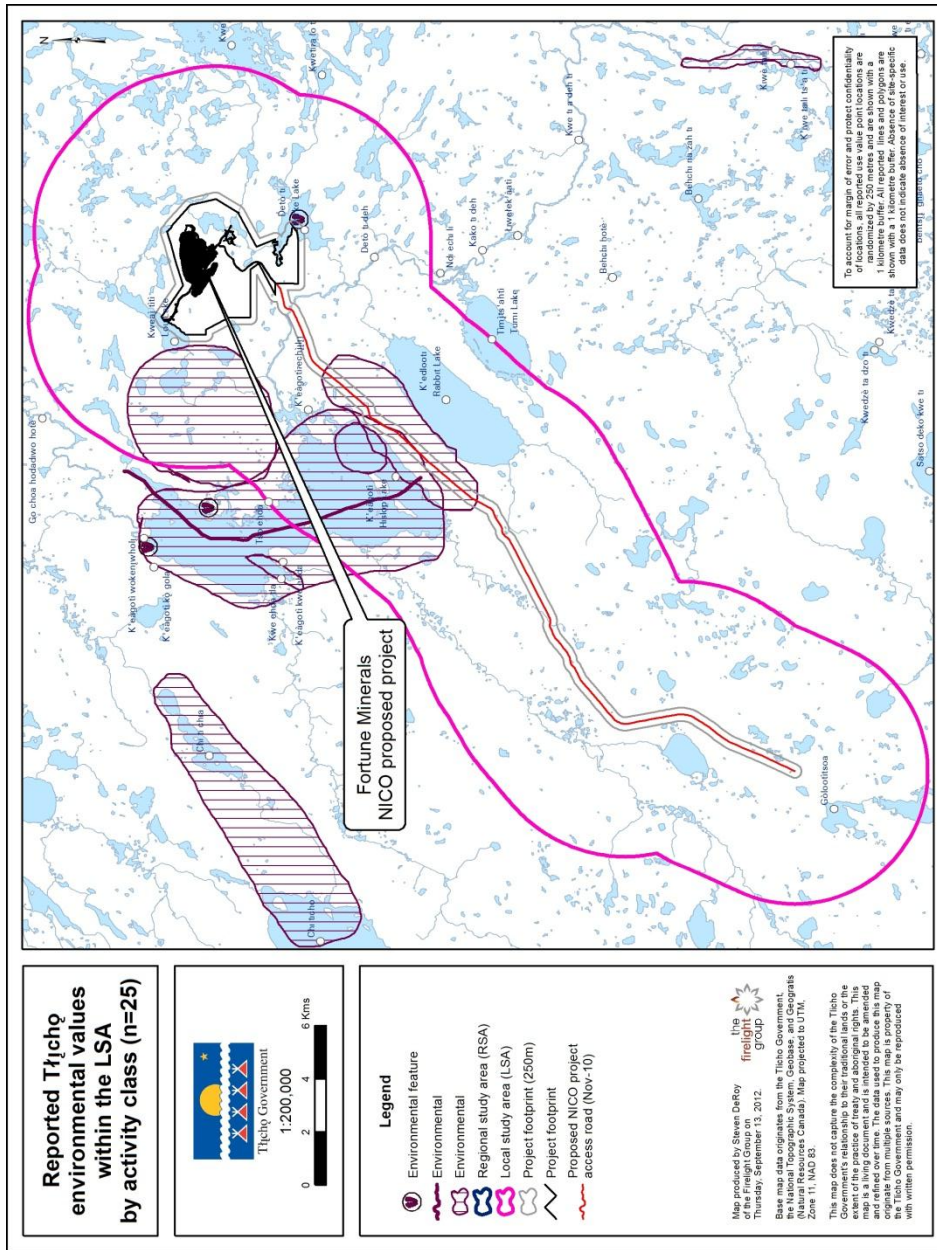


Figure 10: Reported Tłı̨chǫ environmental values within the LSA



Table 3 provides an account of reported Tłıchǵ site-specific values inside or within 250 m of the NICO Lease Boundary, within the LSA, and RSA.

**Table 3: Reported Tłıchǵ Site-Specific Use Values in Relation to the NICO Lease Boundary, LSA, and RSA**

Activity Class	Within Lease Boundary No. of values	Within LSA No. of values	Within RSA No. of values
Cultural/Spiritual	14	45	97
Environmental	6	6	12
Habitation	6	39	90
Subsistence	28	61	116
Transportation	17	28	43

From the 31 participants, specific traditional use activities reported by Tłıchǵ citizens within the NICO Lease Boundary include the following:

- One burial location reported within the lease boundary;
- Cultural/spiritual and historic values associated with the Idaa trail travel route;
- Multiple permanent habitation values and encampment areas (including one cabin) relied upon by Tłıchǵ citizens when in the area;
- Large game hunting including reported kill sites for ekwǵ (caribou) and dedıı (moose), with an important and unique environmental feature site where harvesters listen for moose and where there are special soils that attract the animals;
- Small game hunting ǵhtsoa (ptarmigan, rabbit) and migratory birds;
- Hunting of tsà (beaver), dzǵ (muskrat), and nàmbe (otter) for fur and food;
- Fishing for ĩh (whitefish), ĩhdaa (northern pike or jackfish), ehts'èè (pickerel, walleye), nǵhkweè (mariah or loche);
- Environmental features associated with unique habitat in the K'ìàgotı and along the Marion River, and a reported movement corridor (East-West (E-W) for caribou; and
- Multiple accounts of the K'ìàgotı and the Gòlo Tı Deè River as a critical travel route and critical mode of accessing surrounding lands, including the small lakes nearest the footprint.

Within the 5 km LSA, 179 specific use values were reported, including intense use of *ası edee t'seda dile* and the Gòlo Tı Deè River corridor adjacent to the Project footprint. The temporal range for this use is from the early 1940s to present day. All recorded use values fall within the definition of the “present” values (Section 4.1.2). In addition to values noted above within the footprint, values within the LSA include.

- Cultural/spiritual values, including multiple burial sites;

- Preferred hunting areas along the Gòlo Tì Deè River and surrounding lakes for fur bearing (beaver and muskrats) and migratory birds (ducks); including one reported trapline area north of the Footprint that has been reported to be actively used and continues to be used every year for the past 20 years (T30, T31);
- 28 reported temporary habitations or other overnight structures (camps) and nine reported values associated with cabins and permanent habitation areas within the LSA. Based on reported last use, activity levels in the area have declined over time but is still used continuously and regularly by Ṭḥcḥo citizens since before 1960 to the present;
- Almost 20 reported kill sites with the majority (more than 15) associated with successful caribou hunting along portions of *asi edee t'seda dile* adjacent to and surrounding the Project (within the LSA), as well as successful moose hunting sites (T5, T7, T9, T10, T13, T19) ranging from the 1940s to 2005 for caribou, and up to 2002 for moose.;
- Preferred subsistence fishing *ihdaa* (Jackfish, whitefish, and pickerel) along the Gòlo Tì Deè River, and particularly at the mouth of the rivers on the north and east side of K'ìàgotì ; including multiple fish caches along the Gòlo Tì Deè River; and
- Multiple environmental features, including important caribou habitat, an E-W movement corridor across RSA. (T5, T8, T13, T18, T23, T30).
- Collection areas for berries and firewood and other materials.

Based on Ṭḥcḥo interviews, the density of Ṭḥcḥo use within the Lease Boundary and LSA is the result of a number of contributing reasons.

- Consistent with the many habitation values (camps and cabins) reported by Ṭḥcḥo citizens, the LSA is accessible by boat along the Gòlo Tì Deè River, and by winter road, and the associated stretch of river includes a series of regularly used and historically known camps and cabins relied upon and returned to by Ṭḥcḥo citizens and families over a long period of time;
- Consistent with the high number of fishing values reported, especially for whitefish, and pickerel at the mouth of K'ìàgotì and the River at and near the north and east inflow and outflow of the lake provide a rich and reliable source of fish.
- Critical to the current and ongoing use of the LSA by Ṭḥcḥo citizens, the Gòlo Tì Deè River and smaller streams flowing from the small lakes around the Project, provide sources of fresh drinking water (for people and animals) that are still trusted as clean alternatives to the waters downstream from the Rayrock mine site, which are now widely regarded with suspicion by Ṭḥcḥo hunters and land users (see further discussion of loss of use areas below).

### 5.1.1 Loss of Use

Figure 8 shows areas of general loss of use due to industrial impacts reported by Ṭḥcḥo citizens in the RSA, as well as instances of specific lost use due to resource or water quality (perceived contamination). Areas of general loss of use are locations that Ṭḥcḥo citizens have reported using for subsistence, habitation, or other uses, but that are now partly or fully avoided due to perceived contamination or

other concerns. As indicated by Tłı̨chǫ users, current general loss of use extends beyond the LSA and into the RSA, and is related to the Rayrock mine site and downstream from this site.

As shown in Figure 8, the area immediately south of the Project is currently avoided by at least some Tłı̨chǫ users because of existing industrial impacts. Of the 31 Tłı̨chǫ citizens reporting use within the LSA, six reported some degree of lost use due to concerns regarding pollutants and contamination of the area near Rayrock mine and downstream. It is important to note that not all participants were asked about loss of use, but the majority of participants mentioned the Rayrock mine site and the surrounding area that has been damaged. As discussed below, the common perceptions of the participants of the NICO Project is likely to expand the area of avoidance, or lost use, further to the north and northwest.

Existing loss of use within the LSA and RSA is due to a range of factors including terrestrial disturbance, concerns regarding industrial contaminants, and construction of roads:

“It’s in the middle of the Tłı̨chǫ Region, it’s the place of the caribou, the place of the wildlife, and also that’s where the caribou so we may not see any caribou going to that area because it’s right in the middle of the heart of the Tłı̨chǫ Region. Like Rayrock, I remember, I have seen the kind of things that have occurred to that area because of the Rayrock mine and also that if Fortune Minerals, if it goes ahead... it will have an impact on the wildlife, even with humans, human health. If they use poisonous stuff, heavy chemicals, it may be dangerous, so we may not have any wildlife from that area go to our area.... because we really don’t know the outcome of that.” –Jonas Nitsiza

“Rayrock mine... [I] wouldn’t drink the water up there...up to Hislop. After that we can drink water, we’re scared to drink water from Rayrock mine.... Concerned about this area, it’s a good fishing area. If they spoil the water, what is going to happen to the fish, this is what the people are worried about, the fish around that area.” –Alphonse Apples

“There’s a small little pickerel but it’s nice and fat, in really good shape, that’s where they used to be. What they do, there was a note now that Fortune Minerals are saying that there was a big note there right by the camp, at Lou Lake, you are not to fish that lake.... Even after the sign has been cut down, people don’t go to that area to fish anymore because they are a little afraid, they are concerned.” Alphonse Apples

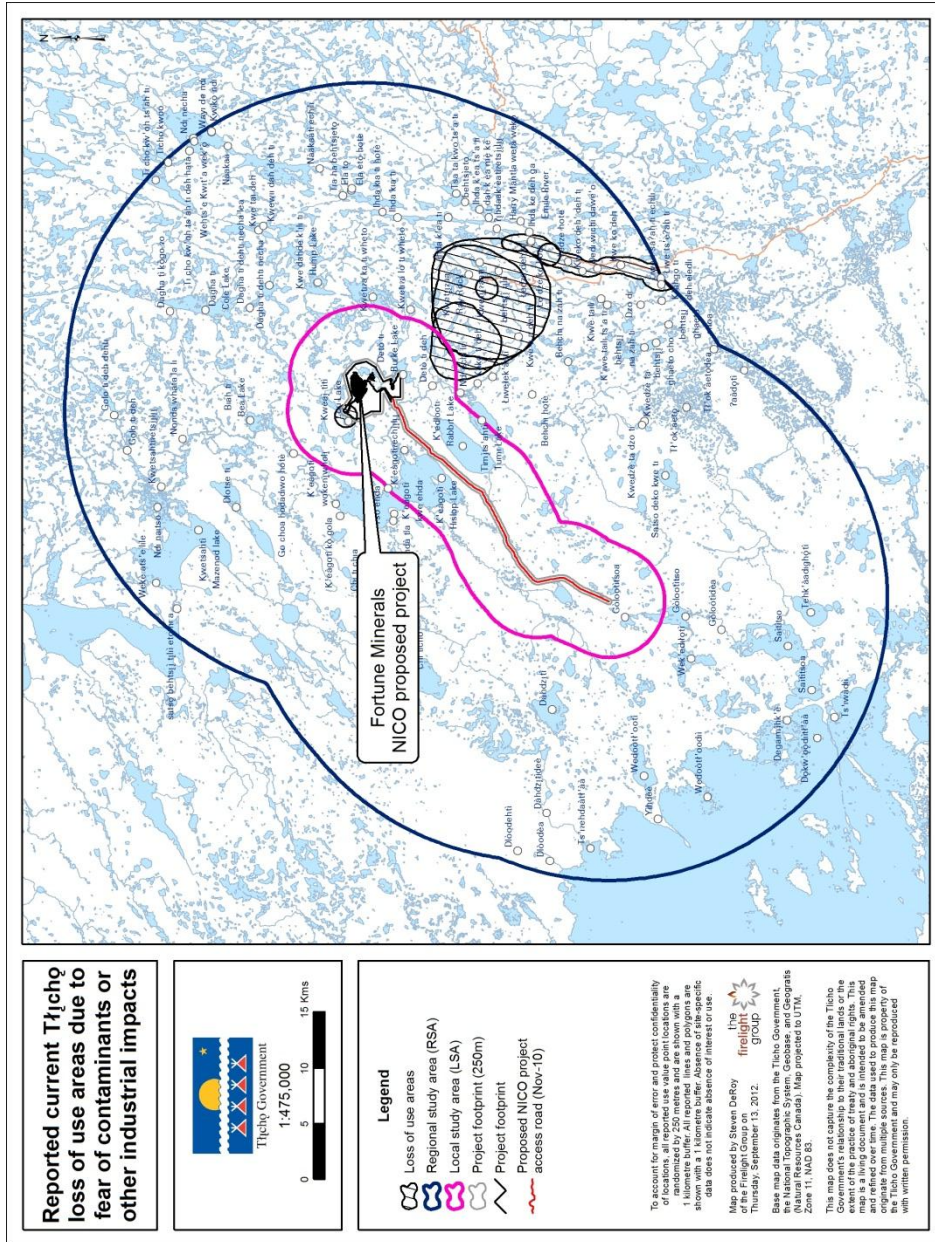


Figure 11: Reported current Tlicho loss of use areas due to fear of contaminants or other industrial impacts

## 5.2 Baseline Summary for Non-site-specific VCs within the Project LSA and RSA

Key non-site specific VCs include the following (as described in Section 4.1.1.2):

- Trails and transportation corridors;
- Water, Wild Foods, Medicinal Plants and Contaminants;
- Waterfowl, fur bearing and trapping;
- Caribou and moose; and
- Intangible cultural resources (including Tłı̨ch̨o transmission of knowledge and language).

### 5.2.1 Trails and Transportation Corridors

The Project is along the main water transportation corridor, known as the Idaa trail. Travelling on trails has been noted as a key method of not only connecting the Tłı̨ch̨o communities, but also as an important way of learning and becoming knowledgeable as a Tłı̨ch̨o citizen. (Legat, 2012, Andrews et. al, 1998) The Idaa trail is described as the “the central or trunk road, linking Great Slave and Great Bear lakes and providing access to a multitude of tributary trails and a land-use area in excess of 250,000 square kilometres” (Andrews, 2011: p. 38). Therefore, the main trail allows for access to a multitude of smaller tributary trails that allow Tłı̨ch̨o to use the area around the main water corridor for subsistence, cultural/spiritual, and habitation purposes. These areas include the Project, the LSA and an area extending into the RSA.

The trails are important across the temporal landscape. They are the “Trails of the Ancestors” and their use is integral to the maintenance of current and future use for Tłı̨ch̨o citizens. As Joe Mantla Sr. explained in an interview for this study:

“That traditional trail, we love this traditional area, traditional trail. Even though we are not paid to use that area, we love that area, that’s why we still use that area. We still can take care of our traditional trails, why we continue to do, like even after we pass on, we want our young people to continue to use that traditional, rich, traditional area, even after we pass on we want our young people to continue to use that area. “

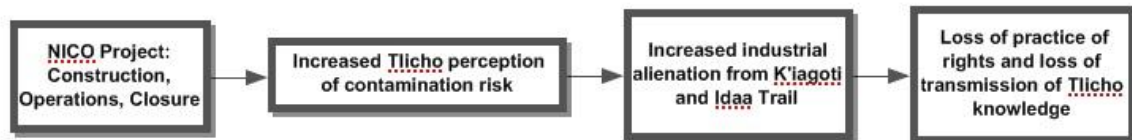


Figure 12: Impact Pathway for Trails and Transportation due to Perception of contamination

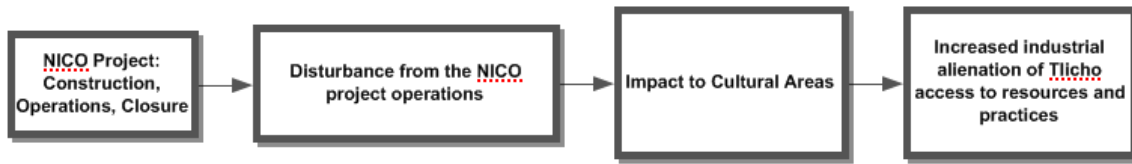


Figure 13: Impact Pathway for Trails and Transportation due to increased footprint and disturbance

## 5.2.2 Water, Wild Foods, Medicinal Plants and Contaminants

Contamination, or perceived contamination, of water and, through it, wild foods, is an important pathway of industrial impact on Tłıchǫ knowledge and use. As documented, there are observed changes in quality of wild foods and water around the Rayrock mine site. These perceived changes have led to widespread loss of confidence in wild foods, especially fish and drinking water from this area, as well as fear and other psycho-social impacts associated with contaminants. Changes in the environment that contribute to the loss of confidence in the quality of fish, water, and other aquatic resources are having a serious effect on the continued practice of Tłıchǫ knowledge and use practice in the LSA and wider RSA.

Tłıchǫ citizens noted that preferred fishing areas are at the mouth of the Gòlo Tì Deè River at the north and east side of K'ìàgotı and, in particular, along the Gòlo Tì Deè River in both directions. The elders spoke about the multiple *dèetsı̄*, fish caches, along the river. The presence of the *dèetsı̄* indicates the depth of historical use of the area for fishing and the techniques used to catch fish in that area.

It was noted that there is an avoidance of fishing in the Gòlo Tì Deè River around the Rayrock mine site, and in the surrounding lakes due to concerns regarding pollution. This is an area within which they would/do not feel comfortable practicing harvesting rights.

The importance of the area for fishing was emphasized by a number of Tłıchǫ citizens: Joe Mantla Senior explained that:

“This is where they would stay all through the winter, all through the year, if there was no caribou, they would still stay around that area for fish because it was a good fishing area. This is what they heard from the elders.”

Elizabeth Arrowmaker remarked:

“The reason why the people used to go there [Hislop Lake] a lot is there used to be a lot of fish ... people that used to live there mostly what they would do is fishing and living on fish.”



Harvesting medicinal plants were also emphasized in *asi edee t'seda dile*. The elders describe this in the following:

“That area that we’re talking about was very important and very useful, we were brought up around that area, around that Hislop area. Even the trees provide medicines and it’s good for cold, all kinds of medicines that comes from plants and trees.” Fred Mantla

“Yes, back in days for healing purposes I guess a lot of people depend on the traditional medicines. It’s a fear that once the development gets underway all the traditional medicines will disappear with it as well. Certainly this is the point of view directly coming from our elders. They’re the ones that have great concerns about what might happen after development, mine develops.... the elders, they knew what type of plants and what type of trees are good for any illness I guess. They identified them. They depend a lot on the traditional medicines. Even the blueberries and the cranberries, a lot of animals really live on it too as well too because in the event that their land is ruined in the future and what animal will be feeding on it?” Harry Apples

This fear of contamination was voiced by many participants. Alphonse Apples asked:

“[We are] concerned about this area, it’s a good fishing area. If they spoil the water, what is going to happen to the fish? This is what the people are worried about, the fish around that area.”

Francis Williah explained avoidance around the Rayrock mine site:

“We traveled on the Rayrock mine area a long time ago ... we caught a big, jumbo white fish. The size of the fish was so huge that we [caught] about 40 of them, and one toboggan and it was hard for the dog team to pull it ... we no longer go out, back to that area for trapping, hunting and fishing anymore, because the water is polluted in the area. We can't drink water from that lake either.”

Louis Zoe explained that he “wouldn’t drink the water up there...up to Hislop, after that we can drink water, we’re scared to drink water from Rayrock mine”.

Fred Mantla also spoke about the water and contamination. He said:

“If the mine goes ahead, all the things that were there will be spoiled one way or another once the mine goes ahead. That’s one of the reasons sometimes you feel a little down, when you think about those kinds of things. You can’t say you feel good about... When you go out in the boat, you take a cup, just along the river, just anywhere you travel, you can dip your cup into the river or the water or the lake but if the mine ever goes ahead, you won’t be able to do that.”

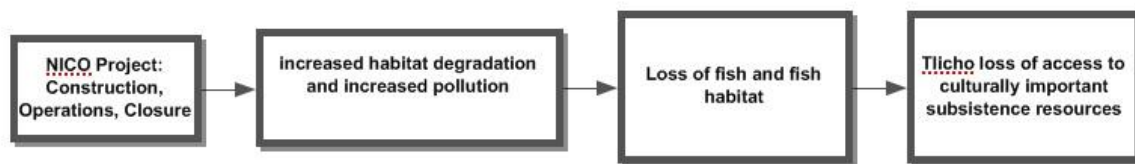


Figure 14: Impact pathway for fish and fish habitat

### 5.2.3 Waterfowl, Fur bearing, and Trapping

Tl̥ch̥ citizens reported using the area of the Project, LSA and RSA for hunting ducks, trapping beaver and muskrats, and trapping other fur bearing animals. While it has been noted that trapping had been an “important economic pursuit for centuries after the arrival of Europeans”, it has been “in decline for the past several decades” (Andrews, 2011: p. 29). Despite its decline as a primary economic activity, trapping is still actively practiced within the Project LSA. Chief Daniels describes his experiences trapping in the northern part of the LSA each year for the past 20 years as:

“My in-laws and my brother-in-law were doing it and all that... And my brother-in-law also passed on before my father-in-law so I know -- I knew there was a trail out there and I talked to the younger brother-in-law... and I said it’s such a waste for our ancestors to do all these things and not being utilized afterwards, to try to keep something going. And so... this should continue and I’ll make the effort... and try to get that trail back. So over the years I’ve started recognizing the trails as told from my brother and some other people, extending the trail... I figured I’d see it with my own eyes and familiarize myself with the area and the trails. And that’s how this all began. And I was always trapping anyways... Yes, it has become a primary [trapline]... But this is something that I can just continue because one year after another -- and hopefully I get to share this with the kids and that I’d like to try to get familiarized with the area.”

Jonas Nitisiza also described hunting for ducks and fur bearing in this area. He explained:

“I have been making use of that area almost every year, we spent early fall in that area and it will freeze in that area and then we spend the winter. And right now we will go towards Gamèt̥ into What̥. We’ve been making use of the area for beaver hunting, we have made use of our canoes to travel through the area... At that time the lake was really difficult to travel on, it was breaking up and I remember bypassing some areas. There were old cabins in that area I remember which we bypassed and we followed the lakes. I remember it was really late in the spring, the ice was thawing out, most lakes the ice was thawing out, some lakes there was no more ice on the lake, in the area to do the spring beaver hunting. Some of these days, an area where it is good for birds, for

ducks, waterfowl, there were many lakes like that in the area, it must have been a good area for these ducks and was good feeding area. I can remember it was dark with so many ducks, and [we] had set up nets, gill nets in that area, over land, and they snared these ducks that were flying by and how they harvested their ducks there, this is where, that area that I've pinpointed, where we done this and fishing for ducks and also we did some spring hunting there for beaver and muskrat."

Changes to migratory birds and fur bearing have been observed in the Project LSA and RSA, especially around Rayrock mine. This has led to loss of use and avoidance in areas of the Project LSA and RSA. Charlie Mantla remarked that:

"I think we killed a little over a hundred muskrat each [in the spring hunt of the 70's]. We saw some dead fish floating and some dead muskrat been floating around, just below the [Ray Rock] mine site. ... There was approximately seven dead muskrats floating on the river."

Chief Daniels also shared his observations on a changing seasonal patterns and their effect on trapping, and hunting. He states:

"I noticed just due to the climate... things are changing. Most of these lakes are connected to streams. And that means -- I've noticed anyways that the melt has been thawing -- it's getting -- do you say rapid -- this year -- a little more. It's not like before. Before natural thaw or this year -- last year -- it seemed a little faster... I had to unhitch a sleigh just to try to make it across some lakes our last season. So because the wolverine season is longer than the rest, we'll have boats out a little longer, too."

Waterfowl, fur bearing, and trapping are of key cultural importance to Tłı̨ch̨o citizens. The seasonal round of these subsistence activities is a core component of the practice of Tłı̨ch̨o knowledge and rights on Tłı̨ch̨o lands.

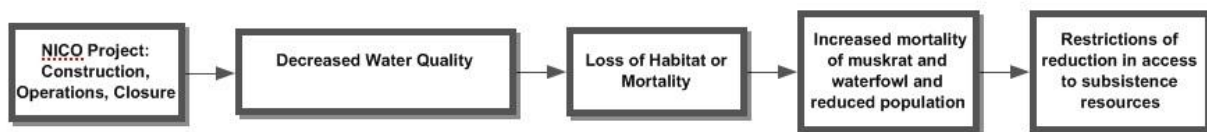


Figure 15: Potential increased mortality in muskrats due to water quality

## 5.2.4 Caribou and Moose

Based on reported Tłı̨ch̨o knowledge, the NICO Project is proposed within an important moose and caribou hunting corridor. The importance of caribou to the Tłı̨ch̨o has been explored in many previous studies (Legat, 2012; Legat and Chocolate, 2012; Andrews, 2011). Tłı̨ch̨o citizens have documented

extensive harvesting of caribou and moose in the Project Lease Boundary, LSA, and RSA, as well as identified this area as important habitat and a key corridor. The concern regarding changes to these populations and the ability to continue to hunt and use this area was voiced consistently in each interview.

The area has been and continues to be a key component of Tłı̨chǫ subsistence practices. Jonas Nitsiza explains caribou hunting there in the past:

“The caribou used to migrate to that area, when the caribou used to migrate from the calving grounds, all the way from there, that’s the way it was, when the caribou migrate to the treeline and just below the hill, like Hislop Lake, we used to hunt over there. I’m pretty sure that is the main migrating, there must be a lot of caribou trails, caribou have used that area where the Fortune Minerals mine is about to, but they used to migrate through there and towards us all the way to Whatì from there.”

Pierre Beaverho explained how the caribou avoid mine sites, and speaks about the relationship of the Rayrock mine to the current proposed Project LSA and RSA. He said:

“So Hislop Lake, where the Carl's Mine [Fortune Minerals mine] is, normally you have caribou migrating path through that area where the mine is. It would come to that mine site to our area, to our land and then it goes back, take the same route back to the land, they would bypass the mine site. That's a migrating path for the caribou.”

Jimmy Nitsiza also shared that:

“This area is mostly used by animals, we go prepared for hunting in that area, even with dog team, we used to go there for caribou, we did utilize trucks and snowmobiles to go hunting in this area. It’s a fine hunting area for us... When I think about it, I always think about the animals on the land which I have used for food. I have never had commercial (store-bought) food but I always depended on wildlife off the land.”

The historical use of the Project LSA and RSA for hunting is clear, and the present use of the area was also emphasized by Tłı̨chǫ citizens. Current use is described by Robert Mackenzie:

“The area, all the area is not that damaged right now I guess, so area's pretty well clean and, so that the animals are free to roam around that area, which is good. And even the bay, you could always paddle over there and we don't have any problem killing any, lot of moose out there.”

He goes on to explain how the old cabins sites are currently used for hunting camps. He explains:

“We do hunt from here because some caribou on Hislop Lake, and if we can't find any caribou on Hislop Lake, we go down to the northeast area and that's where we go down to the Hislop Lake where there's a cabin on Hislop Lake ... used to be a village one time, there's still a lot of houses there right now it's more or less abandoned cabins.

Sometimes we use those houses to overnight because all depending if we carry our own gear such as tents.”

Chief Clifford Daniels, in reviewing this report, suggested that there is present use of this area beyond what is captured in the maps. He said,

“There is more than what is on there, because from end to end of the lake, (last winter) there were people in every direction harvesting the caribou. We just sit there on the cabin and look at the kill sites from the area, there is a lot more than what is shown.”

The Project footprint has also been identified as a unique environmental feature for moose hunting. Joe Mantla Sr. explains:

“See where the Fortune Minerals mine is, right on top of those hills, they would walk, it would take them I don’t know how long, maybe a night maybe, but they used to get on top of that hill, at night, they would listen to see if there was any moose that’s making noise during the mating season. They would hear a noise, let’s just say, over there and then during the day whatever they were hearing a moose, during the day they would walk over... Let’s just say if there was a noise of moose from the area, if someone was sitting on the hill, when the wind is blowing that way, the moose will probably be able to smell him so they wouldn’t go there, they had to watch out for the wind. Only if the wind is blowing this way, they would go there. They would listen for the moose all night, just when the daybreak comes, they would go there.”

He goes on to explain how the area is currently used:

“So Hislop Lake, our father used to go hunting on the hill... all the way on the hill, this is where they used to go sleeping on the hill and look out for moose... they used to go up there, so Hislop Lake... this is where our ancestors lived and this is where we used to travel, we use the route today even in the summer, in the winter, if you’re hungry, we’ll go hunting for ducks, fish and this is what we live now, and where we travel through.”

Concern for the moose and caribou and their habitat within the Project LSA and RSA was expressed by many Tłı̨ch̨o citizens. Rosa Romie said:

“... if the chemicals go to the contaminated area, if the chemical’s contaminating stuff and it goes out into the environment, the caribou rely on lichen. So, in the summer, the caribou will eat lichen, and some of those shrubs ... the caribou will get ill, it will be unhealthy -- it won't be healthy, and so if the mining goes ahead, the caribou are sensitive to noise, then the caribou will avoid those areas.”

Jonas Nitsiza comments:

“It’s in the middle of the Tłı̨ch̨o Region, it’s the place of the caribou, the place of the wildlife, and also that’s where the caribou [go, so] we may not see any caribou going to

that area because it's right in the middle of the heart of the Tłı̨chǫ Region. Like Rayrock, I remember, I have seen the kind of things that have occurred to that area because of the Rayrock mine."

Multiple Tłı̨chǫ caribou harvesting sites are included in the subsistence activity class shown in Table 3, and shown in Figure 3 and Figure 4.

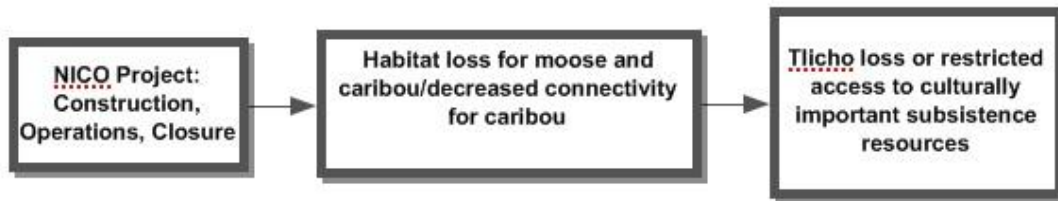


Figure 16: Potential loss of important seasonal habitat for culturally and economically important species including caribou and moose.

### 5.2.5 Intangible Cultural Resources: Tłı̨chǫ Knowledge and Cultural Transmission

In addition to concerns regarding impact to more concrete use values, many Tłı̨chǫ citizens also identified concerns of potential impact of the Project on intangible cultural resources, including language and the transmission of knowledge regarding areas lost due to industrial effects, as well as the ability to practice Tłı̨chǫ knowledge and use more broadly.

Particular kinds of knowledge—in the form of place based stories, place names, and histories—are associated with particular places (Basso, 1996) and the cultural practices or uses that take place there. Actions that destroy a place or cause the use of a place to be lost (e.g. because of fear of contaminants), especially over long periods of time, frequently result in a gap in the transmission of place based knowledge, and eliminate the place as a cultural resource for remembering, teaching, and learning the knowledge associated with it.

The concern over loss of intangible cultural heritage was stated by many of the Tłı̨chǫ participants. Joe Mantla Sr. explains:

"We take our kids through the river, we want them to use it for the future, this is why we used to travel through the river from there, from Gamètı to Behchokǫ ... That is our area, we may lose all of our tradition areas, the different trails, in the winter time we go from here to, we use that trail, and if they have some more buildings in that area, will we ever be able to use that area and that's a concern that I do have and a lot of us do not like that at all. Our ancestors and our forefathers really could use up that area, that



Hislop Lake, even though they have passed on, our ancestors, our forefathers that have used that Hislop Lake area, even though they have passed, we still use that area.”

Jimmy Nitsiza remarked:

“The river that flows on ... is going to affect the land, the water, what’s going to happen to it and you know people will suffer from it... When I think, I am over seventy-four years old, I’m an elder, maybe I may not be around for the next ten years, but the future of our little ones. We should seriously take into consideration, seriously think about it. See about the wildlife that the Dene people rely on, depend on, let’s think about that. That area, it’s beautiful country, when the caribou migrate they go to that area, it’s moose country, bear... in that area I have been work with the elders there a lot of time, when they used to share stories.”

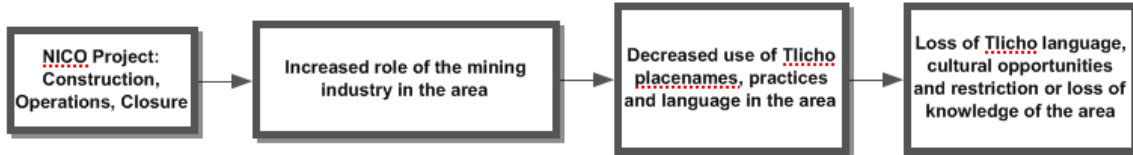


Figure 17: Erosion of Cultural Practices and Language due to increased presence of industry

### 5.3 Assessment of Anticipated Project Effects on Site-specific VCs within the NICO LSA and RSA

Based on the proponent’s application, construction of the NICO Project is expected to take 12-18 months, followed by 18 years of operations and processing. Construction, operation, closure, and post-closure activities will result in clearing and taking up of lands, and may have effects on any or all of the categories of site-specific traditional use values identified in the Lease Boundary, LSA, and RSA through direct disturbance, reduced Tl̥ch̥o access, increased industry and recreational access, and perceived or actual contamination on traditional resources or foods (including plants and animals), leading to lost or reduced use. This section identifies anticipated NICO Project effects on site-specific VCs.

#### 5.3.1 Site-specific Subsistence Values

Based on reported Tl̥ch̥o knowledge, and review of project information, construction, operation, closure and post-closure project effects, the NICO Lease Boundary will destroy and/or render un-useable preferred and site-specific Tl̥ch̥o hunting and trapping values within the NICO Lease Boundary, including past, current, and planned future use areas. This effect is anticipated with a high degree of confidence, and is likely to extend into the LSA and RSA.

Inside the NICO Lease Boundary, 28 documented Tłıchǰ site-specific subsistence values, including caribou and moose harvesting areas, will be destroyed and/or rendered essentially un-useable by the Project. Within the Project LSA (which includes the footprint), up to 61 documented Tłıchǰ site-specific subsistence values will be adversely impacted by direct disturbance, reduced Tłıchǰ access, increased industry and recreational access, and fear associated with increased contamination of traditional resources or foods (including plants and animals), leading to increased scope and intensity of avoidance or reduced use. These include important and currently used caribou, moose, small game (e.g., rabbit, beaver, duck, and ptarmigan), fishing, and plant food (berries and other plants) harvesting areas inside the Project LSA.

Within the Project RSA (which includes the LSA), 116 Tłıchǰ site-specific subsistence values have been documented, including a large concentration of values in the area of K'łàgotı, the Gòlo Tı Deè River and surrounding lakes. Beyond the LSA, but within the RSA and including Tłıchǰ values along the Gòlo Tı Deè River, the values most at risk of project effects are downstream of the NICO Project along the Gòlo Tı Deè River and the surrounding lakes. The Project is also likely to result in increased perceived contamination of traditional resources and foods, including plants and animals, leading to lost or reduced use downstream (also see non-site-specific effects below in Section 5.4).

### **5.3.2 Site-specific Habitation Values**

Based on reported Tłıchǰ knowledge, and review of project information, construction, operation, closure and post-closure project effects, the NICO Lease Boundary will destroy and/or render un-useable preferred and site-specific Tłıchǰ habitation values within the footprint, including past, current, and planned future use areas. This effect is anticipated with a high degree of confidence, and is likely to extend into the LSA and RSA.

Inside the NICO Lease Boundary, six documented Tłıchǰ site-specific habitation values are anticipated to be destroyed and/or rendered un-useable by the Project. These include past cabin sites, as well as encampment sites. Within the NICO LSA, up to 39 documented Tłıchǰ site-specific habitation values are likely to be impacted by reduced Tłıchǰ access, increased industry and recreational access, and loss of use due to perceived increases in contamination of traditional resources or foods (including plants and animals) upon which habitation areas rely, leading to increased scope and intensity of avoidance or reduced use.

Within the NICO RSA (which includes the LSA), 90 site-specific habitation values have been documented. These include regularly used cabins, village sites, and camp sites. As with subsistence values noted above, Tłıchǰ citizen's observations include increased perceived contamination of traditional resources and foods (including plants and animals), upon which use of habitation areas rely, likely leading to lost or reduced use (also see non-site-specific effects below in Section 5.4).

The past habitation of the area and its importance in the present and for future use is described by John B. Zoe and Madeline Chocolate below.

“There were people living there until 1970, but after the federal government moved in after that time, if people wanted to get social assistance they had to move into the community and go into school. Once you started that school, there was no way to get into the bush and leave that school. So then you had a seasonal trapping start, where just the men went and they left their kids and family behind and they might take their oldest one not in school with them. And they carry on passing on that knowledge. There is that background legacy. It doesn’t mean that we have given up. It is only in the past 20 years, we have talked about going back there as families, through programs that we are putting in place through our own programs with our own governance since 2005. But right now this knowledge will be scooped up and shoveled, there is no reason why people won’t be living there in the future and have those dreams.” John B. Zoe

“My grandparents were raised in that area. Even after my grandparents died, my Dad lived there. But then a forest fire burned through that area. And the log house burned down. Then some people came through the area and used the burned logs in a fire themselves. Even after his parents died, my Dad raised us in that area. I recall places where we lived. I recall playing out there. And going out to snare in that area. And my Mom and Dad went every year to trap, up until the day my Dad lost his eyesight and then they stopped going out there. Then my Mom died, but I am still grieving and we are not going back there until we are done grieving. We will go back with my brothers, but it still hurts to go there because there are people who are buried in that area.”

Madeline Chocolate

### **5.3.3 Site-specific Cultural/Spiritual Values**

Based on reported Tłıchǰ knowledge, and review of project information, and anticipated construction, operation, closure and post-closure project effects, the NICO Lease Boundary will likely destroy and/or impact Tłıchǰ cultural/spiritual values within the lease boundary and road construction, including a burial, and cultural areas associated with the burial site. This effect is anticipated with a high degree of confidence, and is likely to extend into the LSA and RSA.

Within the Project LSA, up to 45 documented Tłıchǰ site-specific cultural/spiritual values are likely to be impacted by direct disturbance, reduced Tłıchǰ access, increased industry and recreational access, or other disturbances.

Within the RSA (and including the LSA), 97 Tłıchǰ site-specific cultural/spiritual values are documented. These include ceremonial places, medicine collection places, and burial sites sensitive to a variety of effects, including water quality changes. At least some of these cultural/spiritual values are likely to be impacted by the Project as a result of increased perceived contamination of traditional resources and foods (including medicine plants), leading to avoidance or reduced use (also see non-site-specific effects below in Section 5.4).

### **5.3.4 Site-specific Transportation Values**

Based on reported Tłıchǫ knowledge, and review of project information, and anticipated construction, operation, closure and post-closure project effects, the NICO Lease Boundary will likely impact Tłıchǫ transportation values within the footprint. This effect is anticipated with a high degree of confidence, and is likely to extend into the LSA and RSA.

Within the Project LSA, 14 documented Tłıchǫ transportation values as well as non-site specific transportation values.

### **5.3.5 Site-specific Environmental Feature Values**

Based on reported Tłıchǫ knowledge, and review of project information, and anticipated construction, operation, closure and post-closure project effects, the NICO footprint will likely destroy or impact Tłıchǫ environmental feature values within the footprint, including unique areas of caribou habitat, an east-west movement corridor for moose and other animals, and water conditions. This effect is anticipated with a high degree of confidence, and is likely to extend into the LSA and RSA.

Within the NICO LSA, Tłıchǫ site-specific environmental features include important moose and caribou habitat areas, fur bearing, and migratory bird areas. This includes the identification of the rocky hilltops as unique areas used for moose hunting. These values are likely to be impacted by direct disturbance, reduced Tłıchǫ access, increased industry and recreational access, perceived increases in contamination of traditional resources or foods (including plants and animals), leading to increased scope and intensity of avoidance or reduced use, as well as other disturbances.

Beyond the LSA, but within the RSA, the values most at risk of project effects are areas of caribou and moose habitat, as well as areas downstream of the Project along the Gòlo Tì Deè River. Use of some or all of these environmental feature values are likely to be impacted by the Project as a result of increased perceived contamination of traditional resources and foods (including plants and animals), leading to avoidance or reduced use (also see non-site-specific effects below in Section 5.4).

## **5.4 Assessment of Anticipated Project Effects on Non-site-specific VCs within the NICO LSA and RSA**

Based on the proponent's application, construction of the NICO Project is expected to take 12-18 months, followed by 18 years of operations and processing. Construction, operation, closure, and post-closure activities will include clearing and taking up of lands, and may have effects on any or all of the categories of non-site-specific traditional use values identified in the footprint, LSA, and RSA through direct disturbance, reduced Tłıchǫ access, increased industry and recreational access, and perceived or actual contamination on traditional resources or foods (including plants and animals), leading to lost or reduced use. This section identifies anticipated NICO Project effects on non-site-specific VCs.

Identified non-site specific VCs include the following:

- Trails and transportation corridors;

- Waterfowl, fur bearing and trapping;
- Caribou and moose;
- Water, Wild Foods, Medicinal Plants and Contaminants Water; and
- Intangible cultural resources (including Tłı̨chʔ transmission of knowledge and language, and practice).

#### **5.4.1 Trails and Transportation Corridors**

Tłı̨chʔ citizens have identified important trails in the Project Lease Boundary, LSA, and RSA. These trails are of great importance to the Tłı̨chʔ people in past, current, and for future use. There is concern that the Project will disturb travel on these trails, including increased perceived contamination, which is likely to result in increased Tłı̨chʔ avoidance or loss of use of the area. This effect is anticipated with a high degree of confidence.

#### **5.4.2 Waterfowl, Fur bearing and Trapping**

Tłı̨chʔ citizens have identified important duck habitat and hunting areas within the RSA. Based on reported Tłı̨chʔ knowledge and review of project information, the construction, operation, closure, and post-closure project effects of the NICO Project, there is concern that the Project may disturb bird hunting areas, and the availability of culturally important populations of waterfowl. This effect is anticipated with a medium degree of confidence due to lack of detailed information regarding regional waterfowl populations in the region.

In addition to potentially disturbing hunting patterns, the Project is also anticipated to increase perceived contamination, which is likely to result in increased Tłı̨chʔ avoidance or loss of use related to waterfowl populations downstream of the Project.

Tłı̨chʔ citizens have identified important fur bearing (beaver and muskrat) trapping and hunting areas within the LSA and RSA. Project effects related to changes to beaver and muskrat habitat may impact the current or future availability of muskrats and other fur bearing as a preferred and culturally important resource for Tłı̨chʔ knowledge and use practice. This effect is anticipated with a medium degree of confidence due to lack of detailed information regarding muskrats and fur populations in the RSA.

#### **5.4.3 Caribou and Moose**

Tłı̨chʔ citizens have identified important caribou habitat within the footprint, LSA and RSA. Based on reported Tłı̨chʔ knowledge and review of project information, the construction, operation, closure, and post-closure project effects of the NICO Project is likely to affect the range of culturally important populations.

#### 5.4.4 Water, Wild Foods, Medicinal Plants and Contaminants

Based on reported Tłıchǰ knowledge and review of project information, the construction, operation, closure, and post-closure project effects of the NICO Project will disturb culturally important areas for fishing. This effect is anticipated with a high degree of confidence.

Based on reported Tłıchǰ knowledge and review of project information, the construction, operation, closure, and post-closure project effects of the NICO Project will contribute to already perceived high levels of industrial contaminants surrounding the Rayrock mine. The NICO Project is likely to result in increased intensity, scope, and area of Tłıchǰ avoidance and loss of use, particularly downstream of the Project along the Gòlo Tì Deè River and including documented areas of traditional use, and areas of past, current, and planned future use. This effect is anticipated with a high degree of confidence.

#### 5.4.5 Intangible Cultural Resources

Based on reported Tłıchǰ knowledge and review of project information, the construction, operation, closure, and post-closure project effects of the NICO Project will reduce or eliminate opportunities for the transmission of Tłıchǰ knowledge specific to areas within the Project footprint and/or LSA. These effects will potentially extend to the RSA as a result of potential expansion of loss of use areas associated with contamination and perceived effects of industrial mining.

Practice of Tłıchǰ knowledge within portions of the NICO LSA is anticipated to be eliminated for multiple Tłıchǰ generations. As the focus group participants noted:

“I don’t think anyone will go there after they start. This is the only area in the north where we don’t have registered traplines. The unspoken rule is that everyone can set traps in that area. It is understood. That knowledge would be gone.” (John B. Zoe)

“Even though Rayrock is cleaned up, people don’t go there anymore. Even after this place is used, people won’t go there. That way of life in that area will be gone.” (Georgina Chocolate)

“We would lose the use of that land.” (Madelaine Chocolate)

“Our ancestors used that land. It is supposed to be used for our children. Even if it is destroyed, then it won’t be there for our children. If we won’t go, then our children won’t go there. It will stop a generation of children from going there.” (Georgina Chocolate)

“I love going out on the land. It is part of our life. It really hurts to think about it. If we can’t go out on the land, I wouldn’t last long.” (Sonny Zoe)

These statements reveal that there would be multiples losses, including:

- Spirituality and tie to this particular area of land;
- Sense of place of this area;
- A place to teach the place names and travel in that place;
- Access to particular medicines;
- Ability to teach the children about that particular region for more than two generations;
- Trapping, harvesting, and berry picking from that particular area;
- Income from selling the furs associated with trapping from that area; and
- Food value from animals that are harvested in the area.

Project contributions to perceived contamination of wild foods and water are anticipated to be particularly important to the future survival of Tłıchǰ knowledge and use in the RSA.

These effects are anticipated with a high degree of confidence.

## **5.5 Residual NICO Project Effects**

Given anticipated project effects on Tłıchǰ knowledge, use, and rights practice, and considering existing mitigations proposed in the applications, the residual (post-mitigation) effects of the NICO Project on Tłıchǰ knowledge and use are anticipated to range from moderate to very high. Table 4 provides a characterization of the residual effects and a rating of environmental consequence for each VC.



Table 4: Residual NICO Project Effects

Summary of residual impact classification of primary pathways for incremental and cumulative effects to Trails and Transportation									
Effects statement	Direction	Magnitude (incremental)	Magnitude (cumulative)	Geographic extent (incremental)	Geographic extent (cumulative)	Duration	Frequency	Reversibility	Likelihood
NICO Project effects practice of rights and transmission of knowledge	Negative	High	High	Local	Local	Long term	Throughout operations and closure	Reversible to irreversible	Highly likely
NICO Project decreases access to resources and practices in regional area	Negative	High	Low	Regional	Local	Long term	Throughout operations and closure	Reversible to irreversible	Likely
NICO Project decreases travel through Idaa Trail or through <i>asi edee t'seda dile</i>	Negative	High	High	Local	Local	Medium term	Throughout operations and closure	Reversible to irreversible	Highly likely
NICO Project destroys the bequest value or the ability to pass information, place names and use values on to future generations	Negative	High	Medium	Local	N/a	Long term	Throughout operations and closure	Reversible to irreversible	Likely
NICO Project impacts on the enjoyment of the land	Negative	High	Low	Local	n/a	Life of the mine	Through the life of the mine	Reversible	Likely
Summary of residual impact classification of primary pathways for incremental and cumulative effects to water, wild foods and contaminants									

NICO Project increases perception of water contamination in Datotı (Burke Lake)or surrounding small lakes.	Negative	High	Low	Local to regional	Low	Long-term	Throughout operations and closure	Reversible to irreversible	Likely
NICO Project decreases access to culturally important subsistence resources	Negative	High	Low	Local	n/a	Medium	Throughout operations and closure	Reversible to irreversible	Likely
Waterfowl, aquatic fur, and trapping									
Restriction or reduction in access to subsistence resources	Negative	Medium	Low	Local	N/a	Medium term	Throughout operations and closure	Reversible to irreversible	Likely
Caribou and moose									
Habitat for moose and caribou is decreased	Negative	Medium	Low	Local	n/a	Long term	Throughout operations and closure	Reversible to irreversible	Likely
Access is increased to herds and slows the recovery of Bathurst caribou	Negative	Medium	Low	Regional	Regional	Medium term	Throughout operations and closure	Reversible to irreversible	Highly likely
Intangible cultural resources									
Restriction of cultural knowledge	Negative	High	Medium	Local	n/a	Long term	Throughout operations and closure	Reversible to irreversible	Highly likely

### 5.5.1 Determination of Significance

Significance determinations have not been made by the Firelight Group. As the Review Board has acknowledged, significance is best defined by the culture holders themselves. “The Review Board relied on the most reliable and accurate experts it could when making its determinations about cultural impacts—the Aboriginal cultural groups themselves. Cultural impacts are best identified and addressed when relayed by the holders of the cultural knowledge, the community members themselves (MVEIRB 2005).

## Section 6 Summary and Conclusion

The proposed NICO Project is within and surrounded by lands historically and currently relied upon by Tłıchǰ citizens for the practice of knowledge, use and rights, including hunting, trapping, gathering, fishing, and associated cultural and livelihood practices. Analysis of mapped data demonstrates that lands and waters within the LSA and RSA have been widely used by Tłıchǰ citizens over a long period of time and continue to hold value. The area continues to be used. These lands and waters also include unique and important species-specific values (including preferred fishing sites and harvesting areas for moose and caribou) integral to the for the meaningful practice of Tłıchǰ citizen rights and interests set out in the Tłıchǰ Agreement, as well as location-specific values (including habitation areas, transportation corridors, and other values). Reliable, peaceful, and unimpeded access to preferred areas that are historically known and personally familiar is integral to the transmission and current and future practice of Tłıchǰ knowledge and use within the Project footprint, LSA and RSA.

Based on the baseline assessment, the Project will have an impact on Tłıchǰ knowledge and use, including (i) the use of lands and resources by Tłıchǰ citizens, and (ii) unique heritage resources (tangible and intangible) of value or concern to the Tłıchǰ people and Government.

In summary, this report finds the following conclusions:

- 1) The data shows where Tłıchǰ have used the entire area and specific sites. They have been there, are there presently, and will return in the future.
- 2) Based on the baseline assessment, the Project will likely have an impact on wildlife, fish and plant harvesting and effect the social and cultural environment and heritage resources; and
- 3) Tłıchǰ Government will be providing recommendations on measures to mitigate these effects.

## 6.1 Recommendations

The primary recommendation of this assessment is that Fortune Minerals, and the Federal and Territorial Crown undertake a process agreeable to and involving the Tłı̨chʔ to ensure that adequate quantity and quality of resources exist for the continuation of Tłı̨chʔ knowledge and use into the future. Where impacts to Tłı̨chʔ knowledge and use cannot be avoided then they should be mitigated to below a significant level, using effective strategies, subject to monitoring agreeable to the Tłı̨chʔ.

The Firelight Group finds, based on the data collected for this report, that there will be significant adverse impact on the traditional use and knowledge of the Tłı̨chʔ people, on the socio-cultural environment. There is potential for loss of use, loss of knowledge, and effect on this into the future.

The effects of the proposed Project, though small on the landscape, can radiate out to impact on confidence for use in the area. The mitigation and monitoring on this component in particular will be vital to the continued use of this area for Tłı̨chʔ people.

The Firelight Groups recommends that further research be undertaken to gain a deeper understanding of the traditional knowledge that exists in this area.

The Tłı̨chʔ Government will review this report and provide mitigation and monitoring recommendations in the presentation to the Review Board to be made before the public hearings.

## 6.2 Closure

Should there be questions or clarification required regarding this report and assessment, please email requests to [Rachel.olson@thefirelightgroup.com](mailto:Rachel.olson@thefirelightgroup.com).

Signed DATE.

ORIGINAL SIGNED

Rachel Olson, Ph.d (Candidate), Social Anthropology

Director

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# Section 8 Appendices



## 8.1 Consent Form

### Tlicho Traditional Knowledge (TK) study for the Fortune Minerals NICO Project

Declaration of Informed Consent and Permission to use Information

I (name) \_\_\_\_\_, on this day (complete date) \_\_\_\_\_, give permission for \_\_\_\_\_ to interview me for the Traditional Knowledge (TK) study for the Fortune Minerals NICO Project.

I understand that the study is being conducted by the Tlicho Government. The purpose of this study is to provide Tlicho Government staff and leadership, through the final deliverables, with useful TK based information tools that can improve the adequacy of consultation and accommodation with proponents on project specific regulatory applications, and inform meaningful consultation with the Crown regarding land and resource use planning, environmental monitoring, and other relevant regulatory and natural resource management processes. By signing below, I indicate my understanding that:

- (a) I give my consent to have my words and responses regarding my land use knowledge and my past and current traditional ecological knowledge recorded on maps, in notes, and using audio and video recording equipment.
- (b) I am free to not respond to questions that may be asked, without penalty.
- (c) I am free to end the interview at any time that I wish, without penalty.
- (d) The Tlicho Government will maintain intellectual property rights over information and recordings collected through my participation in this interview.
- (e) The Tlicho Government may use the information collected, including audio, video, or pictures, in pursuit of its claims, and for defending and communicating the rights, interests, and titles of its members. This will include, but is not limited to, sharing information for the purposes of environmental assessment.
- (f) The Tlicho Government will make reasonable efforts to consult me, or my descendants, before using my information for purposes not indicated above.

For more information, please contact Marjorie Matheson-Maunde @ (867) 669-0163.

I would like my name included in reports:      **yes**      **no**

Signature of participant

Witness

\_\_\_\_\_

\_\_\_\_\_



## 8.2 Interview Guide

Prepared for the Tlicho Government – TK Study for the Fortune Minerals NICO Project

Participant: ID#: Version 1.0

Interviewer: Co-interviewer June \_\_, 2012

Interview Date: Other Recordings:

Tlicho Government - Fortune Minerals NICO Project

### Interview Guide

#### PRE-INTERVIEW CHECK LIST

- ALWAYS Test your recorders and microphones by listening through headphones.
  - a. Audio recorder
  - b. Video recorder
- Make sure you have enough note books, pens, and other supplies for the interview.
- Make sure you have all of the maps you need laid out, or prepared in the GIS with tables ready for data entry.
- If you are using overlays, make sure you have marked them all with at least 3 anchor points and the map number.
- Make sure the elders or community members you are interviewing are comfortable. Get them a tea or coffee, and talk for a while about the interviews and why we are doing them. Make everyone as relaxed as possible.
- Read the consent form to the participant and ask them to sign it. Let them know that they don't have to answer any questions that they don't want to.
- Start the tape and begin the interview.
- Let them know that we will be reporting back to the community and them.

#### Interview Introduction

*(read with RECORDER ON before every session)*

Today is \_\_\_\_\_, 2012. We are sitting here interviewing \_\_\_\_\_ for the Tlicho Government – Indigenous Knowledge Study for the **Fortune Minerals NICO project**. Thank you for coming.

My name is \_\_\_\_\_ and my co-researchers are \_\_\_\_\_. We're here at the \_\_\_\_\_

building in [**Whati/Gameti/Wekweeti/Behchoko**]. \_\_\_\_\_ has read and signed the consent forms and we have assigned Interview ID # \_\_\_\_\_. We are going to be recording this interview on a digital video recorder, digital voice recorder, and with notes [on this questionnaire / in this note book]. We will be mapping digitally using geo-referenced 1:50,000 NTS images projected on the wall. \_\_\_\_\_ will be doing the digital mapping using points, lines or polygons, and will be entering the site codes and other data as we go. Other map images including 1:250,000 and aerial or satellite photos, as well as existing TUS data already collected from \_\_\_\_\_ through previous projects, may be projected where useful. The project area covers [verbal description of project area].

A PDF file of the map, as well as the GIS files, will be saved to hard drive, and on a portable storage device. Another copy will be provided to \_\_\_\_\_. All files will be stored and managed by the **Tlicho Government**.

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Building on information collected in past projects, the Tlicho Government is working to document detailed Indigenous Knowledge by Tlicho members as it relates to traditional resource use management and livelihood within the Tlicho region, and the potential impacts of industrial development and in particular of the extension of a linear development into Tlicho lands near Fortune's project site (**Ask for Tlicho name**). The primary objective of the study is to provide Tlicho Government staff and leadership with useful IK based information tools that can improve the adequacy of consultation and accommodation with proponents on project specific regulatory applications, and inform meaningful consultation with the Crown regarding land and resource use planning, environmental monitoring, and other relevant regulatory and natural resource management processes.

- The first part (about an hour) focuses on your experiences in the area of the proposed project site near Hislop Lake.
- The second part (about an hour), focuses on **specific places or resources, especially near the proposed mine site and Hislop Lake**, including camps, trails, hunting and fishing areas, berry or plant collection areas, important habitat, cultural or spiritual places, or other places you consider important.
- The third part (shorter) focuses on how you think the NICO project, if it goes forward, will affect you, your family, and your First Nation.

Some questions are very broad, and others are very detailed. The reason for the detailed questions is so that the **Tlicho Government** can be in a better position to defend information, if needed, in court or elsewhere.

Finally, if there are things we don't ask about, but you think we should be raise in our reports to leadership regarding traditional resource management, please let us know.

*Mapping Note: Every site should be consistently labelled with a code that indicates site use, site # and source respondent (ex: TX02-A08 where the ACFN member with ID #08 reports the second mapped place where she has camped in a temporary shelter). This should be followed by the date of the event, if possible.*

*First hand knowledge will be mapped separately from second hand knowledge.*

**1.0 BIOGRAPHICAL AND BACKGROUND QUESTIONS**

<p>1.1 What is your full name?</p> <p>1.2 Where were you born?</p> <p>1.3 How old are you? (year born)</p> <p>1.4 Where were you raised?</p> <p>1.5 Have you yourself ever used, or spent time in:</p> <p style="padding-left: 40px;">-the area for the proposed mine site?</p> <p style="padding-left: 40px;">-have you heard stories of other family or community using or living in this area of the proposed mine site?</p> <p>[IF so, what were you / they there for? With who? When? IF not, Why not?]</p> <p>1.6 Have you yourself ever used, or spent time in:</p> <p style="padding-left: 40px;">-the Hislop Lake area?</p> <p>[IF so, what were you / they there for? With who? When? IF not, Why not?]</p> <p>1.7 To start with, to your knowledge, what are some of the oldest oral histories or stories that you know of about living in the project area and nearby areas? Who did you learn these histories or stories from? How</p>	
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<p>are they connected to the area or nearby areas?</p> <p>1.8 Are there current barriers to harvesting from the land in the project area and nearby areas? What are the biggest ones?</p> <p>1.9 If site the NICO project goes forward, how would that change your use of the land?</p> <p>1.10 How have previous mines affected the Tlicho people and lands?</p>	
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**TIME CHECK! Interview should be at about 1 hour - Introduce mapping and break for 15 minutes.**

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Interviewer: Co-interviewer June \_\_, 2012

Interview Date: Other Recordings:

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## **2.0 SPECIFIC PLACES AND RESOURCES**

In this part of the interview (about an hour), we need to focus on mapping **specific places or resources, especially in proposed project area, including Hislop Lake**, that you have relied on in the practice of your Treaty rights, or that you've heard that other members of your family or First Nation relied on in the past. These include camps, trails, hunting and fishing areas, important habitat, or other places you consider important.



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**Habitation, Cultural/Spiritual Sites, and Transportation Corridors**

First, can you show us all of the places you remember having camped or stayed in the project area and nearby areas?

2.1.1 Places where you have camped overnight in a tent, lean-to, or other temporary structure and used only once.

**MAP using point and code TX= temporary habitation**

2.1.2 Places where you have built or used cabins or other permanent structures that you've returned to more than once

**MAP using point and code PX= permanent habitation**

2.1.3 How about places that you have heard stories about your family, or other Tlicho people, camping at in the past, but where you haven't yourself?

2.1.4 To your knowledge, before the camp was present at the proposed mine site, was the area used by or important to you or your family? If so, what are some of the most important reasons?

**MAP using point and code PX or TX and \***

2.1.5 Do you know of any in the project area or nearby that are important as a place where **Tlicho people gather**, or where you know members of your family or Tlicho people have done so in the past?

<p><b>MAP using point: GP= Gathering Place</b></p> <p>2.1.6 Do you know of any places in the project area or nearby where Tlicho people are buried?</p> <p><b>MAP using point and code BU = Burials</b></p> <p>2.1.7 Do you know of any places in the project area or nearby where particular spirit beings live, or where there are special rules about how you act or respect the place?</p> <p><b>MAP using point and code SP = spirit</b></p> <p>2.1.8 Do you know of any places in the project area or nearby where you have gone for ceremonies (drum dances, sweat lodges, or other)? or where you know members of your family or Tlicho people have done so in the past?</p> <p><b>MAP using point and code CP = ceremonial place.</b></p> <p>2.1.9 Are there any places in the project area or nearby that have special knowledge or stories associated with them – like creation stories, dreamer stories, or histories - or that are used for teaching knowledge to children or others, or where you know members of your family or Tlicho people have done so in the past?</p> <p><b>MAP using point and code TA= Teaching Area</b></p> <p>2.1.10 <i>Looking at this area within this red boundary</i>, are there any places in the project area or nearby that have special place names,</p>	
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<p>especially Tlicho names?</p> <p><b>MAP using point and code PN= Place Name (record name in brackets)</b></p> <p>2.1.11 Are there any places in the project area or nearby where you have collected medicines or sacred plants, animals, or other materials, or where you know members of your family or Tlicho people have done so in the past?</p> <p><b>MAP using point and code MP= medicine plant</b></p> <p>2.1.12 Thinking of the project area that is marked in red, are any of these plants or resources hard to find outside of the project area and nearby areas? If so, are you able to tell us what they are?</p> <p>2.1.13 Are there any places in the project area or nearby where you have accessed foot or snowmobile, or roads, used for hunting, fishing, habitation, or other rights based practice?</p> <p><b>MAP using line and code TR= trail</b></p> <p>2.1.14 Are there any in the project area or nearby where you have accessed water routes (creeks, lakes, or rivers) by boat used for hunting, fishing, habitation, or other rights based practice?</p> <p><b>MAP using line and code WR= water route</b></p>	
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**Subsistence, Environmental Feature Values, and Loss of Use Areas**

<p>Now we'd like to take time to map as many places as we can where you have ever hunted, fished, or collected animal, fish, plant foods, medicines, or other resources, as well as special habitats or places that these rely on. Please include any time you were hunting or getting resources on private lands.</p> <p><b>2.1.15 What kind of fur bearing animals have you harvested in the project area around Hislop Lake?</b></p> <p><b>PROMPT all listed species, and MAP using point and code as follows, with year and season in brackets where possible:</b></p> <p>MO= moose</p> <p>BB= Bear</p> <p>BI= bison or Buffalo</p> <p>CA=Bathurst Caribou</p> <p>WC=Caribou (Todzi)</p> <p>CH= chicken</p> <p>GR= grouse (aba)</p> <p>RB= rabbit</p> <p>PT=ptarmigan</p> <p>PO= Porcupine</p>	
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<p>OG=Other Game</p> <p><b>FURBEARING:</b></p> <p>2.1.16 <b>What kind of fur bearing animals <i>have you harvested</i> in the project area around Hislop Lake?</b></p> <p>WO= wolf</p> <p>WV= wolverine</p> <p>CO= coyote</p> <p>SQ= squirrel</p> <p>MT= marten</p> <p>FI=fisher</p> <p>BR= beaver</p> <p>MU= muskrat</p> <p>OT= Otter</p> <p>OFB= Other Fur Bearer</p> <p><b>BIRDS:</b></p> <p>2.1.17 <b>What kind of birds <i>have you harvested</i> in the project area around Hislop Lake?</b></p> <p>DU=duck</p> <p>GE=geese</p>	
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<p>SW=swan</p> <p>EA=eagle</p> <p>HA=hawk</p> <p>FL=falcon</p> <p>OW= owls</p> <p>OB= Other Bird</p> <p><b>FISH:</b></p> <p><b>2.1.18 Where are the places that you have set net or caught fish in the project area around Hislop Lake?</b></p> <p>WF= whitefish</p> <p>SU= sucker</p> <p>LT= lake trout</p> <p>PK= pickerel or Walleye</p> <p>JF= jackfish</p> <p>BT=bull trout</p> <p>GR=grayling</p> <p>IN=inconue</p> <p>OF= Other Fish</p> <p><b>PLANTS AND OTHER</b></p> <p><b>2.1.19 What kind of plants <i>have you</i></b></p>	
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<p><b>harvested in the project area around Hislop Lake?</b></p> <p>BE= berries or wild fruit (species)</p> <p>FP= food plants – roots, bulbs, (species)</p> <p>MS= mosses or mushrooms</p> <p>DP= dye plant</p> <p>BA=Barks used for crafts, construction or other purposes</p> <p>OP= other plant</p> <p>FW= firewood</p> <p>EM= earth material (rocks, clays, vermillion, others)</p> <p>EG= eggs</p> <p>FE= Feathers</p> <p>WA= water (drinking water sources)</p> <p><b>2.1.20 Are any of these plants, animals or resources hard to find outside of the project area and nearby areas? If so, are you able to tell us what these are?</b></p> <p><b>2.1.21 Do you know of any special habitats or environmental features in the project area and nearby areas? For example calving or mating areas, spawning areas, mineral licks?</b></p> <p>HINT: Go through major animal and plant</p>	
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<p>types</p> <p><b>MAP using polygon and code EF= Environmental Feature with type (moose lick, spawning area, etc) in brackets.</b></p> <p>2.1.22 How do animals move and migrate through the area? [Pay close attention to places where animals cross rivers]</p> <p>2.1.24 If the mine and an access road went ahead, what would happen to the caribou migration?</p> <p><b>MAP using polygon and code EFC= Environmental Feature Corridor.</b></p> <p>2.1.23 Are there places in the project area and nearby areas where your ability to hunt, gather, fish, or practice other rights has been impacted to the point where you no longer practice their?</p> <p><b>MAP using polygon and code GLU= General loss of use. Where loss of use is specific: SLU= Specific loss of use.</b></p>	
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**TIME CHECK! Interview should be at about 2hr.**



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3.0 ARE THERE ANY OTHER IMPORTANT PLACES OR ISSUES YOU THINK WE SHOULD BE DOCUMENTING TODAY?

4.0 BASED ON WHAT WE'VE TALKED ABOUT TODAY. IF THE NICO PROJECT GOES FORWARD, WHAT DO YOU THINK IT WILL MEAN FOR YOU, YOUR FAMILY, AND THE TLICHO PEOPLE?

#### **Interview Conclusion**

(read after every tape session)

Today is \_\_\_\_\_, 2012.

We have just finished interviewing \_\_\_\_\_ for the [Fortune] **Fortune Minerals IK Study NICO Project**. Thank you for coming here today.

My name is \_\_\_\_\_ and I'm here in the \_\_\_\_\_ building with \_\_\_\_\_. We've given him/her TUS ID # \_\_\_\_\_. We've used \_\_, \_\_\_\_, \_\_\_\_, and \_\_\_\_\_ maps at 1:50,000 (or other?) scale and a total of \_\_\_\_\_ tracks on the digital recorder. Notes are recorded in \_\_\_\_\_ note book.

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**CODE TABLE (this will be completed once finalized)**


### 8.3 Direct to Digital Capture Method

The methods for spatial data capture (direct to digital mapping) for the study were developed by Dr. Craig Candler and Steven DeRoy of the Firelight Group and were designed to reliably document detailed First Nation community use, knowledge, and avoidance in relation to the industrial projects.

#### Interview Team and Materials

Interviews were conducted with at least two team members present, plus the participant. One team member was primarily responsible for conducting the interview and taking hard copy notes. The second member was primarily responsible for managing the mapping software and recording data within the mapping software used, in this case Google Earth or Google Earth Pro. All interviews were mapped using Google Earth Pro version 6.0.2 running on a windows based laptop with a tablet pen, necessary for drawing lines and areas. A digital projector and laser pointer, digital video camera, and tripod were also used as part of the mapping kit.

#### Study Area

The study area and the ability to navigate in Google Earth were explained to each participant at the beginning of the interview through reference to maps projected on the wall.

#### Base Maps

Google Earth imagery was chosen as the digital base map for mapping sites. Using a projector, the map image was projected onto a clear wall or screen. In order to improve readability and help the participant orient themselves, other geographic information system (GIS) shape files were overlaid on top of the Google Earth image. Where conversion from other formats was required, a licensed version of Google Earth Pro was used. Supplemental GIS data originated from the following Government of Canada online GIS data repositories or other sources, including the following.:

- National Framework – Hydrology, Drainage Network:  
[ftp://ftp.geogratis.gc.ca/frameworkdata/hydrology/analytical/drainage\\_network/canada/](ftp://ftp.geogratis.gc.ca/frameworkdata/hydrology/analytical/drainage_network/canada/)
- Atlas of Canada 1,000,000 National Frameworks Data, Canadian Place Names:  
<http://www.geogratis.gc.ca/download/frameworkdata/popplace/>
- National Framework Canada Lands Administrative Boundary (CLAB) Level 1 (First Nation reserves): [http://www.geogratis.gc.ca/download/frameworkdata/Cda\\_Lands\\_Adm\\_L1/](http://www.geogratis.gc.ca/download/frameworkdata/Cda_Lands_Adm_L1/)
- National Topographic System 1:50,000 reference grid: <ftp://ftp2.cits.rncan.gc.ca/pub/index/>
- Data regarding the footprint of the proposed project

#### Interview Process

In Google Earth, a folder called “TEK” was created to store all new mapped data. Each participant was given a folder named by their participant code (e.g. T01). Within the participant’s folder, three folders were created to store newly mapped data. For example, participant “T01” had points stored in the T01\_points folder, lines in the T01\_lines folder, and areas in the T01\_areas folder. Each participant’s mapped data (points, lines, and areas) were saved as a Keyhole Markup Language (KML) file. The entire database was stored as a KMZ file (KML files are often distributed as KMZ files, which are zipped KML files with a .kmz extension).

We mapped new sites using Google Earth at a scale of 1:50,000 or better. That being said, most sites were mapped at a scale of 1:5,000 or better, increasing the accuracy of the location of sites identified. Where possible, we added timestamps to include month or season, and the year the activity occurred. In some cases, people were able to identify specific dates or the beginning, middle, or end of a month.

At the end of the interview, audio files were saved in an audio folder and all video files in the video folder on the computer. Names for audio and digital files were saved in the following format:

[Participant ID]\_[Participant Name]\_[Interview Date MMMDDYYYY]\_[file#].[file type]

For example, M01\_JOHNDOE\_FEB282011\_1.mp3

### **Post-Interview Data Processing**

After the interviews were completed, the data was backed up onto a portable hard drive. All data was mapped using a standardized Universal Transverse Mercator, Zone 12 projection. We downloaded a GIS conversion tool developed by the Department of Natural Resources for the State of Minnesota called DNR Garmin

(<http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRGarmin/DNRGarmin.html>). DNR Garmin is a reliable tool to convert points, lines and areas collected in Google Earth KML format to ESRI Shape file format. KML files (e.g. M01\_points.kml) from the "KML" folder were converted into Shape files (M01\_points.shp) and stored in a folder called "Shape." Each dataset was checked for consistency and accuracy before converting new data files.

## 8.4 Quote Table

### Quote Tables

#### Trails/Transportation corridor

Includes information about travelling on the Marion River through Hislop Lake, as well as the social and cultural importance of these transportation corridors

Participant ID	Quote
T13	This lake that I was talking about, when we did go to the lake by dog team, it was great distance, even if you crossed the lake there, it was a great distance. Since they were just on the dog team, the sled was quite heavy so they have to follow by walking after the dog teams. Maybe it's a good possibility it took three hours to cross that lake there, just walking across the lake. At times they had to struggle quite a bit.
T04	Hislop Lake, around the area, that place is very important, people depended on that area. People used to go there by boat, by paddle, they had no motors, they had to paddle and people worked around that area most of the time, maybe about this time of the year. And at the same time people, they would travel, they would go trapping for beaver or muskrat and they would travel to Hislop Lake and around the river, there's lots of portages... a lot of trails going through there. In the winter time too, people they travel there most of the time in the winter time and a lot of people they used this area.
T04	That traditional trail, we love this traditional area, traditional trail. Even though we are not paid to use that area, we love that area, that's why we still use that area. We still can take care of our traditional trails, why we continue to do, like even after we pass on, we want our young people to continue to use that traditional, rich, traditional area, even after we pass on we want our young people to continue to use that area.
T05	People travelled there back and forth, it's a major route, people travelling back and forth, people stopped off from Great Bear Lake, they'd been travelling, stayed at Great Bear Lake, at least seven years, and on the way back they would stop at the camp.
T05	Right here, this is where the mine is supposed to start, so for us, we're living in Gamètì, and people who are living in Rae, but this is our trail, people have travelled through the area and they would go there in the winter, travel over

	it and in the summer time they travelled with boats and this is where they camp out.
T07	Yes, we have always made use of Hislop Lake. You see this area that I'm showing you, the road leads to Gamètì and we have made use of surrounding lakes near Hislop Lake and we have trails going through here. This was used by many people, there was a major camp site here and also we had trails, we had made use of that trail for trapping and hunting, we had always followed other people in this route. So this is a main route here, that was used by many people.
T06	From Hislop Lake, there's a traditional trail from the small little lake and also that's where, all the way, that was the traditional trail in the past, people used to put their boats, the dog team trails were really wide because they had to carry some boats on these trails and they used to take care of these traditional trails even though the only thing they had used was a dog team. Even without the map, all the way to Moose Lake, it's right from there all the way to Moose Lake, ... they just knew the trail but these traditional trails were really well maintained and well taken care of.
T11	I assume that the trail used by our old timers, we'd see an old campsite where the trees were falling -- old campsites where it had been there before our time. Today, it's so easy to travel. We have vehicles to travel with; we have snowmobiles to travel with. In the past there was none of that. Well, we did make use of the old traditional trail. We just follow where there's marking on the roads, on trees, where trees were falling, markings on the trees -- that's how we followed the routes of the trails.
T11	We had ... to travel over the lake, with canoes and boats, and even when we were traveling in those old days over land, we travelled using the old trails. There was markings on the trails, even -- we'd travel in the dark... we'd travel at night time too. Those trails were all barely readable, but we did travel on trails. And at times, when there were old campsites, we'd seen racks -- people make racks and their parents would attach their supplies.
T20	I've travelled on Hislop Lake a lot by dog teams. We did follow up the river and go up the river ... out into the barren lands. A lot of times I guess we'd gone out to the barren lands by canoe in the fall time, for harvesting dry meat. I guess we got as far as the point on the barren land by the canyon ... A lot of burial sites along the way, because a lot of people that travelled, whenever they passed away, I guess that's where they were buried.
T22	Yes, even on Hislop Lake. You just can't wander all over the country out on

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	the lake, because we just don't follow up on the river because there's a lot of open water on the river, and some currents on the lake. You have to kind of cross this area to the lake, our way.
T22	There's one area that we had to port, all the way down the [Marion] river, up the river, by canoe, paddling. Whenever night falls I guess, between the time we sleep, we don't paddle at night
T27	So when we did travel though, we would go to the lake or a smaller one. We tracked the moose a short distance because once you get down to the bigger lake, Hislop Lake, only then you can try to cross, you could come over. The way things are, you're so close to one another, going up to travel across the water. There were a few people that for outlying regions they were coming, they would spend time with us. There were people from Wekweètì... and a couple more families made trips and spent time with us in Hislop Lake.
T27	Most of the people that encouraging the mine to develop, they haven't lived at Hislop Lake in their time. Just other people right there said that some traveling, he had a house there too. Rayrock Mine, today I guess it's an abandoned mine now, now let's clean up out there. Prior to mining there, set up on Hislop, on the Rayrock site, there used to be a trail, a dog team trail, the only route that we used to go in and out to the area, but right now it's not used intensively because of the possibility of contaminated water.
T28	Today if you want to travel and hunt, anybody out there, tourists, they are free to do that. And then over time, I think things have changed, from the days when people had to walk ... But now today they use a lot of equipment to go get water or something like that. Yes, our ancestors they did -- travel, they did travel a lot only by foot, either that or by paddling the summer and by snowshoe in the wintertime. There's a reason why when I said I don't know how to read the map -- those people only covered the land by foot, so they know they land inside out
T28	There are a lot of times our ancestors used to travel to the barren lands and it would freeze over there, and they'd have to walk back over ice. So a lot of times they'd leave their birchbark canoes, and today you see a lot of remnants of the....up behind the -- parts of birchbarks.

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## Fishing

<b>Participant ID</b>	<b>Quote</b>
T04	The people, they used to travel around that area. And this is where they would stay all through the winter, all through the year, if there was no caribou, they would still stay around that area for fish because it was a good fishing area. This is what they heard from the elders.
T04	White fish and if they set nets around the river area then they would fish around the area and make caches around there and they would store their fish there all winter long, they would use the fish, when it's getting warmer, I guess they run out of fish so along the river this is where they used to [store them].
T04	He set nets all around that area, this is where they used to stick the fish, there was a camp there, there would stick fish around there...This is what they used to do. They make a dam so they would catch the fish back in the fall time and in the spring...They make a dam, they put the logs over each other and the fish, they can't go through it so they don't go the other way. So if you make kind of like a cache, they put it in the foundation and then they make kind of like a floor and they will put three logs over it and where the opening they would just leave the opening there.
T04	And around the river there's about thirty caches, the old ones, there's some old rotten caches there. When they take fish for the whole winter they would just store the fish in there and then they would just leave them there until they used it all.
T04	The dam that traps the fish and where it was going to go in the water, it's kind of like.... At the end it kind of goes up and then down, it's where you make the foundation, you just level over it and then you put a log, three over each other and the fish would go over it. And you catch fish in about two days, you going to fill out the whole cache, you catch about two hundred fishes in two days with nets, then you won't catch that much fish, so the fish, they just go into it right away. And all the fish will fill the whole boat in one trip and they would take it out and make another trip again and then they'd go again. So they catch fish fast that way, this is how the ancestors, they used to make [fish caches]. When they finished with it they take it out again... so they would just take it apart again, so whoever wants to use it they use it, other than that the other people they would use it too, one after another. So this is how the ancestors used to live of the fish.



T04	Our forefathers have used that area for a long time. That Hislop Lake, people used to go there all the time. That's a good area for fishing, they want an area, go to Hislop Lake, that's a good fishing area.
T05	A lot of people have made use of that area, a lot of good fish on both sides. It's good to eat that fish so in the past they would hardly any caribou in that area, they would just go around, just below the tree line, years ago, they did not go too way below the tree line but there were caribou out there by the tree line, the caribou would not migrate through that area like they do today so the reason why it was used, it's a really good area for fishing.
T05	All that way and from living from that camp, they used to walk all the way, they used to use snowshoes and also there was two little pups that were hitched into a harness and they used to pull the weight of the fish back to the camp on a toboggan.
T05	Our ancestors, all of that area had been used, all along the river and then also along the other river, there's a lot of good fish as well on both sides, this and all the way up over there.
T01	From here, Hislop Lake, my uncle knows the way, in the springtime we travel for muskrat, travelling and our dad used to travel along that area and at one time we would travel on the river and it would take us a couple of days and we would come to Hislop Lake. And this is where they camped and this is the most important place because even travelling from Rae, you would stop there around that area because there's good fishing area and they have fishing cabins and if you go travel around that area, it's always the best time to stop there, even in the winter, because when you travel through the winter, you have to get fish there. It's just like you got a big travelling bag.
T01	When people go there [Hislop Lake], they stop there and maybe they fix up tent, and people they go trapping, they stop there along that river, mostly all the time. And that's a very important place like they have to hold onto it just like holding it in their hand. In the fall time, they go fishing, it's just like there's something kept for you.
T10	With ten canoes, we'd use the Hislop River and all along the river, so and also right on K'ìàgotì. And also from K'ìàgotì all the way to Behchokò.
T12	The lake was really good. It was clean and clear, a lot of good fishing. And then in the fall there would come beaver and also in the fall time they would build a pen, a cache pen, and catch the fish there. ... in the winter time, they stored all the fish that they could gain, and stick it up in pens, in cache pens, and make that use throughout the winter, to always have a food supply for

	dog team.
T14	The reason why the people used to go there [Hislop Lake] a lot is there used to be a lot of fish ... people that used to live there mostly what they would do is fishing and living on fish.
T19	Most of the people spend springtime around the area [Hislop Lake], some cases they had a freeze up right there in the area. And they go up Hislop River. They even on the river I guess, in order to, to get more fish, they make up some kind of fish ladder ... If you don't want to use a net, what they could use, they could use a fish trap. So that's how they harvest their fish. The river itself is not a fast-moving river, so it's just far enough so that the fish traps I guess on the setup, setup about 20 or so logs together, and then just like a scoop I guess just fish on the river like a funnel
T19	[There is] a lot of fishing areas around that Hislop Lake River. Then the river goes right back down to Marion Lake
T20	We travelled on the Rayrock mine area a long time ago ... we caught a big, jumbo white fish. The size of the fish was so huge that we [caught] about 40 of them, and one motor toboggan and it was hard for the dog team to pull it ... we no longer go out, back to that area for trapping, hunting and fishing anymore, because the water is polluted in the area. We can't drink water from that lake either.
T21	Yes, all kinds of fish on that Hislop Lake. You name it, most of the fish, even [call suckers?] and [losh?], whitefish, [ecro?], yes there are some pikes. I don't know about the trout, but... yes, [there] is a lot of fish, all kinds of fish, and the fish are healthy and big. And hardly anybody goes there now maybe the population has increased. A lot of fish in that area right now.
T26	the most we could catch is probably 50 whitefish. Back them days you know they don't have the long nets because, the 50 yard or whatever, I mean -- once the mines developed, like I said, all this stuff that's available for harvesting might not be available in the future.
T27	Although we got a lot of fish out there, the type of fishes out there, we make some grind fish out of it and then sometimes we just slice it in half and smoke it, and then try to preserve it for future, for the dogs. And then we had a setting out in the land, we have a place or a tank.
T27	There used to be a lot of fish in that area, right on this area, where we used to -- -- the creeks up over there. They say a lot of fish I guess, there's a lot of fish that pass down up through. There's not only one area. There's an abundance

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of fish, the fish is abundant all over the area, on the river.

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Caribou and moose (hunting)

Includes areas and habitat important for these species, and captures impacts to these values from transportation corridors and other linear features, contaminants in the environment, and loss of habitat.

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<b>Participant ID</b>	<b>Quote</b>
T13	This lake here, there's a large rock hill there, when we were travelling there with the dog team, you see that hill there, this is where we entered the lake there, that's where we entered the lake a long time ago with a dog team, that's how they travelled a long time ago. We travelled by the shoreline and then there was another old trail going to Rae Lake. Today we have another trail, dog team, normally that's where we camp, near Hislop Lake. And the elders would tell us this. Don't go to this area, the ice is very thin in this area, it's not safe, the only time they went there, that area, was when the caribou were able to use that area.
T13	But this is a story that I will share with you. It must have been in the spring, Charlie was with me, Charlie ..... was with me, we went there with dog team. We knew where people made use of land, they would talk about this area, elders always talked about this area. I have worked many times with many elders, at times we would sit with them and so they shared stories with us and many people have made use of this area. As you know the area we are talking about, a good fishing area, as for woodland caribou, there was no woodland caribou, there was caribou, caribou used that land in this area. This area that I'm showing you is all caribou land, all the way to Gamètì.
T13	This area is mostly used by animals, we go prepared for hunting in that area, even with dog team, we used to go there for caribou, we did utilize trucks and snowmobiles to go hunting in this area. It's a fine hunting area for us... When I think about it, I always think about the animals on the land which I have used for food. I have never had commercial (store-bought) food but I always depended on wildlife off the land.
T04	And if they should go by boat and they shot some caribou they would store the food in between the rocks, the rock crevices and this is how they stored their meat. And they would put the meat, because at the same time there was ice, so they would hang their meat in there too to keep it for later. And then they cover it up so it would keep cold all summer. It was just like a freezer when they covered it up through the crevices.

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T04	Yeah, we all travelled around that area, where the river goes, he said he stayed there all summer long, at Hislop Lake and they would travel around in the fall time and there's moose and they would listen, hear where the moose would be, they'd go hunting for it, and they would stay on a couple of those hills to look out for the moose. They would listen and look around for it. And if they see ....., they would follow to the moose and that was how they used to hunt.
T04	See where the Fortune Minerals mine is, right on top of those hills, they would walk, it would take them I don't know how long, maybe a night maybe, but they used to get on top of that hill, at night, they would listen to see if there was any moose that's making noise during the mating season. They would hear a noise, let's just say, over there and then during the day whatever they were hearing a moose, during the day they would walk over.
T04	Let's just say if there was a noise of moose from the area, if someone was sitting on the hill, when the wind is blowing that way, the moose will probably be able to smell him so they wouldn't go there, they had to watch out for the wind. Only if the wind is blowing this way, they would go there. They would listen for the moose all night, just when the daybreak comes, they would go there.
T05	When the caribou were migrating back to the calving grounds, right around the lake, over here, all along the lake, when the caribou were migrating back to the calving grounds, the whole of the lake, you can see all over the lake.
T07	The caribou used to migrate to that area, when the caribou used to migrate from the calving grounds, all the way from there, that's the way it was, when the caribou migrate to the treeline and just below the hill, like Hislop Lake, we used to hunt over there. I'm pretty sure that is the main migrating, there must be a lot of caribou trails, caribou have used that area where the Fortune Minerals mine is about to, but they used to migrate through there and towards us all the way to Whatì from there.
T03	But then now since there is mining and it got here and all that, you hardly see [them] – the [caribou] hardly go around that area where there's mining.
T06	They used to go there for muskrat, beavers, they used to go there [Fortune Mine Site] for hunting, that's the only area they use for hunting for moose and the caribou would migrate to that area, the caribou would hang around this.

T06	In the fall time we used to shoot moose in this area and also when the caribou used to come around, they used to go to Chimnee [?] and Hislop Lake, when the caribou migrate to this area. There is one, in the month of Easter, in the month of April, I had shot three caribou through there on the winter road, just where the winter road exist.
T06	The caribou would not go to the burned area, they would usually hang around the non-burned area where the forest fire was ... Because their food would be destroyed by the forest fire... The only thing that will regrow is just probably a few plants that will regrow and all their food, lichen and so forth, will all be destroyed by forest fire so the caribou would not hang around where the forest fire was.
T10	So Hislop Lake, where the Carl's Mine is, normally you have caribou migrating path through that area where the mine is. It would come to that mine site to our area, to our land and then it goes back, take the same route back to the land, they would bypass the mine site. That's a migrating path for the caribou.
T11	if the chemicals go to the contaminated area, if the chemical's contaminating stuff and it goes out into the environment, the caribou rely on lichen. So, in the summer, the caribou will eat lichen, and some of those shrubs ... the caribou will get ill, it will be unhealthy -- it won't be healthy, and so if the mining goes ahead, the caribou are sensitive to noise, then the caribou will avoid those areas.
T19	We do hunt from here because some caribou on Hislop Lake, and if we can't find any caribou on Hislop Lake, we go down to the northeast area and that's where we go down to the Hislop Lake where there's a cabin on Hislop Lake ... used to be a village one time, there's still a lot of houses there right now it's more or less abandoned cabins. Sometimes we use those houses to overnight because all depending if we carry our own gear such as tents. This whole area, yellowish dotted line, that's where the elders, used to be a village right there, right on that land
T19	The area, all the area is not that damaged right now I guess, so area's pretty well clean and, so that the animals are free to roam around that area, which is good. And even the bay, you could always paddle over there and we don't have any problem killing any, lot of moose out there.
T19	We killed maybe 30 or more [caribou in the 1960's], might seem quite a bit but we used it for human consumption as well as dog teams. So we get the scraps I guess dog team, most of the caribou meat we want to make dry meat

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out of it. Yes, we were taught how to survive on our land and how to treat land so I guess we take what we need and then we don't waste anything. We even have to clean the guts to use it for you know dog food. The only thing that's probably left at the camp is probably bones. Nowadays, the hunting had changed I guess, a lot of wastage after the hunt. Back then I guess we disposed our unwanted meat into land, even the hide I guess disposed well on the land, so left on the lake.

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T22 We shot over 30 caribou [on a hunting trip in the 70's]. It was some time after Easter. There were a lot of old folks that just barely made it back. I guess the snow was all thawed out, and just little patches of snow that we travelled all the way back.

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T28 Before our ancestors, our forefathers used to -- they hunted the caribou in brushback on a lake crossing ... We harvested our meat and we didn't waste any part of the caribou. We eat with the shinbones, all of those leg bones, we use that, we bundle it up so that they dried up like that. And what they'd do, they'd use it for firewood in the wintertime. So nothing was really wasted.

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Waterfowl, Fur bearing and Trapping

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Participant ID	Quote
T07	There's another area, there's a river there that comes to this lake here, near this lake. The elders have always had spring camp here. Spent a spring there hunting beaver and muskrats.
T13	I would travel up to here, trap this area, from here I finally found my way to go to Hislop Lake. When I camped overnight there I had dog teams by the lake there, it was late at night, it was night time, because I know, I went out to the lake with the snowshoes, I was kind of afraid because the ice might not be too thick but I did walk across this area, I came across a trail, this trail was used by a dog team, that's the first time that he realized there was people trapping in that area. At that time I was just trapping.
T08	I have been making use of that area almost every year, we spent early fall in that area and it will freeze in that area and then we spend the winter. And right now we will go towards Gamètì into Whatì. We've been making use of the area for beaver hunting, we have made use of our canoes to travel through the area, talk to Gamètì ....., at that time the lake was really

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difficult to travel on, it was breaking up and I remember bypassing some areas. There were old cabins in that area I remember which we bypassed and we followed the lakes. I remember it was really late in the spring, the ice was thawing out, most lakes the ice was thawing out, some lakes there was no more ice on the lake, in the area to do the spring beaver hunting. Some of these days, an area where it is good for birds, for ducks, waterfowl, there were many lakes like that in the area, it must have been a good area for these ducks and was good feeding area. I can remember it was dark with so many ducks, and also he remembers they had set up nets, gill nets in that area, over land, and they snared these ducks that were flying by and how they harvested their ducks there, this is where, that area that I've pinpointed, where we done this and fishing for ducks and also we did some spring hunting there for beaver and muskrat.

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T10 You see this Hislop lake, all around the shoreline, at this time of year, many beaver in that area. They're also in the wintertime. You can see many dams and many lodges made by the beaver in that area. In the spring, you can see all the markings made by the beaver, where they've gnawed on the trees and where they have fed. And once, they will leave the area for the beavers, leave it in the spring and come back, come back in the fall and live in the area throughout the winter.

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T12 There were many good fishing spots on that lake there. Many ducks, beaver, muskrat. There was a bond up there.

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T22 I think we killed a little over a hundred muskrat each [in the spring hunt of the 70's]. We saw some dead fish floating and some dead muskrat been floating around, just below the [Ray Rock] mine site. ... There was approximately seven dead muskrats floating on the river.

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T27 There were a lot of fish year round. We never ran out. Then the spring comes down and then we've got to change to a different -- trapping for muskrats and rabbits. Once the trapping season is over, then come to fishing, and go back to the same area. Yes, it's an area there, it's a good area for rabbits... We'd stop for drying meat and trapping smaller animals, we'd get out of this, that's how we stored everything

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### Habitation/Gathering Place

Includes areas of habitation, elders growing up and living in the area surrounding Hislop Lake.

<b>Participant ID</b>	<b>Quote</b>
T13	I want to share a story with you about Hislop Lake. Before when we used to use our dog team, we used to go to that area with the dog team... Before that cabin was ever built, we used to go to that area... And also it was on top the hill but we did go up, we spent three nights over there, and from there we used to hunt where the Fortune Minerals mine exists and also past that area. My late brother and I was cold, we spent a night over there without a tent, that's when the elders used to tell stories.
T04	There was about six houses there. And there's some old fireplaces there, around there, there's no houses there right now but there used to be, before there used to be houses, it's just like there was a foundation around the area there, maybe they burned it. But the people they used, they lived there before, a long time ago.
T04	But now, all the roof on top they were all made out of logs and the top of the roof was made out of moss and in the corner they put the chimney, it's big in the corner. Because it is made out of stones and it's kept the house warm, even when it's cold in the winter time so now nobody lives around that area so he doesn't know who used to live around there, so that was in the olden times, that was before the people that came around. So those log houses were made out of wood. They just put logs over each other and they would make a hole in there and they would put the logs together, this is how they make the log houses.
T08	He always had his camp there. This area that you see here, this size of land, it is a good area for moose hunting, mink, wolverines, there's a lot of wolverines in that area, mink, moose, this old man used to base his camp there quite often, it was his mink camp there because it was good there for moose.
T06	There's all kind of burial sites right around the whole of Hislop, people just go anywhere and go bury.
T10	As for that Hislop lake, a long time ago with the elders, the lake elders, they had spent much of their strength on the lake there and after [Easter?], they would have their spring there, the ice melting, they would continue to do some hunting for beaver and muskrats. From there, they will travel all the way to Marion Lake. They will have their spring break there, spring there on the Hislop Lake, beaver hunting and muskrat hunting, once they have gained



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	<p>enough [talk?], they will move all the way down the river to Marion Lake. So this area always contained people. It never seemed to be without people in this area, through winter, summer, fall, [K'iàgoti ] that lakes people have travel through there every summer, every winter.</p>
T15	<p>But there's a lot of people [40:00] in our family all living in this section [Hislop Lake] that we know we live only on the water. So even when like for holidays or for gathering, things like that, we gather in { Behchokò} and sometimes we travel there and live with our families and we're thinking about that lake; what's going to happen in the future</p>
T26	<p>Yes, there are a lot of people are buried there. A lot of people are buried in the, majority of people are buried on the end of Marion Lake Village, right on the bay here, a lot of people are buried there, there's a gravesite there. Right on the area where the, that's where the graveyards are. It's even along the Marion River on the shores a lot of people are buried along the river bank,</p>
T26	<p>This is where my uncle had a house on that island. We used to spend spring hunt over there on the island. We'd go down the river. This is where we have a freeze-up over there and this is where my uncle's house, my grandfather's house is on the end of Hislop Lake.</p>
T26	<p>Yes, if you actually move around a lot so some cases we don't have a house, all you got to do is pitch a tent and just sit there anywhere between two, three weeks to a month at a time.</p>
T27	<p>I used to remember when I was young... just a little baby. Years, I guess now, we stayed in one area, on one lake. This is where we were hunting for caribou. We would make some dry meat in the springtime after the spring hunt I guess, when we go down to pick up, retrieving it and go get your corn. A lot of times we go back there and then you have to freeze up you know, what you had from the spring hunt, when the ice goes away. A lot of times I guess around the parameter, it would take us not only down the Harbour Lake area to go trapping. On the way, the caribou migrate inland, you'd see a lot of caribou in the area. I think more or less we'd go hunting every year, every season. A lot of times I guess, although we spent a lot of time at Hislop Lake because I guess, for the people that scattered all over that part of the region. Right on the -- where the river runs into Hislop I guess, that's where we camped a lot of times there.</p>
T27	<p>We used to go out for fall hunting for moose. The only appropriate area for hunting this area, would be where the mine is, the post. In the fall time,</p>

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when we were hunting moose, the area where I was okay with that, was this area, good moose hunting.

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Water, Wild Foods, Medicinal Plants and Contaminants Water, Wild Foods, Medicinal Plants and Contaminants (drinking water, gathering foods, pollution)

Considers continued access of Tłı̨chǫ members to non-contaminated sources of water and wild foods, including fish, berries and other plants; considers impacts on these values from industrial development of the land.

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<b>Participant ID</b>	<b>Quote</b>
T05	There's a small little pickerel but it's nice and fat, in really good shape, that's where they used to be. What they do, there was a note now that Fortune Minerals are saying that there was a big note there right by the camp, at Lou Lake, you are not to fish that lake.... Even after the sign has been cut down, people don't go to that area to fish anymore because they are a little afraid, they are concerned.
T05	Rayrock mine... he wouldn't drink the water up there...up to Hislop, after that we can drink water, we're scared to drink water from Rayrock mine.
T05	Concerned about this area, it's a good fishing area. If they spoil the water, what is going to happen to the fish, this is what the people are worried about, the fish around that area.
T07	So maybe there's some exploration that's happening at the Fortune Minerals, that's why the caribou is avoiding using that area, they don't migrate to that area like they once did.
T07	If the mine opens it doesn't flow to area, it flows to Behchokò and also the only place it flows from that NICO Project mine, it flows into Behchokò. If they use the chemicals it will affect, we know, we really don't know what kind of chemicals or stuff that they may be using. It's in the middle of the Tłı̨chǫ Region, it's the place of the caribou, the place of the wildlife, and also that's where the caribou so we may not see any caribou going to that area because it's right in the middle of the heart of the Tłı̨chǫ Region. Like Rayrock, I remember, I have seen the kind of things that have occurred to that area because of the Rayrock mine and also that if Fortune Minerals, if it goes ahead, it flows into, it will have an impact on the wildlife, even with humans, human health. If they use poisonous stuff, heavy chemicals, it may

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	be dangerous, so we may not have any wildlife from that area go to our area. Because we really don't know the outcome of that.
T01	That area that we're talking about was very important and very useful, we were brought up around that area, around that Hislop area. Even the trees provide medicines and it's good for cold, all kinds of medicines that comes from plants and trees, it's good for cold and not only that, the huge land that we have, ..... [1:18:26] but if the mine goes ahead, all the things that were there will be spoiled one way or another once the mine goes ahead. That's one of the reasons sometimes you feel a little down, when you think about those kinds of things. You can't say you feel good about, you don't feel good about it ... When you go out in the boat, you take a cup, just along the river, just anywhere you travel, you can dip your cup into the river or the water or the lake but if the mine ever goes ahead, you won't be able to do that.
T06	Even Rayrock , people do not, right now, avoid or do not use the Rayrock area at all because it's all been contaminated. So people do not use that area any more, have to avoid. ... If the mine [goes ahead], ... that area will never be the same. They'll do what they have to do. If they want to consult with the community, then this way we will say what we have to say to them. Just look at some of these existing mines. They are just destroying our environment, us elders, we're not really going to benefit from it.
T09	When they took that minerals out of the ground [at Rayrock ], how destroyed most of the things that, destroyed the fish that it was the plants, fish, it really destroyed a lot of the plants and fish and even if you hunt in that area, it's very difficult for the people.
T09	that lichen it's, it's a good caribou food substance, lichen, it's a really good area for the caribou. That's where the caribou migrate to an area from there. So we are concerned about the possible mine opening. It's going to have the impact on the other caribou, the beaver, the muskrat, all the things that we harvest we are concerned about, even the ducks, the ptarmigan, the rough grouse, all the wildlife there we're concerned about.
T10	If they're gonna go ahead, we do not want our water to be contaminated any further, or our land.
T15	We drink water, we make tea with water. So all the water, all the lake, even the lake where the little river that joins -- we know what's going to happen. And it's all just like one like one big lake that drains together.

T17	<p>When something is [dug] out, no matter what, like, in a year or two, they'll put everything back in place, but it has been ruined, and it will never look the same. Plus, if they have been drilling, and all the dust flies up, and the wind picks it up, it -- the dust flies, and I suppose whatever the dust is -- how far it goes, [00:20:00] an animal will come around and pick it up, and it's going to -- is it safe to eat it? ... So if we're looking at another dig-up right now where they're talking about having that mine again, it's going to be more like Ray Rock too, because of all the chemicals and everything.</p>
T17	<p>But we need to look more deeply into where the river flows. That's my concern. And all the dust flying in the area is another concern from underground. How many poison is in -- digging out of the ground? I'm afraid for the animals and the people; so if they want to open the mine, it's really good to look at both sides. The land and the water is my big concern, because people live on the land.</p>
T20	<p>Yes, we're concerned about the abandoned area of [Rayrock ] mine, living downstream from it, and then if another proposed mine is being developing and get into production, we're living downstream from it too, so we have two; one abandoned mine and one operating mine. It will have some impact on this area for sure in the future.</p>
T22	<p>Just the migration, I guess it's controlled by the nature of the food that's available for them I guess. They'll be able to migrate this way. I don't think the pollution will cause all over the land. The only area that mostly concerned is the tailing swamp ever leaked I guess, all that is going to go in the water.</p>
T26	<p>back then days the elders, they knew what type of plants and what type of trees are good for any illness I guess. They identified them. They depend a lot on the traditional medicines. Even the blueberries and the cranberries, a lot of animals really live on it too as well too because in the event that their land is ruined in the future and what animal will be feeding on it? That's even the grouse and the ptarmigans I guess all live on berries ... a lot of people, they use a lot of spruce gum for chew as a gum and a lot of times they use that to repair their canoes ... They just dry it up and then the next thing they know they patch it up with spruce gum. So spruce gum is very important too.</p>
T26	<p>Yes, back in days for healing purposes I guess a lot of people depend on the traditional medicines. It's a fear that once the development gets underway all the traditional medicines will disappear with it as well. Certainly this is the point of view directly coming from our elders. They're the ones that</p>

	have great concerns about what might happen after development, mine develops.
T27	out on the Hislop River, the lake is not clean. All the animals and the fishes in the river, they are not healthy. They used to have a lot of elders that used to live there, like all around this place.... and grease in the water, where the elders were. There were no moose there at the river. I guess nobody every complained about diseased animal or disease of the fish or anything. The fish were really healthy when you cook fish that is healthy. But today the fish are all kind of soggy and kind of soft in some areas. On the area on Hislop River, it was a good area for rabbits. They even got one mountain named after rabbits, because of the abundance of the rabbits in that area. It's an ideal area for caribou.
T27	The area where my grandfather had a house, the fireplace is still up, although... used by some people that use it for firewood.
T28	back in those days you owned the land I guess, you went hunting, you could survive. Today, people don't --- we changed how we eat.

Intangible cultural resources (cultural, spiritual, etc.)

Considers ability of Tłı̨chǫ to continue transmission of language and traditional knowledge, and impacts to this ability from industrial development of the land.

<b>Participant ID</b>	<b>Quote</b>
T13	I want a good life for my people. A long time ago when people made use of land, people did love each other, love was so strong amongst people, if they caught enough fish, they would share their fish with each other. If one person killed some animal, they would share the meat with each other, that's how strong love was.
T04	So Hislop Lake, our father used to go hunting on the hill... all the way on the hill, this is where they used to go sleeping on the hill and look out for moose... they used to go up there, so Hislop Lake... this is where our ancestors lived and this is where we used to travel, we use the route today even in the summer, in the winter, if you're hungry, we'll go hunting for ducks, fish and this is what we live now, and where we travel through.
T04	we take our kids through the river, we want them to use it for the future, this is why we used to travel through the river from there, from Gamètı to Behchokò.

T13	<p>We do not know what the future will know but the minerals that is found in that area, if they going to get the minerals out, so people, how will that affect the people in Behchokò, will it be okay? Maybe it will affect them but you know Rayrock , yes, for three years I've cut logs and woods.. now that he had created the sickness, they make me think, like he had caught an illness, maybe all my people. The river that flows on ... is going to affect the land, the water, what's going to happen to it and you know people will suffer from it. That's what I think. When I think, I am over seventy-four years old, I'm an elder, maybe I may not be around for the next ten years, but the future of our little ones. We should seriously take into consideration, seriously think about it. See about the wildlife that the Dene people rely on, depend on, let's think about that. That area, it's beautiful country, when the caribou migrate they go to that area, it's moose country, bear... in that area I have been work with the elders there a lot of time, when they used to share stories.. But when I think about it, when I personally think about it, when they open that mine, will the water ever be the same? Galooti, it's a really good fish area, in Hislop Lake, good fish... I recall when the elders would tell stories about this area.</p>
T04	<p>That is our area, we may lose all of our tradition areas, the different trails, in the winter time we go from here to, we use that trail, and if they have some more buildings in that area, will we ever be able to use that area and that's a concern that I do have and a lot of us do not like that at all. Our ancestors and our forefathers really could use up that area, that Hislop Lake, even though they have passed on, our ancestors, our forefathers that have used that Hislop Lake area, even though they have passed, we still use that area.</p>
T01	<p>People from Gamètı, our ancestors, our forefathers and also from here to Hottah [?] Lake, and also a lot of elders, I was born out on the land, other people and also every elder that used that area, that's where we come from. Our elders had to use that area, that's why there's some burials there. And also we had used this area constantly, this is our area, this is our land, and also this is the place of our ancestors and this is where we were born and raised and we had to use this area. The reason why, that is our area and also we go back and forth, that is our area, this is our land. When the people used to live out on the land, that's why there are a lot of people that are buried there, around our area.</p>
T01	<p>look at the mining, it's going to destroy everything, once that mine is there he's going to destroy it, he's going to contaminate it and destroy the river as well. Look around that area, look at the Galooti area, it wouldn't be like before, it will never be the same once that mine goes ahead.</p>
T01	<p>There's a lot of wildlife, people to depend on, a lot of good things, a lot of good wildlife in that area. And also some people would say what I'm saying now, that area was very, very useful. So when we went to that mine, it's right on top of the hill, and also once it rained from the top of that hill, the water will seep into the lake, some of these tailings will seep</p>

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into the river, to the lakes, and it will all go to Hislop River and it will go all the way to Behchokò. In the future, after the time, after the people, these things will never be the same near Behchokò, that's the way we look at it. That's why, and the people will suffer from the mine, the people from Behchokò and it will destroy the river, the lakes, drinking water will be contaminated, polluted, it will destroy the fish as well, that's what we think. When we think about it, we see if the mine's going to go, once they take things, the ore from the mine, once the mine goes ahead, things will never be the same. Everything will be destroyed, everything will be contaminated, this is what, in the past, we learn from experience. We had taught ourselves someday, we've got some of those tasks exist in mind that this will occur.

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T06 The days of the birch bark canoe, all of that area was used, the whole area was used for hunting, people lived there before. People used to live year round, like my mom's dad, they used to live in those area and they used it for harvesting moose, rabbit and in the past there were a lot of people.

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T06 All the elders have used that area and sometimes they used to have a tradition, it could have been a handgame or a jump dance, have people gathered in that area, do you think traditional activities took place up there, hand game or drum dance.

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T09 This is the elder before he passed away, he spoke to his family members. He was talking to you as he said according to his husband there's a place like a point, it's a point where there's birch trees there. This old man said, "If you ever across where you're going through a difficult time, pray over my grave, give me your message and I will give you back what you're asking for." This is what the elder said. So this is more or less a sacred spot; sacred burial site. Beautiful.

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T09 When you do hunt there [Hislop Lake], you will not be without any, you'll be fortunate if you kill something there. So one of the things that they do is when they cross the Hislop Lake, they will go to the gravesite to pray over the grave and ask for ... things that they might need. It's a sacred place.

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T12 And we had to carry all the children. It was a difficult life. The journey was tough, but with our children -- we didn't have any money. We couldn't get money from ... social assistance. We didn't have no traveling allowance. We couldn't get no money at all. The only way we lived was gaining from the land. Animals and fish and things from the life. But it was life.

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T17 If I was to make a decision, I would leave as things how it is. Not open mine pits or things like that. Because people had harvests to live on the land. They had traps and went hunting, and that's how life used to be. But today as the new generation, people can't live without hot dogs, hamburgers, Kentucky Fried Chicken. Everything is new to them, and they are being raised on it. So compared to the old days, people do need assistance

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or things like that. They used to live on the land, but today? No. Everybody has to go to the store almost every day.

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T26 Back them days people have to survive, they survived solely off the land hunting and tracking, fishing. Back in those days, there's no such thing as mattress.. (...), When a man killed a caribou, they used the caribou skin. They harvest anything out of a caribou. They would use the hide for clothing. They used the hide for mattress too. Heard of a hide mattress? Some of the families I guess don't have equipment to go out trapping and don't have the proper equipment too so it's hard to go where they want to go.

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T26 We were lucky if we had some tea and tobacco. People, they survived on back them days with just... country food such as dry meat and dry fish. This is how I was brought up, it's how I was raised ... I could live through it and I could do it if I had to do it again. Early in the morning before the sunrise I guess one of our parents used to push out of our bed and tell us to go out and check your net. Go check your net. Either that or go and check your snares. Before meals that's what they sent us out to do. Yes, despite the cold weather we did that and how windy it was or how cold it was. Some nights I guess we even had to set a net in the cold winter nights he says. ... You don't, you're not going to survive so we had to do that. That's the majority of people to survive, that's how they were brought up so that's the reason they got great respect for the animals.

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T28 Today, there's nothing wrong with sharing our resources or whatever comes from the land, but yet -- but what little comes from the government, and then they raised up all the living conditions on us, the living conditions are too costly now.

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T28 when I was at Hislop Lake. They had a beautiful land, beautiful scenery, and the water's clear. And I was raised on the land, so I really enjoyed living there when I was there ... We tried to make ourselves visible on the land, so when we'd see a broken twig, it was a description that we were there, so that's how -- that's how well we did respect the land.

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