More Creek Hydroelectric Project

Archaeological Overview Assessment

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EXECUTIVE SUMMARY

An Archaeological Overview Assessment (AOA) was conducted by Amec Foster Wheeler for Alaska Hydro Corporation's More Creek Hydroelectric Project in northwestern BC. The project will involve the installation of a 75-megawatt hydroelectric facility and the creation of a reservoir storage area surface area of approximately 2,680 ha in the More Creek basin, 130 km northwest of Stewart. Ground disturbance is necessary for all related components, including a powerhouse and generating facilities, transmission lines, a dam, intake, power tunnel and penstock, reservoir filling and penstock diversion, and approximately 1 km of new access road, prior to inundation of More Creek to create a reservoir with a normal maximum operating level elevation of 498 m asl.

The results of this AOA indicate that:

- [redacted]
- **Lands with moderate to high potential for the presence of undocumented archaeological resources are present within the project area.**

Based on the results and conclusions of this report, the following recommendation is provided for the proposed More Creek Hydroelectric Project:

- **An Archaeological Impact Assessment (AIA) should be conducted for the project. The AIA would be carried out under a Section 14 Heritage Inspection Permit pursuant to the *Heritage Conservation Act.***

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1 INTRODUCTION

This report describes the results of an Archaeological Overview Assessment (AOA) undertaken by Amec Foster Wheeler Environment & Infrastructure (Amec Foster Wheeler) at the request of Alaska Hydro Corporation for the More Creek Hydroelectric Project (the project) in northwestern BC, 1.5 km upstream from the confluence between More Creek and the Iskut River. The project is located 95 km east of the Alaska/BC border and 130 km north of Stewart, BC. The project entails inundating approximately 2,104 ha in the More Creek basin to create a reservoir that extends 20 km upstream from the intake.

1.1 Protection of Heritage Resources

Archaeological sites in BC are recorded in the Provincial Heritage Register, maintained by the Archaeology Branch, the provincial government agency responsible for the management of archaeological resources in accordance with the *Heritage Conservation Act* (HCA) (RSBC 1996, c. 187). Archaeological sites in BC known to pre-date or possibly pre-date AD 1846 on public or private land may not be altered without a permit issued under Sections 12 or 14 of the HCA, regardless of whether they are recorded in the Provincial Heritage Register. Rock art sites, burial sites, shipwrecks, and aircraft wrecks with historical or archaeological significance are also protected by Section 13 of the HCA. Additionally, Aboriginal archaeological sites may be subject to interpretation of the Supreme Court of Canada decision in Delgamuukw vs British Columbia (1997), regarding the fiduciary responsibility of provincial governments to protect cultural heritage.

1.2 Objectives and Scope

BC provincial guidelines identify several kinds of archaeological assessments that are undertaken in response to proposed developments. The type of assessment is contingent on the stage of development design and the types of archaeological information required. The review undertaken by Amec Foster Wheeler for this study conforms to an AOA defined in the *British Columbia Archaeological Overview Assessment Guidelines* (Archaeology Branch 2009). In accordance with these guidelines, the work conducted for this study assesses archaeological resource potential within the defined study area, and identified baseline archaeological resource concerns that may arise from the proposed project. The objectives of this AOA are to:

- Provide a detailed overview of archaeological resource potential within the study area
- Document the distribution of known archaeological sites
- Summarize previous archaeological studies within and adjacent to the study area
- Identify potential conflicts between archaeological resources and the study area
- Recommend additional studies or other measures to protect archaeological resources, as required.

Archaeological resource potential, as defined by this study, is the capability of a landscape (or portion of a landscape) to support the kinds of past traditional activities resulting in the formation and preservation of archaeological sites. Some kinds of cultural activities (e.g., medicinal plant collecting) do not result in the formation of material remains and usually such activities cannot be considered in the context of an assessment of archaeological potential. Where traditional land use data is available, this information can assist with the assessment of archaeological resource potential. Potential ratings do not predict the probability of the existence of sites, but

rather, identify lands requiring examination by archaeologists in advance of development projects. Potential models are designed to assist in the identification of material remains.

A Provincial Heritage Inspection Permit was not required for the current stage of the project, nor was a site visit necessary at this time. No First Nations permits were required to complete this AOA. Possible later archaeological studies, such as an Archaeological Impact Assessment (AIA), will require a Heritage Inspection Permit as defined in the HCA.

2 PROPOSED PROJECT

Alaska Hydro Corporation of North Vancouver, BC, is an independent power producer proposing to create a 75-megawatt hydroelectric project with associated reservoir storage. The proposed development footprint was provided by the client in the form of a shapefile and detailed diagram (Appendix A). The project includes diversion of 90 m^3/s from More Creek prior to inundating 2,104 ha of the creek's basin for reservoir storage. After filling, the storage reservoir will have an approximate surface area of 2,680 ha over the More Creek drainage basin. Built project components include a proposed powerhouse, intake structures, dam, and transmission line to an interconnection point. Two interconnection point options are included in the project diagram: one connects at the existing BC Hydro "Northwest Transmission Line" (NTL) while the other extends along the NTL to the BC Hydro Bob Quinn Substation (BQN). Because no new construction would be required if the line extended along the NTL, this area was not considered as part of the AOA. Other components and activities necessary for the completion of the project include 1 km of new access roads, generation facilities, staging and spoils areas, a power tunnel and penstock, transmission lines, concrete works, work camps, and rock blasting. Additional access to the project would be via the existing Galore Creek Mine Road.

3 STUDY AREA

3.1 Biophysical Background

The project is on the Stikine Plateau in the Boundary Range of the Coast Mountains. It is within the Northern Skeena Mountains Ecosection of the broader Sub-Boreal Interior Ecoprovince; the ecoprovince is characterized as within a rain shadow with cool Pacific winds lifted over the Boundary Ranges while the ecosection contains rugged mountains interspersed by narrow, deep valleys that are prone to heavy snow fall. Both the Engelmann Spruce-Subalpine Fir (upper-most forested areas) (Coupé et al. 1991) and Interior Cedar-Hemlock (lower elevations) (Ketcheson et al. 1991) biogeoclimatic zones influence vegetation present within the project area. Dominant vegetation in this area typically includes western hemlock, lodgepole pine, Englemann spruce, white-Englemann spruce hydrids, alder, subalpine fir, and mountain hemlock.

The bedrock geology of the project area is characterized by Jurassic deposits in the Hazelton and Stuhini groups. Sedimentary rocks, including mudstone, siltstone, shale, and fine grained clastic sedimentary, dominate local bedrock, although high level quartz-phyrics and felstic intensive rocks are also present. Mt. Edziza, a composite volcano north of the project, formed from volcanic activity beginning six million years ago and continuing until nearly the end of glacial activity in the area (Fladmark 1985; Souther 1970). The peak of Mt. Edziza is 70 km north of the project, but obsidian from the base is accessible from many source locations

around the composite volcano. Several exposed sources were exploited for toolstone over the course of human occupation in the region (Albright 1982; Fladmark 1985).

The Stikine Plateau was covered by a glacial ice sheet from around 17,000 to 11,000 Before Present (BP). Human occupation occurred in the area by at least 9,500 BP when the ice sheet began to retreat (Fulton 1989), although occupation could have occurred earlier with all evidence removed by glacial movement. Environmental stabilization began around 5,000 BP, with several periods of climatic fluctuation, and ice retreat and advancement (Fladmark 1985). Volcanic activity continued in the area with scattered eruptions of changing the course of local drainages and, according to Talhtan oral traditions, forcing the quick relocation of campsites (Albright 1982). The formation of lava dams from volcanic activity near the mouth of Forest Kerr Creek may also have halted salmon migrations in the upper Iskut River, impacting the local resource economy of local populations (Souther 1970).

3.2 Ethnographic Background

The project is within the traditional territory of the Tahltan First Nations. The Tahltan are an Athapaskan-speaking group occupying the Stikine Plateau area between the Coastal Mountains and the Cassiar Mountains. Their traditional territory is centered on the Stikine River drainage basin and its tributaries, extending to the Iskut River, Dease Lake and Dease River to the Cottonwood River, the upper Rancheria River, the northern headwaters of the Nass and Skeena Rivers, and some of the southern tributaries of the Teslin River and Taku River (Albright 1982:19; Teit 1956:43). While the Tahltan have been assigned by anthropologists to various culture areas over the last century, more recent studies classify them as part of the Subarctic Cordilleran culture area (Albright 1982:17). More information on the Tahltan can be found in Albright (1982, 1984), Emmons (1911), Hodge (1912), MacLachlan (1957, 1981), and Teit (1906, 1909, 1912, 1919, 1921, 1956, n.d.)

The Tahltan are organized through a matrilineal clan system. Their subsistence economy was traditionally based on a semi-nomadic yearly round characterized by aggregation during the summer at fishing villages and dispersal into smaller family groups during the remainder of the year. Summer villages were relatively permanent, with large communal houses located along major salmon producing rivers. During late summer and fall, families utilized uplands and high elevation zones to hunt a range of small mammals, as well as larger animals, such as bears, caribou, sheep, and goat (Albright 1982). While less permanent than summer camps, fall and winter camps were often returned to regularly; lean-to shelters were often left in place at main fall and winter camps.

Salmon and caribou were staples for surviving winter; the rest of the diet was supplemented by protein from fresh water fish, small mammals, and big game. Caribou were captured using fences set with snares placed at regular intervals (Albright 1982:26). Bone and antler tools, in addition to other products, were as important of a resource from caribou as meat. Another important tool-making resource was obsidian from Mt. Edziza. This obsidian has been geochemically traced to a range of archaeological sites in the North American northwest both within and beyond Tahltan traditional territory (Dixon 2012; Fladmark 1984, 1985; Godfrey-Smith 1985; Lee 2001, 2007; Nelson 1975; Reimer 2015; Souther et al. 1984).

Plants played an important role in Tahltan life, providing food, medicine, and the raw material for every day material items, such as birch bark baskets. Tender shoots and leave of a variety of plants were available in early spring and summer. Roots and bulbs were favored in spring and fall. Berries were gathered throughout spring and summer, with hardier berries, such as soapberry, cranberry, and Saskatoon, were dried for later use or preserved in bear grease

(Albright 1982). Pine, spruce, and alpine fir pitch, needles, and bark were used for a range of medicinal and functional purposes. Juniper, Labrador, Caribou leaves, yarrow, and mountain ash were some of the other more common plants that served medicinal purposes (Albright 1982).

Cambium was, and still is, an important spring food collected in May and June, particularly the sap and inner bark of lodgepole and black pine (Albright 1982; Emmons 1911). Caribou antler tines were used to remove outer bark. Sap-laden cambium was scraped into a bark cup using the shoulder blade of larger animals and eaten fresh, or was cut in long, narrow strips, and eaten like noodles, either fresh or dried for later (Albright 1984; Prince 2001). Cambium was often stripped by making an incision at approximately eye level, stripping off the outer bark downward, then removing the cambium layer (Prince 2001). Typically, bark stripping was limited such as to allow the tree to heal and continue growing. Cambium stripped trees one type of Culturally Modified Tree (CMT) (Archaeology Branch 2001).

3.3 Archaeological Background

An archaeological site is a location that contains physical evidence of past human activity that can be studied by archaeological methods of investigation, including site survey, excavation, and data analysis. Most archaeological sites are attributable to precontact settlement and land use by First Nation people, although locations of Euro-Canadian or Asian-Canadian settlement and land use are recorded as historical archaeological sites.

Archaeological and historical sites are numbered according to the Borden Site Designation Scheme used throughout Canada (Borden 1952). This scheme is based on the maps of the National Topographic System and uses latitude and longitude to define the location of a site. The four alternating upper and lower case letters (e.g., HgTo) designate a unique “Borden unit” measuring 10 minutes of latitude by 10 minutes of longitude. Sites are numbered sequentially within a Borden unit, based (usually) on their date of discovery; therefore, HgTo-1 would be the first site recorded in the “HgTo” Borden unit.

Archaeological sites are defined by the types of archaeological remains (i.e., artifacts and cultural features) present, and according to the types of traditional activities presumed to have taken place at the site. Artifacts are any object made, used, or moved by human activity and include a diverse array of objects such as stone tools, bone tools, ceremonial objects, and fire-altered rock. Features are objects that cannot be collected or otherwise altered without a loss of information. These include post molds, hearths, burials, rock art, culturally modified trees (CMTs), structures, trails, roads, and the remains of industrial activities. A particular site can be comprised of one or more of these types of archaeological remains, and generally speaking, it is expected that larger sites will be more complex than smaller ones.

The most common kinds of archaeological resources documented from or likely to be present in the environmental settings found in the project area include:

- **Artifact scatters** usually consist of stone artifacts (including formal and expedient tools, and waste) and, less frequently, animal bones found on or beneath the surface. Artifact scatters will always be present around habitation sites and most sites where subsistence features are present but can also occur in isolation, indicating resource procurement or short-term camps.
- **Forest utilization sites** contain one or more CMTs that have been altered by First Nation people as part of their traditional use of the forest. The two basic types of CMTs in BC are bark-stripped trees and aboriginally-logged trees (Archaeology Branch 2001).

Bark stripped trees result from the collection of bark or cambium. Aboriginally logged trees are produced during traditional forest use and manifest in stumps, test-hole trees, planked trees, planked logs, and canoe blanks.

- **Ancestral burial places** are locations used by First Nation people to inter their dead. Through the prehistory of the region, mortuary practices shifted to include burials pits, interment in riverine middens, cairns, rock shelters, and in mortuary houses or built structures. During protohistoric times, individuals were cremated within a few days of death and their remains carried back to villages for ceremonies and burial.
- **Rock art sites** are locations where aboriginal peoples painted on (pictographs) or engraved (petroglyphs) rock faces. Both types are found on smooth, sheltered bedrock outcrops or large boulders, usually in locations of spiritual significance.
- **Petroforms** are deliberate constructs of stones (e.g., walled enclosures, cairns, stonelined pits), which might either be associated with subsistence activities like hunting blinds and berry-drying, or ceremonial activities such as puberty rituals.
- **Trails** are overland routes used to provide access between communities or to resource-procurement areas. Some still exist but may be difficult to identify today. The existence of ancient trails may be inferred from linear distributions of other kinds of archaeological sites, such as CMTs. Many historical trails and portages follow the routes of pre-existing Aboriginal trails.
- **Historic sites** include post-contact remains, including artifacts, structures, and features associated with Euro-Canadian settlement and land use. In the project locality, these would typically be associated with late 19th-early 20th century mineral exploration and development of the Dominion Telegraph system.

3.4 Historical Background

European interest in the region stemmed from the fur trade in the late 1700s. Trade in goods between fur traders and Tlingit resulted in the movement of European goods into the interior and through Tahltan territory, who also began to serve as middlemen in down-the-line movement of furs from the interior to the coast and European goods deeper into the interior. Indirect trade also resulted in the spread of smallpox epidemics among the Tahltan in the 1830s and 1840s, reducing the population by 70 percent between 1800 and 1850 (MacLachlan 1981:460). The influx of prospectors during the 1874 Cassiar Gold Rush combined with the aftermath of the smallpox epidemics stimulated the relocation of many Tahltans to Tahltan Village, located 2.5 km west of the Tahltan-Stikine confluence. The village was occupied until 1920 when it was gradually abandoned in favor of a village on Telegraph Creek (MacLachlan 1981:461).

The gold rushes in northern BC and in the Yukon resulted in the construction of a telegraph line between the Yukon and southern BC. The existing telegraph line that went as far north as Quesnel was extended in 1899 up to Hazelton then north through the lower Ningunsaw and upper Iskut river valleys and into the Yukon. The Dominion Telegraph Line likely followed existing overland trails through the region. Completed in 1901, the Telegraph Trail was abandoned in 1936 when flooding south of Telegraph Creek washed out several sections of the line. Documented sections of Telegraph Trail pass the project to the east on the slopes above Bob Quinn Lake (Kleanza 2010).

In the early 1900s, word spread to Tahltan communities that the government of BC was claiming all property outside of Federal Reserves as crown lands. The Tahltan joined others in the Indian Rights Movement. James Teit, an ethnographer who worked with the Tahltan on several occasions, acted as an intermediary between the Tahltan and groups in the southern interior. One outcome of Teit's influence was the signing of the "Declaration of the Tahltan Tribe" in 1910 (Albright 1982:39-40).

In 1950, asbestos was discovered in the area, leading to the establishment of the first industrial development in the region (MacLachlan 1981:460). More recent activity in the region is the result of forestry, mining, and hydroelectric projects. Although some mines were opened during the 1950s, mining prior to the last decade is claimed to have been hindered from producing to its full economic potential because of the limited hydroelectric power in the region (Peyton 2017:137). BC Hydro conducted preliminary field studies for larger hydroelectric projects in the Stikine area in the late 1970s/early 1980s that would have dammed the Stikine and Iskut Rivers, including a reservoir along More Creek. A partial energy solution arrived with the installation of the NTL between 2012 and 2014. The line, proposed in 2004, runs from the Skeena Substation up to Bob Quinn Lake. The Galore Creek Mine is the closest proposed mine near to the project. The development of the mine spans the last two decades, with feasibility and environmental studies on going; the current project would utilize road access from the existing Galore Creek Mine Road, which crosses through portions of the project on the north.

4 METHODOLOGY

The archaeological overview research involved the following tasks:

- Background research, involving a review of regional historic, ethnographic, and archaeological literature describing existing conditions in the project area
- A review of biophysical, topographical, and hydrological information around the More Creek locality
- A search of the Provincial Heritage Register via the Remote Access to Archaeological Data (RAAD) online application, to obtain geospatial and other information about documented archaeological and historical heritage sites in proximity to the project
- An assessment of archaeological resource potential based on the in-office research and of any relevant existing archaeological site potential models within RAAD.

Recommendations were prepared for the entirety of the study area based on the results of the desktop research and the assessed potential of each contributing factor.

Because archaeological site locations are often correlated with particular micro-environmental attributes, the presence or absence of these variables can be used to identify lands with greater or lesser archaeological potential. Therefore, the assessment of archaeological resource potential is based upon a consideration of topographical and biophysical characteristics that favour or inhibit the distribution of archaeological resources, in addition to the locations of documented sites, and ethnographic and historic settlement information. The environmental variables considered for this AOA included:

- Modern vegetation and forest cover
- Proximity to documented archaeological resources

- Presence of traditional resources (e.g., fauna, economic plants)
- Proximity to aquatic resources (e.g., streams, wetlands, open water)
- Soil texture and drainage quality
- Current understanding of traditional resource use and settlement by Aboriginal people
- Environmental settings of documented archaeological sites in the area
- Integrity of the modern landscape as a reflection of historical land use practices.

Lands that could be affected by proposed development activities are categorized as having "High," "Moderate," or "Low" archaeological resource potential. The varying classes of potential ratings affect the scope and level of effort recommended as follow-up actions. In general, the higher the potential class, the greater is the level of effort expected by regulatory authorities. For the present study, the potential values are defined as follows:

- **High Potential**: Lands exhibiting topographic and biophysical attributes highly supportive of traditional cultural activities in the past that would have left archaeological evidence. These lands exhibit the highest archaeological sensitivity within a particular landscape, and an AIA is usually recommended where identified.
- **Moderate Potential**: Lands exhibiting fewer attributes that would have supported traditional cultural activities than the preceding category. Additional examination of site documents, including construction plans or geotechnical reports, or a field reconnaissance are typically recommended for areas assessed as having moderate archaeological potential.
- **Low Potential**: Lands that exhibit few characteristics supportive of traditional cultural activities. Further field investigations are not normally recommended for lands categorized as having low archaeological potential.

5 RESULTS

5.1 Documentary Research

Documentary research included a review of ethnographic and archaeological literature. Information pertaining to the ethnographic and pre-contact land use is described in Sections 3.2, 3.3, and 3.4. Information pertaining to biophysical, geomorphological, and hydrological information is presented in Section 3.1.

5.2 Archaeological Resources Near the Project Locality

Twenty-seven archaeological sites have been identified within [redacted] of the project (Table 1); [redacted]. Four sites (HgTo-4, HgTo-11, HgTo-12, and HgTo-19) are [redacted]. HgTo-4 is a dense artifact scatter consisting of over 2263 flakes, a lithic point, an obsidian projectile point base fragment, an unidentified faunal element, and a piece of wood. [redacted]. HgTo-11 and HgTo-12 are lithic scatters consisting of 28 and 11 observed artifacts, respectively. [redacted] HgTo-19 is [redacted]. This site consists of over 100 observed lithic flakes and tools. HgTo-22 is [redacted]. The site is interpreted as a staging area for hunting and consists of two obsidian

Table 1. Known Archaeological Sites within [redacted] of the Project

Borden Number	Site Type	Distance and Direction	Elevation (m asl)	Site Visits	Comments
HfTn-3	Artifact Scatter	[redacted]	[redacted]	2010	1 obsidian flake identified
HfTn-4	Artifact Scatter	[redacted]	[redacted]	2010	1 obsidian flake identified
HgTo-1	Artifact Scatter	[redacted]	[redacted]	2007	2 obsidian flakes identified
HgTo-2	Artifact Scatter	[redacted]	[redacted]	2007	10 andesite flakes identified
HgTo-3	Artifact Scatter	[redacted]	[redacted]	2007	38 obsidian flakes, two obsidian tools, 2 andesite flakes, an andesite core, and 7 unidentified flakes identified
HgTo-4	Artifact Scatter	[redacted]	[redacted]	2007	2,250+ lithic flakes, a projectile point and point fragment, 1 piece of fauna, and 1 piece of wood identified
HgTo-5	Artifact Scatter	[redacted]	[redacted]	2007	49 identified lithic flakes and a chopper identified
HgTo-6	Artifact Scatter	[redacted]	[redacted]	2007	821 andesite flakes, 2 andesite choppers, 2 fire altered rocks, and 2 andesite grindstones identified
HgTo-7	Artifact Scatter	[redacted]	[redacted]	2007	190 andesite flakes and one fire altered rock identified
HgTo-8	Artifact Scatter	[redacted]	[redacted]	2007	6 obsidian flakes and one retouched obsidian flake identified
HgTo-9	Artifact Scatter	[redacted]	[redacted]	2007	1 obsidian projectile point and 11 andesite flakes identified
HgTo-10	Artifact Scatter	[redacted]	[redacted]	2007	58 andesite flakes, 1 andesite biface preform, 1 utilized obsidian flake identified
HgTo-11	Artifact Scatter	[redacted]	[redacted]	2007	23 obsidian flakes, 1 retouched andesite flake, 4 andesite flakes identified
HgTo-12	Artifact Scatter	[redacted]	[redacted]	2007	11 andesite flakes identified
HgTo-13	Artifact Scatter	[redacted]	[redacted]	2007	15 obsidian flakes identified
HgTo-14	Artifact Scatter	[redacted]	[redacted]	2007	4 andesite flakes identified
HgTo-15	Artifact Scatter	[redacted]	[redacted]	2007	3 andesite flakes identified
HgTo-16	Artifact Scatter	[redacted]	[redacted]	2007	27 andesite flakes and 1 andesite side scraper identified
HgTo-17	Artifact Scatter	[redacted]	[redacted]	2007	Andesite core fragments, flakes, and biface preforms identified
HgTo-18	Artifact Scatter	[redacted]	[redacted]	2011, 2007	1 obsidian flake identified
HgTo-19	Artifact Scatter	[redacted]	[redacted]	2008	100+ flakes, 2 preforms, 2 scrapers, and several core fragments identified
HgTo-20	Artifact Scatter	[redacted]	[redacted]	2008	200+ flakes, bifaces, biface preforms, scrapers, utilized flakes, and cores identified

Borden Number	Site Type	Distance and Direction	Elevation (m asl)	Site Visits	Comments
HgTo-21	Artifact Scatter	[redacted]		2008	2 andesite flakes and 2 andesite cores identified
HgTo-22	Artifact Scatter			2010	1 obsidian scraper, 1 obsidian biface fragment, 1 obsidian flake, 1 piece of shatter, 1 basalt flake
HgTo-23	Artifact Scatter			2011	1 obsidian retouched flake, 8 pieces of obsidian debitage, and 2 pieces of basalt debitage identified
HgTo-24	Artifact Scatter			2016	Obsidian debitage and tools identified
HgTq-1	Artifact Scatter			2011, 2009	1 obsidian end scraper identified

tools and three pieces of lithic debitage. [redacted] HgTo-18 and HgTo-23 are small lithic scatters [redacted] the 27 known archaeological sites near to or within the project boundary are at an elevation of [redacted]. The remainder are between 520 m and 910 m asl.

The Cassiar FDU archaeological potential model created by Kleanza Consulting in 2010 overlaps with the eastern and central portions of the project area (Figure 2a-g). Parameters considered favorable for archaeological sites within the model emphasize water resources (Kleanza 2010:12). Negative parameters emphasized slope, forest cover type, and poorly drained soils. The initial scores or parameter weights in the model were modified through an iterative process that included field visits during preliminary field reconnaissance trips and AIA within the Cassiar FDU study area. The resulting scores are presented below for each parameter (Table 2).

Areas of both moderate and high potential are present within the project area. Much of the floodplain along either side of More Creek is rated as moderate potential, as are the lower slopes of the surrounding terraces and ridgelines. Areas of high potential are also present, primarily, but not exclusively, on the banks of More Creek. Kleanza (2010) recommends that areas of moderate to high potential be evaluated by a preliminary field reconnaissance, AIA, or Archaeological Inventory Survey (AIS). They also recommend sampling areas of low potential when further archaeological work is recommended for a study area (Kleanza 2010).

Table 2. Cassiar FDU Archaeological Potential Model Parameters and Scores

Positive Parameters	Score (Revision 4)	Negative Parameters	Score (Revision 4)
Forest cover age class 8 or 9 (species other than balsam/spruce)	5	Slope greater than 100%	-10
Pine forest cover age class 8 or 9	10	Forest cover indicating NCB or poorly drained soils (floodplain deposits)	-10
Slope less than 10%	5	Balsam/spruce forest cover age class 8 or 9	-10
Trail within 500 m	5	Slope greater than 40% and less than 100%	-5
Double line watercourse within 200 m	5		
Named watercourse within 100 m	5		
Pass (high or low) or travel corridor within 100 m	5		
Previously recorded site within 100 m	5		
Confluence of named creek with double lined watercourse (200 m inland and 100 m from confluence)	5		
Southern exposure of landform is S, SE, or SW	5		
Glacier margin within 200 m	5		
Traditional Use Site (TUS) site location within 200 m	3		
Other watercourses, including wetlands within 100 m	3		
Previously recorded site within 500 m	2		

5.3 Previous Archaeological Assessment

Clark (1981) and Fladmark (1982) discuss archaeology in northwestern BC while Albright (1984) summarizes archaeological research within the region. Archaeology in the area began with projects near Dease Lake Road (French 1980) and the Grand Canyon of the Stikine River (Smith 1969, 1970, 1971, 1974; Smith and Calder 1972; Smith and Harrison 1978) in the 1960s and 1970s. Two smaller projects were conducted by Robinson and St. Pierre (1973) and Bernick (1975). The Heritage Conservation Branch instituted a large heritage inventory initiative in portions of the Stikine River Basin, which resulted in the documentation of 128 new heritage sites (French 1980; Heritage Conservation Branch 1979).

In the late 1970s through the 1980s, several research projects were undertaken in the region. Albright examined ethnographically identified Tahltan sites along the Stikine and Tahltan rivers, including fishing sites, winter villages, and caribou fences (Albright 1982, 1984). Fladmark identified, documented, and tested obsidian quarries around Mt. Edziza (1984, 1985; Fladmark and Nelson 1977). These studies by Fladmark provided the foundation for all subsequent obsidian sourcing and exchange studies for the area while Albright's work represents one of the more comprehensive ethno-archaeological works on the Tahltan.

BC Hydro's interest in developing a large hydroelectric project in Stikine and Iskut drainages stimulated several heritage studies and two small excavations for the proposed "Site Z" area between 1979 and 1981 (Aresco 1980, 1982, 1983; IR Wilson Consultants 1984; Magne 1982; Points West Heritage Consulting 1981). The excavations focused on two caribou hunting camps that were dated to within the last 1000 years (Magne 1982). Several heritage studies for the proposed Klappan Coal Project were conducted in the mid-1980s (Aresco 1985; Points West 1985; Simonsen 1986).

Several smaller projects were conducted within the last 30 years in the general area. Ham conducted an impact assessment for the Golden Bear Access Road near Telegraph Creek (Ham 1987) and performed an overview assessment for the SNIP Gold Project in Iskut Valley (Ham 1988). Arcas Consulting Archaeologists conducted an overview assessment for the Golden Bear Project and a heritage impact assessment for the Cheni Mine Project east of Spatzizi Plateau in 1987 (Arcas 1987a, 1987b). Rousseau (1990) conducted an impact assessment for the Eskay Creek Property. Baseline Archaeological Services conducted an AIA for the McLymont Creek Hydroelectric Project at the confluence of the creek with the Iskut River in 2010. This facility is one of the Northwest Hydroelectric Facilities, an independent power project that includes two additional hydroelectric facilities further up the Iskut River. The evaluated footprint was limited only to those areas directly proposed for development at McLymont Creek and did not include the entire Investigative Use Permit boundary area. No archaeological materials were identified in the proposed development footprint.

Closer to the project, Arcas conducted a heritage overview for the proposed Iskut Mine Access Road commencing at Bob Quinn Lake (Arcas 1990). The study included a desktop evaluation of the entire proposed 6-km-wide, 93-km-long road alignment and a preliminary field reconnaissance of areas identified as having moderate to high potential for archaeological resources. No archaeological sites were identified. IR Wilson conducted an AIAs for the Iskut-Stikine Land and Resource Management Plan area in the late 1990s (IR Wilson 1998). Archaeological work for the Galore Creek Mine Project was initiated by Hall and Prager (2004, 2006) conducting initial investigations in the area. Rescan (2007, 2011). performed an AIA and monitoring for the Galore Creek Mine project area (inclusive of the Galore Creek Mine Access Road), [redacted]

In 2010, Kleanza conducted an AOA for the Cassiar Forest Corporation. This project formed the basis of the Cassiar archaeological potential model discussed in the previous section. The Cassiar project area is centered near the confluence of the Iskut and Ningunsaw rivers, and overlaps with the eastern portion of the More Creek project area. Kleanza conducted an AIA over the Cassiar Forest Development Unit also in 2010 that helped fine-tune the model to better reflect observed archaeological potential for the area. The most recent archaeological study near the project area is an AIA conducted by Archer CRM Partnership in 2016 for proposed forestry developments. Archer identified [redacted].

6 ARCHAEOLOGICAL POTENTIAL EVALUATION AND DISCUSSION

6.1 Proximity and Setting of Documented Heritage Resources

[redacted] Most the sites are artifact scatters that range from a single

identified artifact to over 2000. One site (HgTo-4) contains lithics, bone, and wood artifacts, and is [redacted]. Of the 25 sites where material type was recorded, obsidian was identified at 16 of them; [redacted]. The Tahltan place emphasis on archaeological sites with Mt. Edziza obsidian. Understanding the procurement, use, and circulation of obsidian from Mt. Edziza is of primary importance to them (Kleanza 2010:10; 2013:46-48).

6.2 Current Understanding of Traditional Resource Use and Settlement

Several hydrological features are within or surround the project. The project directly overlaps with a substantial portion of More Creek and several of its tributaries. The Iskut and Ningunsaw rivers, the confluence of which is 6,580 m southeast of the southeastern-most portion of the project, and several lakes, including Devil's Lake and Bob Quinn Lake, are also accessible from the project. Mount Edziza is located 70 km north of the project area and provided access to abundant high quality toolstone. The comparatively lower quality sedimentary rocks within and adjacent to the project could have provided immediate access to less desirable toolstone. According to Albright's ethnographic work, the landscape typical of the project area could have been part of seasonal fall hunting grounds, would have provided access to fish and waterfowl, and potentially served as a travel corridor in all seasons. The density of artifacts at sites within the project boundary suggest the area was occupied with seasonal camps that were returned to regularly.

6.3 Integrity of the Landscape as a Reflection of Modern Land Use Practices

Few indications of modern land use practices are evident in the area. Several hydroelectric projects have been proposed or built in the region, including the Stikine-Iskut project proposed by BC Hydro, the recent NTL and associated BQN, and the Northwest Hydroelectric Facilities. These facilities include the McLymont Creek generating station, the Forrest Kerr generating station, and the Volcano Creek generating station, which all generate energy to BC Hydro's NTL. The installation of these facilities did not directly impact the project area.

The most notable impact on the immediate landscape is the pending development of the Galore Creek Mine. To date, the mining development is still in advanced planning phases with feasibility and environmental studies ongoing since 2013. However, the Galore Creek Mine Road was constructed through portions of the project area; the AIA associated with the mine's construction resulted in the identification of many archaeological sites within or adjacent to the project [redacted]

No evidence was found that any commercial timber harvesting has occurred within the project area. A 2016 AIA that identified [redacted] suggests recent logging activities may now overlap with the project area; however, the full report and associated study area boundary for the AIA is, to date, not available from the Archaeology Branch. Only one aerial image, dated 2017, is available via Google Earth over the project. No indications of logging within the project boundary are visible on the image.

6.4 Archaeological Resource Potential Assessment

Based on the in-office review of landscape and cultural attributes described above, a determination of **High** archaeological potential is concluded for the More Creek Hydroelectric Project locality. The following attributes form the basis for this archaeological resource potential rating:

- [redacted]
- An archaeological potential model for the study area assigns “Moderate” and “High” ratings for many locations within the project boundaries. The study area for this AOA, based on the shapefile provided by the client, is 4,734.5 ha. The existing archaeological potential model does not extend west far enough to overlap with approximately 1,200 ha of the project area. Of the remaining 3,534.5 ha, 268 ha (7.6%) is rated as “High” for archaeological potential while another 1,337.3 ha (37.8%) is rated as “Moderate.”
- Of the 27 sites located within or near the project locality, [redacted]. The proposed project will flood the landscape to a normal operating level of 498 m asl (Appendix A). Any unknown sites within the project at similar elevations to those observed at documented sites are likely to be impacted by the creation of the reservoir
- The local environment supported a variety of resources, including aquatic plants, fish, waterfowl, large mammals, and toolstone, that would have been attractive to past peoples, minimally during seasonal rounds.
- Obsidian from Mt. Edziza was identified at five sites within the project boundary. This material type in an archaeological context is of great interest to Talhtan cultural resource management and to supplement existing knowledge of the archaeological record within traditional Tahltan territory.
- Modern land use practices within and near the project have only resulted in limited disturbance to the local landscape. The most notable impact, the construction of the Galore Creek Mine Road across northern portions of the project area, [redacted]. Other land use impacts, notably from logging, cannot be assessed using aerial imagery available from Google Earth; one recent AIA suggests timber harvesting may be proposed near the project, but there is no direct evidence that it has or will directly impact the project area.

7 RECOMMENDATIONS

Because the More Creek Hydroelectric Project area is rated as having high archaeological resource potential, **additional archaeological work in the form of an AIA is recommended** prior to the undertaking of the hydroelectric facility and storage reservoir construction. The AIA would be carried out under a Section 14 Heritage Inspection Permit pursuant to the HCA, as well as any permits required by First Nation communities with asserted traditional territories in the project locality. The methodology employed during the AIA would follow those specified in the Archaeological Impact Assessment Guidelines (Archaeology Branch 1998).

8 LIMITATIONS AND CLOSURE

This AOA report was prepared by Amec Foster Wheeler for the exclusive use of Alaska Hydro Corporation for the More Creek Hydroelectric Project. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Amec Foster Wheeler services and based on: (i) information available at the time of preparation, (ii) data supplied by outside sources, and (iii) the assumptions, conditions, and qualifications set forth in this document.

This document is intended to be used by Alaska Hydro Corporation for its purposes only, subject to the terms and conditions of its contract with Amec Foster Wheeler. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

The study was not designed to address issues of potential traditional Aboriginal use of the proposed More Creek Hydroelectric Project development location, and this report was written without prejudice to Aboriginal rights and title.

A Preliminary Field Reconnaissance was not completed at this stage of the project, and consultation with First Nations or other interested parties was not undertaken at this stage. These steps may be recommended components of future studies.

We appreciate the opportunity to conduct this desktop archaeological review for Alaska Hydro Corporation. Please contact us if you have any questions about the work completed for this study or the recommendations we have made.

REFERENCES

Albright, S.L.

1984 *Tahltan Ethnoarchaeology*. Department of Archaeology Publication Number 15. Simon Fraser University, Burnaby, BC.

1982 *An Ethnoarchaeological Study of Tahltan Subsistence and Settlement Patterns.* Unpublished MA Thesis, Department of Archaeology, Simon Fraser University. Burnaby, BC.

Arcas Associates

1987a North American Metals BC Inc. Golden Bear Project Heritage Resource Overview. Report on file at the Amec Foster Wheeler Library, Burnaby, BC.

1987b Cheni Mine Project Detailed Heritage Resource Inventory and Impact Assessment. Permit 1987-25. Report on file with the Archaeology Branch in Victoria, BC.

Arcas Consulting Archeologists Ltd.

1990 Heritage Overview Assessment Proposed Iskut Mine Access Road, Northwestern British Columbia. Permit 1990-102. Report on file with the Archaeology Branch in Victoria, BC.

1987a North American Metals BC Inc. Golden Bear Project Heritage Resource Overview. Report on file at the Amec Foster Wheeler Library, Burnaby, BC.

1987b Cheni Mine Project Detailed Heritage Resource Inventory and Impact Assessment. Permit 1987-25. Report on file with the Archaeology Branch in Victoria, BC.

Archaeology Branch

2009 *Archaeological Overview Assessments as General Land Use Planning Tools — Provincial Standards and Guidelines.* Ministry of Forests, Lands, and Natural Resource Operations, Victoria, BC.

2001 *Culturally Modified Trees of British Columbia: A Handbook for the Identification and Recording of Culturally Modified Trees* [version 2.0]. Ministry of Forests, Lands, and Natural Resource Operations, Vancouver Forest Region, Nanaimo, BC.

1998 *Archaeological Impact Assessment Guidelines* [3rd revised edition]. Ministry of Forests, Lands, and Natural Resource Operations, Archaeology Branch. Victoria, BC.

Archer CRM Partnership

2016 Archaeological Impact Assessments of Proposed Forestry Developments on Behalf of Fortec Consulting Ltd. In the Territory Exclusive to Tahltan Central Government. Permit 2016-0139. Report pending processing at the Archaeology Branch in Victoria, BC.

Aresco

1985 Heritage Resources Impact Assessment: Mount Klappan Coal Property. Permit 1985-8. Report on file with the Archaeology Branch in Victoria, BC.

1983 Heritage Resource Inventory Construction Materials Exploration Areas and Selected Ancillary Facilities, Stikine-Iskut Development. Permit 1982-0016. Report on file with the Archaeology Branch in Victoria, BC.

1982 Stikine-Iskut Hydroelectric Project Heritage Resource Impact Assessment, 1980-1981. Permit MO 1981-0006. Report on file with the Archaeology Branch in Victoria, BC.

1980 Preliminary Archaeology Study of the Proposed Stikine/Iskut Hydroelectric Development. Permit 1979-0029. Report on file with the Archaeology Branch in Victoria, BC.

Baseline Archaeological Services

2011 Final Report Archaeological Impact Assessment of the McLymont Creek Hydroelectric Project, Northwest BC. Permit 2010-0316. Report on file with the Archaeology Branch in Victoria, BC.

Bernick, K.

1975 NW Regional Inventory 1975. Report on file with the Archaeology Branch in Victoria, BC.

Borden, C.E.

1952 A Uniform Site Designation Scheme for Canada. *Anthropology in British Columbia:* 3:44.48.

Clark, D.W.

1981 Prehistory of the Western Subarctic. In *Handbook of North American Indians, Volume 6, Subarctic*, edited by June Helm, pp. 107-129. Smithsonian Institute, Washington DC.

Coupé, R., A.C. Stewart, and B.M. Wikeem

1991 Engelmann Spruce-Subalpine Fir Zone. In *Ecosystems of British Columbia*, edited by D. Meidinger and J. Pojar, pp. 223-236. Special Report Series No. 6. Ministry of Forests. Victoria, BC.

Dixon, E.J.

2012 Lake Pleistocene Colonization of North America from Northeast Asia: New Insights from Large-scale Paleogeographic Reconstructions. *Quaternary International* 285:57-67.

Emmons, G.T.

1911 *The Tahltan Indians*. Museum Anthropological Publications 4(1). University of Pennsylvania, Philadelphia, PA.

Fladmark, K.R.

1985 *Glass and Ice: The Archaeology of Mt. Edziza.* Simon Fraser University Archaeology Press, Burnaby, BC.

1984 Mountain of Glass: Archaeology of the Mount Edziza Obsidian Source, British Columbia, Canada. *World Archaeology* 16(2):139-156.

1982 An Introduction to the Prehistory of British Columbia. *Canadian Journal of Archaeology* 6:95-155.

French, D.

1980 Preliminary Assessment of Heritage Resources in the Telegraph Creek Land Management Area of Northwestern British Columbia. Permit 1978-7. Report on file with the Archaeology Branch in Victoria, BC.Godfrey-Smith, D.I.

1985 X-Ray Fluorescence Characterization of the Obsidian Flows from the Mount Edziza Volcanic Complex of British Columbia, Canada. Unpublished MA Thesis, Department of Archaeology, Simon Fraser University, Burnaby, BC.

Hall, D., and G. Prager

2006 Galore Creek Project Archaeological Impact Assessment. Permit 2005-269. Report on file with the Archaeology Branch in Victoria, BC.

2004 Galore Creek Archaeological Overview Assessment. Report on file with the Archaeology Branch in Victoria, BC.

Ham, L.C.

1988 A Heritage Overview and Impact Assessment of the Golden Bear Project Access Road, Telegraph Creek Area, Northwestern British Columbia. Permit 1988-0024. Report on file with the Archaeology Branch in Victoria, BC.

1987 A Detailed Heritage Overview and Impact Assessment of the SNIP Project, Iskut River, Northwestern British Columbia. Permit 1987-0027. Report on file with the Archaeology Branch in Victoria, BC.

Heritage Conservation Branch

1979 Heritage Resources, Telegraph Creek Management Area: A Summary. Report on file with the Archaeology Branch in Victoria, BC.

I.R. Wilson Consultants

1998 Summary Report: Heritage Resources, Cassiar-Iskut-Stikine LRMP Study Area. Report on file with the Archaeology Branch in Victoria, BC.

1996 Archaeological Overview Assessment Atlin, Dease-Liard, and Iskut Forest Development Plan Areas, Cassiar Forest District, Dease Lake, BC.

1984 Stikine-Iskut Development Heritage Resources Impact Assessment. Permit 1983-0035. Report on file with the Archaeology Branch in Victoria, BC.

Ketcheson, M.V., T.F. Braumandl, D. Meidinger, G. Utzig, D.A. Demarchi, and B.M. Wikeem

1991 Interior Cedar-Hemlock Zone. In *Ecosystems of British Columbia*, edited by D. Meidinger and J. Pojar, pp. 167-181. Special Report Series No. 6. Ministry of Forests. Victoria, BC.

Kleanza Consulting

2013 Archaeological Impact Assessment of Forestry Developments within the Cassiar Forest Development Unit. Permit 2010-301. Report on file with the Archaeology Branch in Victoria, BC.

2010 Archaeological Overview Assessment of the Cassiar Forest Corporation's Forest Development Unit. Report on file with the Archaeology Branch in Victoria, BC.

Lee, C.M.

2007 Origin and Function of Early Holocene Microblade Technology in Southeast Alaska, USA. PhD Dissertation, Department of Anthropology, University of Colorado, Boulder, CO.

2001 Microblade Morphology and Trace Element Analysis: An Examination of Obsidian Artifacts from Archaeology Site 49-PET-408, Prince of Wales Island, Alaska. MA Thesis, Department of Anthropology, University of Wyoming, Laramie, WY.

MacLachlan, B.

1981 Tahltan. In *Handbook of North American Indians Vol 6: Subarctic*, edited by June Helm, pp. 458-468. Smithsonian Institute, Washington DC.

1957 Notes on Some Tahltan Oral Literature. *Anthropologica* 4:1-9.

Magne, M.

1982 1981 Test Excavations at Two Prehistoric Sites in the Stikine River Valley. Paper presented at the 35th Annual Northwest Anthropological Conference, Burnaby, BC.

Peyton, J.

2017 *Unbuilt Environments: Tracing Postwar Development in Northwest British Columbia*. UBC Press, Vancouver, BC.

Points West Heritage Consulting

1985 Heritage Resources Impact Assessment, Mount Klappan Coal Access Study. Permit 1985-0008. Report on file with the Archaeology Branch in Victoria, BC.

1981 Heritage Resource Overview of the Stikine-Iskut Hydroelectric Project 500 kV Transmission Line. Report on file with BC Hydro, Vancouver, BC.

Prince, P.

2001 Dating and Interpreting Pine Cambium Collection Scars from Two Parts of the Nechako River Drainage, British Columbia. *Journal of Archaeological Science* 28:253-263.

Rescan Environmental Services

2011 Galore Creek Mining Project. Permit 2007-163. Report on file with the Archaeology Branch in Victoria, BC.

2007 AIA of Portions of NovGold Corporation Proposed Galore Creek Mining Project in the Galore Creek, Sphaler Creek, Porcupine River, and Iskut River Valleys. Permit 2006-230. Report on file with the Archaeology Branch in Victoria, BC.

Robinson, M., and P. St. Pierre

1973 Department of Highways Archaeological Survey. Report on file with the Archaeology Branch in Victoria, BC.

Rousseau, M.

1990 Results of the 1990 Heritage Resource Study Conducted within the Eskay Creek Mine Development Area Near Stewart, Northwestern British Columbia. Permit 1990-0081. Report on file with the Archaeology Branch in Victoria, BC.

Simonsen, B.

1986 Report on the Results of a Heritage Impact Assessment of the Mount Klappan Coal Project Access Road. Permit 1986-0024. Report on file with the Archaeology Branch in Victoria, BC.

Smith, J.W.

1974 The Northeast Asian-Northwest American Microblade Tradition. *Journal of Field Archaeology* 1(3-4):347-364.

1971 The Ice Mountain Microblade and Core Industry, Cassiar District, Northern British Columbia. *Arctic and Alpine Research* 3:199-213.

1970 Preliminary Report on Archaeological Investigations in Northern British Columbia. In *Early Man and Environments in Northwest North America*, edited by JW Smith and RA Smith, pp. 87-103. University of Calgary Archaeological Association, Calgary, AB.

1969 Archaeological Investigation at Ice Mountain near Telegraph Creek, Northern British Columbia. Permit 1969-0008. Report on file with the Archaeology Branch in Victoria, BC.

Smith, J.W., and J. Calder

1972 The Microtool Industry of the Ice Mountain Microblade Phase. *Northwest Science* 46(2).

Smith, J., and V. Harrison

1978 An Early Unifacial Technology in Northern British Columbia. *Journal of Field Archaeology* 5:116-120.

Souther J.G.

1970 Preliminary Report on Archaeological Investigations in Northern British Columbia. In *Early Man and Environments in Northwest North America*, edited by J.W. Smith and R.A. Smith, pp. 87-103. University of Calgary Archaeological Association, Calgary, BC.

Souther, J.G., R.L. Armstrong, and J. Harakal

1984 Chronology of the Peralkaline, Late Cenozoic Mount Edziza Volcanic Complex, Northern British Columbia, Canada. *GSA Bulletin* 95(3):337-349.

Teit, J.A.

1906 Notes on the Tahltan Indians of British Columbia. In *Boas Anniversary Volume*, edited by B. Laufer, pp. 337-349. G.E. Stechert, New York, NY.

1909 Two Tahltan Traditions. *Journal of American Folklore* 22:314-318.

1912 On Tahltan (Athabaskan) Work, 1912. *Geological Survey of Canada Summary Report 1912*, pp. 484-487. Ottawa, ON.

1919 Tahltan Tales. *Journal of American Folklore*. 32:198-250.

1921 Tahltan Tales. *Journal of American Folklore* 34:223-258 and 335-356.

1956 Field Notes on the Tahltan and Kaska Indian: 1912-15, edited by June Helm MacNeish. *Anthropologica* 3:39-171.

n.d. Unpublished field Notebooks on the Tahltan Indians. Archives of the National Museum of Canada, Ottawa, ON.

Figures

Figure 1. More Creek Hydroelectric Project AOA study area

Figure 1 removed

Figure 2. Documented archaeological sites and the archaeological potential model for the area relative to the project.

Figure 2a removed

Figure 2b removed

Figure 2c removed

Figure 2d removed

Figure 2e removed

Figure 2f removed

Figure 2g removed

Appendix A

More Creek Hydroelectric Project Area Plan

LAND TENURE APPLICATION AREA

EXISTING NATIONAL HYDRO NETWORK (NHN) WATERBODY, SURFACE AREA = 576 HA

NORMAL MAXIMUM OPERATING LEVEL EL. 498m SURFACE AREA = 2680 HA

GALORE CREEK MINE ROAD (SEE NOTE 3)

END OF FOREST SERVICE ROAD

GALORE CREEK MINE ROAD (SEE NOTE 3)

PROPOSED INTAKE

MORE CREEK HYDROELECTRIC PROJECT, SEE FIGURE 3

PROPOSED POWERHOUSE

PROPOSED TRANSMISSION LINE TO INTERCONNECTION POINT

PROPOSED INTERCONNECTION POINT

BOB QUINN SUBSTATION

MORE CREEK

CREEK

ISKUT FSR

37

AIRSTRIP

BOB QUINN LAKE

NOTES:

1. WATERCOURSES AND LAKES FROM BMGS, ILMB, CANADIAN HYDRO NETWORK 1.0–CL4–NC4; SOURCE DATA = BC–TRIM; SOURCE SCALE = 1:20,000
2. ADDITIONAL BASEMAP LAYERS DOWNLOADED FROM THE BC DATA DISTRIBUTION SERVICE.
3. GALORE CREEK MINE ROAD APPROXIMATED FROM GOOGLE EARTH.
4. COORDINATE SYSTEM = UTM ZONE 9, NAD 83

0 2 4 6 8 km

LEGEND

- ROAD (DIGITAL ROAD ATLAS)
- ROAD (FOREST SERVICE)
- TRAIL
- ROAD (ESTIMATED, SEE NOTE 3)
- GLACIER

SIGMA ENGINEERING LTD

ALASKA HYDRO CORPORATION
MORE CREEK HYDROELECTRIC PROJECT
PROJECT LAYOUT

DATE	JUL 16	PROJ.	E6348
DWN.	KV/DGC	DWG.	FIGURE 2