Appendix K.1

MEKS 2017

Goldboro Project MEKS

Membertou
GEOMATICS SOLUTIONS

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M.E.K.S. Project Team

Jason Googoo, Project Manager

Dave Moore, Author and Research

Craig Hodder, Author and GIS Technician

Kim Strickland, MEKS Interviewer

Tanya Francis, MEKS Interviewer

Kerry Prosper, MEKS Traditionalist

Prepared by:

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Craig Hodder, Author

Reviewed by:

_____

Jason Googoo, Manager

Executive Summary

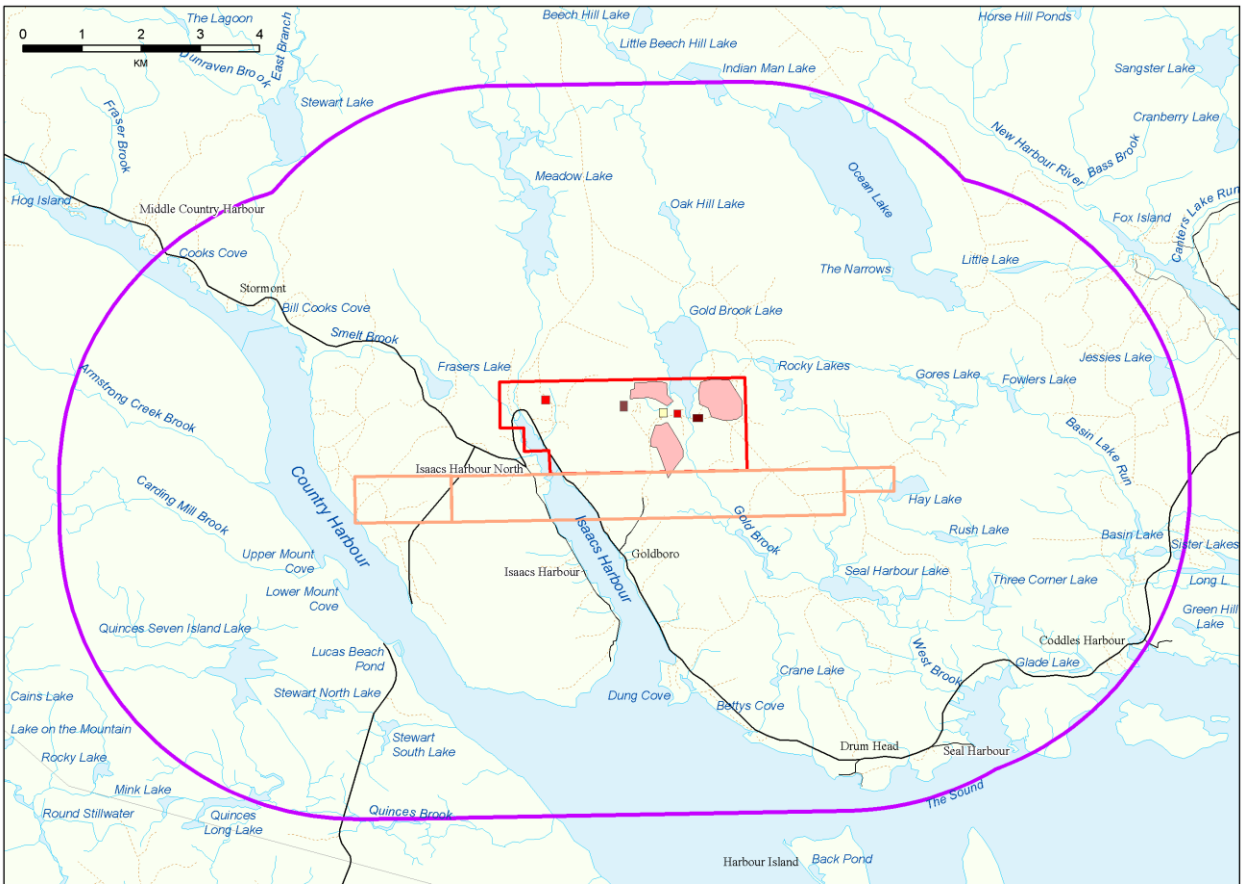
This Mi'kmaq Ecological Knowledge Study, also commonly referred to as a MEKS or a Traditional Ecological Knowledge Study (TEKS), was developed by Membertou Geomatics Solutions (MGS) for Anaconda Mining Inc. with regards to their proposed Goldboro Project located in Goldboro, Nova Scotia.

This MEKS mandate is to consider land and water areas in which the proposed properties contained within the proposed project are located and to identify what Mi'kmaq traditional use activities have occurred, or are currently occurring within, and what Mi'kmaq ecological knowledge presently exists in regards to the area. In order to ensure accountability and ethic responsibility of this MEKS, the MEKS development has adhered to the "Mi'kmaq Ecological Knowledge Protocol, 2nd Edition". This protocol is a document that has been established by the Assembly of Nova Scotia Mi'kmaq Chiefs, which speaks to the process, procedures and results that are expected of a MEKS.

The Mi'kmaq Ecological Knowledge Study consisted of two major components:

- **Mi'kmaq Traditional Land and Resource Use Activities**, both past and present,
- A **Mi'kmaq Significance Species Analysis**, considering the resources that are important to Mi'kmaq use.

The Mi'kmaq Traditional Land and Resource Use Activities component utilized interviews as the key source of information regarding Mi'kmaq use within the Project Site and Study Area. The Project Site includes proposed expansion areas around the existing mine, access road, and three potential rock dump sites.



Project Site (red area and red outline) and Study Area (purple outline) are identified by the Project Team.

The Study Area will consist of areas within a 5 km radius of the Project Site boundaries.

Interviews were undertaken by the MEKS Team with Mi'kmaq knowledge holders from the communities of Paq'tnkek, Pictou Landing, and Sheet Harbour. The interviews took place in August and September 2017.

Informants were shown topographical maps of the Project Site and Study Area and asked to identify where they undertake their activities as well as to identify where and what activities were undertaken by other Mi'kmaq, if known. Twenty four (24) individuals were asked to provide information in regards to past and present traditional use activities. Permission was requested of the interviewee(s) to have their information incorporated into the GIS data. These interviews allowed the team to develop a collection of data that reflected the most recent Mi'kmaq traditional use in this area, as well as historic accounts.

All interviewee's names are kept confidential and will not be released by MGS as part of a consent agreement between MGS and the interviewee to ensure confidentiality.

The data gathered was also considered in regards to its significance to the Mi'kmaq people. Each species identified was analyzed by considering their use as food/sustenance resources, medicinal/ceremonial plant resources and art/tools resources. These resources were also considered for their availability or abundance in the areas listed above, and their availability in areas adjacent or in other areas outside of these areas, their use, and their importance, with regards to the Mi'kmaq.

Historic Review Summary

The MEKS Project Site and Study Area was one of the last areas of the Province to be free of ice at the end of the last Ice Age that left landscape of river valley cuts on the elevated plateaus of thinly covered or exposed igneous and metamorphic bedrock. The plateaus are typically landscapes of wetlands, lakes and covered with glacial till

There is little archaeological evidence within this Region to indicate the presence of early peoples which may be factor of too little investigation and a light population resulting in fewer accidental archaeological finds.

Archaeological finds along the St Marys River system have been white quartz tools rather than the preferred chalcedonies and cherts of other regions of the province. Exposed quartz veins in the bedrock would have been of interest to early peoples in the Region

The Project Site is within the Mi'kmaq Political District of *Eskikewa'kik* of the Eastern Shore from Sheet Harbour to Canso.

The last known Traditional Hunting Territories within or adjacent to the Project Site include Territory No. 43 last assigned to Steve Malone and covers the area of Loon Lake, hunting territory No. 42 assigned to Newell Denis and covers the area of Country Harbor, Isaacs Harbour.

The shores and islands of Chedabucto Bay and particularly the Canso area were favorite landings for European fishermen to dry their catches and for the Mi'kmaq to trade with the Europeans since the mid 1500's.

Nineteenth century Mi'kmaq encampments are reported at School House Brook, Isaac Harbour and another where the Isaac Harbour River flows into the harbour. The School House Brook location is also thought to be a Mi'kmaq burial site. These purported locations are either within or very close to the Project Site

A review of historic maps of Guysborough County show very little recorded evidence of Mi'kmaq settlements within proximity of the Project Site and Study Area or some of the locations along Chedabucto Bay and Eastern Shore as reported in the sources. The Mi'kmaq burial ground at Sonora is shown on the Land Grant Index Map of the area. A review of the 1876 A. F. Church Map of Guysborough County shows the "Indian Burying Island" at Glenelg on the 1876 Map.

The Mi'kmaq remain a presence in the area until at least the early 1900's as a Census of the early 1900's enumerated the Mi'kmaq of "Cooks Cove Micmac Reservation" of unknown location which indicated a population of approximately 40 persons identifying themselves as Mi'kmaq.

A review of current Land Claims show no current active claims within the Project Site and Study Area.

Traditional Use - Project Site Summary

Based on the data documented and analyzed, it was concluded that there is some Mi'kmaq use reported on the Project Site, or in the immediate vicinity.

Deer hunting and trout fishing were found to be the most common activity in the area.

Traditional Use - Study Area Summary

Trout fishing and deer hunting were the most commonly reported activity by informants within the Study Area. Overall, the activities took place in what this report categorizes as the Historic Past and the Recent Past. There is still some current use occurring in the area, however.

Other activities in the area include harvesting for salmon, bass, eel, blueberries, fir trees, rabbits, sea urchin, and spruce trees to name a few. The locations of these activities seem to be to centered around Country Harbour (from Cook Cove to past the Country Harbour Ferry), Isaacs Harbour area from Goldboro to between Seal Harbour and Coddles Harbour), and around Meadow Lake to West Brook (including Gold Brook Lake, Seal Harbour Lake, etc.).

Other Information

One informant had described a canoe route that ran from Country Harbour through to Antigonish and was once used as a way to navigate around the province. Sea Urchins were once gathered in the area, but due to the decline, it is believed by one informant that very little individuals/bands still harvest.

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1.0 INTRODUCTION

1.1 Membertou Geomatics Solutions

Membertou Geomatics Solutions (MGS) is a Membertou First Nation company that was developed as a result of the 2002 Supreme Court Marshall Decision. MGS was established as a commercially viable company that could provide expertise in the field of GIS Services, Database Development, Land Use Planning Services and Mi'kmaq Ecological Knowledge Studies (MEKS). MGS is one of many companies established by the Membertou First Nation – Membertou Corporate Division and these companies provide employment opportunities for aboriginal persons and contribute to Membertou's efforts of growth and development. As well, Membertou's excellent management and accountability of their operations is further enhanced by their ISO 9001:2008 certification.

For the development of this MEKS, MGS brings to the table a team whose expertise and skills with land documentation have developed a sound MEKS. The team skills include knowledge of historical Mi'kmaq research, GIS data analysis, Mi'kmaq ecological and cultural knowledge, and Mi'kmaq community connections.

1.2 Goldboro Project Proposal

Anaconda Mining Inc. is planning on developing and operating the existing Goldboro mine site located near Goldboro, Nova Scotia. As the project advances, work will be done around the existing mine site, including potential waste rock dumps and tailings storage areas. GEMTEC has been hired by Anaconda to scope the required information for an Environmental Assessment (EA) of the mining project.

2.0 MI'KMAQ ECOLOGOCAL KNOWLEDGE STUDY SCOPE & OBJECTIVES

2.1 Mi'kmaq Ecological Knowledge

The Mi'kmaq people have a long-existing, unique and special relationship with the land and its resources, which involves the harvesting of resources, the conservation of resources and spiritual ideologies. This relationship is intimate in its overall character, as it has involved collective and individual harvesting of the resources for various purposes, be it sustenance, medicinal, ceremonial and/or conservation. This relationship has allowed the Mi'kmaq to accumulate generations of ecological information and this knowledge is maintained by the Mi'kmaq people and has been passed on from generation to generation, youth to elder, ***kisaku kinutemuatel mijuijij***.

The assortment of Mi'kmaq Ecological Information which is held by various Mi'kmaq individuals is the focus of Mi'kmaq Ecological Knowledge Studies (MEKS), also commonly referred to as Traditional Ecological Knowledge Studies (TEKS). When conducting a MEKS, ecological information regarding Mi'kmaq/Aboriginal use of specific lands, waters, and their resources are identified and documented by the project team.

Characteristically, MEKS have some similar components to that of an Environmental Assessment; yet differ in many ways as well. Among its purpose, Environmental Assessments seek to measure the impact of developmental activity on the environment and its resources. This is often done by prioritizing significant effects of project activities in accordance with resource legislation, such as the Federal *Species at Risk* and the Nova Scotia Endangered Species Act.

Mi'kmaq Ecological Knowledge Studies are also concerned with the impacts of developmental activities on the land and its resources, but MEKS do so in context of the land and resource practices and knowledge of the Mi'kmaq people. This is extremely

important to be identified when developing an environmental presentation of the Study Area as Mi'kmaq use of the land, waters and their resources differs from that of non-Mi'kmaq. Thus, the MEKS provides ecological data which is significant to Mi'kmaq society and adds to the ecological understandings of the Project Site and Study Area.

2.2 Mi'kmaq Ecological Knowledge Study Mandate

Membertou Geomatics Solutions was contacted by Anaconda Mining Inc. to undertake a Mi'kmaq Ecological Knowledge Study for the Project Site. This project will require the documentation of key environmental information in regards to the project activities and its possible impacts on the water, land and the resources located here. The MEKS must be prepared as per the **Mi'kmaq Ecological Knowledge Study Protocol** ratified by the Assembly of Nova Scotia Mi'kmaq Chiefs on November 22, 2007, and the 2nd Edition released in 2014.

MGS proposed to assist with the gathering of necessary data by developing a MEKS which will identify Mi'kmaq traditional land use activity within the Project Site and in the surrounding areas within a 5 kilometer radius (Study Area). This MEKS had gathered, identified, and documented the collective body of ecological knowledge which is held by individual Mi'kmaq people. The information gathered by the MEKS team is documented within this report and presents a thorough and accurate understanding of the Mi'kmaq's use of the land and resources within the Project Site/Study Area.

MGS understands that this study could be included in an Environmental Assessment, being conducted by GEMTEC, under the Nova Scotia Environmental Assessment Act that will be submitted to the Nova Scotia Department of Environment, and will be used as an indicator identifying Mi'kmaq traditional land and resource use within the Study Area.

It must be stated, however, that this MEKS preparation and/or acceptance of this report is not considered Consultation within itself, nor is it deemed to fulfill the Duty to Consult owed by the Crown to the Mi'kmaq. This report does not replace any

Consultation process that may be required or established in regards to Aboriginal people. As well, this report cannot be used for the justification of the Infringement of S.35 Aboriginal Rights that may arise from the project.

2.3 Mi'kmaq Ecological Knowledge Study Scope & Objective

This MEKS will identify Mi'kmaq ecological information regarding Mi'kmaq traditional land, water and resource use within the Project Site/Study Area. The data that the study will gather and document will include traditional use from both the past and present time frames. The final MEKS report will also provide information that will identify where the proposed project activities may impact the traditional land and resource of the Mi'kmaq. If such possible impact occurrences are identified by the MEKS then the study will also provide recommendations that should be undertaken by the proponent. As well, if the MEKS identifies any possible infringements with respect to Mi'kmaq constitutional rights, the MEKS will provide recommendations on necessary steps to initiate formal consultation with the Mi'kmaq.

2.4 MEKS Project Site and Study Area

This MEKS will focus on the proposed Project Site. This site includes the expansion area of the existing Goldboro mining operations, located north of Goldboro, NS, an access road, and three potential waste rock dump sites around the existing mine.

The Study Area will consist of areas within a 5 km radius of the Project Site's boundaries.

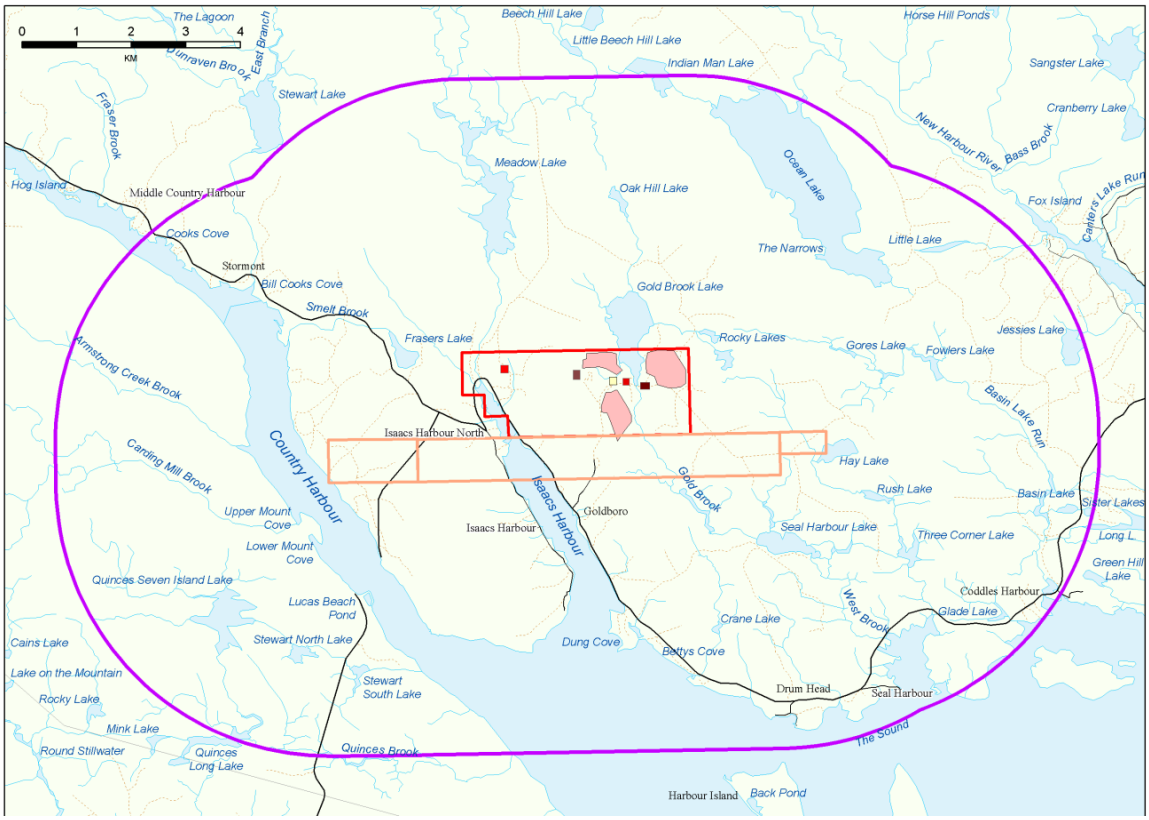

Figure 1. Project Site (red area and red outline) and Study Area (purple outline) are identified by the Project Team.

3.0 METHODOLOGY

3.1 Interviews

As a first step to gathering traditional use data, the MEKS team initiated dialogue and correspondence with Mi'kmaq communities in close proximity of the Project Site: Paq'tnkek, Pictou Landing, and Sheet Harbour.

Discussions occurred to identify individuals who undertake traditional land use activities or those who are knowledgeable of the land and resources. An initial list of key people was then developed by the team. This list is based upon past informants and studies that are geographically close to the Project Site. Other informants were also contacted upon recommendation from existing contacts, as well as informants who become known as fishers, hunters, gatherers, and/or knowledge holders. These individuals were then

contacted by the MEKS team members and interviews were conducted in August and September, 2017.

For this MEKS, twenty four (24) individuals were asked to provide information in regards to past and present traditional use activities. Interviewees were from the communities of Paq'tnkek, Pictou Landing, and Sheet Harbour. All of the interviews that were completed following the procedures identified within the Mi'kmaq Ecological Knowledge Protocol (MEKP) document. Prior to each interview, interviewees were provided information about the MEKS, including the purpose and use of the MEKS, an agreement of non-disclosure of their personal information in any reports, and the future use of the traditional use information they provided.

Interviewees were asked to sign a consent form, providing permission for MGS to utilize their interview information within this MEKS. During each interview, individuals were provided a map of the Project Site/Study Area and asked various questions regarding Mi'kmaq use activities, including where they undertook their activities or where they knew of activities by others, when such activities were undertaken, and how that type of resource was utilized. Other information gathered could be species habitats, changes in species populations, and/or general information about the land related to its' use. When required or preferred, interviews were conducted in the Mi'kmaq language.

3.2 Literature and Archival Research

With regards to this MEKS, various archival documents, maps, oral histories and published works were reviewed in order to obtain accurate information regarding the past or present Mi'kmaq use or occupation relevant to the Project Site and Study Area.

As part of the historical review process, it should be noted there may be other sources of Historical and Archaeological data available, but may have restricted access or not uncovered within this project's Historical Review. A complete listing of the documents that were referenced is outlined within the *Sources* section.

3.3 Field Sampling

Methodology

Field sampling, or site visits, are conducted as another method to gather and document plants, trees, animal signs/tracks, fish and wildlife habitats, or any other land feature which would hold significance to the Mi'kmaq (food or sustenance, social, cultural, or ceremonial purposes).

Site visits consist of site reconnaissance (to evaluate the entrances to the site, terrain characteristics, and evaluation of any other information that would affect safety or logistics of the site visit), logistics planning, as well as capturing "observation points" with the assistance of a Mi'kmaq knowledge holder. Observation points are simply stops along the site visit where species or landmarks significant to the Mi'kmaq were observed to be occurring. These are taken at approximate set intervals, or whenever there were a species or feature deemed worthy to note by the knowledge holder.

Over a three (3) day period in September 2017, MGS staff, accompanied by a Mi'kmaq knowledge holder and two Anaconda Mining employees conducted a site visit of the Project Site. Throughout the site visit various species (and subspecies) of plants, trees, and animal signs/tracks were observed.

Figure 2, Labrador Tea found during the site visit

Site Visit Observations

Fir, pin cherry, maple, spruce, alder, poplar, tamarack, and mountain ash were observed as well as fiddle heads, sarsaparilla, pitcher plant, lady slipper, lichen, willow, labrador tea, golden thread, ferns, moss, snowberry, fox berry, cranberry, blueberry, blackberry, bunchberry, raspberry and strawberry. Signs of bear, deer and rabbit were also found within various locations within the project site.

4.0 MI'KMAQ LAND, WATER AND RESOURCE USE

4.1 Overview

The Mi'kmaq Land, Water and Resource Use Activities component of the MEKS provides relevant data and analysis in regards to Mi'kmaq traditional use activities that are occurring or have occurred within the Study Area. It identifies what type of traditional use activities are occurring, it provides the general areas where activities are taking place and it presents an analysis regarding the significance of the resource and the activity as well.

The Mi'kmaq traditional use activities information that is provided by interviewees is considered both in terms of "Time Periods" and in regards to the "Type of Use" that the resource is being utilized. The Time Periods that the MEKS team differentiates traditional use activities by are as follows:

"Current Use" – a time period within the last 10 years
"Recent Past" – a time period from the last 11 – 25 years ago
"Historic Past" – a time period previous to 25 years past

The "Type of Use" categories include spiritual use, and sustenance use, such as fishing, hunting or medicinal gathering activities.

Finally, the study analyzes the traditional use data in consideration of the type of land and resource use activities and the resource that is being accessed. This is the Mi'kmaq Significant Species Analysis, an analysis which ascertains whether a species may be extremely significant to Mi'kmaq use alone and if a loss of the resource was to occur through project activities, would the loss be unrecoverable and prevent Mi'kmaq use in the future. This component is significant to the study as it provides details as to Mi'kmaq use activities that must be considered within the environmental understanding of the Project Site and Study Area.

By analyzing the traditional use data with these variables, the MEKS thoroughly documents Mi'kmaq traditional use of the land and resources in a manner that allows a detailed understanding of potential effects of project activities on Mi'kmaq traditional use activities and resources.

4.2 Limitations

By undertaking a desktop background review and interviews with Mi'kmaq participants in traditional activities, this study has identified Mi'kmaq Traditional Use activities that have occurred or continue to occur in the Study, and few uses within the Project Site. This has allowed the study to identify traditional use activities in a manner that the MEKS team believes is complete and thorough, as required by the MEKP. Historical documents within public institutions were accessed and reviewed and individuals from nearby Mi'kmaq communities were interviewed. The interviews were undertaken with key Mi'kmaq community people, identified initially by the MEKS team, who are involved and are knowledgeable regarding traditional use activities. Through the historical documentation review and the interview process, the MEKS team is confident that this MEKS has identified an accurate and sufficient amount of data to properly reflect the traditional use activities that are occurring in the Study Area.

The MEKS process is highly dependent on the information that is provided to the team. Because only some of the Mi'kmaq traditional activity users and not all Mi'kmaq traditional activity users are interviewed, there is always the possibility that some traditional use activities may not have been identified by this MEKS.

4.3 Historical Review Findings

Historic Review

The Landscape

The MEKS Project Site is a combination of two exploration licensed rectangular blocks or parcels. The northern parcel is a rectangular block of approximately 4,149m east to west and 1,567m north to south that spans northern portion of Isaacs Harbour, Guysborough County. The eastern limits of the northern parcel are approximately 3.4km to the east of the shore of Isaacs Harbour at the Seal Harbour Marshes at an elevation of roughly 75m. The eastern limits contain within, the main working site of the Goldboro Project. The working site is centered at the southern outlet of Gold Brook Lake at an elevation of roughly 55m-60m. Moving west, the northern parcel spans a steep-sided hill between Isaacs Harbour and Gold Brook Lake with an approximate elevation of 86m and drops steeply to the eastern shore of Isaacs Harbour and Isaacs Harbour River. The northern parcel's western limits are at 30m-35m elevation approximately 300m west of Isaacs Harbour River including a slope that rises up another steep sided hill. *(1)*

The southern block of the MEKS Project Site is approximately 9,122m east to west and 778m north to south. The southern parcel eastern limits are roughly 5.5.9km east of Isaacs Harbour east shore, at Hay Lake and at 45m elevation. Moving west, the land rises over the top and southern slope of a steep sided hill at approximately 90m elevation before dropping down to Gold Brook at 37m-39m elevation and 2.1 km east of Isaacs Harbour's east shore. The southern block spans the entire width of Isaacs Harbour at about 2.8km distance upstream from Hurricane Island at the harbour entrance. From the west shore of Isaacs Harbour, the southern block land rises westward and spans the steep sided hill between Isaacs Harbour and Country Harbor which has a maximum elevation of approximately 81m before dropping steeply to Country Harbour and the western limits of the southern parcel roughly 3.3 km west of Isaacs Harbour west shore. *(1)*

The MEKS Study Area is a 5km buffer surrounding the combined blocks of the MEKS Project Site. This encompasses an area where the limits extend to Quinces Long Lake in the Southwest, Halletts Point, Country Harbour to the northwest, Luddington Point to the Southeast, and Jessies Lake to the east. The Study Area also encompasses all of Ocean Lake to the Northeast, Meadow Lake to the north, Quinces Seven Island Lake to the south west, Drum Head Harbour to the southeast and Country Harbour between Quinces Brook to Halletts Point. *(1)*

While the Study Area has defined limits, for the purposes of the Historical Review, the MEKS will look more regionally for presence of possible resources in the area that would have been of interest to early peoples, archaeology, as well as any historical references to Mi'kmaq within reasonable proximity of the Study Area and within Guysborough County in General.

The bedrock geology underlying the Study Area is predominantly Goldenville Formation of sandstone, slate and metamorphosed Schist and gneiss of approximately 566 Ma to 552Ma in age. There are narrow bands of Halifax Formation slate, siltstone and sandstone running east-west through the Study Area south of Ocean Lake and north of Gold Brook Lake. The narrow bands of the younger Halifax Formation at approximately 510Ma to 460 Ma in age, continues to underlie Isaacs Harbour and Country Harbour where possible slate exposure along the shores may have been interest to early peoples as ceremonial but not practical tools and weapons that are often associated with early burial practices. Otherwise the Bedrock is covered with Stony Till Plain glacial deposits with very few large areas of exposed bedrock. There is a large area of exposed Goldenville Formation in the Quinces Seven Island Lake-Quinces Long Lake Area. Also, there is a large area of exposed Liscomb Complex granite (Monzogranite) located northeast of Ocean Lake that may have been of interest to early peoples. *(2)(3)*

There is an exposed area of Sunnyville Formation approximately 33km north west of the Project Site near South River Lake-MacInnis Lake, that contains rhyolite which was highly valued by early peoples for its cleavage and hardness properties that made it useful

for edge tools and weapon points. The narrow band of Sunnyville Formation of the Fountain Lake Group is 386 Ma to 375 Ma in age and runs west-east to Chedabucto Bay at Salmon River. There is another exposed bedrock portion of the Sunnyville Formation located approximately 27 km northeast of the Project Site near Hart Lake and Sunnyville. *(2)(3)*

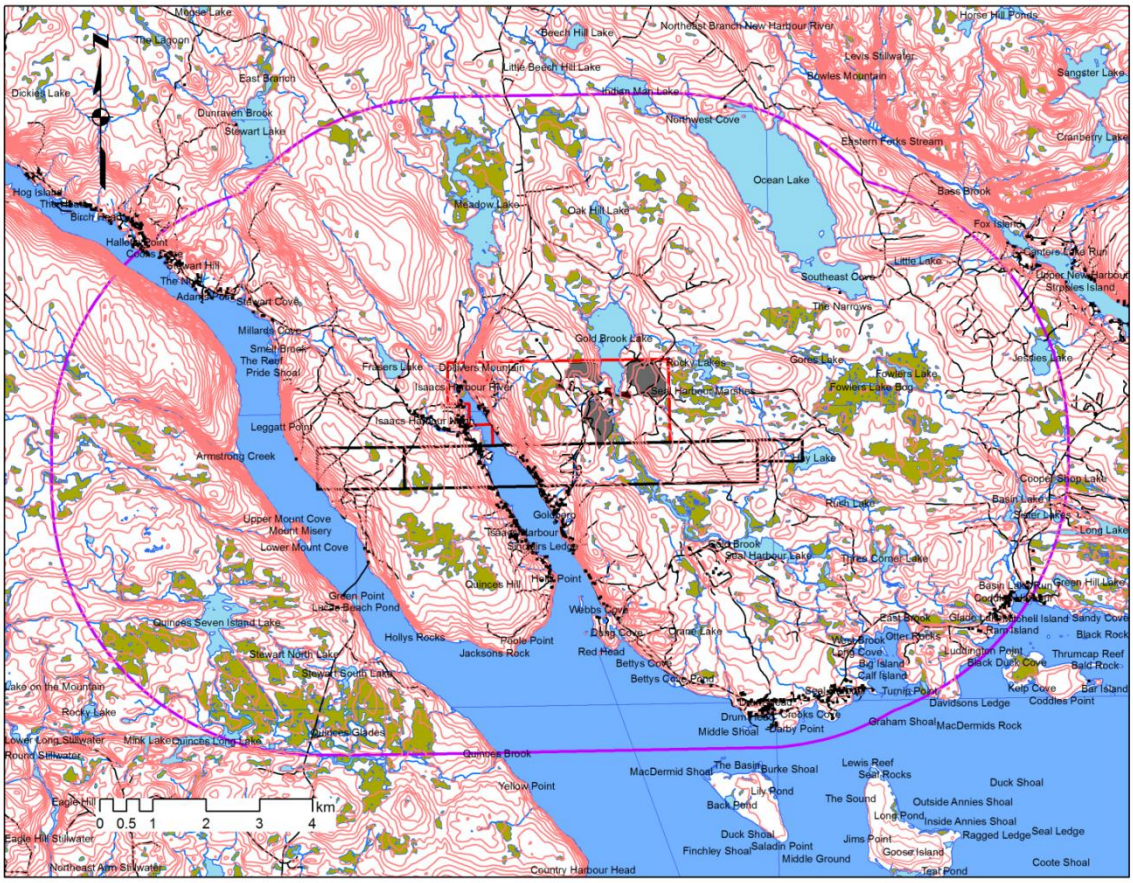

Figure 3: Project Site, MEKS Study Area and Landscape

The Ice

The earliest recorded period of the presence of early peoples at the base of the Cobequid Hills some 11,000-10,500 year B.P., was at a time when there was still glacial ice present within the province. *(2)* It is important to recount the glacial ice history in the region to understand the role ice movements had on shaping the landscape of today as well as provide context of the landscape early peoples inhabited at that time.

The Project Site and Study Area were some of the last regions of the Province to be ice free with the last ice sheets centered approximately midway of the Strait of Canso and another centered on the St Mary's River Valley near Trafalgar at approximately 10,500 BP. Evidence from deep-ocean sediments indicate that there have been at least 16 glacial periods that lasted approximately 100 thousand years each. The last glacial period was the Wisconsin Glaciation which began 75 thousand years ago and ended between 12 and 10 thousand years ago. During this period glaciers both crossed over and formed within the province while being fed by the high amounts of precipitation within the region. Recently after extensive sampling in Nova Scotia, evidence indicates that successive glaciation had four distinct phases with different and shifting ice centers. *(4)*

The Phase 1 ice flows moved eastward across the region including Prince Edward Island and Cape Breton Island before shifting flow direction southeastward across the present day Bay of Fundy, Mainland Nova Scotia and Cape Breton Island. The Ice flowed across the Project Site and Study Area in this phase in an eastward direction and then at some time shifted to a southeast flow direction. *(4)*

The Phase 2 ice center was located north of present day Prince Edward Island with flow direction south over mainland Nova Scotia and southeast over lower southeast portions of Cape Breton Island. The Phase 2 ice flow direction was south to southeast over the Project Site and Study Area. *(4)*

The Phase 3 ice center was parallel to the present day Nova Scotia Atlantic Coast and extended on land from Cape Sable, through Cape Canso to offshore and approximately south of present day Louisbourg, Cape Breton Island. From the ice divide, ice flows moved northeast across eastern portions of Cape Breton Island, northwest across western portions of Cape Breton Island, northeast across northern portions of the mainland from Cape George to Minas Basin west to northwest across the present day Annapolis Valley. On the Atlantic side of the ice divide, flow directions were in a southeast direction over the Scotia Shelf. The Ice sheet was centered over the Project Site and Study Area during this phase. *(4)*

Phase 4 was a period when several remnant ice sheets were located throughout the province and advanced and receded in a radial direction from the ice centers. Cape Breton had two glaciers that were centered on the Highlands and another centered on the Bas d'Or Lakes. The Chedabucto Glacier filled the present day Chedabucto Bay and St. Georges Bay with a westward ice flow direction across the central portion the province into the Northumberland Strait, Minas Basin and the Atlantic. The Chignecto Glacier was centered near Baie Verte and Cape Tormentine and the South Mountain Ice Cap was centered between the Bay of Fundy and Atlantic Coast near present day Kejimkujik National Park. The direction of ice advance of the Chedabucto Bay Glacier was a west to southwest across the mainland and over the Project Site and Study Area. *(4)*

The last of the glaciers gradually receded with the Bay of Fundy being ice free between 16 and 14 thousand years ago. Northern portions of the province experienced periodic advancement and stalls in movement of a remnant ice cap centered near the Antigonish Highlands approximately 15 thousand years ago. The flow direction was westward into lowlands and southwestward over the Project Site to offshore of present day Sheet Harbour. By 13 thousand years ago the ice sheets had receded to the approximate coastline of today and then only residual ice caps remained in highland areas at approximately 12 thousand years ago. *(4)*

Between 11 and 10 thousand years ago there was an abrupt climate change with a cold period lasting approximately 200 years known as the Younger Dryas. During the Younger Dryas Period previously colonized plants that followed the receding glaciers were covered in permanent snowfields and some large mammals became extinct. *(5)*

As the last remnant glaciers receded and the climate warmed again. The landscape was gradually colonized by tundra vegetation of willow shrubs and herbaceous plants between 10 and 7.5 thousand years ago and were replaced by boreal vegetation such as fir, spruce and birch until 6 thousand years ago when pine and oak was prominent. *(6)* Temperatures were 2 degree Celsius warmer than today for period until 4 thousand years

ago with forests of hemlock mixed with beech and maple were the dominant vegetation types. Gradual cooling to present day temperatures and increased moisture favoured spruce forests. *(7)*

It is also theorized that a terrestrial refuge for plants and animals existed near the edge of the continental shelf where arctic and boreal species survived the last ice age and eventually repopulated the newly exposed mainland landscape as the ice sheets receded and Prior to sea level rise. However, since the end of the last ice age the Chignecto Isthmus provided the land corridor for plants and animals to migrate into Nova Scotia as well as assisted airborne species migrations. *(8)*

People on the Land

It is somewhat rare to find evidence today of the presence of early peoples on the landscape. When an archaeological pre-contact artifact or site is found, it provides confirmation that early peoples passed that way or camped at that location at some time or many times in the distant past.

Much of the archaeological record found to date is the decay resistant stone tools, cookware and ornamentation. The artifacts found have a consistency in style and manufacture over long periods with sudden disappearance of old styles and techniques and the appearance of new and different styles and manufacturing methods. The tools styles together with carbon dating, archeologists and researchers can create time periods and approximate distribution and movement of peoples or cultural groups. The changes in tool styles and tool manufacture techniques are thought to be brought about through an early network of trade where peoples quickly adopted technological changes, stylizations and ideas. *(9)*

Pre-contact Archaeology is very scarce along the Eastern Shore region of the province of today.

Some archaeological artifacts found along the St. Marys River system 28 km west-northwest of the Project Site were made of Quartz. *(10)* Exposed veins of Quartz in the bedrock were of importance to early peoples along the Eastern Shore. A special effort was made to explore the St. Marys River System of Guysborough County in 1990. The 1990 reconnaissance did not discover any new sites to those already known. The study noted that common early tool making materials of Chalcedonies and Cherts are scarce in the region but there was an abundance of exposed quartz veins that supplied the raw material for tool making. Many of the artifacts recovered from the known Silver's Garden Site near at the intersection of the East St. Mary's River and the West St. Mary's River near Glenelg-Aspen, were of white quartz. Other sources of raw material can be found in green Quartzite and banded Argillite found eroding from the banks near Eden Lake, Pictou County and among the river cobble. *(10)*

Although little detail and interpreted periods of these archaeological finds within this study were available, the Natural History of Nova Scotia lists 5 Archaeological time periods for the Province of Nova Scotia that are prior to and including European contact with the Mi'kmaq (11):

<u>11,000-10,000 Years BP, Paleo-Indians</u>

The earliest evidence of early peoples east of the State of Maine is found at the foot of the Cobequid Mountains at Debert, Nova Scotia. There is evidence of an encampment on the site dated to be in use roughly 11,000 to 10,500 years BP. *(42).* At this time, local ice sheets remained centered at locations of Bras d'Or Lakes/Highlands of Cape Breton, Canso, Baie Verte and South Mountain adjacent the Annapolis Valley. There was a large ice sheet centered on the Eastern Mainland of province with ice flows into St. Georges Bay, Minas Basin and along the Eastern Shore. *(2)* The time of the Debert Site occupation is within the same period of the glacial re-advances of the Younger Dryas Period of 11,000 and 10,000 years BP. Increasingly harsh conditions are thought to have caused the early peoples to abandon the region. *(11)*

10,000-5,000 Years BP, the Great Hiatus

The rising sea levels and submerging coastlines are thought to be responsible for the lack of physical evidence of early peoples for this time period. Any evidence of coastal settlements of that period would be lost to coastal erosion and submergence. *(11)*

Sea level rise on the Atlantic Coast was a combination of land rebound after ice sheets receded, rising ocean temperatures and water released by melting glaciers. *(11)* As the thick and heavy ice sheet centers depressed the earth's mantle, the areas of mantel along the ice sheet margins were less weighted by ice and rose slightly through displacement. There was an ice sheet center located in the Gulf of St Lawrence. As the weight of the ice sheets diminished with melting, the depressed center areas rebounded and rose in elevation while the mantel of the former ice margin areas lowered in elevation. *(13)*

5,000-3,500 Years BP, the Archaic Period

A period characterized by physical evidence of stone tools some of which are found offshore and possibly lost during deep water fishing. There was a cultural influence or cultural presence of peoples in the southern part of the province dated at a time between 3,500 and 2,500 BP known as the Susquehanna Tradition. The Susquehanna Tradition originated in area of the mid-Atlantic states of today and is identified by some unique artifacts. *(11)*

2,500-500 Years BP, the Ceramic Period

Evidence of pottery is introduced to the archaeological record during this period as are burial mounds. Ceramic period sites are scattered throughout the province and a 10m diameter burial mound was discovered at Whites Lake, HRM dated at 2,300 BP. *(11)*

Stone and ceramic of the Ceramic (Woodland) Period were found on the western side of Isaacs Harbour. *(40)*

500-100 Years BP, the Contact Period

The Contact Period begins the written record from a European perspective of the Mi'kmaq presence, lifestyles, skill sets and traditions at specific times. The lifestyles and skills would change and adapt to the presence of successive waves of European cultures and peoples during this time and later.

The first European contact with the Mi'kmaq was most likely with Portuguese fishermen roughly 500 years ago. *(11)*

As early as 1481, fishing fleets from Bristol, England were sailing to the Atlantic Coast of North America. Most likely, fleets of French and of peoples from the Basque Provinces were also sailing to these Atlantic Coasts. One such Bristol fleet recorded finding an island they called the Isle of Brasil and no doubt found the fishing grounds of the Grand Banks. Due to competition, news of discoveries was kept quiet as to exploit the resources unhindered by competing fleets. *(14)*

Recent research has confirmed a Basque whale fishery had visited the Gulf of St. Lawrence and Labrador coast from the 1540's to the early 1600's. The Basque participated in the cod fishery while establishing ports such as Plaisance (Placentia) in Newfoundland and Cape Breton until the arrival of other nation's fleets. *(15)*

By 1534, there was a fishery of ports, watering places along the Atlantic Coast from Southeastern Labrador to Southern Nova Scotia. As a sideline to fishing, fishermen began trading with the Mi'kmaq, Beothuk and Montagnais-Naskapi, the peoples that they encountered while drying their catch along the shores. *(14)*

In the 1500's the shorelines of hunting and fishing territories were being spoiled by European fishermen hunting and frequently burning to clear land for fish processing and shelter. Newfoundland natives may have retaliated in some form as in 1565 it was

recorded that *"between Cape Race and Cape Breton live a cruel and austere people with whom it is impossible to deal with…"(16)*

By 1502 the fishery off the coasts of the new found land had been established and countries and captains had their preferred fishing areas and fishing stations. Ocean crossing became more common place as captains established their routes and landmarks. French records alone have 70 vessels travelling to the New World between 1523 and 1556. *(16)*

The Contact Period is followed by the Acadian Period of 1605-1755 and the overlapping British Period of 1749-1867, followed by the Twentieth Century period with each period having significant impact on Mi'kmaq history (11).

The history of Mi'kmaq presence within proximity of the Project Site and Study Area begins with the few Archaeological finds located within the Region. Arrow heads and stone tools have been found in the region with no specific locations given. One source reviewed mentions a seventeenth century burial find on the Salmon River. The find was the remains of a young Mi'kmaq woman wrapped in furs and accompanied by a large copper pot. A Mi'kmaq burial ground was found in the area of Sonora, approximately 20 km southwest of the Project Site. *(26)* A Mi'kmaq burial site is believed to be located at Stormont. *(40)* The low population and sparse infrastructure along the Eastern Shore and Chedabuctou Bay may be responsible for the very few accidental finds by passing people or during farming and construction activities. *(26)*

There are a few surviving Mi'kmaq place names within the region. The following are some former Mi'kmaq place names since replaced by the present-day place names *(37)*:

Liscomb	*Megadawik*	"where the big eels are taken"
Tor Bay	*Tabooesimkak*	"having two branches"
	Tabooesimkek	"two in company picking berries"
New Harbour	*Ansaakw*	"a lonely rock"
	Okoboogwek	"Foaming with discoloured foam"

Stillwater	*Petawagumegek*	"running through barrens"
Wine Harbour	*Pelumke egunech*	"fish spawning place" or "an outlet cut in the sand"
Country Harbour	*Moolaboogwek*	"deeply gullied out"
Port Hillford	*Utkogumoogwode*	"where the tomcods resort in the fall"
Guysborough	*Sedabocktook*	"a bay running far back" or "deep extending harbour"

Traditional Mi'kmaq Territory

The Project Site and Study Area are within the Traditional Mi'kmaq Territory of Eskikewa'kik. The traditional territories are important reminders of the political and territorial system that most likely existed in the pre-contact period and continued into the later Historic Period. The Traditional Mi'kmaq Territories are referenced today in response to modern events and issues that potentially impact each territory.

The traditional lands of the Mi'kmaq was comprised of 7 Districts collectively known as Mi'kma'ki. The sources reviewed provided very general District Boundaries that have just enough detail to give an approximation of boundaries along the coast but not much detail for the interior limits. *(17)(18)(19)(20)*

Using the general boundaries provided by the sources, MGS interpreted the source maps and recreated detailed District boundaries of the 7 districts of Mi'kma'ki using significant watersheds as the defining features on the ground. The district boundaries may be adjusted after review by the Mi'kmaq and Maliseet Communities. Until then, the 7 Districts of Mi'kma'ki are as follows:

Kespek (Last Land)	All the land and waters draining into the Gulf of St. Lawrence including the Miramichi River watershed and north to include the Gaspe' Peninsula and south shore of the St Lawrence River.

Siknikt (Drainage Area)	All the lands and waters draining into the Gulf of St. Lawrence and Northumberland Strait from Escuminac Point, N. B. to and including the Wallace River watershed. All the lands and waters draining into the Minas Basin and Bay of Fundy from Five Islands, East River Watershed to Deep Cove on the east side of St. John Harbour.
Epekwitk (Lying in the Water) aqq Piktuk (The Explosive Place)	This District combines the entire Island of Prince Edward Island with all the lands and waters draining into the Northumberland Strait and St. Georges Bay from the Mainland. The District includes the East River of Pictou watershed to and including the Tracadie River and Little Tracadie River watersheds.
Sipekni'katik (Wild Potato Area)	This District includes all lands and waters draining into the Northumberland Strait from Macfarlane Point, Wallace Harbour to and including the Middle River of Pictou watershed. Sipekni'katik also includes all the lands and waters draining into Cobequid Bay, Minas Basin and Bay of Fundy from Five Islands Carrs Brook and Economy River watersheds to and including North River and Salmon River, Avon River, Cornwallis River watersheds to MacNeily Brook near Margaretsville. In addition, Sipekni'katik includes all lands draining into St. Margarets Bay and Mahone Bay including the Ingram River watershed to and including eastern shore of the LaHave River.

Kespukwik (Last Flow, Land Ends)	This District includes all the lands and waters draining into the Bay of Fundy from approximately Margaretsville, the Gulf of Maine coast and the Atlantic to the western shore of the LaHave River. The LaHave River Watershed may have divided by east and west districts with the eastern watershed a portion of Sipekni'katik and the western watershed is a portion of Kespukwik. Champlain's early map of the LaHave River show two separate Mi'kmaq communities on either side of the River located near Upper Kingsburg and at Green Bay near Petite Riviere (LaHave Islands Marine Museum, 2016). This may indicate a community of each district sharing the LaHave River.
Eskikewa'kik (Skin Dressers)	Eskikewa'kik includes all lands and waters draining into the Atlantic from St. Margarets Bay including Big Indian Lake, Chebucto (Halifax), Eastern Shore, Strait of Canso to Cape Blue on St. Georges Bay. The District includes the entire Musquodoboit River watershed, a portion of the Shubenacadie River to and including the Stewiacke River watershed draining into Cobequid Bay. In addition, Eskikewa'kik includes the West St. Marys River watershed, East St. Marys River watershed, Country Harbour River watershed as well as the Salmon River and Milford Haven River watersheds draining into Chedabuctou Bay.
Unama'kik (Land of Fog) Aqq Ktaqmkuk (Land Across the Water)	This District combines all of Cape Breton Island with the Southern Coast of Newfoundland.

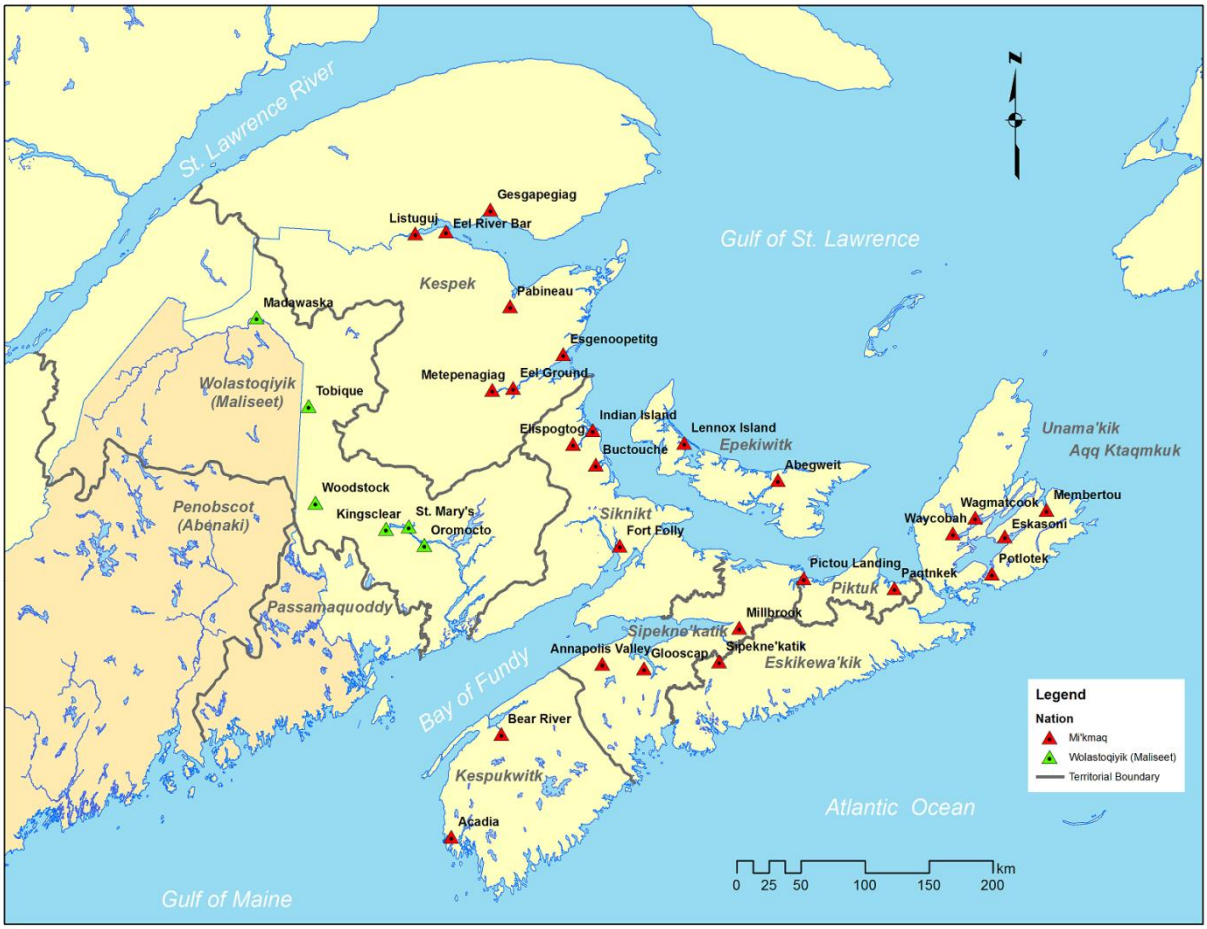

Figure 4: Mi'kmaq Political Districts with Maliseet, Passamaquoddy and partial Penobscot Traditional Territories. (17)(18)(19)(20)

Mi'kmaq had an intimate knowledge of the ecology of their territory and fit their lives to seasonal cycles of the vegetation and animals and fish. Due to climate conditions, agriculture for food was a risk for Mi'kmaq. *(21)* Highly mobile Bands consisting of several related families would assemble at favorite camp sites. In the fall and winter the camps would disperse into small groups of 10-15 people for winter hunting. *(21)*

It was the duty and responsibility of the chief of each political district to assign the hunting territories to families and any changes were made in the presence of the Council of Elders which met in the spring and fall of every year. *(22)* Hunting districts of approximately 200-300 square miles were assigned to families. *(21)*

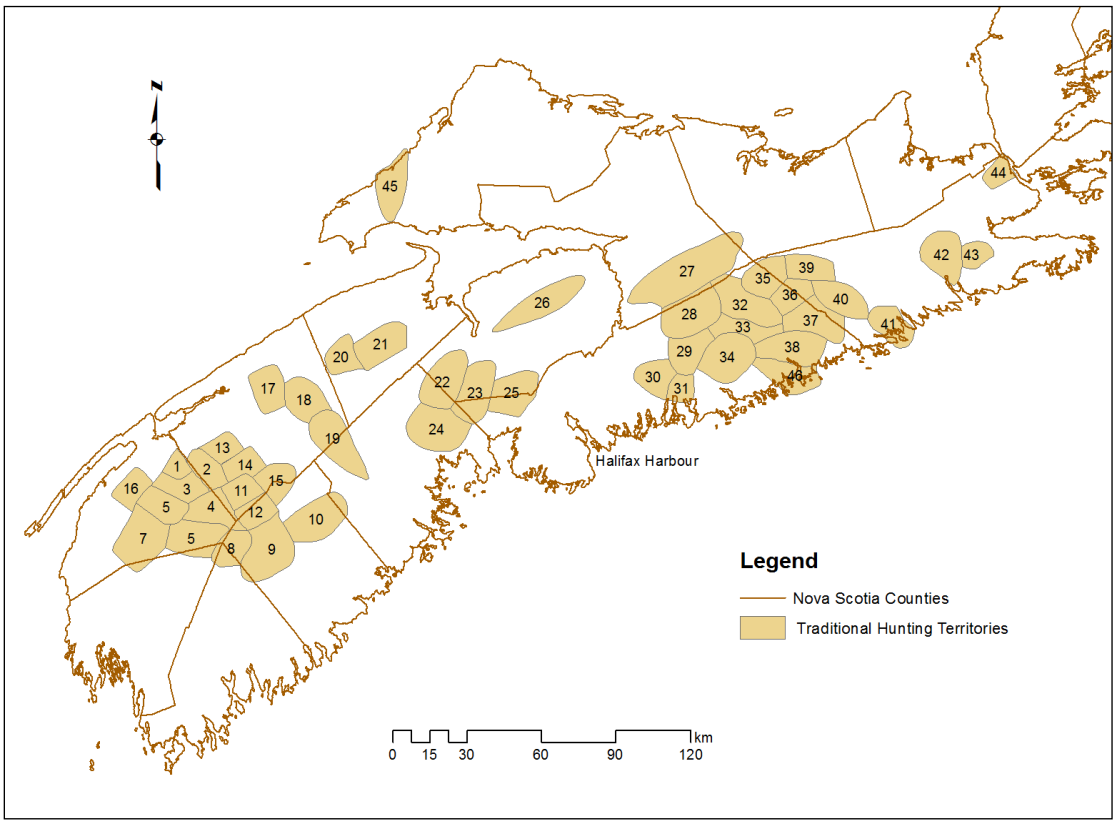

Figure 5: Mainland Nova Scotia Traditional Hunting Territories (23)

Map Reference	Name of Family	Geographic Territory
42	Newell Denis	Country Harbor, Isaacs Harbor, and North
43	Steve Malone	Loon Lake

Table 1: Mainland Nova Scotia Traditional Hunting Territories Recorded Circa 1919 *(23)*

The districts were usually surrounded lakes and rivers and were passed on to sons unless there were no sons where the district was then assigned to another family. *(23)* The Mi'kmaq respected the boundaries of the assigned territories and only took from the land what they needed for the family to survive thereby preserving game and fish for the family's future survival. *(22)*

The hunting territories of the mainland Nova Scotia were numerous compact interior territories that encompassed the watersheds of interior lakes and rivers as Mi'kmaq did most their game hunting during colder months of the year when they moved inland from the summer coastal camps. *(23)(22)* Cape Breton Island Mi'kmaq hunting territories are

larger and more regional encompassing shorelines and interior river systems indicating a more sparse population. *(23)*

The nearest known Traditional Hunting Territory to the Project Site and Study Area is Territory No. 43 last assigned to Steve Malone and covers the area of Loon Lake, 45km east of Canso and near the community of Lundy. Adjacent to Malone's territory is hunting territory No. 42 assigned to Newell Denis and covers the area of Country Harbor, Isaacs Harbor, and north inland to span the area between the communities of Goshen and Salmon River Lake. The territorial reference numbers pertain to the source's original reference system and it is unknown if territorial numbers were assigned by Chiefs. *(23)*

The warmer months were times of abundance with surrounding areas of coastal camps providing fish, shellfish, fowl and eggs. Offerings were made to spirits but the Mi'kmaq rarely stockpiled enough food for the entire winter. They brought with them from the coast smoked and sun-dried seafood, dried and powdered hard boiled eggs. Berries were boiled and formed into cakes and were sun-dried. Grease and oils from boiled marrow and fat were stored and transported in animal bladders. Root vegetables such as *segubun* (wild potato) which was similar to today's sweet potatoes and wild nuts were also part of the winter food supply. *(22)*

Although most historic records very rarely report cultivation of crops as a food source for the Mi'kmaq of Acadia some sources do mention the presence of corn in villages and that corn was grown by tribes of the Gulf of Maine.

Month	Seasonal Locations	Seasonal Groupings	Food Resource
Jan.	Sea Coast	Bands	Smelt, Tomcod, Seals & Walrus Beaver, Moose, Bear, Caribou
Feb. (Period of Winter Famine Begins)	Inland	Bands & Family Units	Smelt, Tomcod (ending) Seals & Walrus, Beaver, Moose, Bear, Caribou
Mar. (Period of	Inland	Bands & Family	Smelt, Seals & Walrus (ending) Scallops, Crab, Urchins, Winter Flounder,

Winter Famine)		Units	Beaver, Moose, Bear, Caribou
April (Period of Winter Famine ends)	Sea Coast	Villages	Smelt, Winter Flounder, Scallops, Crab, Urchins, Sturgeon, Brook Trout, Alewife, Herring, Spring Bird Migrations, Beaver, Moose, Bear, Caribou
May	Sea Coast	Villages	Smelt, Scallops, Crab, Urchins, Sturgeon, Salmon, Brook Trout Alewife, Codfish, Capelin, Shad, Mackerel, Skates, Herring, Spring Bird Migrations, Beaver, Moose, Bear, Caribou
Jun.	Sea Coast	Villages	Scallops, Crab, Urchins, Sturgeon, Salmon, Brook Trout Alewife, Codfish, Capelin, Shad, Mackerel, Skates Lobsters, Spring Bird Migrations, Beaver, Moose, Bear, Caribou
Jul.	Sea Coast	Villages	Scallops, Crab, Urchins, Codfish, Capelin, Shad, Mackerel, Skates Lobsters, Spring Bird Migrations, Beaver, Moose, Bear, Caribou, Strawberries, Raspberries
Aug.	Sea Coast	Villages	Scallops, Crab, Urchins, Codfish, Skates Lobsters, Beaver, Moose, Bear, Caribou, Strawberries, Raspberries, Blueberries, Ground Nuts
Sept.	Sea Coast	Villages	Scallops, Crab, Urchins, Codfish, Skates, Salmon, Herring, Eels, Fall Bird Migrations, Beaver, Moose, Bear, Raspberries, Blueberries, Ground Nuts, Cranberries
Oct.	Small Rivers	Villages	Scallops, Crab, Urchins, Smelt Codfish, Skates, Salmon, Herring, Eels, Brook Trout, Fall Bird Migrations, Beaver, Moose, Bear, Blueberries, Ground Nuts, Cranberries
Nov.	Inland	Bands	Smelt, Tomcod, Turtles, Seals, Beaver, Moose, Bear, Ground Nuts, Cranberries
Dec.	Rivers	Bands	Smelt, Tomcod, Turtles, Seals, Beaver, Moose, Bear, Ground Nuts,

Table 2: Mi'kmaq Annual Subsistence (25)

When fish, game and plants within the proximity of an encampment became scarce, the Mi'kmaq moved the encampment miles away to a new location with the women being responsible for breaking camp, transporting and setting up the next camp. *(24)(22)*

Travel Routes

The Project Study Area crosses known and probably ancient travel route which is one of many routes within the region that connect the coasts of Chedabucto Bay and the Atlantic, with the interior of the Province and connecting with head waters of other rivers flowing to all coasts. The major routes include the Strait of Canso, Guysborough Harbour-Milford Haven River, Salmon River, New Harbour River, Isaac Harbour River and Country Harbour River.

The inlets and harbours along the Eastern Shore and Chedabuctou Bay reach deep inland as do the rivers that empty into them. The river valleys provide access to a vast interior network of interconnected river branches flowing to all coasts. While some rivers and joining lakes are navigable for canoe, all valleys provide access to the interior for even the earliest peoples to exploit resources and interaction with other coastal encampments. One example given is a Mi'kmaq winter travel route between New Harbour and Isaacs Harbour was via travel up the New Harbour River to Ocean Lake and west overland to the Isaacs Harbour River and downriver to Isaacs Harbour and Country Harbour. *(38)* Another source describes most all possible connections among the river valley travel routes with the most important being the Salmon River on Chedabuctou Bay. *(26)* The roughly 5km Salmon River Estuary provides deep access to another approximately 32km of river and lakes leading to the river's origins. Approximately 8km north of this point are the headwaters of the South River which flows into St. Georges Bay the Gulf through Antigonish Harbour. South are the origins of the Country Harbour River flowing to the Atlantic. From the headwaters of the Salmon River, the eastern branches of St Mary's River are approximately 16km west and leading to either the Atlantic or ascending an additional 48km on the West River to the headwaters of the East River flowing into Pictou Harbour. From here there are connections to the south with the origins of the Sheet Harbour River, to the southwest are the headwaters of the Musquodoboit River and west are the origins of the Stewiacke River flowing to the Minas Basin and access to the western portions of the Province and Bay of Fundy. *(26)(1)*

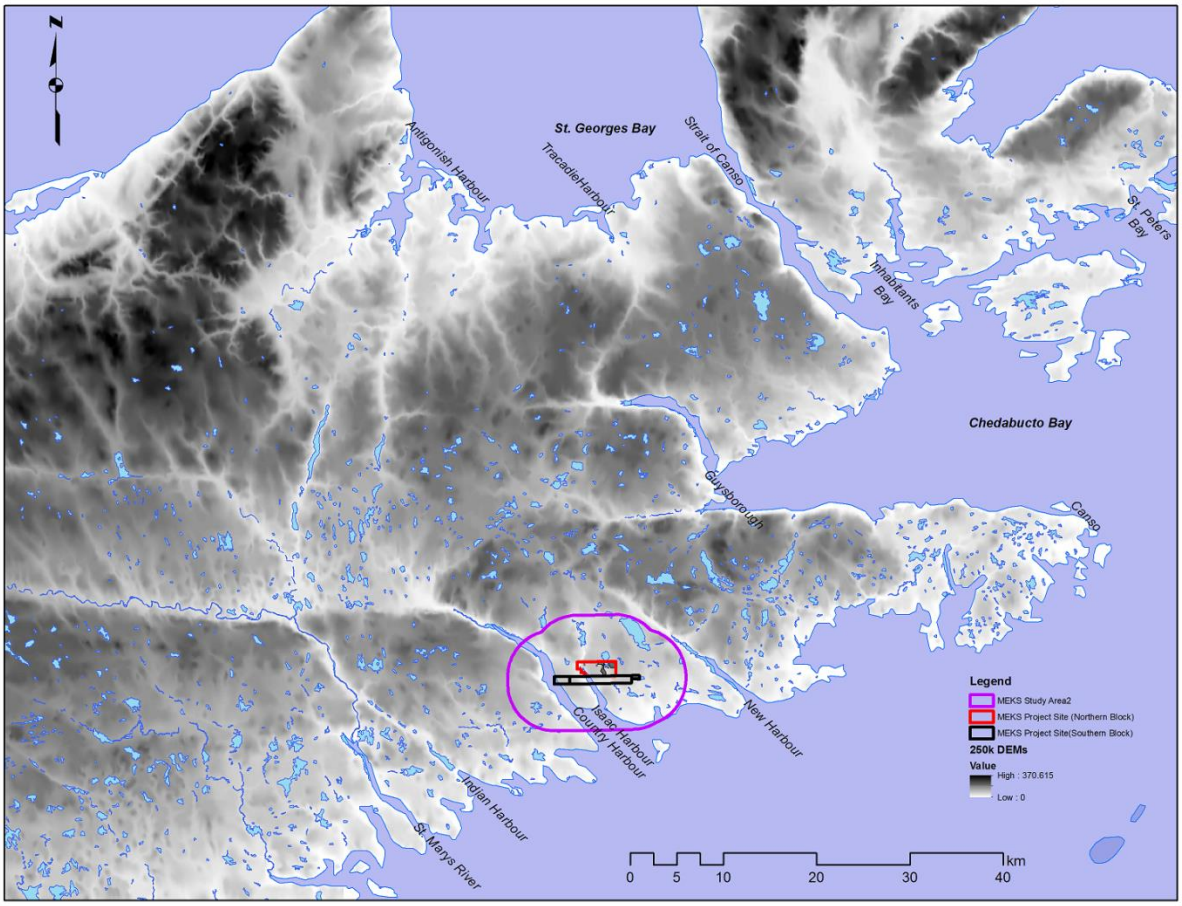

Figure 6: Regional Travel Connections (1)(26)

Local History

The Project Site and Study Area, as well as the surrounding coastal inlets, islands and the inland forests and lakes of Guysborough County today, are within the Mi'kmaq Traditional Territory of *Eskikewa'kik. (18)* The Territory was an important region for the Mi'kmaq. *Unama'kik (18)* (Cape Breton Island) was the traditional residence of the Grand Chief and political center of Mi'kmaq Territory due to being far removed from Iroquois and Inuit enemies. *Eskikewa'kik* was also far removed from enemies and provided a crossing point between *Unama'kik* and the mainland Atlantic Coast and other mainland territories. *(26)*

Being the most easterly point of the Mainland Province combined with the barren shores and islands made the Canso area an attractive and important landing early in the 17th century for early European fishermen to dry their catch before returning to their home ports with their holds filled with dried fish. Fishermen would set up temporary seasonal fish drying camps on the level beaches and were trading with the Mi'kmaq during their stay. *(27)*

In 1606, after 8 weeks at sea the French ship *Jonas* arrived at Canso with lawyer turned adventurer Marc Lescarbot onboard. Lescarbot authored records of his experiences and of the early days of Champlain's Port Royal. When they arrived at Canso they were approached by 2 Basque long-boats under sail with one boat crewed by fishermen out the French port of St. Marlo and the other was captained and crewed by Mi'kmaq who painted a large moose on their sail. *(27)*

During their long association with the Basque the Mi'kmaq became excellent sailors which would be later exploited by the French to harass the English fishing fleets. The Mi'kmaq also developed a trading language that Lescarbot described as half Basque but was functional enough to enable communication with the new arrivals on the *Jonas*. *(27)*

The French had also had a long association with fishing the Eastern Shore of the Province and trading with the Mi'kmaq beginning as early as 1504. *(28)* In 1518, Baron de Lery of France attempted to establish a settlement in Acadia but found the climate disagreeable and left cattle at Canso and Sable Island before returning to France and did not return. *(28)*

Canso was a favorite port of fishermen and traders as indicated in 1609 by an old Mariner named Scavalet who claimed to have made 40 previous voyages to Canso. *(28)*

The Salmon River strategic access to the land routes attracted Nicholas Denys to set up one of two fishing and trading stations in the Region sometime about 1659 *(26)*, with the other station located on a short portage between the Bras d'Or Lakes and the Atlantic at

present-day St. Peters. *(26)* Denys' operation consisted of fortifications named Fort Chedabuctou at the mouth of the Harbour and behind the beach bar. There were 20 acres cleared land and employed up to 120 men when it was attacked and destroyed in 1667 over territorial and rival trade disputes. With the presence of a trading station in the area, there would have been a Mi'kmaq presence nearby with much foot traffic and canoeing along the network of river routes.

During the early 1680's, the Mi'kmaq had an encampment in the area of the present-day Guysborough town site. (36) During this time the French established Fort St. Louis on the ruins of Fort Chedabuctou early in the 1680's which was later captured in 1690 by Sir William Phips. *(26)*

Under British rule, Guysborough's history begins to fade between the 1690' and 1780's although the Acadians of Chedabuctou appear to have remained on their lands during the province wide expulsion of the Acadians in 1755. There were 14 Acadian families at Chedabuctou in 1764. *(39)* It was at this time the last of the Acadians at Chedabuctou left for Isle Madame and St. Pierre et Miquelon leaving abandoned homes, farms and industry. *(36)*

The British had establish fortifications at Canso in 1720 thereby further diminishing Chedabuctou's importance in the region *(39)* Nine families of settlers arrived in the Cooks Cove area sometime about 1768 and were present when the first of the disbanded troops arrived in 1784. *(26)* The new arrivals utilized the cleared lands left by the Acadians and found the remains of a French village at Guysborough Intervale consisting of a house, shipyard and forge.
(26)

The Pre-Loyalists were from the 13 Colonies who were lured to the area by opportunity observed from previous visits and trade with the Acadians and by the cleared cultivated Acadian lands.

A review of the local history of Guysborough County during the 1780's revealed that in 1783 there was a mass of people who were displaced by war and persecution in the former British 13 Colonies. From as far south as Florida, people and the military moved north to British Territory.

Most sources reviewed briefly mention the Mi'kmaq in the region's history and with the exception of sporadic warfare at Canso between the French backed Mi'kmaq and both English and New England ships and subjects. Most sources report a more congenial existence between the Mi'kmaq and the influx of peoples in the area. However, unlike the Loyalists who were able to escape war and persecution by the Americans and flee to friendly territory, the Mi'kmaq remained and existed within unfriendly British territory since the French loss of Acadia and later Ile Royale. *(26)*

Guysborough County Region's history provides a good context of a period when so many displaced peoples of different backgrounds came together under desperate circumstances and all the while the Mi'kmaq are reported to have been welcoming. *(26)*

In 1783 the War of Independence was winding down and the British Military and those loyal to the crown from all along the 13 colonies as far south as Florida, were on the move north to British Territory. Those amassed at New York had to be shipped out elsewhere and Regiments were disbanded rather than transported to another theater. The evacuation of New York began in the fall of 1783 and 800 of those evacuated landed at Port Mouton on the provinces south shore. It was winter and 300 houses were erected and everyone waited for spring. When spring arrived, 200 of the settlers left and later established St. Stephen, New Brunswick. Those that remained had to start over again as a fire in the spring of 1784 destroyed everything they had built and had brought with them. They were hastily provided provisions and transported to Chedabuctou Bay. They established a new town site and transferred the name of their first intended settlement to their new settlement of Guysborough. *(36)*

The first wave of Loyalists to the Region arrived at present-day Guysborough in May of 1784 aboard the Transport *Content* with 149 settlers consisting of a varied mix of officers and soldiers and others of varied background thrown together by circumstances. Of the 149 onboard, only 9 were women and 5 were children. *(36)*

Another group arrived in June and in addition to soldiers consisted of 275 men, 65 women, 85 children as well as 250 Blacks. Each private was granted 100 acres of land and grant sizes increased depending on rank and 50 acres given to everyone for each child. *(36)*

A third group arrived in July consisting of the 60th Regiment including German and Swiss allies. The group had 76 men, 34 women, 19 children and 4 servants. *(36)*
The fourth group of Loyalists to arrive at Guysborough came from the southern colonies and the long journey left them poor and distressed. The choice lots were taken by the previous arrivals and they were in no position to request another location so they settled in the Strait of Canso area and abandoned their plantation life for a life of fishing. *(36)*
Country Harbour received 900 settlers of the Kings Rangers of the Carolinas during the winter of 1784 and 300 are reported to have died before spring. An 1817 gale destroyed the settlement and the surrounding forest leaving little reason to stay. Some of the settlers went to Guysborough and others went to Halifax or scattered throughout the Province. *(38)*

Not all the Loyalists were suited to the hardships of settler life as they were a mix of soldiers, merchants, aristocrats and craftspeople. There was a long delay in resolving some property disputes at Guysborough and when the Government provisions had been exhausted and enough time had passed to return to the United States, some of the Loyalists left the region and abandoned the homes and lands they had occupied. *(36)*
14 Mi'kmaq families moved from the Antigonish to the Guysborough area in 1801 and settle in the Salmon River area and were in need of food and shelter in addition to the 5 wigwams they had pitched along the river. *(40)*

These abandoned lands would be taken up by arrival of the Irish in the 1810's and1820's. The Irish were escaping poverty and persecution in their homeland and were in a poor state upon their arrival. However, the Irish were more suited to settler's life and the climate than were some of the earlier Loyalists. With more freedom in a new land, the Irish in the region prospered and boosted the fledgling economy of the time. The 1840's to the 1890's was Guysborough's golden age. *(36)*

What remained in Country Harbour in 1830 was a farm and Black farmer Isaac Webb who was well known to sailors and the Mi'kmaq who had an encampment at the head of the harbour. Fishermen who were storm stayed at Isaac's Place explored the lands and returned the next spring with their families and a sawmill. Soon after more followed and the sawmill business prospered with large homes being built as more families settled in the area. *(38)*

The sources provide general locations of nineteenth century Mi'kmaq encampments at School House Brook, Isaacs Harbour and another where the Isaacs Harbour River flows into the harbour. The School House Brook location is also thought to be a Mi'kmaq burial site. These purported locations are either within or very close to the Project Site. *(38)* Indian Harbour and Indian Harbour Lake located about 20km southwest of the Project Site, were named so because the area was a favorite Mi'kmaq hunting and fishing territory. *(37)* Indian Harbour is also connected to the province wide network of travel routes. A Field Reconnaissance of the Isaacs Harbour River crossing in 2005 provided no evidence of a First Nation settlement and it was stated by the source that the topography and river flow seemed not suitable for an encampment or settlement site. *(40)*

The Mi'kmaq remained a presence in the area until at least the early 1900's. Guysborough County was experiencing an economic decline after the 1890's and a large portion of the Region's young people left the Region to find employment in Boston which at the time was the destination of choice as is "going out west" was the recent choice of young people today. *(36)*

A 1911 Census enumerated 41 residents of the Cooks Cove Micmac Indian Reserve of which only 2 were not Mi'kmaq. All others were listed as "Mic Mac" for Nationality and "Indian" as Language Commonly Spoken. Of the Non-Mi'kmaq enumerated, 1 was an adopted family member and the other was a lodger. *(32)* An earlier 1901 census of the Guysborough area has the 40 persons whose family names of similar to the 1911 census although some were listed as "English" for Nationality, others as "MickMack" and "English" listed as Language Commonly Spoken others listed "MickMack" was the entry for language spoken even though the some of the same persons were listed as "English" in Nationality. *(33)*

A review of the 1876 A. F. Church County Map, Guysborough County, shows no indication of Mi'kmaq settlements ("Indian Camp") within the vicinity Indian Harbour or at Cooks Cove but there are 2 houses on the interior south shore the mouth of the Salmon River, 3km west of Dorts Cove and marked as T. Johnson and J. Johnson as being the occupants. However, a review of the 1911 census show 9 individuals residing in the same area and all identified as being Irish. *(32)* A review of the entire 1876 map shows no indication of Mi'kmaq settlements or encampments although the Mi'kmaq "Indian Burying Island" at Glenelg and the "Colored Settlement" at Birchtown, north of Guysborough are shown on the map. *(31)*

A review of the Nova Scotia Land Grant Index Sheets for the Cooks Cove area show that the location of 2 houses of the Johnson's as marked on Church's map were at once a 700 acre parcel granted to James Stewart. There is a 200 acre parcel of land on the north shore of the Salmon River estuary granted to Rev. Mr. Roach "proposed for a public reservation" which may have served as a reservation for the Mi'kmaq. Land on the eastern shore of St. Marys River near the Community of Sonora was set aside for "Indian Burials" *(34)*

There are two Cooks Cove place names within Guysborough Co. with one Cooks Cove located near the community of Guysborough and the other Cooks Cove is approximately 4.0 km northwest of Stormont on the northeast shore of Country Harbour. The Land

Grant Index Map has some erasure marks at the Country Harbour, Cooks Cove location and lists that the site as Salsman Provincial Park. These type of edits on the land grant maps, together with the creation of a Provincial Park, sometimes indicates the displacement of Mi'kmaq from a long occupied location. *(30)*

Local Mi'kmaq Family Names

There were many variations in the spelling of some of the Mi'kmaq family names but the spellings are very close to the spelling of the names of today as listed below:

1911 Census, District 44, Guysborough, Subdistrict 30, Cooks Cove I. R. Population 41: *(32)*

Marshall
Prosper
Gabriel
Johnson

1901 Census, Guysborough, G, Selected Population 40: *(33)*

Marshall
Prosper
Gabriel
Johnson
Laboe

A review of current Land Claims show no current active claims within the MEKS Project Site and MEKS Study Area. *(35)*

Historic Review Summary

The MEKS Project Site and Study Area was one of the last areas of the Province to be free of ice at the end of the last Ice Age that left landscape of river valley cuts on the elevated plateaus of thinly covered or exposed igneous and metamorphic bedrock. The plateaus are typically landscapes of wetlands, lakes and covered with glacial till

There is little archaeological evidence within this Region to indicate the presence of early peoples which may be factor of too little investigation and a light population resulting in fewer accidental archaeological finds.

Archaeological finds along the St Marys River system have been white quartz tools rather than the preferred chalcedonies and cherts of other regions of the province. Exposed quartz veins in the bedrock would have been of interest to early peoples in the Region

The Project Site is within the Mi'kmaq Political District of *Eskikewa'kik* of the Eastern Shore from Sheet Harbour to Canso.

The last known Traditional Hunting Territories within or adjacent to the Project Site include Territory No. 43 last assigned to Steve Malone and covers the area of Loon Lake, hunting territory No. 42 assigned to Newell Denis and covers the area of Country Harbor, Isaacs Harbour.

The shores and islands of Chedabucto Bay and particularly the Canso area were favorite landings for European fishermen to dry their catches and for the Mi'kmaq to trade with the Europeans since the mid 1500's.

There were waves of Loyalist and their Black servants who abandoned their homes in the southern colonies as well as disbanded British and allied soldiers and who arrived in 1784 to populate the Chedabuctou Bay and Eastern Shore inlets. The inlets reach far inland to interior resources and were exploited by the Mi'kmaq prior to being settled by the French Acadians, New England Pre-loyalists, Loyalist-Blacks, disbanded British soldiers and later the Irish.

Nineteenth century Mi'kmaq encampments are reported at School House Brook, Isaacs Harbour and another where the Isaacs Harbour River flows into the harbour. The School House Brook location is also thought to be a Mi'kmaq burial site. These purported locations are either within or very close to the Project Site

A review of historic maps of Guysborough County show very little recorded evidence of Mi'kmaq settlements within proximity of the Project Site and Study Area or some of the locations along Chedabucto Bay and Eastern Shore as reported in the sources. The Mi'kmaq burial ground at Sonora is shown on the Land Grant Index Map of the area. A review of the 1876 A. F. Church Map of Guysborough County shows the "Indian Burying Island" at Glenelg on the 1876 Map.

The Mi'kmaq remain a presence in the area until at least the early 1900's as a Census of the early 1900's enumerated the Mi'kmaq of "Cooks Cove Micmac Reservation" of unknown location which indicated a population of approximately 40 persons identifying themselves as Mi'kmaq.

A review of current Land Claims show no current active claims within the Project Site and Study Area.

4.4 Mi'kmaq Traditional Use Findings

The traditional use data gathered for this MEKS was drawn from one primary source: interviews with Mi'kmaq individuals who reside in the surrounding Mi'kmaq communities and those who are familiar with or undertake these types of activities. This data was acquired through interviews with informants that allowed the study team to identify the various traditional use activities, resources and areas that are currently or have been used by the Mi'kmaq, and any information that was gathered in previous MEKS in the area. Interviewees were asked to identify areas within the Study Area and Project Site where they knew of traditional use that had taken place, or currently in use. These interviews took place in August and September 2017. Information collected during previous studies was also incorporated into the information gathered.

To easily identify the traditional use data findings of this study, the analysis has been broken down into two groups. The first is the Project Site analysis, and the second is the Study Area, which includes areas that fall within a 5 km radius of the Project Site.

Unless otherwise stated, areas identified by informants are considered to be utilized by the Mi'kmaq currently, in the recent past, and/or the historic past.

Project Site

The Project Site, as well as locations in the *immediate* vicinity (within 50 meters) of the Project Site, will be considered when analyzing traditional use activities.

Fishing

(see Appendix B, map "Goldboro Project MEKS – Mi'kmaq Traditional and Current Fishing Areas")

Trout fishing was the predominant fishing activity by the informants within the Project Site. Four (4) areas were identified in the areas of:

- From Meadow Lake to Crane Lake, West Brook, and Three Corner Lake
- Areas north of, and including, Isaacs Harbour and Goldboro
- Areas east of Country Harbour

Other species identified in the Project Site are eel (2 areas), bass (1 area), mackerel (1 area), and salmon (1 area).

Hunting

(see Appendix C, map "Goldboro MEKS – Mi'kmaq Traditional and Current Hunting Areas")

Five (5) deer hunting areas were found to be located:

- Areas surrounding Meadow Lake to Gold Brook Lake

- From Meadow Lake to Crane Lake, West Brook, and Three Corner Lake
- Areas east of Country Harbour

Other species hunted in the Project Area include partridge (1 area), and rabbit (1 area).

Gathering

(see Appendix D, map "Goldboro Project MEKS – Mi'kmaq Traditional and Current Gathering Areas")

Blueberries, goldenthread, as well as fir and spruce trees were identified once per species in the Project Site. These areas are located east of Country Harbour, and west of Gold Brook Lake.

Study Area

As mentioned previously, the MEKS data is also drawn from the Study Area which encompasses areas within a five (5) kilometer radius from the Project Site boundaries. The purpose of this portion of the study is to portray other land characteristics and land use activities that may have been missed in a narrow Project Site data analysis.

Fishing

(see Appendix B, map "Goldboro Project MEKS – Mi'kmaq Traditional and Current Fishing Areas")

From the data gathered, this study found that trout is the most reported fishing activity by the informants in the Study Area.

Eleven (11) trout fishing areas were found to be located:

- Isaacs Harbour
- Lakes and waterways from Meadow Lake to Seal Harbour
- Country Harbour

- Cooks Cove

Other species fished in the Study Area are salmon (4 areas), bass (3 areas), eel (3 areas), sea urchin (2 area), mackerel (1 area), scallops (1 area), and smelt (1 area).

When analyzing timelines for fishing activities, activities occurring in the Historic Past category was reported in approximately fifty four percent (54%) of data collected. Recent Past use accounted for approximately thirty one percent (34%) of the information. Current Use accounted for fifteen percent (15%) of the information.

Hunting

(see Appendix C, map "Goldboro Project MEKS – Mi'kmaq Traditional and Current Hunting Areas")

Deer was reported in the Study Area the most by the informants.

Seven (7) deer hunting areas were found to be located:

- From Stormont to near Marine Drive
- An area from around Meadow Lake through to near Drum Head and Three Corner Lake

Other species identified as being hunted in the Study Area include rabbit (2 areas), bear (1 area), partridge (1 area), and "small game" (1 area).

When analyzing timelines for hunting activities, a vast majority of activities took place in the Historic Past and Recent Past. Both Historic Past and Recent Past activities were mentioned in approximately forty four percent (44%) of areas each. Approximately thirteen percent (13%) activities accounted for Current Use activities.

This Study Area, in relation to hunting activities, is utilized for harvesting purposes.

Gathering

(see Appendix D, map "Goldboro Project MEKS – Mi'kmaq Traditional and Current Gathering Areas")

Based on the data gathered, species gathered in the Study area were:

- Blueberries (2 areas)
- Fir tree (2 areas)
- Spruce tree (2 areas)
- Apples (1 area)
- Blackberries (1 area)
- Goldenthread (1 area)
- Raspberries (1 area)
- Sweet grass (1 area)
- White ash (1 area)

These were found to be harvested in the areas of:

- Cooks Cove
- East side of Country Harbour from Smelt Brook to Marine Drive
- From around Meadow Lake to west side of Gold Brook Lake

Other Information

During the interviews with informants, they were given the opportunity to describe any other information they felt would be considered a culturally significant area, or information about an area. Generally, this where informants would describe, for example, areas of past settlements, migration routes, or places with ties to legends.

One informant had described a canoe route that ran from Country Harbour through to Antigonish and was once used as a way to navigate around the province. Sea Urchins were once gathered in the area, but due to the decline, it is believed by one informant that very little individuals/bands still harvest.

4.5 Mi'kmaq Significant Species Process

In order to identify possible project activities which may be of significance to the Mi'kmaq with regards to traditional use of the Study Area, the project team undertakes a number of steps in order to properly consider the MEK data. This involves three main components: Type of Use, Availability, and Importance.

Type of Use

The first component of analysis is the "Type of Use" of the resource which involves the categorization of the resource. All resources are placed into various general categories regarding the Type of Use**.** The category headings are Medicinal/Ceremonial, Food/Sustenance, and Tool/Art. These general headings are used so as to ensure further confidentiality with respect to the resources and the area where they are harvested. As well, the total number of instances where a resource harvest has been documented by the study is quantified here as well.

Availability

After the data is considered by the Type of Use, it is considered in accordance with its availability: this involves considering whether the resource is abundant in the Study Area or whether it is rare or scarce. Based on the information that is provided to the team from the ecological knowledge holders and/or written literature sources, the availability of the resource is then measured in regards to other water or land areas that are outside of the Study Area. This measuring is primarily done in the context of the areas adjacent to the Study Area, and if required, other areas throughout the province. By proceeding in this manner, the study can provide an opinion on whether that resource may be **Rare, Scarce** or **Abundant**.

The data is classified in accordance with following:
Rare – only known to be found in a minimum of areas, may also be on the species at risk or endangered plants list;
Common – known to be available in a number of areas; and

Abundant – easily found throughout the Study Area or in other areas in the vicinity. This allows the study team to identify the potential impact of a resource being destroyed, by the proposed project activities, will affect the traditional use activity being undertaken.

Importance

The final factor the MEKS team considers when attempting to identify the significance of a resource to Mi'kmaq use is whether the resource is of major importance to Mi'kmaq traditional use activities. This can be a somewhat subjective process, as any traditional resource use will be of importance to the individual who is acquiring it, regardless of whether its use is for food or art, and regardless if the resource is scarce or abundant. However, to further identify the importance, the MEKS team also considers the frequency of its use by the Mi'kmaq; whether the resource is commonly used by more than one individual, the perceived importance to the Mi'kmaq in the area, and finally the actual use itself. These factors support the broad analysis of many issues in formulating an opinion on significance and supports identifying whether the loss of a resource will be a significant issue to future Mi'kmaq traditional use, if it is impacted by the project activities.

4.6 Mi'kmaq Significance Species Findings

This MEKS identified resource and land/water use areas within the Project Site and Study Area that continue to be utilized by the Mi'kmaq people, to varying degrees.

Type of Use

The study identified the following in the Study Area:

Table 3: Resource Use within all Study Area

TYPE OF USE	NUMBER OF AREAS	NUMBER OF SPECIES
Food/Sustenance	43	17
Medicinal/Ceremonial	10	7
Tools/Art	6	4

Availability

During the information gathering for the Study Area, informants had mentioned the fishing for salmon. The Atlantic Salmon is considered an endangered species in Canada. *(43)*

No other rare or endangered species were identified by informants.

Importance

While stated above, it is worth noting again that assigning an importance designation for any activity done by Mi'kmaq can be a subjective process, and that all activities are considered ways of preserving the Mi'kmaq way of life, in some shape or form. Scarcity and abundance of a species in an area can both increase the importance of species.

As noted previously, Atlantic Salmon is considered an endangered species in Canada and the Mi'kmaq still rely on this species for sustenance and cultural ceremonies and disturbances to their habitats could have an impact on Mi'kmaq use.

Sweetgrass gathering is considered an important activity to the Mi'kmaq. It is used during ceremonies to smudge, or cleanse oneself of negativity. Some crafters will also use sweetgrass to decorate their creations (e.g., some basket makers will weave sweetgrass into the basket).

5.0 CONCLUSIONS AND RECOMMENDATIONS

This Mi'kmaq Ecological Knowledge Study has gathered, documented and analyzed the traditional use activities that have been occurring in the Project Site and the Study Area by undertaking interviews with individuals who practice traditional use, or know of traditional use activities within these areas and reside in the nearby Mi'kmaq communities.

The information gathered was then considered in regards to species, location, use, availability and frequency of use to further understand the traditional use relationship that the Mi'kmaq maintain within the Project Site and Study Area.

Historically, there are records to show past Mi'kmaq occupation in the area, including traditional hunting territories, encampments, and Census records in the early 1900's showing a population identifying themselves as Mi'kmaq, all in close proximity to the Project Site.

A review of current Land Claims show no current active claims within the Project Site and Study Area.

Traditional Use - Project Site Summary

Based on the data documented and analyzed, it was concluded that there is some Mi'kmaq use reported on the Project Site, or in the immediate vicinity.

Deer hunting and trout fishing were found to be the most common activity in the area.

Traditional Use - Study Area Summary

Trout fishing and deer hunting were the most commonly reported activity by informants within the Study Area. Overall, the activities took place in what this report categorizes as the Historic Past and the Recent Past. There is still some current use occurring in the area, however.

Other activities in the area include harvesting for salmon, bass, eel, blueberries, fir trees, rabbits, sea urchin, and spruce trees to name a few. The locations of these activities seem to be to centered around Country Harbour (from Cook Cove to past the Country Harbour Ferry), Isaacs Harbour area from Goldboro to between Seal Harbour and Coddles Harbour), and around Meadow Lake to West Brook (including Gold Brook Lake, Seal Harbour Lake, etc.).

Other Information

One informant had described a canoe route that ran from Country Harbour through to Antigonish and was once used as a way to navigate around the province. Sea Urchins were once gathered in the area, but due to the decline, it is believed by one informant that very little individuals/bands still harvest.

RECOMMENDATION

The Goldboro MEKS has identified some Mi'kmaq Traditional Use Activities occurring in the Project Site, as well as activities that have occurred in the past and present in the Study Area. Based on the information gathered and presented in this report, there is some potential that the expansion of current mining operations may have some affect on Mi'kmaq traditional use, such as some fishing and hunting, identified in the area.

It is recommended that the proponent discuss with the Assembly of Nova Scotia Mi'kmaq Chiefs, future steps, if required, with regards to Mi'kmaq use in the area.

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APPENDICES

Map A

Mi’kmaq Traditional and Current Use Areas

Goldboro Project
MEKS
Goldboro, NS

Mi'kmaq Traditional and Current Use Areas

Legend

- Traditional Use Areas
- Study Area
- Dolliver Mountain Mine
- West Goldbrook Mine
- Boston Richardson Mine
- East Goldbrook Mine
- Orex License 19000
- Orex Exploration License
- Orex Ramp Portal
- Proposed Waste Rock Dump

Disclaimer

This map is a graphical representation of Mi'kmaq ecological knowledge gathered throughout the study, and should not be used for navigation purposes. Features presented may not accurately representaactual topographical or proposed features.

The Mi'kmaq ecological knowledge data presented is a sampling of knowledge held by those interviewed and should not be interpreted as an absolute measure of Mi'kmaq ecological knowledge and land use.

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Datum: UTM NAD83 Zone 20
Scale: 1:60,000
Version: 1
8 November 2017

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The Lagoon
Dunraven Brook
East Branch
Beech Hill Lake
Little Beech Hill Lake
Horse Hill Ponds
Indian Man Lake
Sangster Lake
Stewart Lake
Fraser Brook
Cranberry Lake
New Harbour River
Bass Brook
Hog Island
Middle Country Harbour
Meadow Lake
Ocean Lake
Oak Hill Lake
Fox Island
Canters Lake Run
Cooks Cove
The Narrows
Little Lake
Stormont
Bill Cooks Cove
Gold Brook Lake
Smelt Brook
Jessies Lake
Frasers Lake
Rocky Lakes
Gores Lake
Fowlers Lake
Armstrong Creek Brook
Basin Lake Run
Isaacs Harbour North
Country Harbour
Carding Mill Brook
Hay Lake
Gold Brook
Rush Lake
Basin Lake
Sister Lakes
Upper Mount Cove
Goldboro
Isaacs Harbour
Seal Harbour Lake
Three Corner Lake
Long L.
Lower Mount Cove
Green Hill Lake
Quinces Seven Island Lake
Coddles Harbour
Lucas Beach Pond
West Brook
Glade Lake
Crane Lake
Cains Lake
Stewart North Lake
Dung Cove
Bettys Cove
Lake on the Mountain
Stewart South Lake
Drum Head
Seal Harbour
Rocky Lake
Mink Lake
The Sound
Round Stillwater
Quinces Long Lake
Quinces Brook
Harbour Island
Back Pond

Map B

Mi’kmaq Traditional and Current Fishing Areas

Goldboro Project
MEKS
Goldboro, NS

Mi'kmaq Traditional and Current Fishing Areas

Legend

- Fishing Areas
- Study Area
- Dolliver Mountain Mine
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Rocky Lakes
Jessies Lake
Gores Lake
Fowlers Lake
Armstrong Creek Brook
Basin Lake Run
Isaacs Harbour North
Carding Mill Brook
Country Harbour
Isaacs Harbour
Hay Lake
Gold Brook
Rush Lake
Basin Lake
Sister Lakes
Upper Mount Cove
Goldboro
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Seal Harbour Lake
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Coddles Harbour
Lucas Beach Pond
West Brook
Glade Lake
Crane Lake
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Stewart North Lake
Dung Cove
Bettys Cove
Lake on the Mountain
Stewart South Lake
Drum Head
Seal Harbour
Rocky Lake
The Sound
Mink Lake
Round Stillwater
Quinces Long Lake
Quinces Brook
Harbour Island
Back Pond

Map C

Mi’kmaq Traditional and Current Hunting Areas

Goldboro Project
MEKS
Goldboro, NS

Mi'kmaq Traditional and Current Hunting Areas

Legend

- Hunting Areas
- Study Area
- Dolliver Mountain Mine
- West Goldbrook Mine
- Boston Richardson Mine
- East Goldbrook Mine
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The Narrows
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Frasers Lake
Rocky Lakes
Gores Lake
Fowlers Lake
Jessies Lake
Basin Lake Run
Carding Mill Brook
Country Harbour
Isaacs Harbour North
Hay Lake
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Gold Brook
Isaacs Harbour
Goldboro
Seal Harbour Lake
Three Corner Lake
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Upper Mount Cove
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Quinces Seven Island Lake
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Coddles Harbour
Glade Lake
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West Brook
Cains Lake
Stewart North Lake
Dung Cove
Bettys Cove
Lake on the Mountain
Stewart South Lake
Drum Head
Seal Harbour
Rocky Lake
Mink Lake
The Sound
Round Stillwater
Quinces Long Lake
Quinces Brook
Harbour Island
Back Pond

Map D
Mi’kmaq Traditional and Current Gathering Areas

Goldboro Project
MEKS
Goldboro, NS

Mi'kmaq Traditional and Current Gathering Areas

Legend

- Gathering Areas
- Study Area
- Dolliver Mountain Mine
- West Goldbrook Mine
- Boston Richardson Mine
- East Goldbrook Mine
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Horse Hill Ponds
Indian Man Lake
Sangster Lake
Stewart Lake
Fraser Brook
Cranberry Lake
New Harbour River
Bass Brook
Meadow Lake
Ocean Lake
Hog Island
Middle Country Harbour
Oak Hill Lake
Fox Island
Canters Lake Run
Cooks Cove
The Narrows
Little Lake
Stormont
Bill Cooks Cove
Gold Brook Lake
Smelt Brook
Frasers Lake
Rocky Lakes
Jessies Lake
Gores Lake
Fowlers Lake
Armstrong Creek Brook
Basin Lake Run
Isaacs Harbour North
Carding Mill Brook
Country Harbour
Hay Lake
Gold Brook
Rush Lake
Basin Lake
Sister Lakes
Upper Mount Cove
Goldboro
Isaacs Harbour
Isaacs Harbour
Seal Harbour Lake
Three Corner Lake
Long L.
Lower Mount Cove
Green Hill Lake
Quinces Seven Island Lake
Coddles Harbour
Lucas Beach Pond
West Brook
Glade Lake
Crane Lake
Cains Lake
Stewart North Lake
Dung Cove
Bettys Cove
Lake on the Mountain
Stewart South Lake
Drum Head
Seal Harbour
Rocky Lake
Mink Lake
The Sound
Round Stillwater
Quinces Long Lake
Quinces Brook
Harbour Island
Back Pond

Appendix K.2

MEKS 2022

Membertou
GEOMATICS SOLUTIONS

Government of Nova Scotia
Department of Environment
Assessment Division

To Whom It May Concern,

In 2017, a Mi'kmaq Ecological Knowledge Study (MEKS) was developed by Membertou Geomatics Solutions (MGS) for Anaconda Mining Inc. (Anaconda) with regards to their proposed Goldboro Project located in Goldboro, Nova Scotia.

This MEKS mandate is to consider land and water areas in which the proposed properties contained within the proposed project are located and to identify what Mi'kmaq traditional use activities have occurred, or are currently occurring within, and what Mi'kmaq Ecological Knowledge presently exists in regards to the area. In order to ensure accountability and ethic responsibility of this MEKS, the MEKS development has adhered to the "Mi'kmaq Ecological Knowledge Protocol, 2nd Edition". This protocol is a document that has been established by the Assembly of Nova Scotia Mi'kmaq Chiefs, which speaks to the process, procedures and results that are expected of a MEKS.

The Mi'kmaq Ecological Knowledge Study consists of several major components including:

Mi'kmaq Traditional Land and Resource Use Activities, both past and present,
A Mi'kmaq Significance Species Analysis, considering the resources that are important to Mi'kmaq use.

The Mi'kmaq Traditional Land and Resource Use Activities component utilizes interviews as the key source of information regarding Mi'kmaq use within the Project Site and Study Area.

Since it has been four (4) years since the initial MEKS was conducted, Anaconda has engaged MGS in 2021 to conduct an updated MEKS with the expectation that they would be submitting an Environmental Assessment Registration Document in May 2022. Their Project Description has changed however the study area has not changed.

An update on the current MEKS. A site visit was completed in December 2021 however the interview process has not yet taken place. In person interviews have not been held for ALL MEKS studies since March 2020 due to the Covid19 pandemic. MGS has recently developed an online tool that will support the interview process going forward and is planning to conduct in-person interviews in June, 2022. When interviews are completed, a report will be provided to Anaconda.

If you have any questions, feel free to contact me at (902)233-7159 or jasongoogoo@membertou.ca

Thank you,

Jason Googoo
MGS Manager