A Mi'kmaq
Traditional and Ecological Knowledge Review
of three
Wind Project Development Properties

Historical and Field Survey Information

Submitted to:
Affinity Renewables Inc
1383 Mt Thom Rd
Saltspring, NS. Canada B0K 1P**0**

Submitted by:
AMEC Environment & Infrastructure
a division of AMEC Americas Ltd.
Dartmouth, Nova Scotia

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TV134003

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1.0 Introduction

Affinity Renewables Inc., a subsidiary company of RMS Energy Ltd., proposes to construct three wind projects in north-eastern Nova Scotia. One wind project, comprised of three 1.68 MW turbines, will be located near Kemptown, Nova Scotia, while a second wind project consisting of two 1.6 MW turbines will be located near Greenfield, Colchester County, Nova Scotia. The third wind project, comprised of three 1.68 MW turbines, will be located near Limerock in Pictou County, Nova Scotia.

Figure 1.1 provides a reference for the location of these projects in the Atlantic coastal region.

The proposed locations for the Affinity Renewables Wind Project turbines on the three Project Sites are:

Site	Easting	Northing
Limerock	513855.00	5042921.41
Limerock	513522.04	5042874.29
Limerock	513895.00	5042531.00
Kemptown	490679.78	5032684.42
Kemptown	491363.66	5032883.36
Kemptown	491017.65	5032748.41
Greenfield	489054.55	5021679.11
Greenfield	489107.66	5021466.68

Affinity Renewables Inc. understands that the purpose of an Indigenous Ecological Knowledge Study, or more specifically a Mi'kmaq Ecological Knowledge Study, is to understand the local environment and its relationship with the people who have long standing rights associated with the land and the resources it contains. There is considerable information in the culture and social structures of the people who have lived and inhabited a region in which their culture has evolved. This information can help us understand the "nature" of the place in which a new project is being planned. It also helps us understand the potential impact a project can have upon the indigenous community.

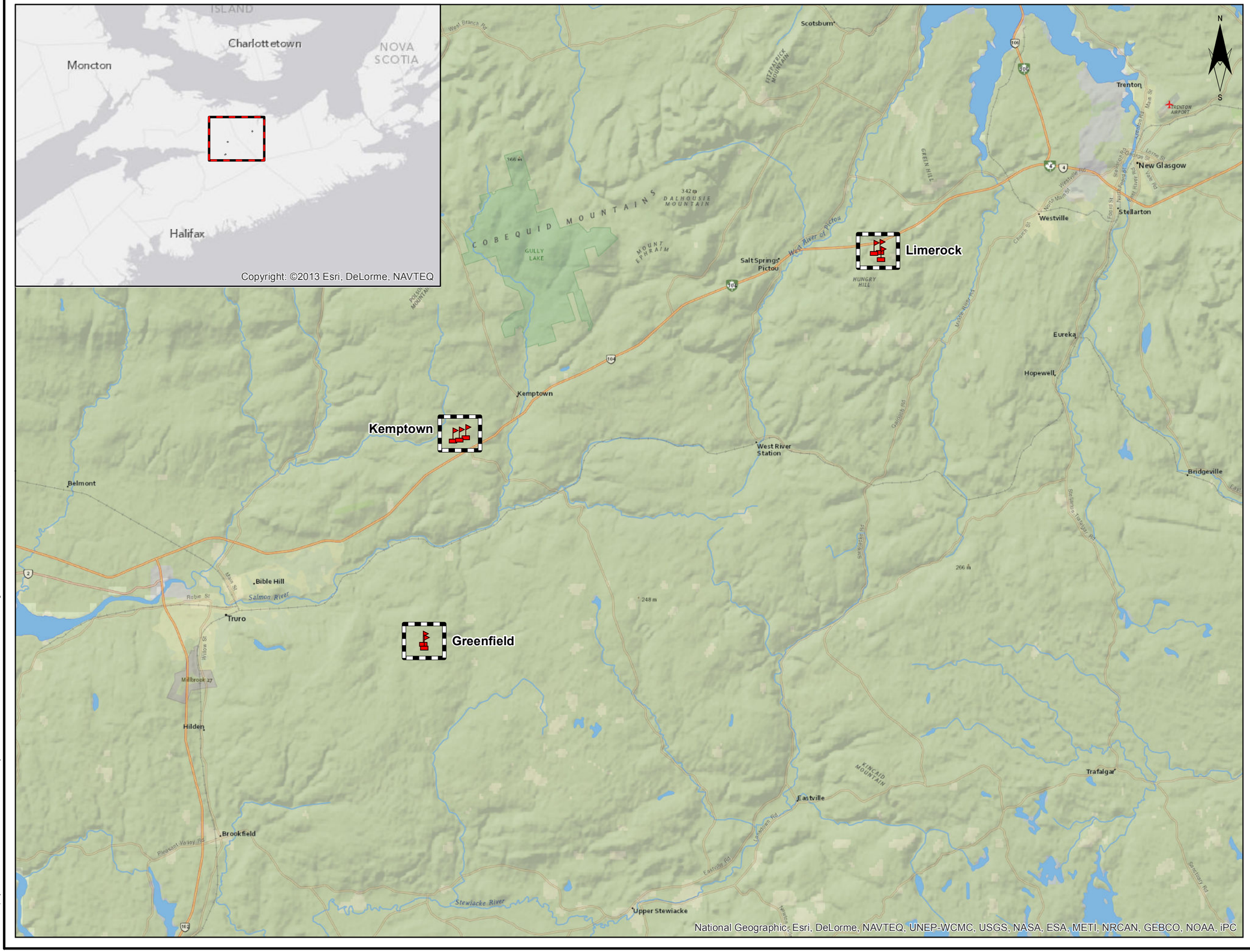
As a result, Affinity Renewables engaged the services of AMEC Environment and Infrastructure to assist in completing a Mi'kmaq Ecological Knowledge Study. This study was undertaken in two parts, first, an historical background study and bio-ecological field survey (the Place) and, secondly, a current use study comprised of face-to-face discussions with Mi'kmaq knowledge holders during a round table workshop (the People).

1.1 Indigenous Knowledge and Knowledge Systems

Early in the 1990's governments and international development agencies became aware that Traditional Ecological Knowledge and associated Traditional Management Systems could be useful in improving development planning in areas populated by indigenous peoples (Johannes 1993). Traditional Ecological Knowledge, or as it is now more commonly known as, Indigenous Traditional Knowledge (ITK), is the accumulated knowledge of natural ecosystems, based on spiritual health, culture and language of the people that is passed between successive generations through stories, song and dance and myths to ensure their survival and the integrity of their socio-cultural and socio-economic systems. Indigenous

knowledge is dynamic, based upon an intimate understanding of the components of non-living (abiotic) and living (biotic) environments. In most instances the management system aspects of indigenous peoples knowledge systems has been segregated from the endeavour of compiling information for decision-making and the ITK aspects have been the focus of study. In Nova Scotia, ITK is referred to as Mi'kmaq Ecological Knowledge (MEK).

Indigenous Traditional Knowledge has become the focus of considerable international discourse on intellectual property rights (Ritchie *et al.* 1996). Indigenous communities worldwide have felt that their knowledge has been used to advance commercialization and over exploitation of local renewable resources and as a result, have become vocal about the protection of their knowledge and its use. The value of indigenous knowledge is becoming increasingly recognized by scientists, managers and policy makers and is an evolving subject of both domestic and international law (Anaya 1996). Indigenous people are aware that there is a value to their knowledge and that it can be used for exploitative purposes. In some cases this risk has been offset by the fact that knowledge holders often provided access to their knowledge and knowledge systems for a cost (fee), however, it is freely and openly shared, subject to intellectual property rights agreement, when it is used for protection of biodiversity and environmental condition.



TITLE:
Figure 1.1
AFFINITY RENEWABLES WIND FARM PROJECT SITES

PROJECT:
A MI'KMAQ TRADITIONAL AND ECOLOGICAL KNOWLEDGE REVIEW OF THREE WIND FARM DEVELOPMENT PROPERTIES

CLIENT:
AFFINITY RENEWABLES INC
1383 MT THOM RD
SALTSPRING, NS. CANADA B0K 1P0

LOCATION:
NORTH-EASTERN NOVA SCOTIA: GREENFIELD, COLCHESTER CO. KEMPTOWN, COLCHESTER CO. LIMEROCK, PICTOU CO.

DATE:
Tuesday, November 19, 2013

DATUM:
NAD83

PROJECTION:
Zone 20

AMEC PROJECT NO:
TV134003

LEGEND:
Proposed Turbine Locctions

AMEC Environment & Infrastructure
A Division of AMEC Americas Ltd.
50 Troop Avenue, Unit 300
Dartmouth, N.S., B3B 1Z1
(P) 902-468-2848 (F) 902-468-1314

Path: \\nfx1-fs1\projects$\5300 PROJECTS\2013\TV134003 - Affinity Renewables Inc - KMK MEKS\Cad\11x17\TV134003 - Figure 1.1.mxd User: derrick.schulz, Date: 11/19/2013

Acquisition of knowledge of complex ecological systems is an ongoing and dynamic learning process. As such, indigenous knowledge often provides an informational foundation for, and is used by, indigenous people's institutions and organizations. Indigenous knowledge is seen to be a component of the cultural elements of a society, and the processes of acquiring knowledge involve institutional frameworks and social networks nested across social and geographic scales (Folke 2004). This requires multiple tools for data and information gathering and multiple approaches to information analysis.

Recent ITK studies have focused on the collection of information from elderly members of indigenous communities. In some instances, depending on the purpose of the study, present day hunters/trappers/fishers are interviewed to collect information on the specific location of plants and animals considered important as biologically important to the local ecosystem. This approach is a science-based research approach for data acquisition, and neglects some of the social, economic, cultural and spiritual elements.

It is now widely understood that traditional knowledge is greater than the sum of individual experiences, and that traditional knowledge is a significant component of the culture and identity of indigenous peoples (Orcherton 2012). Traditional knowledge is founded in the collective experiences of a community and is transmitted between individuals and generation in accordance with traditional institutions and practices. It is also understood that a society's culture can evolve as a result changing resource abundance, environmental condition, technological changes and interaction with other cultural groups.

Studies that focus on individual's harvesting experience are founded upon a false assumption that individual resources users can provide a meaningful understanding of the relationship between a "People" and a "Place". Evidence suggests that this is an incomplete approach and that the gathered information will not enhance understanding of the relationship between the Indigenous community and the traditional territory, and does not resolve the issues regarding acceptability of new project development on local indigenous populations. To this end, the United Nations Permanent Forum on Indigenous Issues has hosted several workshops that have examined the process of indigenous input on project development (Mauro and Hardison 2000, Persoon and Minter 2011). Results of these efforts have substantiated the use of historical and archival research, information gathering through group workshops and discussions with political/traditional leadership.

2.0 Data Acquisition

As noted above, the MEK study for the sites of the three Affinity Renewables Inc. wind projects consisted of two main exercises. A desktop review of existing data was performed to gather environmental information specific to the sites (Place) and historical information related to the Mi'kmaq use of the area (People), and this work was augmented through field surveys to compile current environmental data on species of known historical significance. Face-to-face consultations with local First Nations groups and individuals enabled the collection of local site-specific knowledge of current Mi'kmaq use of natural resources in the area.

2.1 Gathering of Local Knowledge of Project Site

2.1.1 Data Collection and Verification- WORKSHOP

A noted deficiency in many past ecological knowledge surveys has been the absence of any effort to determine the validity of information collected. An informant who is knowledgeable about historical activity or environmental matters is just as concerned about the accuracy of information as any researcher. However, there can be a temptation to embellish the facts to influence the outcome of any development initiative so that the final decisions favour the informant's community (Johannes 1993, Albert Marshall, Personal Communication, 2013). Furthermore, since many ecological knowledge studies require payment of an honorarium or fees to the informant, some informants may feel obligated to enhance information to justify earnings for information. Finally, some individuals may wish to gain recognition from outside communities by providing embellished information to researchers from outside the indigenous community (T.G. Poulette, Personal Communication, 1995). Informants do not intend to compromise the reliability of information compiled in an MEKS, but nonetheless, create a need to verify information collected through ground-truthing.

2.2 Field Survey for Plant Species of Mi'kmaq Cultural Significance

2.2.1 Review of Available Data

Preliminary site surveys conducted for Affinity Renewables along with the *Natural History of Nova Scotia* (Davis and Browne 1996) were used to provide some background as to the vegetation communities typical of the region encompassing the Affinity Renewables wind project Sites.

2.2.2 Field Survey

A site visit was undertaken to identify and locate potential medicinal plants and other related resources that may be of importance today.

Vegetation surveys were conducted on July 16 (Greenfield and Kemptown sites) and July 17 (Limerock site) 2013 by AMEC Biologist Beth Cameron within the three project study areas depicted in Figure 1.1. Prior to conducting field surveys, the various habitats located within the Study Area were assessed and classified using information gathered during a desktop study (e.g. aerial photography and Nova Scotia Forest inventory database, etc.). Habitat modeling was conducted to identify the potential presence of plant species of significance to Mi'kmaq based on available habitat.

Vegetation surveys focused on plant species identified during the desk top review and consisted of optically controlled meanders through habitat polygons identified to potentially contain plants of

significance to Mi'kmaq, with a focus on the proposed wind turbine locations. General locations of significant plants identified in the field were recorded using a GPS and photographs of the habitats were recorded with a digital camera.

2.3 Wildlife Survey and Habitat Modeling Exercise

Information collected during the field survey and a review of the historical use of wildlife and fish resources by Mi'kmaq, combined with known wildlife habitat preferences and the results of the habitat surveys, allowed a determination of wildlife species potentially using the project site. The results of the desktop reviews, field surveys and the public consultation exercises were compiled and a habitat modeling exercise conducted. This exercise consisted of comparing habitat preferences of NS wildlife species with the habitats known to occur on the site, in order to determine the likelihood of each species' presence on the three proposed Affinity Renewables Wind Project Sites.

3.0 Background: A People and their Place

3.1 The Mi'kmaq

3.1.1 Traditional Land Use

The Mi'kmaq[1] are the pre-contact inhabitants of the region comprised of Nova Scotia, New Brunswick, Prince Edward Island, the Gaspe region of Quebec, northern Maine and southern Newfoundland. While there are a wide range of estimates of the Mi'kmaq population before initial arrival of Europeans in North America, it is likely that the population at the time of contact was roughly 35,000 (Miller 1976).

The Mi'kmaq territory was divided into seven traditional "districts". Each district had its own independent government and boundaries. The independent governments had a district chief (Keptinaq or Saqmaw) and a council. The council members were band (family groupings or "clans") chiefs, elders and other worthy community leaders. The district council was charged with performing all the duties of any independent and free government by enacting laws, justice, apportioning fishing and hunting grounds, making war, suing for peace, etc. The seven Mi'kmaq Districts are Kespukwitk, Sikepnékatik, Eskíkekik, Unamákik, Piktuk aqq Epekwitk, Sikniktewaq and Kespékewaq (see Figure 3-1

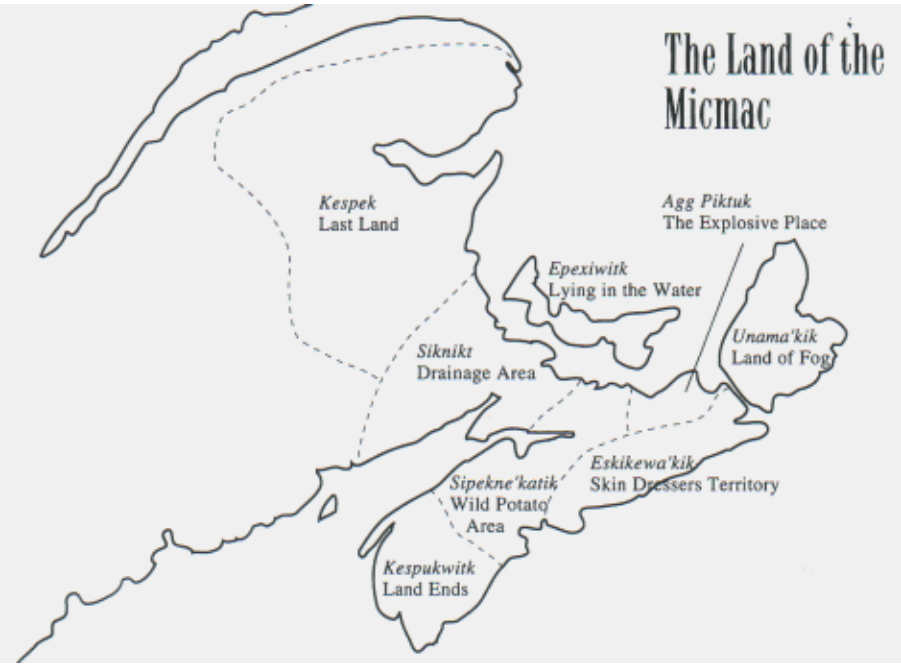


Figure 3-1: Traditional Mi'kmaq Districts
(from http://www.danielnpaul.com/Map-Mi'kmaqTerritory.html)

In addition to the district councils, there was also a Grand Council or Santé Mawiómi. The Grand Council was composed of "keptinaq". There were also Elders, the Putús (Wampum belt readers and historians,

[1] Lnu (plural: Lnu'k) is the self-recognized term for the Míkmaq of New Brunswick, Newfoundland, Nova Scotia, Quebec and Maine, which translated to "human being" or "the people". (http://museum.gov.ns.ca/MiKmaq/)

who also dealt with the treaties with the non-natives and other Native tribes), the women council and the Grand Chief (kji'saqmaw). The Grand Chief was a title given to one of the district chiefs.

The local Mi'kmaq communities seasonally moved throughout the region to occupy areas of abundant food and shelter. Much of this travel was along waterways which facilitated transportation and food harvesting. It is therefore likely that the coastal rivers and streams were used during coastal travel as they provided opportunity for harvesting and for inland excursion in search of suitable encampments.

Ancient First Nations people using this area would have lived a migratory life, travelling throughout the Unama'kik district, as noted above. This migratory cycle involved seasonal movement between areas where shelter and food resources were most abundant.

While it is difficult to fully comprehend the undisturbed forests and riverine habitats that existed before colonial influences, it is possible to understand the relationship between landscape and human use activities.

The Affinity Renewables Wind Project sites fall within the Piktuk aqq Epekwitk district, which in English means "Laying in the Water" possibly in recognition of the important relationship the Island held with the coastal inhabitants of the mainland (Rand 1875). This area also known as "the explosive place is frequented by significant thunderstorms during the summer months. According to oral tradition, the people of the Piktuk aqq Epekwitk district have used the lands and coastal waters of the area since the beginning of time, travelling between what is now known as the Northumberland coastal areas of Colchester, Pictou and Antigonish counties and Prince Edward Island

Many of the families that traditionally occupied the district were relocated to the Eskasoni First Nation and the Indian Brook First Nation (Shubenacadie) as part of Canada's centralization policies. However, many of the descendents of the initial inhabitants of this region are located in the Pictou Landing, Paq'tnkek and the Millbrook First Nations.

Both archaeology and oral history add to the knowledge of how these ancestors lived in pre-contact times. Dates and time periods were not important to the Mi'kmaq in understanding their history, and many hold the belief that they have occupied the region since it was possible to sustain life. Historically, knowledge was passed down from generation to generation through stories . Often these stories passed empirical knowledge of the physical and biological environment through myths, for example, one such story describes how the earth came into being and how the animals and the People came to inhabit the region (Lockerby 2004). This tradition of storytelling has evolved over the centuries, however, the dependence on oral tradtion remains important in Mi'kmaq communities.

Mi'kmaq way of life changed after contact with the French, the first European settlers to this area. Colonial conflicts between France and England during the seventeenth and eighteenth centuries shaped the cultural development of the indigenous population (Thorp 1996), and eventual permanent European settlement would further challenge the survival of Mi'kmaq culture and Mi'kmaq as a people.

On June 24 1610, Grand Chief Membertou (who was from the southern district of Kespukwitk) converted to Catholicism and was baptized. This relationship with the Europeans changed with the conclusion of European wars and the transfer of Acadia to British control through Treaty. The first treaty of a series of treaties (referred to as the Covenant Chain of Treaties) between the British Crown and the Micmac Nation was signed in 1725. All treaties were reaffirmed in 1752, and culminated in the

Treaty and Royal Proclamation of 1763. The treaties were an exchange of Micmac loyalty for a guarantee that "Micmacs" would be able to continue hunting and fishing in their territory. These treaties have been recognized by the Supreme Court of Canada as legal and binding.

Even after the adoption of western religious beliefs, the Mi'kmaq continued to harvest food and resources in accordance with long held spiritual understanding of the relationship between living things referred to as "Netukulimk". While some have argued that the eventual dominance of British colonial rule eroded traditional Mi'kmaq worldviews, there is strong evidence that Mi'kmaq harvests are still governed by Netukulimk principles (Prosper *et al.* 2011).

3.1.2 Traditional Medicines

A use of traditional lands that continues throughout Canada, and in particular, Mi'kmaq territory, is the collection and harvest of medicinal plants. Often overlooked in these times of over-the-counter medicines, Aboriginal peoples had developed an in-depth and intimate knowledge of various local plants and how they could be used for sustenance and, in some instances, to cure ailments. This knowledge, which formed part of the spiritual understanding of the balance between people and the local environment, continues to be informally passed on from generation to generation in aboriginal communities, often as guarded family secrets that provide position within the community. It is estimated that 70-80% of people worldwide rely on traditional herbal medicines to meet their primary health care needs (Farnsworth 1991).

In Canada, traditional medicines still provide an increasingly important source of income for rural and aboriginal communities (Uprety 2012). Many Mi'kmaq elders continue to harvest and prepare traditional medicines and provide them to friends and relatives to treat common health conditions (K. Prosper, personal communication, 2010), however, it has been noted that harvesting areas are becoming increasing limited due to continuous development that alters the natural ecosystem (F. Meuse, Personal Communication, 2012). Table A-2 in Appendix A provides a list of plant species reported to be traditionally used as medicine by Mi'kmaq in Nova Scotia.

3.1.3 Traditional Materials and Other Useful Plants

Due in part to the long history of territorial occupation by immigrant populations, the Mi'kmaq are one of the most studied people for the use and nature of their traditional medicines (Speck 1917, Wallis and Wallis 1955), and several guide books have been published on the subject.

Aside from food and medicines, Mi'kmaw people utilized various natural resources for a wide range of other purposes. Animal, bird and fish skins were tanned using animal materials or smoked, and then used to make clothing, footwear and baby blankets. Pelts were used to make fur robes. Sinew from animal carcasses served as thread (Nova Scotia Museum factsheet, ND).

Varieties of wood types were used in shelter construction. Spruce poles, birch bark sheets and flexible moosewood (striped maple) saplings were used in the construction of conical dwellings known as *"wikuom"* or wigwams. Various woods were also used in the construction of devices to aid in transportation, and to create fish traps and weirs (NS Museum factsheet, ND). Other woods were used to make storage containers and vessels. Tools such as axes, adzes and gouges were made from reworking suitable stone and wood materials. Stones such as chalcedony were used to make hunting,

cooking, carving and hide-preparing tools, spears were made of bone and wood, while bone was also used to make needles, awls and painting tools. Copper, which was likely traded for from natives from outside the region, was used to make fish hooks and needles. Teeth from beavers were used for fine carving, while walrus tusks were used for ivory. Bags and mats were made from woven reeds, grasses, cattails, cedar and basswood barks. Baskets may have been woven from thin branches (Nova Scotia Museum factsheet, ND). Specific uses of many plant species are outlined in Table A-3 in Appendix A.

Dwellings and clothing were often decoratively painted using red and yellow ochre, charcoal and ground eggshell, mixed with fish roe or egg yolks as a binder. Clothing was also decorated with animal bones, teeth, and claws and quills, and sometimes feathers. Bird wings were sometime worn by men. Pipes were made from stone, bone, bark, wood and lobster claws. After 1600, Mi'kmaq women made decorative porcupine quillwork and shell beadwork for sale to Europeans. Dyes for quills and mats came from a variety of roots, bark, leaves and flowers (Nova Scotia Museum factsheet, ND).

3.2 The Piktuk aqq Epekwitk District

3.2.1 Environmental Context

The Project Sites are located within the Pictou-Antigonish Highlands Ecodistrict. Soils in this ecodistrict are well drained course textured soils on hilly terrain (Neily *et al.* 2003). Vegetation in the ecodistrict is generally characterized by shade-tolerant hardwoods, with yellow birch (*Betula alleghaniensis*), sugar maple (*Acer saccharum*), and American beech (*Fagus grandifolia*) being the most common. Red spruce (*Picea rubrum*), white spruce (*P. glauca*), eastern hemlock (*Tsuga canadensis*), and balsam fir (*Abies balsamea*) are scattered on the flat upland surfaces and form coniferous stands on lower slopes and valley bottoms (Webb and Marshall 1999). High elevations influence the climate of the Pictou-Antigonish Highlands Ecodistrict. This ecodistrict is characterized by late, cool springs, cold winters, and the lowest mean annual temperature in Nova Scotia (5.4°C). It experiences about 1409 mm of precipitation annually and receives about 505 mm of this in the form of rain between May and September (Webb and Marshall, 1999).

3.2.2 Traditional Food Resources

Historically, the Mi'kmaq families who lived in this area annually migrated between hunting and fishing grounds (Chute 1999). These seasonal migrations were heavily dependent upon riverine and coastal transportation. As a result, food resources were heavily biased toward fish and seafood.

In late winter, the Mi'kmaw in Nova Scotia generally moved closer to the marine coast and the river mouths. In the Piktuk aqq Epekwitk district this was a time for gatherings between Island and mainland inhabitants, who shared the bounty of the productive waters in the Gulf of St. Lawrence. Such positions allowed them to take advantage of the numerous shallow water coastal fish and shellfish exposed by the melting ice (such as winter flounder and clams) as well as the spring fish run in the rivers. In early spring, smelts and alewife (gaspereau) were abundant in the rivers, followed by salmon and sturgeon. Brook trout and striped bass began swimming upstream, followed by white perch and "elvers" or young eels. American plaice appeared off the coast, as did cod, various skate species, whitling or silver hake and mackerel. Freshwater and marine fish and shellfish species historically utilized by Mi'kmaq in Nova Scotia are listed in Table 3.1: Fish Species Traditionally Harvested by Nova Scotia Mi'kmaq.

Table 3-1: Fish Species Traditionally Harvested by Nova Scotia Mi'kmaq.

Common Name	Mi'kmaq Name	Habitat[5]	Uses	Source
Brook Trout	Adagwaasoo[1] , atoqwa'su[3] ADAGWAASOO[2]	Freshwater streams, marine		Hoffman 1955
Eel, Elvers	Kat[1], KATEL[2]	Marine, freshwater	Food	Hoffman 1955
Gaspereau	Segoonŭměkw'[4]	Marine, ascends streams to breed in freshwater	Food and bait	
Salmon	Pălămoo[1], PULAMOO[2]	Marine, ascends streams to breed in freshwater	Food, commerce and ceremony	Hoffman 1955
Shad	Msamu[3]	Marine, ascends streams to breed in freshwater	Food	
Smelt	Kákpāsow'[1], KAKPASOW[2] gaqpesaw[3]	Marine, ascends streams to breed in freshwater	Food	Hoffman 1955
Striped Bass	Chegaoo [1]	Marine, ascends streams to breed in freshwater	Food and commerce	Hoffman 1955
Sturgeon	KOMKUDAMOO[2]	Marine, ascends streams to breed in freshwater	Food	Hoffman 1955
White Perch		Marine, ascends streams to breed in freshwater	Food	Hoffman 1955

[1] Accepted Current Smith-Francis Orthography

[2] Phonetic spelling from reference document (Hoffman 1955) (also capitalized)

[3] Listuguj spelling

[4] Marshall spelling

[5] Habitat references for fishes are from Scott and Scott (1988).

In addition to this abundance of fish, spring was also a time when migratory birds returned and began nesting, providing plenty of fresh meat and eggs. Hoffman (1955) provided a list of bird species traditionally harvested by Mi'kmaw in Nova Scotia. A more recent report by Benoit (2007) summarized waterfowl species recently hunted by Mi'kmaq in mainland NS.

Species mentioned by Benoit (2007) are presumably all species traditionally hunted by Mi'kmaq people. Most of these species utilize both freshwater and marine habitats throughout the year, while others, such as eider and scoter species occur primarily in marine coastal areas. Snipe and pin-tailed ducks occur primarily in freshwater environments, while woodcock are found in forested areas, often treed wetlands. All of these species, with the exception of the Barrow's Goldeneye, are relatively common in suitable habitats throughout NS during the appropriate season. Barrow's Goldeneye in NS belongs to the eastern population, which is currently listed under *SARA* as a species of Special Concern. This species is quite rare in NS. It is unlikely to occur in the vicinity of the three wind Project Sites.

Table 3-2: Bird Species Reported as Traditionally (Hoffman 1955) and Recently (Benoit 2007) Harvested by Nova Scotia Mi'kmaq, with Habitat Information (Tufts 1986).

Mi'kmaq Name	Common Name	Species Name	Habitat (Tufts 1986)	Season
	American Bittern	*Botaurus lentiginosus*	Freshwater wetlands	Spring migrant (Hoffman 1955)
	American Black Duck	*Anas rubripes*	Marine coast, freshwater lakes	Resident (Hoffman 1955), Year round (Benoit 2007
	American Golden Plover	*Pluvialis dominica*	Marine coastal flats	Fall migrant (Hoffman 1955)
	American Wigeon (Baldpate)	*Anas americana*	Marine coast, freshwater lakes	Fall migrant (Hoffman 1955)
	American Woodcock[1]	*Philohela minor*	Wooded swamps, forests, fields	Spring migrant (Hoffman 1955), Summer (Benoit 2007)
	Atlantic Puffin	*Fractercula arctica*	Marine coast	Resident (Hoffman 1955)
	Barred Owl	*Strix varia*	Forests	Resident (Hoffman 1955)
	Barrow's Goldeneye	*Bucephala islandica*	Breed in wooded lakes and ponds in Quebec. Winter in protected coastal waters or open inland waters.	Winter (Benoit 2007)
	Black Guillemot	*Uria lomvia*	Marine coast	Winter resident (Hoffman 1955)
	Black Scoter ("American Scoter")	*Melanitta americana*	Marine coast	Winter resident (Hoffman 1955), Winter (Benoit 2007)
	Black-bellied Plover	*Pluvialis squatarola*	Marine coastal flats, shores	Fall migrant (Hoffman 1955)
	Black-crowned Night Heron	*Nycticorax nycticorax*	Coastal marshes	Fall migrant (Hoffman 1955)
	Blue-winged Teal	*Anas discors*	Inland marshes, lakes, ponds, pools, and shallow streams	Summer (Benoit 2007)
	Brant	*Branta bernicla*	Freshwater ponds and lakes	Spring migrant (Hoffman 1955)
	Bufflehead	*Bucephala albeola*	Marine coast, freshwater lakes	Fall migrant (Hoffman 1955)

Mi'kmaq Name	Common Name	Species Name	Habitat (Tufts 1986)	Season
Senŭmkw'	Canada Goose (eggs also important food source in spring)	*Branta canadensis*	Freshwater ponds and lakes	Year round (Benoit 2007),Spring and Fall migrant (Hoffman 1955)
	Common Eider	*Somateria mollissima*	Breeds in Arctic, winters farther south in temperate coastal zones	Year round (mainland NS) (Benoit 2007)
Apchechk	Common Goldeneye	*Bucephala islandica*	Shallow coastal bays and inlets	Fall migrant (Hoffman 1955), Winter (Benoit 2007)
	Common Loon	*Gavia immer*	Marine coast in winter, freshwater lakes in summer	Spring migrant (Hoffman 1955)
	Common Murre	*Uria aalge*	Marine coast	Resident (Hoffman 1955)
	Common Merganser	*Mergus merganser*	Rivers and lakes	Summer (Benoit 2007)
	Eskimo Curlew	*Numenius borealis*	Marine coastal flats, wetlands	Fall migrant (Hoffman 1955)
	Great Black-backed Gull	*Larus marinus*	Marine coast	Resident (Hoffman 1955)
	Great Blue Heron	*Ardea herodias*	Edges of shallow water bodies, generally nest in trees	Spring migrant (Hoffman 1955)
	Great Horned Owl	*Buba virginianus*	Forests	Resident (Hoffman 1955)
	Greater Scaup	*Aythya marila*	Breeds in Arctic, winters south along marine coasts	Winter (Benoit 2007)
	Green-winged Teal	*Anas crecca*	Freshwater lakes	Fall migrant (Hoffman 1955)
	Herring Gull	*Larus argentatus*	Marine coast	Resident (Hoffman 1955)
	Hooded Merganser	*Lophodytes cucullatus*	Breeding in swamps and wooded ponds, winter in ice-free ponds, lakes and rivers.	Summer (Benoit 2007)

Mi'kmaq Name	Common Name	Species Name	Habitat (Tufts 1986)	Season
	Hudsonian Whimbrel /Hudsonian Curlew	*Numenius phaeopus hudsonicus*	Marine coastal flats, wetlands	Fall migrant (Hoffman 1955)
	King Eider	*Somateria spectabilis*	Winter along marine coats, breed in Arctic tundra	Winter (Benoit 2007)
	Lesser Scaup	*Aythya affinis*	Marine coast	Fall migrant (Hoffman 1955), Winter (Benoit 2007)
	Lesser Yellowlegs	*Tringa flavipes*	Marine coastal flats, wetlands, shores	Fall migrant (Hoffman 1955)
	Long-billed Dowitcher	*Limnodromus scolopaceus*	Marine coast, wetlands	Fall migrant (Hoffman 1955)
	Long-Tailed Duck	*Clangula hyemalis*	Breed in tundra pools and marshes, winters along marine coasts	Winter (Benoit 2007)
Apchechk	Mallard	*Anas platyrhnchos*	Freshwater lakes	Year round (Benoit 2007), Fall migrant (Hoffman 1955)
	Mourning Dove	*Zenaidura macroura*	Fields, forests	Fall migrant (Hoffman 1955)
	Northern Gannet	*Morus bassana*	Marine coast	Spring & Fall migrant (Hoffman 1955)
	Northern Pintail	*Anas acuta*	Breeds in open unwooded wetlands. Winters in sheltered estuaries, brackish marshes and coastal lagoons	Summer (Benoit 2007)
	Osprey	*Pandion haliaetus*	Forested areas close to water bodies	Spring migrant (Hoffman 1955)
	Passenger Pigeon	*Ectopistos migratorius*	Forested habitats	Fall migrant (Hoffman 1955)
	Pied-billed Grebe	*Podilymbus podiceps*	Shallow freshwater ponds	Fall migrant (Hoffman 1955)
	Razorbill ("Razor Billed Auk")	*Alca torda*	Marine coast	Spring migrant (Hoffman 1955)
	Red Knot	*Calidrus canutus*	Marine coastal flats, shores	Fall migrant (Hoffman 1955)
	Red-Breasted Merganser	*Mergus serrator*	Marine coast, freshwater lakes	Resident (Hoffman 1955), Summer (Benoit 2007)

Mi'kmaq Name	Common Name	Species Name	Habitat (Tufts 1986)	Season
Nabaoo	Ruffed Grouse	*Bonasa umbellus*	Forests	Resident (Hoffman 1955)
	Semipalmated Plover	*Charadrius semipalmatus*	Marine coastal flats, shores	Fall migrant (Hoffman 1955)
Nabaoo	Spruce Grouse	*Dendragapus canadensis*	Forests	Resident (Hoffman 1955)
	Surf Scoter	*Melanitta perspicillata*	Marine coast	Winter (Benoit 2007)
	White-winged Scoter	*Melanitta fusca*	Marine coast	Spring migrant (Hoffman 1955), Winter (Benoit 2007)
	Willet	*Catoptrophorus semipalmatus*	Marine coast, wetlands, shores	Fall migrant (Hoffman 1955)
	Wilson's Snipe	*Gallinago delicata*	Fields, freshwater wetlands	Spring migrant (Hoffman 1955) Summer (Benoit 2007)
	Yellow Rail	*Coturnicops noveboracensis*	Freshwater wetlands	Fall migrant (Hoffman 1955)
	Herring Gull	*Larus argentatus*	Coastal	Resident (Hoffman 1955)
	Ruffed Grouse	*Bonasa umbellus*	Forests	Resident (Hoffman 1955)
	Great Horned Owl	*Buba virginianus*	Mature forests	Resident (Hoffman 1955)
	Barred Owl	*Strix varia*	Mature forests	Resident (Hoffman 1955)

Waterfowl species not mentioned specifically by Benoit which are likely also hunted by First Nations in NS include Green-winged Teal and Ring-Necked Duck.

Other, non-waterfowl species are hunted in NS by First Nations hunters. Grouse (both Ruffed and Spruce) have traditionally been targeted species, and are presumably still hunted by First Nations hunters in the region in which the Projects are located. Ring-necked pheasant, an introduced species which now occurs through most if not all of NS, may also currently be targeted by First Nation hunters. Other bird species not typically hunted today, such as owls, may have been used as a traditional food source, especially in lean times.

In the late summer and fall, the southward migrations brought many more bird species to Nova Scotia which could be harvested. Around the middle of September, Mi'kmaq withdrew from the coast, moving inland where they began to harvest the eels now migrating downstream. In October and November, they began hunting moose and beavers, as well as bear, otter, muskrat and caribou. They fished the

salmon which were now returning downstream after spawning. In December, they fished tomcod, which spawn under the ice at that time. In January, seals were hunted as they came ashore on certain islands or areas of the coast to give birth. In February and March, the hunt for beavers, otters, moose, bears and caribou continued. As the winter waned, the people moved closer to the coast again and the annual cycle was renewed.

Table 3-3: Mammal Species Traditionally Harvested by Mi'kmaq in Nova Scotia (Sources: Hoffman 1955, Wallis and Wallis 1955, Speck 1917)

Common Name	Mi'kmaq Name	Habitat [1]	Uses
Moose	Team'[1], tia'm[2]	Forested areas, wetlands	Food
Deer	Lŭntook'[1], lentug[2]	Edges of forested areas, thickets	Food
Black Bear	Mooin[1]	Forested areas	Food, spiritual
Hare	Able'gŭmocch[1]	Forested areas	Food
Porcupine	Năbegŏk[1], matues[2]	Forested areas	Food, cultural industry
Beaver	Kobet[1], gopit[2]	Water bodies and wetlands adjacent to forested areas	Food and pelts
Groundhog/Woodchuck	Mulumgwej[1]	Fields, open areas adjacent to forests	Food and pelts
Caribou		Boreal forest	Food and pelts
Mink	Jiagewj[2]	Coasts	Pelts
Otter	Giwnig[2]	Rivers and lakes, coasts	Food and pelts
Muskrat		Freshwater ponds, wetlands	Skins
Squirrel		Forested areas	Food

[1] Deblois, 1997
[2] Listiguj (www.mikmaqonline.org)
[3] Banfield 1974

The arrival of spring also meant that new plant growth, such as fiddleheads and other greens, was increasingly available to harvest. As the growing season progressed, wild fruits and other edible plant parts became available. Many foods were eaten fresh, while others which were more plentiful, such as blueberries, were dried and preserved for the leaner winter months. Table A-1 in Appendix A provides a list of plant species reported as traditionally consumed by Mi'kmaq in Nova Scotia.

4.0 Place

4.1 Field Survey Results

Information on general habitats was collected for each of the three project sites. In addition, presence of vegetation traditionally used for food, medicine and other uses (Tables 4.1, 4.2 and 4.3 respectively) was confirmed during the surveys.

4.1.1 GREENFIELD

General Habitats
An aerial photograph of the Greenfield site is provided in Figure 4-1.

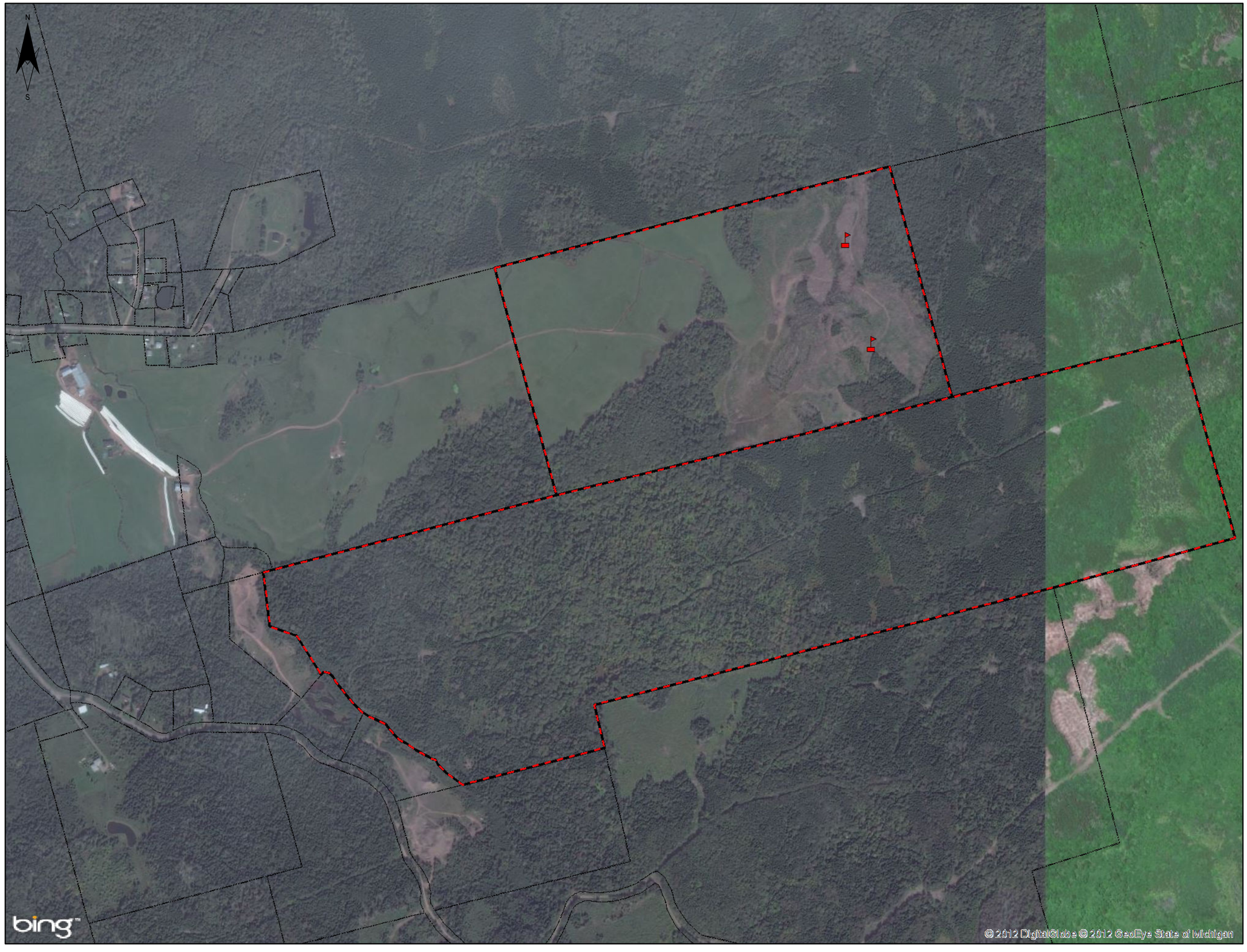
During the plant surveys, a total of 6 major habitat types were observed in the vicinity of the planned turbine locations. The major habitat types occurring within the Study Area include:

- Agricultural Field;
- Coniferous Forest;
- Mixed wood Forest;
- Wetland;
- Regenerating Clear-cut; and
- Disturbed Area.

The following paragraphs provide a summary of the various habitats encountered during the survey. Complete lists of the culturally significant plant species found on the Greenfield site are provided in Table.1 (edible species), Table. 2 (medicinal species) and Table 3 (other useful species) in Appendix B.

<u>Agricultural Field</u>
Much of the main Project site consisted of agricultural fields. Some were fenced off as cow pasture, while other areas appeared to be hayfields and have recently been mowed. These areas are dominated by grass species such as timothy as well as clover, dandelion, and goldenrods. Shrubs and trees are nonexistent.

Photo 4.1: Mowed Agricultural Field on the Greenfield Site



TITLE:
FIGURE 4.1
AERIAL DEPICTION OF GREENFIELD PROJECT SITE

PROJECT:
A MI'KMAQ TRADITIONAL AND ECOLOGICAL KNOWLEDGE REVIEW OF THREE WIND FARM DEVELOPMENT PROPERTIES

CLIENT:
AFFINITY RENEWABLES INC
1383 MT THOM RD
SALTSPRING, NS. CANADA B0K 1P0

LOCATION:
GREENFIELD, COLCHESTER CO.

DATE:
Tuesday, November 19, 2013

DATUM:
NAD83

PROJECTION:
Zone 20

AMEC PROJECT NO:
TV134003

LEGEND:
- Turbine Locations
- Greenfield Properties

50 25 0 50 100 150 200 250 300
Meters
1:7,400

AMEC Environment & Infrastructure
A Division of AMEC Americas Ltd.
50 Troop Avenue, Unit 300
Dartmouth, N.S., B3B 1Z1
(P) 902-468-2848 (F) 902-468-1314

Path: P:\5300 PROJECTS\2013\TV134003 - Affinity Renewables Inc - KMK MEKS\Grad11x17\AGreenfield.mxd User: derrick.schulz Date: 11/20/2013

Coniferous Forest

Coniferous forest occurred over much of the site. It was generally dominated by balsam fir (Abies balsamea) and black spruce (*Picea mariana*). In some areas adjacent to recent clearcuts, the black spruce stands were almost impenetratable, and ground vegetation was very scarce. Shrubs included saplings of balsam fir and black spruce, as well as some beaked hazelnut (*Corylus cornuta*), red maple *(Acer rubrum),* raspberry *(Rubus pubescens)* and skunk currant *(Ribes glandulosum).* The ground vegetation layer was dominated by Sphagnum mosses. Other ground vegation species included goldthread (*Coptis trifolia*), and starflower (*Trientalis borealis*).

Mixed woods

Mixed woods were a common habitat type on the site. The tree layer often included White ash (*Fraxinus amerincana*), Balsam fir, Red maple, Yellow birch (*Betula alleghaniensis*), Paper birch (*Betula papyrifera)* and Black spruce. Common shrub species included Red maple saplings, beaked hazelnut, bunchberry (*Cornus canadensis)* and late low blueberry (*Vaccinium angustifolium)*. The ground vegetation layer consisted of whorled wood aster (*Oclenema acuminatus*), cinnamon fern (*Osmunda cinnemomea)*, various grasses, bristly dewberry (*Rubus hispidus*), various hawkweeds (*Hieracium* spp.), balsam fir seedlings, starflower, hay-scented fern (*Dennstaedtia punctilioba*) and oldfield cinquefoil (*Potenilla simplex*). Other ground vegetation species noted included goldenrods (Solidago spp.), swamp candles (*Lysimachia terrestris*), grass-leaved goldenrod *(Euthamnia gramnifolia*), and pearly everlasting (*Anaphalis margaritacea*).

Photo 4.2: Mixed Forest on the Greenfield Site

Wetland

Some areas of wetland habitat occur on the Greenfield site. The largest observed was located near the western edge of the property, in a gently sloping valley. No trees were present in this wetland. Shrubs were represented by red maple seedling, speckled alder, birch saplings, mountain holly, and willows. Ground vegetation was dominated by *Sphagnum* mosses, with woolly bulrush, blue-joint reed grass (*Calamagrostis canadensis*), narrow-leaved cattail, swamp candles, cinnamon fern, knotted rush (*Juncus nodosus*), creeping snowberry (*Gaultheria hispidula*, cottongrass (*Eriophorum* sp.), boneset (*Eupatorium perfoliolatum*) and round-leaved sundew (*Drosera rotundifolia*) also occurring.

Photo 4.3: Wetland Habitat on Greenfield Site

Regenerating Clearcut

Significant areas on the Greenfield site consist of regenerating forest as a result of recent logging activities. As such, no trees are present in this habitat. Shrub and young tree species such as white spruce (*Picea glauca)*, speckled alder (*Alnus incana*), common blackberry (*Rubus alleghaniensis*), elderberry (*Sambucus racemosa*), red maple, pin cherry, and Virginia rose (*Rosa virginiana*) are present. The ground vegetation layer includes fireweed (*Chamerion angustifolium*), whorled wood asterwooly bulrush, grass-leaved goldenrod, bunchberry, and blue-joint reed grass (*Calamagrostis canadensis)*, timothy (*Phleum pratense*), pearly everlasting, and speedwell (*Veronica officinalis*).

Photo 4.4: Regenerating clearcut area in front of coniferous forest at Greenfield

Disturbed Area

Several types of disturbed areas are present on the Greenfield site. An active farm is located adjeacent to the the Greenfield site, and a dirt access road traverses the property, travelling from west to east, A few smaller dirt roads are present near the proposed turbine locations. Much of the main dirt road travelled through pasture and field, entering forested and recently cleared areas near the western portion of the site. Vegetation along the road consists of black spruce, balsam fir, red maple, and large-tooth aspen (*Populus grandidentata*). Shrubs include saplings of paper birch, black spruce, and pin cherry (*Prunus pennsylvanicus*). Ground vegetation includes various grasses, woolly bulrush (*Scirpus cyperinus*), goldenrods (*Solidago rugosa* and *S. puberula*), sedges (*Carex lurida, C. gyndandra*), and common vetch (*Viccia cracca*).

4.1.2 KEMPTOWN

General Habitats

An aerial photograph of the Kemptown site is provided in Figure 4-2. During the plant surveys a total of five dominant habitat types were surveyed. The major habitat types occurring within the Project Site include:

- Mixed Woods;
- Regenerating Clearcut;
- Coniferous Woods;
- Wetland; and
- Disturbed Area (Dirt Road).

The following paragraphs provide a summary of the various major habitats encountered during the survey. Complete lists of the culturally significant plant species found on the Kemptown site are provided in Table.B-1 (edible species), Table.B- 2 (medicinal species) and Table B-3 (other useful species) in Appendix B.

Mixed Woods

Areas of mixed wood forest of varying ages cover much of the Kemptown site. Common trees include red maple, trembling aspen (*Populus tremuloides*), balsam fir, white spruce, grey birch (*Betula populifolia*), eastern white pine (*Pinus strobus*), and largetooth apsen (*Populus grandidentata*). The shrub layer varies and includes Canada fly honeysuckle (*Lonicera canadensis*), bunchberry, common blackberry , alternate-leaved dogwood (*Cornus alterniflora*), willows (*Salix* spp.), pin cherry, mountain holly (*Nemopanthes mucronata*), lambkill, yellow honeyscuckle, and velvet-leaf blueberry. Rhodora (*Rhododendron canadense*), eastern larch (*Larix laricina*), and northern wild raisin (*Viburnum nudum)* occur in wetter areas. Common species in the ground vegetation layer include bracken fern (*Pteridium aquilinum*), trailing arbutus (*Epigea repens*), wild lily of the valley (*Maianthemum canadense*), starflower, twinflower (*Linnaea borealis*), parasol white top, drooping sedge (*Carex gyndandra*), fireweed, fowl manna grass (*Glyceria striata*), cinnamon fern, bunchberry , and mountain cranberry (*Vaccinium vitis-ideaus*).

Regenerating Clearcut

A regenerating clear cut area is located near the second proposed turbine location. Trees here were nonexistent. Shrubs included northern wild raisin, black spruce (*Picea mariana*), bunchberry, white spruce, Labrador tea, and leatherleaf (*Chamaedaphne calyculata*). The ground vegetation layer was dominated by bracken fern. Other common species included panicled bulrush, pink lady's-slipper (*Cypripedium acaule*), cottongrass (*Eriophorum sp*.) and teaberry (*Gaylussacia procumbens*).

Another area of regenerating forest occurs near the Turbine 3 location. No trees are present, but shrub layer includes red maple saplings, spruce and balsam fir saplings. The ground vegetation layer is dominated by bracken fern, with smaller amounts of soft rush (*Juncus effusus*), panicled bulrush, cinnamon fern and oldfield cinquefoil.

Photo 4.5: Regenerating Area at Kemptown

Wetland

Some small patches of wetland were observed on the site. These were mostly open bog-type wetlands within forested areas. Trees here included eastern larch (*Larix laricina*) and black spruce around the edges, while shrub community included include black spruce saplings, northern wild raisin, red maple saplings, bristly dewberry, Labrador tea, speckled alder and common blackberry. Ground vegetation included cottongrass (*Eriophorum sp.*), swamp candles, three-leaf solomon's-seal (*Maianthemum trifolium*), round-leaved sundew (*Drosera rotundifolia*), wild lily of the valley, small cranberry (*Vaccinium oxycoccos*), bog goldenrod (*Solidago uliginosa*), cinnamon fern, three-seed sedge (*Carex trisperma*) and woodland horsetail (*Equisetum sylvaticum*).

TITLE:
FIGURE 4.2
AERIAL DEPICTION OF KEMPTOWN PROJECT SITE

PROJECT:
A MI'KMAQ TRADITIONAL AND ECOLOGICAL KNOWLEDGE REVIEW OF THREE WIND FARM DEVELOPMENT PROPERTIES

CLIENT:
AFFINITY RENEWABLES INC
1383 MT THOM RD
SALTSPRING, NS. CANADA B0K 1P0

LOCATION:
KEMPTOWN, COLCHESTER CO.

DATE:
Wednesday, November 20, 2013

DATUM:
NAD83

PROJECTION:
Zone 20

AMEC PROJECT NO:
TV134003

LEGEND:
- Turbine Locations
- Kemptown Properties

50 25 0 50 100 150
Meters
1:4,396

AMEC Environment & Infrastructure
A Division of AMEC Americas Ltd.
50 Troop Avenue, Unit 300
Dartmouth, N.S., B3B 1Z1
(P) 902-468-2848 (F) 902-468-1314

Path: P:\300 PROJECTS\2013\TV134003 - Affinity Renewables Inc - KMK MI'KMAQ\Gis\01x17\TV134003 - Figure 4.2.mxd User: derrick.saulis Date: 11/20/2013

Photo 4.6: Wetland at Kemptown

Coniferous woods

Coniferous woods occurred on the Kemptown site. Tree species here included balsam fir, black spruce, and some red maple. The shrub layer included species such as red maple saplings, and mountain holly. The ground vegetation layer included red maple seedlings, bracken fern, yellow clintonia (*Clintonia borealis*), bunchberry, pink lady's-slipper, starflower, cinnamon fern, twinflower, goldthread, wild lily of the valley, wood sorrel (*Oxalis montana)* and black spruce seedlings.

Photo 4.7: Coniferous woods at Kemptown

Photo 4.8: Disturbed and regenerating areas around meteorological tower at Kemptown

Disturbed area

Disturbed areas, in the form of the meteorological tower clearing and dirt access roads occur on the Kemptown site. As this area was previously forested, and is located within an existing patch of mixed wood forest, this area supports both forest species and pioneer species. As this area has been clearcut in recent years, no trees are currently present. Shrub layer consists of pin cherry and large-tooth aspen, red raspberry (*Rubus idaeus*), and common blackberry. Ground vegetation included grass-leaved goldenrod, various grasses, mouse-ear hawkweed (*Hieracium pilosella*), various goldenrods, parasol white top aster *(Doehleringia umbellata*), Virginia strawberry (*Fragaria virginiana*), yellow sweet clover (*Melilotus officinalis*), pink clover (*Trifolium pratense*), dandelion (*Taraxacum officinale*), pearly everlasting, curly dock (*Rumex crispa*), oxeye daisy (*Leucanthemum vulgare*), creeping buttercup (*Ranunculus repens*), black knapweed (*Centuarea nigra*), coltsfoot (*Tussilago farfara*), velvet-leaf blueberry, fireweed, swamp candles, bunchberry, nodding sedge (*Carex gynandra*), cinnamon fern, late low bush blueberry, white spruce seedlings, fall dandelion (*Leonotodon autumnalis*), birch seedlings (*Betula* spp.), and hay-scented fern.

Small depressions within this disturbed area supported moisture-loving shrub species such Labrador tea (*Rhododendron (*formerly *Ledum) groenlandicum*), lambkill (*Kalmia angustifolia*), and skunk currant, as well as herbaceous species such as rushes (*Juncus spp.*), sallow sedge (*Carex lurida*), bristly dewberry, panicled bulrush (*Scirpus microcarpus),* and fowl manna-grass (*Glyceria striata*).

4.1.3 LIMEROCK

General Habitats

An aerial photograph of the Limerock site is provided in Figure 4-3.

During the plant surveys a total of four dominant habitat types were surveyed. The major habitat types occurring within the Study Area include:

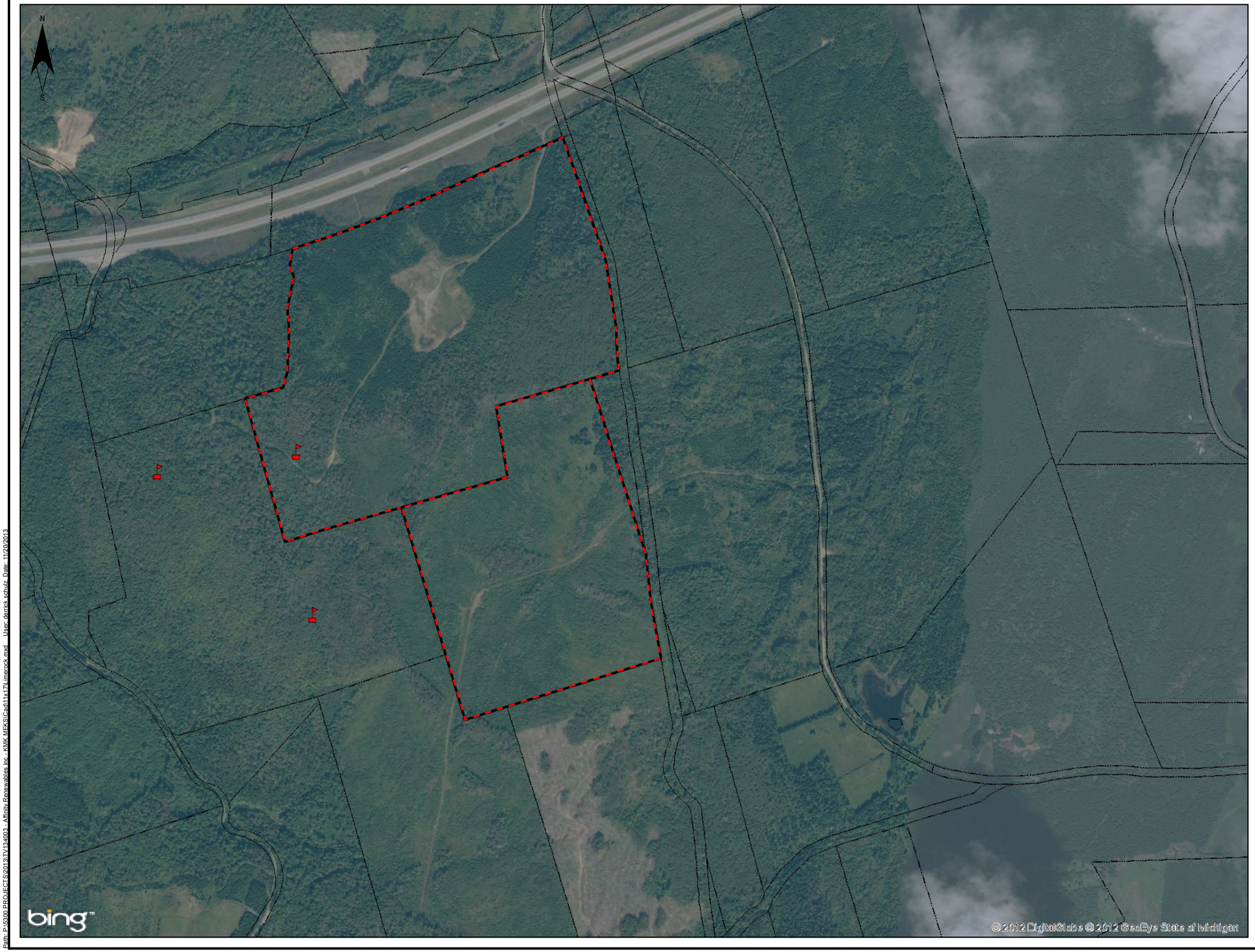
- Mixed forest;
- Coniferous forest;
- Deciduous forest; and
- Disturbed area.

The following paragraphs provide a summary of the various habitats encountered during the survey. Complete lists of the culturally significant plant species found on the Limerock site are provided in. Table.B-1 (edible species), Table.B- 2 (medicinal species) and Table B-3 (other useful species) in Appendix B.

Mixed forest
Mixed forest was common on the site, and the tree canopy often included balsam fir, red spruce, grey birch, paper birch, and red maple. Shrubs included gray birch saplings, beaked hazelnut, balsam fir saplings, striped maple, dogwood, bristly dewberry and Virginia rose. Species frequently encountered in the ground vegetation layer included wild lily of the valley, various goldenrods (*Solidago s*pp.), ferns, balsam fir seedlings, hawkweeds (*Hieracium* spp.), violet (*Viola cucullata*), Virginia strawberry, bunchberry, starflower, Indian Pipe (*Monotropa uniflora*), wild sarsaparilla (*Aralia nudicaulis*), woodland horsetail, drooping sedge, whorled wood aster, parasol white-top, cinnamon fern, speedwell, hay-scented fern, and sensitive fern.

Coniferous forest
Areas of coniferous forest on the Limerock site supported white spruce. Shrubs included white spruce saplings, pin cherry, white ash, and willows (*Salix* spp.). Ground vegetation included hawkweeds, speedwell, goldenrods, boneset, whorled wood aster, curly dock, sensitive fern, soft rush, red maple seedlings, and various ferns.

Deciduous Forest
A few areas of deciduous forest occurred on the Limerock site. Trees included mature yellow birch, mountain maple, red maple and black spruce. Shrub layer was represented by balsam fir, striped maple, yellow birch saplings, and white ash. The ground vegetation layer included sugar maple seedlings, wild sarsaparilla, goldthread, starflower, wild lily of the valley, bunchberry, striped maple seedlings, drooping sedge, various ferns, tall buttercup, running ground pine (*Lycopodium clavatum*), balsam fir seedlings, tall rattlesnake root (*Prenanthes trifoliate*) hawkweed, sensitive fern, coltsfoot (*Tussilago farfara*), wild cherry seedlings, *violets*, water horehound (*Lycopus uniflora*), whorled wood aster, anemone (*Anemone* sp.), and partidgeberry.



TITLE:
FIGURE 4.3
AERIAL DEPICTION OF LIMEROCK PROJECT SITE

PROJECT:
A MI'KMAQ TRADITIONAL AND ECOLOGICAL KNOWLEDGE REVIEW OF THREE WIND FARM DEVELOPMENT PROPERTIES

CLIENT:
AFFINITY RENEWABLES INC
1383 MT THOM RD
SALTSPRING, NS. CANADA B0K 1P0

LOCATION:
LIMEROCK, PICTOU CO.

DATE:
Tuesday, November 19, 2013

DATUM:
NAD83

PROJECTION:
Zone 20

AMEC PROJECT NO:
TV134003

LEGEND:
- Turbine Locations
- Limerock Properties

50 25 0 50 100 150 200 250 300 350 400
Meters
1:8,589

AMEC Environment & Infrastructure
A Division of AMEC Americas Ltd.
50 Troop Avenue, Unit 300
Dartmouth, N.S., B3B 1Z1
(P) 902-468-2848 (F) 902-468-1314

Path: P:\5300 PROJECTS\V013\TV134003 - Affinity Renewables Inc - KMK MPKS\Cad\11x17\Limerock.mxd User: derrick.schutz Date: 11/20/2013

Photo 4.9: Deciduous Forest on Limerock Site

Disturbed Area

Disturbed areas on the site included the meteorological tower location, a gravel borrow pit, and the access roads. Trees were non-existent. Shrubs encountered along the road included beaked hazel, white spruce saplings, various brambles (*Rubus spp*.), and pin cherry. Common ground vegetation species were fireweed, various goldenrods, black knapweed, yellow sweet clover, white sweet clover, Queen Anne's lace, pink clover, fleabane, common plantain, timothy, self-heal (*Prunella vulgaris*), common vetch, yellow rattle (*Rhinathes minor*), oxeye daisy, and path rush (*Juncus tenuis*). Wetter areas along the road supported bedstraw species (*Gallium* spp.), boneset, marsh blue violet (*Viola cucullata*), narrow-leaf cattail (*Typha latifolia*), and various rushes (*Scirpus* and *Juncus* spp.).

Photo 4.10: Example of Disturbed Area at Limerock

4.2 Summary of Useful Plant Species Detected on the Project Sites

The following paragraphs provide a summary of many vascular plant species which are used by Mi'kmaq people in Nova Scotia for a variety of purposes, and which were detected in 2013 during botanical surveys of the three Affinity Project Sites.

American Beech / *Fagus grandifolia* is a tree which belongs to the Beech or Fagaceae family. It occurs in fertile uplands, rarely in swamps. Nuts of this species have been used by Mi'kmaq in NS (Speck and Dexter 1951, 1952). The branches are used to make snowshoe frames (Speck and Dexter 1951). Leaves have been used to treat chancre, while the leaves and bark have also been used for fevers and festers (Chandler *et al.* 1979).

American Mountain Ash / E'psemusi / *Sorbus americana* is a small tree belonging to the Rosaceae (rose) family. It occurs in open woods and along hedgerows. The bark can be used to treat stomach pains (Lacey 1993) and "mother pains" (Chandler *et al.* 1979). The bark has also been used to treat boils (Chandler *et al.* 1979), and parts of plant can used as an emetic (Chandler et al.1979). An infusion of root may be taken for colic and other unspecified purposes (Speck 1917).

Balsam fir / Stoqn / *Abies balsamea* is an evergreen conifer belonging to the Pinaceae (Pine) family. Balsam fir grows in a wide variety of habitats. It is known to be high in Vitamin C and antioxidant flavenoids (MacKinnon *et al.* 2009). Balsam fir has been used as a source of food and medicines as well as craft and construction materials by many First Nations. In eastern Canada, Balsam Fir bark has been used to make a beverage (Speck and Dexter 1951, Lacey 1977). This species has a wide range of traditional medical uses. The buds, cones and inner bark were used to treat diarrhoea (Chandler *et al.* 1979). The cones were also used to treat colic (Wallis 1922, Chandler *et al.* 1979), while the buds were used as a laxative (Chandler *et al.* 1979). The bark was used for gonorrhoea (Chandler *et al.* 1979). The gum was used as a burn dressing and to treat bruises, sores, wounds and fractures (Chandler *et al.* 1979, Speck 1917). It was also used as a cold remedy (Chandler *et al.* 1979). Balsam fir was also used to prevent colds and influenza, with tea from cones and tops used to relieve colic, asthma and tuberculosis symptoms (Lacey 1993). The sap was used to treat stomach ulcers and as a healing antiseptic for cuts and sores (Lacey 1993). Balsam fir wood has been used for kindling and fuel, while the evergreen boughs were used to make beds (Speck and Dexter 1951, Unama'ki Institute of Natural Resources, 2012).

Beaked Hazelnut / Malipqwanj / *Corylus cornuta* is a small tree belonging to the Betulaceae (Birch) family that occurs in dry and open woods, sometimes in climax forests, scattered along roadside thickets, along edges of fields and along margins of woods. It produces edible nuts which have been consumed by Mi'kmaq in NS (Speck and Dexter 1951, 1952, Stoddard 1962). The root has also been used as a cough medicine (Chandler *et al.* 1979) and the twigs have been used in basketry (Wallis and Wallis 1955).

Birch / *Betula* sp. Birch trees are deciduous members of the Betulaceae family which occur in a variety of habitats. Birch hark is used to make torches for night fishing or to make trumpets for calling game. The bark can also be used to construct containers, boxes, and cups. Bark sheets are used in wigwam construction (Speck and Dexter 1951, Wallis and Wallis 1955, Nova Scotia Museum factsheet, ND). See also Paper, Grey, and Yellow Birch.

Black Spruce or Bog Spruce / Kawatkw / *Picea mariana* is an evergreen tree in the Pine family. It grows mostly in bogs, swamps and poorly drained areas. The bark of black spruce was used to make a beverage or medicinal tea by the Micmac of the Maritimes (Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977). The bark is chewed to treat laryngitis (Lacey 1993) and as a cough remedy (Wallis 1922). Black spruce wood is used for kindling and fuel, and the boughs were traditionally used to make beds (Speck and Dexter 1951). The roots are used as sewing material for canoe birch bark products (Speck and Dexter 1951). Unspecified spruce species have also been used as a source of poles for wigwam construction, and roots for sewing twine (Nova Scotia Museum factsheet, ND, Wallis and Wallis 1955).

Boneset / *Eupatorium perfoliatum* is a tall perennial herbaceous plant in the Aster (Asteraceae) family, which grows in wet shores, meadows, the edge of swamps and bogs, along ditches and streams. Traditionally it has been used to treat stomach ulcers, colds and to provide relief from arthritic pain (Lacey 1993). It has also been reported to be used to treat kidney trouble, gonorrhoea, and spitting blood (Chandler et al.1979).

Bristly Dewberry or Swamp Dewberry / *Rubus hispidus* is a bramble in the Rosacaea or Rose family. It grows mostly in peat bogs, but often occurs on roadsides, damp hollows and barrens. Roots of this species are used to treat fever, cough and consumption (Chandler *et al.* (1979). The fruits of various other unspecifed Rubus species have also been used as a food source by Mi'kmaq people of Nova Scotia (Speck and Dexter 1951, 1952).

Broadleaf Cattail / *Typha latifolia* is an herbaceous plant belonging to the Typhaceae or cattail family. It occurs in Swamps, ponds, and ditches in estuaries above the salt water, occasionally in floating bogs. It has been used as dermatological aid to relieve sores (Chandler *et al.* 1979). Unspecified cattail species have also been widely used for weaving bags and mats (Nova Scotia Museum factsheet, ND).

Bunchberry / *Cornus canadensis* is a small woody shrub which is part of the Dogwood family. It grows in forested areas. A tea brewed with leaves of this species was used to treat bedwetting and kidney ailments (Lacey 1977). The berries, roots and leaves were thought to have anticonvulsant properties and were used to treat seizures (Chandler *et al.* 1979). The plant was also used to treat stomach problems and leaves were applied to wounds to stop bleeding and promote healing (Lacey 1993).

Christmas Fern / *Polystichum acrostichoides* is an evergreen fern belonging to the Dryopteridaceae or wood fern family. It grows in moist woods, cool ravines, wooded banks and thickets. Roots of this plant have been used as a throat aid to treat hoarseness (Chandler *et al.* 1979).

Common Blackberry / Ajioqjominaqsi / *Rubus allegheniensis* is a bramble in the Rosaceae or Rose family. It grows in sandy ground, old fields, open woodlands, and clearings. Berries of many bramble species were eaten fresh or preserved. Blackberry fruit can be used to treat diarrhoea, and a tea made from runners was used as stomach medicine (Lacey 1993). A tea brewed from leaves and berries was also used to treat sores in mouth and throat (Lacey 1993). The fruits of various other unspecifed Rubus species have also been used as a food source by Mi'kmaq people of Nova Scotia (Speck and Dexter 1951, 1952).

Common Chokecherry / Luimanaqsi / *Prunus virginiana* is a small tree in the Rosaceae (Rose) family. It occurs along roadsides, fencerows, edges of intervales, and the edges of woods. Bark of this species can

be used to treat diarrhoea and bleeding lungs (Chandler *et al.* 1979). Twigs and barks from unspecified Prunus species have also been boiled to make a tea (Lacey 1993).

Common Dandelion / *Taraxacum officinale* is an introduced species belonging to the Asteraceae or Aster family which is an aggressive weed in lawns, pastures, and cultivated soil. The young leaves may be eaten raw or cooked (Rousseau 1945, Speck and Dexter 1951, 1952).

Common Plantain / Wijikanipkl / *Plantago major* is an introduced plant species belonging to the Plantaginaceae or plantain family, which is widely used as an edible and medicinal herb. A colonizing species, it grows in disturbed areas. It is used to draw out poison from wounds and sores, and to treat stomach ulcers (Lacey 1993).

Common Wild Rose / Jikjawiknejewimusi'l / *Rosa virginiana* is a thorny shrub belonging to the Rosaceae (Rose) family. It occurs in old pastures, thickets, dykelands, and around the heads of salt marshes. It produces large persistent fruits (rose hips) which have provided a food source for many First Nations people (MacKinnon *et al.* 2009, Unama'ki Institute of Natural Resources, 2012).

Creeping Snowberry / *Gaultheria hispidula* Is a small woodland plant with waxy leaves and small red berries. It is a member of the Ericaceae or Heath family and grows on mossy woodland knolls, barrens, and mature bogs, usually in partial shade. It has been reported that that species had medicinal properties, however the use was not specified (Speck 1917).

Curly Dock / *Rumex crispus* is a perennial herbaceous flowering plant belonging to the Polygonaceae (knotweed) family. Not native to North America, it is now commonly found in waste places, on cultivated ground, along roadsides and around dwellings. An infusion of curly dock roots has been used by Mi'kmaq in eastern Canada as a purgative (Mechling 1959).

Eastern Hemlock / *Tsuga canadensis* is a large coniferous tree belonging to the Pinaceae or Pine family. It occurs mostly on northern slopes or ravines. This species has many medicinal uses. The inner bark was grated and eaten by the Mi'kmaq and the bark was also used as a beverage and medicinal tea (Speck and Dexter 1951, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977). A tea made from the bark and stems is used to treat colds and influenza (Lacey 1993, Chandler *et al.* 1979, Wallis 1922), while the inner bark is used for diarrhea and to treat scurvy and chapped skin (Chandler *et al.* 1979). The bark was also used to treat bowel and internal troubles (Wallis 1922, Chandler *et al.* 1979) and to treat cough and grippe (Wallis 1922, Chandler *et al.* 1979). Roots and stems were used to treat kidney ailments (Chandler *et al.* 1979). Hemlock bark is also used to make a dye, while the wood is used for kindling and fuel (Speck and Dexter 1951).

Eastern Larch or Tamarack / Hackmatack or Apu'tam'kie'jit / *Larix laricina* is one of the few coniferous trees which are actually deciduous. A member of the Pinaceae or Pine family this species is very common in NS and is found in bogs and wet depressions in forests. Larch Wood used for kindling and fuel (Speck and Dexter 1951). Bark from larch was used to treat "suppurating wounds" and colds (Chandler *et al.* 1979). A tea made from the boughs was used to treat sores and swelling (Speck 1917), while the bark was used as a stimulant to treat physical weakness (Chandler *et al.* 1979). A tea brewed from larch bark and twigs used to treat colds and influenza, while the bark was used externally to treat festering wounds (Lacey 1993) and in the treatment of consumption and gonorrhoea (Chandler *et al.* 1979). Larch wood was also used for kindling and fuel (Speck and Dexter 1951).

Eastern White Pine / *Pinus strobus* is a large evergreen coniferous tree belonging to the Pine family (Pinaceae). It grows in bogs, swamps and poorly drained areas. Mi'kmaq people of NS brewed a beverage from pine bark (Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977, while the inner bark was grated and eaten (Speck and Dexter 1951). A tea brewed from bark, needles and twigs of white pine is used to treat colds and kidney problems (Chandler *et al.* 1979, Lacey 1993), as well as to treat coughs (Chandler *et al.* 1979). The bark is also used to treat wounds, while the sap is used to treat hemorrhaging (Chandler *et al.* 1979). The inner bark may be boiled and used to treat sores and swellings (Speck 1917). The bark, leaves and stems can be used for grippe (Chandler *et al.* 1979), while the inner bark, bark and leaves used for scurvy (Chandler *et al.* 1979). White pine wood is used for kindling and fuel (Speck and Dexter 1951).

European Yarrow / *Achillea millefolium* is an herbaceous flowering plant in the family Asteraceae. It is found growing in disturbed areas such as old fields, meadows, roadsides and sandy shores, and usually in acidic soils. A tea from the plant may be used to treat fevers. It has been used to treat colds (Chandler *et al.* 1979), with (Wallis 1922) stating that a decoction of plant was taken with milk to cause a sweat to treat colds. The dried, powdered bark or green leaves could be used for swelling, bruises and sprains (Lacey 1993, Wallis 1922, Chandler *et al.* 1979).

Field Mint / Plamwipkl / *Mentha arvensis* is an herbaceous plant belonging to the Mint family. It grows in rich damp soil. It is traditionally used to treat upset stomach and croup in children (Chandler *et al.* 1979).

Foxberry or Mountain Cranberry or Lingonberry / Poqomannaqsiis / *Vaccinium vitis-idaea* is a low-growing woody vine belonging to Ericaeae or heath family. It grows in cooler regions, such as exposed, coastal headlands and barrens. Berries can be eaten fresh or preserved.

Goldthread / Wisawtaqji'jkl / *Coptis trifolia* is a small perennial plant in the Ranunculaceae (Buttercup) family. It grows primarily in coniferous forests, swamps, hummocks on bogs, and along roadside banks. It is traditionally used to promote appetite as well as to treat sore or chapped lips and mouth ulcers (Lacey 1993).

Grey Birch / *Betula populifolia* Inner bark is used for infected cuts (Chandler *et al.* 1979). The bark of unspecified species of birch has also been reported to be used to make torches for night fishing, trumpets for calling game. containers, boxes, and cups. Bark sheets are also used in wigwam construction (Speck and Dexter1951, Wallis and Wallis 1955, Nova Scotia Museum factsheet, ND).

Heartleaf Willow / Cottony Willow / *Salix eriocephala* is a shrub belonging to the Salicaceae (Willow) family. It occurs mostly on riverbanks and out on gravel bars, and in bottomlands, but also occurs elsewhere. Bark from this species is traditionally used as a cold remedy and to stimulate the appetite. The bark was also used to treat blisters (Chandler *et al.* 1979). Leaves of unspecified Willow species have also been used as tobacco (Speck and Dexter 1951).

Indian Cucumber Root / Eskitmukewey / *Medeola virginiana* is a small herbaceous woodland plant which belongs to the Liliaceae or Lily family. It occurs in open deciduous woods, usually scattered on well-drained slopes. It produces a tuber that smells and tastes like garden cucumber and was significant to Mi'kmaq in Nova Scotia (Unama'ki Institute of Natural Resources, 2012).

Jewelweed or Spotted Touch-me-not / *Impatiens capensis* is a herbaceous plant which belongs to the Balsaminaceae or balsam family. It grows in damp rich soils in wooded areas. Parts of this plant have been used to treat jaundice (Chandler *et al.* 1979).

Labrador Tea / Apuistekie'ji'jit/ *Rhododendron* (syn. *Ledum*) *groenlandicum* is a low-growing woody shrub belonging to the Ericaceae or Heath family. It grows in bogs, wooded swamps, wet barrens, and poorly-drained clearings and pastures. The leaves, and sometimes the whole leafy twigs and flowers, of this species were used, fresh or dried, for tea (Speck 1917, Speck and Dexter 1951, 1952, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977, Chandler *et al.* 1979). Leaves were used for the common cold (Chandler *et al.* 1979); a decoction of leaves taken as a diuretic (Speck 1917) and as a treatment for scurvy (Chandler *et al.* 1979). They could also be used for kidney trouble; to make a beverage (Chandler *et al.* 1979) and to treat asthma (Chandler *et al.* 1979). A leaf tonic treated a variety of kidney ailments (Lacey 1993) and was considered to have a "beneficial effect on the system "(Speck 1917).

Lambkill / *Kalmia angustifolia* is a low shrub which belongs to the Ericacaea or Heath family. Snuff made from roasted leaves of this plant was used by Mi'kmaq to treat colds (Black 1980). Parts of this plant were also used to treat pain (Wallis 1922, Chandler *et al.* 1979), with a poultice of crushed leaves bound to head for headache (Speck 1917). This plant was also used for swellings, and sprains (Chandler *et al.* 1979). An infusion of leaves was also considered valuable as a "non-specific remedy" (Speck 1917). It was also boiled and used as bathing solution to reduce swelling, ease pain of rheumatism and treat sore legs and feet (Lacey 1993). Lambkill wood was also used to treat kidney trouble (Chandler *et al.* 1979). Overall, this plant is considered very poisonous (Speck 1917, MacKinnon *et al.* 2009), as suggested by the common English common name of "lambkill".

Large-fruited Cranberry / *Vaccinium macrocarpon* is a low-growing woody vine belonging to the Ericaeae or heath family. It occurs primarily in bogs. Cranberries can be eaten fresh (Waugh 1916, Speck and Dexter 1951, 1952, Stoddard 1962, Black 1980), and the stewed berries make a general tonic (Lacey 1993).

Low Bush Blueberry / Pkumanaqsi / *Vaccinium angustifolium* is a low growing woody shrub belonging to the Ericaeae or heath family. It is found on headlands, peaty barrens, fields, dry soils, and sandy areas. Many species of *Vaccinium* produce berries which can be used fresh or dried. The Mi'kmaq also made juice from blueberries and bilberries for drinking, but most reports do not state which species were involved (Speck and Dexter 1951, 1952, Adney 1944, Lacey 1977).

Maple / *Acer spp*. are deciduous trees belonging to the Maple family (Aceraceae), and occur in various habitats. Unspecified maple wood is used to make pins for securing clothing (Wallis and Wallis 1964). See also Red, Striped, and Sugar Maple.

Narrow-leaved Cattail / *Typha angustifolia* is an herbaceous plant belonging to the Typhaceae or cattail family. It occurs in brackish swales near the coast, inland swamps, ditches, and along streams. It has been used to treat 'gravel' (kidney stones) (Chandler *et al.* 1979). Unspecified cattail species have also been widely used for weaving bags and mats (Nova Scotia Museum factsheet, ND).

Northern Bayberry / Kljimanaqsi / *Morella* (syn. *Myrica*) *pensylvanica* is a small shrub belonging to the Ericacaea or Heath family. It occurs in coastal areas, on headlands and beaches, but is occasionally found in bogs and on heavier soils. Snuff made form this plant has been used to treat headache while a

root poultice has been used to treat inflammation (Wallis (1922). A tea made from the berries, bark, and leaves of this species has also been used as an exhilarant (Wallis (1922).

Northern Red Oak / *Quercus rubra* is a tree belonging to the Fagacaea or Beech family. It grows preferentially in light or well-drained soils and granitic areas. The bark and roots of northern red oak have been used by Mi'kmaq to treat diarrhoea (Chandler *et al.* 1979).

Panicled Bulrush / *Scirpus microcarpus* is a member of the Cyperaceae or sedge family which occurs in swamps, meadows, and along ditches and streams, especially where there is freshwater seepage. Roots have been used to treat abscesses while the herbaceous portion may be used to treat sore throats (Chandler *et al.* 1979).

Partridge Berry / *Mitchella repens* is a small woodland plant which produces red berries, and belongs to the Rubiaceae or Madder family. It is a low-growing groundcover which grows in moist places in forests. Mi'kmaq in Nova Scotia eat partridge berries fresh or preserved, and use parts of this plant to brew a tea (Speck 1917, Speck and Dexter1951, 1952). It was also used in the late stages of pregnancy to ease the pain of childbirth (Lacey 1993).

Pearly Everlasting / *Anaphalis margaritacea* is a flowering perennial plant in the Asteraceae family. Though native to Europe, it is now widespread in North America and is found in pastures, old fields, roadsides, and near borders of woods. This plant is smoked by Mi'kmaq for spiritual purposes (Lacey 1993).

Pin Cherry / Maskwe'smanaqsi/ *Prunus pennsyulvanicus* is a small tree in the Rosaceae (Rose) family. It occurs in clearings, thickets, and the edges of fields on light soils. Wood from this species is used to treat chafed skin and prickly heat (Chandler *et al.* 1979, Unama'ki Institute of Natural Resources, 2012). Twigs and barks from unspecified *Prunus* species have also been boiled to make a tea (Lacey 1993).

Pink Lady's-slipper / Moccasin Flower / *Cypripedium acaule* is a woodland orchid which is common in coniferous woods. The root of this plant has been used as a sedative to treat nervousness (Chandler *et al.* 1979).

Pussy Willow / Lmu'ji'jmnaqsi / *Salix discolour* is a multi-trunked shrub belonging to the Salicaceae (Willow) family. It occurs mostly on low ground, in wet pastures, in damp, open woods, and along the edges of swamps. Pussy willow bark has been used externally to treat bruises and skin cancer, while a tea brewed from this bark is also used to treat colds and kidney ailments (Lacey 1993).

Queen Anne's Lace / Wild Carrot / *Daucus carota* is a flowering perennial member of the Asteraceae family, which grows in hayfields and along roadsides. The leaves have been used as a purgative (Chandler *et al.* 1979, Wallis 1922). The bark and leaves have also been used to treat festers and wounds (Chandler *et al.* 1979). Dried, powdered bark or green leaves rubbed over bruises (Wallis 1922), and the gum was used for bruises, sores and wounds (Chandler *et al.* 1979).

Red Elderberry / Pukulu'skwimanaqsi'l / *Sambucus racemosa* is a small shrub belonging to the Adoxaceae family. It grows in meadows, wet places, rocky hillsides, and along streams in rich soils. The juicy, tart berries were eaten fresh or dried for winter storage (Speck and Dexter 1951, 1952), while the bark was used for emetic and cathartic purposes (Lacey 1993, Chandler *et al.* 1979).

Red Maple / *Acer rubrum* is a small member of the Maple family which occurs in swamps, alluvial soils, and moist uplands. Traditionally this species has been used to make basketware (Speck and Dexter 1951).

Red Osier Dogwood / *Cornus sericea ssp. sericea* is a small shrub which is a member of the Dogwood family. It occurs along edges of intervales, brook sides, wet meadows, and ditches along roadsides, and is most common in rich, alkaline soils. This species is thought to have analgesic properties and may be used to treat headache and sore eyes (Chandler *et al.* 1979). It was also used to treat runny nose and sore throat (Chandler *et al.* 1979).

Red Raspberry / Klitawmanaqsi'k / *Rubus idaeus* is a bramble in the Rosacaea or Rose family. It grows mostly on roadsides, deforested land, talus slopes, and rocky ground. Mi'kmaq in NS use the berries fresh or dried (Speck and Dexter 1951, 1952) and also make juice from the berries (Stoddard 1962). The leaves and roots of this plant can be used to treat rheumatism and the berries are considered a good general tonic (Lacey 1993). The fruits of various other unspecifed *Rubus* species have also been used as a food source by Mi'kmaq people of Nova Scotia (Speck and Dexter 1951, 1952).

Shining Willow / *Salix lucida* is a shrub belonging to the Salicaceae (Willow) family. It occurs along large streams and lakes, on sand bars, and occasionally in wet ground or ditches. Bark from this species is traditionally used to stop bleeding (Wallis 1922, Chandler *et al.* 1979), and as a respiratory aid for asthma (Chandler *et al.* 1979). Leaves of unspecified willow species have also been used as tobacco (Speck and Dexter 1951).

Skunk Currant / *Ribes glandulosum* is a small species of flowering shrub belonging to the Grossulariaceae family. It grows in damp rich forested areas and produces edible berries. Its fruit may have been used by Mi'kmaq in NS, as Speck and Dexter (1951, 1952) state that Mi'kmaq in NS used unspecified species of currants as a food source.

Smooth Serviceberry / Klmuejmnaqsi / *Amelanchier laevis* is a shrub belonging to the Rosaceae or Rose family. It occurs in hedgerows and the borders of woods. It has been widely used by First Nations people throughout Canada and is considered to be significant by the Mi'kmaq of Nova Scotia (MacKinnon *et al.* 2009, Unama'ki Institute of Natural Resources 2012).

Speckled Alder / Tupsi / *Alnus incana* is a small tree or shrub belonging to the Betulaceae (Birch) family which occurs on low ground in alluvial soils. The bark of this species is reported to have been used to treat mouth ulcers and to relive pain (Chandler *et al.* 1979). Bark of unspecified Alder species have also been used to treat bleeding, haemorrhage of lungs, fever, fractures, diphtheria, wounds (Chandler *et al.* 1979). Alder bark can be used to make a dye (Speck and Dexter 1951).

Striped Maple, Mountain Maple, or Moosewood / Mimkutaqo'q / *Acer pensylvanicum* is a small member of the Maple family found in rocky woods, rich deciduous forests, on wooded slopes and along streams. Its bark has been used for tea (Speck and Dexter 1951, 1952, Lacey 1977, Wallis and Wallis 1955). Wood from this maple has been used to treat spitting blood and unspecified plant parts may be used for "trouble with the limbs" (Chandler *et al.* 1979). The saplings of this species were used in shelter construction (Nova Scotia Museum factsheet, ND).

Sugar maple / Snawey / *Acer saccharum* occurs on well-drained soils. It can be used to make bows and arrows (Speck and Dexter 1951).

Tall Buttercup / *Ranunculus acris* is a small herbaceous plant belonging to the Ranunculacaeae or Buttercup family. It grows in fields, meadows, and roadsides, mainly in heavy or moist soil. Mi'kmaq in NS have used leaves of this plant as an analgesic to treat headaches (Chandler *et al.* 1979).

Trembling Aspen / *Populus tremuloides* is a deciduous tree in the Poplar family. It grows in damp soils. Bark of this species has been used as a cold remedy, and also to simulate the appetite (Chandler *et al.* 1979).

Virginia and Woodland Strawberries / Atuomkminaqsi / *Fragaria virginiana* and *F. vesca* are small herbaceous species that grow in old fields and roadsides. Berries of these species were used fresh or preserved, or made into beverages (Speck and Dexter 1951, 1952, Adney 1944, Rousseau 1945). Unspecified parts of this plant have been used to treat irregular menstruation (Chandler *et al.* 1979).

White Ash / *Fraxinus americana* is a tree within the Oleaceae family. It occurs in intervale forests, low ground, and open woods. The leaves of this species were used for cleansing after childbirth (Chandler *et al.* 1979). Wood was used to make axe and knife handles (Speck and Dexter 1951).

White Birch or Paper Birch / Maskwi / *Betula papyrifera* is found in forests, especially on slopes. Paper birch bark has traditionally been used in making baskets, dishes, cooking utensils, boxes, coffins and other containers. Bark used to make canoes and house coverings (Speck and Dexter 1951, Speck and Dexter 1951, Rousseau 1948).

White Spruce or Cat Spruce / Kwatkw / *Picea glauca* is an evergreen tree in the Pinaceae (Pine) family. It grows mostly in old fields and along the coast. The bark of this species can be used for a variety of purposes. It has been used to make a beverage and various medicines (Speck and Dexter 1951, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977, Lacey 1993). A preparation of the bark is used as a cough remedy, and as a salve for cuts and wounds (Chandler *et al.* 1979). The gum may be used to treat scabs and sores (Chandler *et al.* 1979). Unspecified parts o this plant may also be used to treat stomach trouble (Chandler *et al.* 1979). The bark leaves and stems are also used to treat scurvy (Chandler *et al.* 1979). White spruce wood is used for kindling and fuel, and the boughs were traditionally used to make beds (Speck and Dexter (1951). Unspecified spruce species have also been used as a source of poles for wigwam construction, and roots for sewing twine (Nova Scotia Museum factsheet, ND, Wallis and Wallis 1955).

Wild Sarsaparilla / Wopapa'kjukal / *Aralia nudicaulis* is a perennial herbaceous plant with large compound leaves which occurs mostly in dry woodlands and old forest. Its rhizomes have been used to make a beverage (Speck and Dexter 1951, MacKinnon *et al.* 2009), and the root may be used to make a cough medicine (Chandler *et al.* 1979, Lacey 1993). It may also be used externally to treat wounds (Lacey 1993).

Wintergreen, Teaberry, or Checkerberry / *Gaultheria procumbens* is a small perennial plant which occurs in woods, barrens, pastures. It is a member of the Ericaceae or Heath family. Mi'kmaq were said to make juice from the berries (Stoddard 1962, Rousseau 1947, Speck and Dexter 1952, Lacey 1977), which were also eaten fresh. The bark was used to treat bleeding (Chandler *et al.* 1979). It was used as a preventative medicine for heart attacks and used by someone recuperating from a heart attack, and tea from plant was used to thin and regulate the blood to prevent blood clots (Lacey 1993).

Yellow Birch / *Betula allegheniensis* is a deciduous tree in the Birch family. Traditionally, First Nations people in eastern Canada have consumed the sap of this tree, rendered it into syrup and sugar, and made tea from the wintergreen-flavoured twigs (Waugh 1916, Stoddard 1962, Lacey 1977). Bark is also chewed for nourishment (Lacey 1993). Bark of this tree has been used to treat rheumatism as well as relieve indigestion, diarrhoea and stomach cramps (Lacey 1977). The wood has been used as a hot-water bottle (Chandler *et al.* 1979), and thin branches have been used as straps and thongs (Wallis and Wallis 1960).

4.3 Results of Wildlife Survey and Habitat Modeling Exercise

The AMEC field survey revealed the presence of several known plant species of importance and known historical use to Mi'kmaq harvesters. Furthermore, by combining a review of known wildlife habitat preferences and the results of the habitat surveys, a determination of wildlife species potentially using the Project Site was made. These are outlined in Table 4.4.

5.0 People

5.1 Interviews and Meetings with Local Residents

AMEC conducted roundtable discussions in Pictou Landing on November 5th 2013 to discuss current Mi'kmaq uses of the areas encompassing the three Project Sites. This workshop was held in a common space in a local church. Invitations were sent to key informants selected by Chief Andrea Francis. These invitations were aimed primarily at local elders and other knowledge holders.

AMEC provided an introduction to the meeting explaining that the purpose of the roundtable session was to discuss Mi'kmaq knowledge and interest (both current and historical uses) of the three Project Sites. It was specifically noted that the MEKS is about the *location*, and not about the *project* proposed for the site.

During the meeting, large maps and aerial photographs of the Project Sites and surrounding areas were laid out on tables to provide participants with the location and context of the Sites. Information on hunting and harvesting areas was marked directly on the maps, and only data which was not attributable to individuals was recorded. This was done in order to protect respondent's identities and protect their traditional knowledge. None of the information which was gathered was associated with any one respondent's identity.

The workshop included a meal so that participants could enjoy a meal together while discussing the Project Sites. The shared meal, which was catered by a Pictou Landing band member, facilitated open and relaxed discussions about the proposed Project Sites.

A total of 14 band council members and elders attended the workshop. Participants were not paid an honorarium, since the payment of fees for interviews could be considered as a form of coercion under the principles of free, prior and informed consent, as described by the United Nations Permanent Forum on Indigenous Issues.

The workshop revealed that the areas are not targets for harvesting, for two main reasons. Firstly, decreases in resource abundance have led to decreased hunting and harvesting in the general Project areas. Secondly, the sites are considered to be too close to the Trans Canada Highway to provide good hunting. Preferred hunting areas for large game were near Cheticamp and near Alton. There was no mention of small game hunting or gathering in the vicinity of the Project sites.

Considerable discussion was held on the state of band-owned lands which are not in close proximity to the Project site. Concerns were also expressed about potential impacts of the wind developments on local birds and wildlife.

Table 5-1: Traditional Mi'kmaq Wildlife Resources Potentially Utilizing Habitats on the Greenfield, Kemptown and Limerock Sites.

Common Name	Mi'kmaq Name	Habitat [1]	Uses	Greenfield Habitat Type						Kemptown Habitat Type					Limerock Habitat Type			
				Agricultural Field	Coniferous Forest	Mixed wood forest	Wetland	Disturbed Area	Regenerating Clearcut.	Mixed wood	Regenerating clearcut	Coniferous woods	Wetland	Disturbed Area	Coniferous woods	Deciduous Woods	Mixed Woods	Disturbed Areas
MAMMALS																		
Moose[2]	Team' , tia'm	Forested areas, wetlands	Food and pelts			x	x			x			x			x	x	
White-Tailed Deer	Lŭntook', lentug	Edges of forested areas, thickets	Food	x	x	x			x	x	x				x	x	x	x
Black Bear	Mooin	Forested areas	Food, spiritual		x	x			x	x	x	x			x	x	x	
Hare	Able'gŭmocch	Forested areas	Food		x	x			x	x	x	x			x	x	x	
Porcupine	Năbegŏk, matues	Forested areas	Food, cultural industry		x	x				x		x			x	x	x	
Beaver	Kobet, gopit	Water bodies and wetlands adjacent to forested areas	Food and pelts															
Groundhog/Woodchuck	Mulumgwej	Fields, open areas adjacent to forests	Food and pelts	x				x						x				x
Caribou		No longer present in NS	Food and pelts															
Mink	Jiagewj	Coasts	Pelts				x											
Otter	Giwnig	Rivers and lakes, coasts	Food and pelts															
Muskrat		Freshwater ponds, wetlands	Skins				x											
Red Squirrel		Forested areas	Food		x	x			x	x	x	x		x	x	x	x	x
Eastern Coyote		Forested areas	Pelts (recent arrival in NS)		x	x		x		x	x	x		x	x	x	x	x
Bobcat					x	x				x		x			x	x	x	
Red Fox					x	x		x		x	x	x		x	x	x	x	
Raccoon					x	x				x	x	x		x	x	x	x	
BIRDS																		
Ruffed Grouse					x	x									x	x	x	
Great Horned Owl					x	x										x	x	
Barred Owl					x	x										x	x	

[2] While moose have historically been present, the current abundance has led them to be declared Endangered on the mainland. Moose have not been observed in the Project area for several years.

6.0 Conclusions

The purpose of this MEK study is to understand the relationships between the local Mi'kmaq communities and the lands upon which they have and continue to depend. These relationships are cultural, historical and ecological in nature and provide important understanding of the lands and resources in and near the Project site.

The MEKS does not constitute consultation and the information has been collected without prejudice to Mi'kmaq Rights and Title. Names of persons involved with the study have been withheld to protect their identity and to ensure individual knowledge, which is the intellectual property of the individual, is protected.

The study demonstrated that there has been a considerable shift in Mi'kmaq use of the lands in and near the project site. Historical records and anthropological research has illustrated the widespread use of the lands for sustenance, and economic well being of individuals, families and communities over many centuries. However, since centralization and the assimilation into a market economy there has been less emphasis on harvesting for food and an increase in recreational harvesting. Urbanization and changes in land-use have also focused harvesting activities on areas remote to the Pictou Landing First Nation where game resources are of greater abundance (Cape Breton Highlands and Alton).

The information compiled for the MEKS substantiates that there has been, and continues to be a traditional relationship with, and attachment to the region near the Limerock, Kemptown and Greenfield wind project sites, despite the fact that there has been a shift in the nature of activities occurring on these lands. This region holds historical significance to the Mi'kmaq nation and continues to hold cultural importance to the people of Pictou Landing.

Information on the environment (Place) compiled for the MEKS was analyzed in context with the findings from the People at the community round table workshop. It was through open discussion with Mi'kmaq community members that a more complete understanding of the traditional knowledge can be achieved. This understanding can be of use for decision-making and planning related to the construction and operation of the proposed wind projectss.

Even though the project sites have not been the focus of hunting and gathering activities in recent years, continued developments in primary hunting areas may result in greater attention being placed on areas in and near the project sites. This can be a significant change in the socio-economic relationship between the Project and the Mi'kmaq. As such, it is recommended that the Project Proponents continue to develop a working relationship with the First Nations and provide information to local First Nation Communities about the projects.

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APPENDIX A

Table A.1: Native Plant Species Traditionally Consumed by Nova Scotia Mi’kmaq

Table A.2: Native Plant Species Traditionally Used for Medicinal Purposes by Nova Scotia Mi'kmaq.

Table A.3: Other Useful Native Plant Species Traditionally Used by Nova Scotia Mi'Kmaq.

Table A.1: Native Plant Species Traditionally Consumed by Nova Scotia Mi'kmaq

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Use	Source
Stoqn	Balsam fir	*Abies balsamea*	Various	Bark used for beverage	Speck and Dexter 1951, Lacey 1977
Mimkutaqo'q	Striped maple/ moosewood/Mountain Maple	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Bark used to make tea	Speck and Dexter 1951, 1952, Lacey 1977, Wallis and Wallis 1955
Snawey	Sugar maple	*Acer saccharum*	Well-drained soils	Sap boiled into syrup, and a beverage tea was made from the bark and twigs, Used as cooking broth	Speck and Dexter 1951, Stoddard 1962
kiw'eswa'skul	Sweetflag[3]	*Acorus americana*	Wet places and the borders of quiet streams. marshes, the edges of ponds and wet meadows. Coastal marshes just above high tides.	Rootstocks used to make a beverage and medicinal tea. Tubers eaten raw, or more commonly boiled or roasted	Yanovsky 1936, Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977
	Wild leek	*Allium tricoccum*	Rich deciduous forests and intervales	Bulbs eaten fresh and dried	Speck and Dexter 1952 Stoddard 1962
		Amelanchier laevis			
	Groundnut	*Apios americana*	Thickets and along rivers in alluvial soils	Groundnuts used	Speck and Dexter 1951
Wopapa'kjukal	Wild sarsaparilla	*Aralia nudicaulis*	Dry woodlands and old forests	Used to make a beverage.	Speck and Dexter 1951
Kinnickick	Bearberry	*Arctostaphylos uva-ursi*	Sandy or gravelly soils	Berries eaten	Speck and Dexter 1951, 1952
	Common milkweed	*Asclepias syriaca*	Light soils	The young shoots, stems, flower buds, immature fruits, and even the roots were boiled and eaten as a vegetable. The Mi'kmaq cooked the young pods and flowers with meat	Stoddard 1962
Nimnoqn	Yellow birch	*Betula alleghaniensis*	Various	Drank sap, rendered it into syrup and sugar, made tea from the twigs	Waugh 1916, Stoddard 1962, Lacey 1977.
	Lambsquarters, Pigweed or Goosefoot	*Chenopodium album and closely related species*	A weed of cultivated and waste ground	Leaves and plants eaten as green, edible greens and seeds. The young plants were cooked as a potherb	Speck and Dexter 1951, 1952
Wjkulje'manaqsi	Red osier dogwood/ red willow	*Cornus sericea ssp. sericea*	The edges of intervales, brook sides, wet meadows, and ditches along roadsides. Most common in rich, alkaline soils	Mi'kmaq people made a tea from the bark of dogwood (probably this species)	Wallis and Wallis 1955
Malipqwanj	Beaked hazelnut	*Corylus cornuta*	Dry and open woods. Sometimes ine climax forests, scattered along roadside thickets, along edges of fields and along margins of woods.	Nuts used	Speck and Dexter 1951, 1952, Stoddard 1962
Kawiksa'qoaqsi	Thornapple, hawthorn	*Crataegus spp.*	Various, depending on species	Fruit used fresh and to make beverage	Rousseau 1945, Speck and Dexter 1951, 1952, Black 1980, Speck and Dexter 1951, 1952, Adney 1944
	Trout lily/ Dogtooth violet	*Erythronium americanum (presumably)*	Upland woods of beech and maple, and along the edges of intervales	Bulbs eaten raw, boiled, or baked in the hot ashes of a fire	Stoddard 1962
	American beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps	Nuts used	Speck and Dexter 1951, 1952
Atuomkminaqsi	Virginia and Woodland Strawberries	*Fragaria virginiana , F. vesca*	Old fields and road sides	Berries used fresh or preserved, or made into beverage	Speck and Dexter 1951, 1952, Adney 1944, Rousseau 1945
	Red ash	*Fraxinus pennsylvanica*	Near lakes or ponds, or in other low-lying areas	Sap of ash was added to maple and yellow birch sap	Stoddard 1962
Ka'qaju'mannaqsi	Wintergreen, Teaberry, or Checkerberry	*Gaultheria procumbens*	Woods, barrens, pastures	Berries eaten, Mi'kmaq were said to make juice from the berries	Stoddard 1962, Speck and Dexter 1952, Lacey 1977
	Huckleberry	*Gaylussacia sp.*	Barrens and bogs	Berries eaten	Waugh 1916, Speck and Dexter 1951, 1952
	Witch-hazel	*Hamamelis virginiana*	Rocky woods or near cliffs where there is underground water	A decoction of this plant, sweetened with maple sugar, was used as a tea. Also ate the "nuts". Twigs used for beverage	Waugh 1916, Stoddard 1962, Lacey 1977
	Jerusalem artichoke	*Helianthus tuberosus*	Waste ground, intervales, rich soils	Tubers eaten.	Speck and Dexter 1951
	Butternut	*Juglans cinerea*	NOT IN NS	Nuts used	Speck and Dexter 1951
Kini'skweji'jik	Low bush juniper (common juniper)	*Juniperus communis*	Sandy areas, old pastures, heaths and bogs	Boughs, with or without the fruits, were used to make a beverage tea	Wallis and Wallis 1955, Lacey 1977
Alawey	Beach pea	*Lathyrus maritimus*	Coastal, along the strand line, mostly in beach gravel. Occasionally a considerable distance from shore	Pea used	Speck and Dexter 1951, 1952
Ma'susi'l	Ostrich fern	*Matteuccia struthiopteris*	Rich, moist soils, often on floodplains. Occasionally in low-lying areas and swamp borders. Often in pure stands	The young vegetative shoots, or "fiddleheads," and sometimes the entire crown, were traditionally eaten, boiled or roasted, as a spring vegetable	
Eskitmukewey	Indian Cucumber root	*Medeola virginiana*	Open deciduous woods, usually scattered on well-drained slopes.	Edible root	Unama'ki 2012, MacKinnon *et al.* 2009
	Partridge berry	*Mitchella repens*	Moist places, forest ground cover	Berries were eaten fresh or preserved. Used the plant for a beverage tea	Speck 1917, Speck and Dexter 1951, 1952,
Kawatkw	White spruce (cat spruce)	*Picea glauca*	Old fields and along the coast	Bark used for beverage and medicine	Speck and Dexter 1951, Wallis and Wallis 1955,

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Use	Source
					Stoddard 1962, Lacey 1977
Kawatkw	Black spruce (bog spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	The bark of black spruce was used to make a beverage or medicinal tea by the Mi'kmaq of the Maritimes	Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977
	Eastern white pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Bark used for beverage, Inner bark grated and eaten	Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977
Miti	Trembling aspen (poplar)	*Populus tremuloides*	Damp soils	Inner bark eaten , leaf buds and catkins high in vitamin C	Unama'ki 2012, MacKinnon *et al.* 2009
	American plum	*Prunus americana*	Does not occur in NS, suspected to be received in trade from outside region (Leonard 1996)	Fruit and beverage	Speck and Dexter 1951,1952, Leonard 1996
	Wild cherries	*Prunus* spp.	Thickets, clearings and open woods	Boiled cherry twigs and bark for tea	Stoddard 1962, Lacey 1977, Speck and Dexter 1951, 1952, Adney 1944
	Oak	*Quercus* sp.	In light or well drained soils and granitic areas	Nuts used	Speck and Dexter 1951, 1952
	Handsome harry/ meadow beauty	*Rhexia virginica*	Peaty lake margins and swales or wet thickets	Leaves were steeped to produce a sour drink	Speck 1917, Lacey 1977
	Labrador tea	*Rhododenrdon (*syn. *Ledum) groenlandicum*	Bogs, wooded swamps, wet barrens, and poorly-drained clearings and pastures	The leaves, and sometimes the whole leafy twigs and flowers, of both species were used, fresh or dried, for tea	Speck 1917, Speck and Dexter 1951,1952, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977
	Wild black currant	*Ribes americanum*	Fertile thickets and slopes	Berries eaten fresh or dried and preserved	Speck and Dexter 1951, 1952
	Wild gooseberry/ currant	*Ribes* spp.	Various, depending on species	Fruit	Speck and Dexter 1951, 1952
Ajioqjominaqsi	Canada blackberry	*Rubus canadensis*	Clearing, thickets, and the edges of woods.	Berries used fresh or preserved, made into beverage	Waugh 1916, Speck and Dexter 1951, 1952, Arnason *et al.* 1981
Klitawmanaqsi'k	Red raspberry	*Rubus idaeus*	Roadsides, deforested land, talus slopes, and rocky ground	Berries used fresh or dried, juice made from berries	Speck and Dexter 1951, 1952, Stoddard 1962
	Bramble	*Rubus* sp.	Various, depending on species	Fruit & beverage	Speck and Dexter 1951, 1952
	Curly dock	*Rumex crispus*	Waste places, cultivated ground, roadsides and around dwellings	Young leaves used as cooked vegetable	MacKinnon *et al.* 2009
Pukulu'skwimanaqsi'l	European elder	*Sambucus nigra*	Rich soil, open woods, around old fields and along brooks. On damp ground or wet floodplains	Berries were eaten fresh or dried for winter storage	Speck and Dexter 1951, 1952, Stoddard 1962
Pukulu'skwimanaqsi'l	Red elderberry	*Sambucus racemosa*	Meadows, wet places, rocky hillsides and along streams. In rich soils	The juicy, tart berries were eaten fresh or dried for winter storage	Speck and Dexter 1951, 1952
	Common dandelion	*Taraxacum officinale*	An aggressive weed in lawns, pastures, and even cultivated soil.	Young leaves eaten raw or cooked	Rousseau 1945, Speck and Dexter 1951, 1952
	Canada yew	*Taxus canadensis*	Cool damp woods, ravines, climax coniferous forest, and wooded swamps.	Twigs made into beverage	Lacey 1977
	Eastern hemlock	*Tsuga canadensis*	Lakesides and swamps or old pastures, northern slopes or ravines	The inner bark of was grated and eaten by the Mi'kmaq of the Maritimes, and the bark was also used as a beverage and medicinal tea	Speck and Dexter 1951, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977
	Blueberries, bilberries,cranberries	*Vaccinium* spp.	Various, depending on species	Berries used fresh or dried and also the Mi'kmaq made juice from blueberries and bilberries for drinking, but did not state which species were involved.	Speck and Dexter 1951, 1952, Adney 1944, Lacey 1977
	Large -fruited Cranberry	*Vaccinum macrocarpon*	Bogs	Berries eaten fresh	Waugh 1916, Speck and Dexter 1951,1952, Stoddard 1962, Black 1980
Poqomannaqsi	Foxberry (mountain cranberry)	*Vaccinum. vitis-idaea*	Cooler regions, such as exposed, coastal headlands and barrens	Berries	Unama'ki 2012, MacKinnon *et al.* 2009
Nipanmaqsi'l	Highbush cranberry	*Viburnum opulus*	Swamps and along streams	Berries used fresh or preserved	Speck and Dexter 1951, 1952
E'psemusi	American mountain ash (mountain ash)	*Sorbus americana*	Open woods and along hedgerows	Berries used fresh or preserved	Unama'ki 2012, MacKinnon *et al.* 2009
Jikjawiknejewimusi'l	Common wild rose	*Rosa virginiana*			

Table A.2: Native Plant Species Traditionally Used for Medicinal Purposes by Nova Scotia Mi'kmaq.

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
Stoqn	Balsam Fir	*Abies balsamea*	Various	Buds, cones and inner bark used to treat diarrhea Gum used to make dressing to treat burns Gum used as cold remedy Cones used to treat colic Gum and sap used to treat bruises, sores, and wounds Buds used as a laxative Gum used to treat fractures Inner bark boiled and used to treat sores and swelling Used to prevent colds and influenza Tea from cones and tops used to relieve colic, asthma and tuberculosis Sap used to treat stomach ulcers Bark used to treat gonorrhea	Chandler *et al.* (1979) Wallis (1922) Lacey (1993)
Mimkutaqo'q	Striped maple/ moosewood	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Wood used to treat "spitting blood" Bark used to treat colds and coughs Wood used to treat kidney trouble Bark used to treat "grippe" Unspecified plant parts used to treat "trouble with the limbs" Wood used to treat gonorrhea	Chandler *et al.* (1979) Wallis (1922)
	Maple	*Acer* sp.	Various, depending on species	Bark used externally to treat cold and congestion, as well as swollen limbs.	Lacey (1993)
	Common Yarrow	*Achillea millefolium*	Disturbed areas, old fields, meadows, roadsides and sandy shores. Acidic soils	Tea from plant used to treat fevers. Plant pulverized and used externally on bruises, sprains and swellings Dried, powdered bark or green leaves rubbed over swellings, bruises, and sprains Herb used to treat colds Decoction of plant taken with milk to cause a sweat to treat colds	Lacey (1993) Wallis (1922) Chandler *et al.* (1979)
Kiw'eswa'skul	Sweetflag	*Acorus americana*	Wet places and the borders of quiet streams. marshes, the edges of ponds and wet meadows. Coastal marshes just above high tides. Always in open sunlight and often mixed with cattails	Root used to treat colds Root used to treat coughs Root used to treat cholera, smallpox and other epidemics Plant (root and herb) used as a panacea Root used to treat lung ailments, pneumonia and pleurisy Root was placed in water and steamed in the house to prevent illness. Root was chewed to relieve indigestion and stomach cramps Roots chewed to treat 'medicinal use'	Speck (1917) Chandler *et al.* (1979) Lacey (1993) Speck and Dexter (1951)
	Northern Maidenhair Fern	*Adiantum pedatum*	In fertile or quite alkaline soils. Under oak-birch-sugar maples-elm trees , on intervales	Herb used to treat fits and taken as an "agreeable decoction"	Chandler *et al.* (1979)
	Witch Grass	*Agrostis hyemalis*	Disturbed areas, along roadsides, lakeshores, and headlands	Used as a general tonic to tune-up the body	Lacey (1993)
Tupsi	Speckled Alder	*Alnus incana*	Low ground in alluvial soils	Bark used to treat ulcerated mouth	Chandler *et al.* (1979)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
Tupsi	Alder	*Alnus* spp.	Low ground in alluvial soils	Bark used to treat bleeding Bark used to treat hemorrhage of lungs Bark used to treat fever Bark used to treat dislocations and fractures Bark used to treat diphtheria Bark used as painkiller to treat cramps Bark used to treat retching Bark used to treat rheumatism Bark used as a physic Bark used to treat wounds Bark and leaves used to treat fevers and festers Tea from bark used to treat neuralgic pain Bark and leaves used externally to treat festering wounds	Chandler *et al.* (1979) Lacey (1993)
	Woodland Angelica	*Angelica sylvestris*	Spreading out along roadsides and in fields, An aggressive weed where found- an introduced species	Infusion of roots and spikenard roots used to treat head colds Infusion of roots and spikenard roots used to treat coughs Infusion of roots and spikenard roots used to treat sore throats	Mechling (1959) Chandler *et al.* (1979)
	Everlasting	*Antennaria* sp or *Anaphalis* sp	Pastures, old fields, roadsides, borders of woods	Smoked, used spiritually	Lacey (1993)
	Indian Hemp	*Apocynum cannabinum*	Open ground, thickets and borders of woods	Tea was used to kill and expel worms	Lacey (1993) Chandler *et al.* (1979)
Wopapa'kjukal	Wild Sarsaparilla	*Aralia nudicaulis*	Dry woodlands and old forests	Used externally to treat wounds Root can be used to treat colds, coughs, and flu	Lacey (1993) Chandler *et al.* (1979)
	American Spikenard	*Aralia racemos*	Rich or calcareous wooded slopes and deciduous forests. Usually as solitary plants	Root used to treat headaches and female pains. Root used to treat spitting blood Infusion of roots and angelica roots used to treat head colds Roots used to treat wounds Infusion of roots and angelica roots used to treat coughs Roots used to treat sore eyes Root used to treat kidney troubles Root used to treat fatigue Root used to treat consumption Tuberculosis Root used to treat gonorrhea	Chandler *et al.* (1979) Lacey (1977) Wallis (1922) Mechling (1959)
	Lesser Burrdock	*Arctium minus*	Disturbed soils	Tea from roots were used to treat and purify blood Roots used to treat boils and abscesses	Lacey (1993) Chandler *et al.* (1979)
Kinnickick	Bearberry	*Arctostaphylos uva-ursi*	Sandy or gravelly soils	Tea from leaves and berries used as a general tonic, with antiseptic effects on the urinary passage	Lacey (1993)
	Indian turnip, Jack-in-the Pulpit	*Arisaema triphyllum*	Common in wet woods, mucky areas and in alluvial soils	Slices of the dried bulb were taken internally to treat tuberculosis and other chest complaints Dried bulb usedbto treat general stomach problems Parts of plant used to treat boils and abscesses Parts of plant used as a liniment used to treat external use	Lacey (1993) Lacey (1977) Chandler *et al.* (1979)
	Horse Radish	*Armoracia rusticana*	Old gardens (cultivated plant)	Tea of root used as a stomach medicine and to promote an appetite	Lacey (1993)
	Common Milkweed	*Asclepias syriaca*	Light soils	White juice from this plant used to ease the rash caused from poison ivy	Lacey (1993)
	Common Barberry	*Berberis vulgaris*	Thickets, pastures and fencerows	Bark and root used to treat ulcerated gums. Bark and root used to treat sore throat	Chandler *et al.* (1979)
Nimnoqn	Yellow Birch	*Betula alleghaniensis*	Various	Wood used as a hot-water bottle Bark used to treat rheumatism Bark is also chewed for nourishment Tea from bark used to relieve indigestion , treat stomach cramps and diarrhea	Chandler *et al.* (1979) Lacey (1993) Lacey (1977)
	Gray Birch	*Betula populifolia*	On light soils, in pastures, burnt-over land, and barrens	Inner bark used to treat infected cuts. Inner bark used as an emetic.	Chandler *et al.* (1979)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
Kaju	Crinkleroot/ toothwort	*Cardamine diphylla*	Moist, rich soil along brooks and in low-lying , wet, or rocky woods, both mixed and deciduous	Root used as a sedative Root used to clear the throat and to treat hoarseness Root used as a tonic	Chandler *et al.* (1979)
	White Turtlehead	*Chelone glabra*	Swamps, wet roadsides, meadows, along rocky streams and estuarine rivers above the influence of salt water	Herb used to prevent pregnancy	Chandler *et al.* (1979)
	Pipsissewa/ prince's pine	*Chimaphila umbellata*	Dry soils sometimes in spruce or fir woods	Used to treat consumption/ tuberculosis Used as stomach medicine Herb used to treat rheumatism Herb used as a blood purifier Herb used to treat blisters Herb used to treat stomach trouble Herb used to treat kidney trouble and pains Herb used to treat smallpox Infusion of roots, hemlock, parsley and curled dock used to treat "colds in the bladder"	Lacey (1977) Rousseau (1948) Chandler *et al.* (1979) Mechling (1959) Lacey (1993)
	Yellow Clintonia/Bride's Bonnet	*Clintonia borealis*	Deciduous to mixed woods	Root juice taken with water to treat "gravel" (kidney stones)	Speck (1917)
	Sweetfern	*Comptonia peregrina*	Open, sandy or barren soils	Used to treat rheumatism and external sores Root used to treat headache and inflammation Leaves used to treat sprains, swellings, poison ivy, and inflammation Leaves used to treat catarrh Berries, bark and leaves used as an "exhilarant" and beverage	Lacey (1993) Chandler *et al.* (1979)
	Chinese Hemlock parsley	*Conioselinum chinense*	Swamps, mossy coniferous woods or swales and seepy slopes near the coast	Infusion of roots, hemlock, prince's pine , and curled dock used to treat colds in the bladder	Mechling (1959)
Wisawtaqji'jkl	Goldthread	*Coptis trifolia*	Coniferous forests, swamps, hummocks on bogs, and roadside banks	Herb used to treat treat sore or chapped lips and mouth ulcers Roots used to treat sore eyes Roots used to treat stomach medicine Roots chewed to treat unspecified medicinal use Used to promote an appetite	Chandler *et al.* (1979) Lacey (1977) Speck and Dexter (1951) Lacey (1993)
Wso'qmanaqsi'l	Bunchberry/ Dwarf Dogwood	*Cornus canadensis*	Various	Leaf tea used to treat bed wetting and kidney ailments Berries, roots and leaves used to treat seizures Used to treat kidney ailments Used to treat stomach problems Leaves were applied to wounds to stop bleeding and promote healing	Lacey (1977) Chandler *et al.* (1979) Lacey (1993)
Wjkulje'manaqsi	Red Osier Dogwood/ Red Willow	*Cornus sericea ssp. Sericea*	The edges of intervales, brook sides, wet meadows, and ditches along roadsides. Most common in rich, alkaline soils	Herb used to treat headache Herb used to treat sore eyes Herb used to treat catarrh Herb used to treat sore throat	Chandler *et al.* (1979)
	Dogwood	*Cornus* spp.	Various	Smoke used spiritually with parts of other plants such as willows	Lacey (1993)
	Pink Lady's Slipper	*Cypripedium acaule*	Acid soil in dry or wet woods; open areas	Tea of roots used to treat nervousness Tea of roots used treat tuberculosis	Chandler *et al.* (1979) Lacey (1993)
	Queen Anne's Lace, Wild Carrot	*Daucus carota*	Hayfields and along roadsides	Leaves used as a purgative	Chandler *et al.* (1979) Wallis (1922)
	Moosewood, Leatherwood	*Dirca palusiris*	Rich deciduous or mixed woods	Colds, coughs, influenza , bark tea	Wallis (1922)
	Common Boneset	*Eupatorium perfoliatum*	Wet shores, meadows, the edge of swamps and bogs, along ditches and streams	Used to treat stomach ulcers Used to treat colds Used to treat arthritic pain Used to treat kidney trouble Used to treat spitting blood Used to treat gonorrhea	Lacey (1993) Chandler *et al.* (1979)
	American Beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps Dry forest ridges and hilltops, scattered elsewhere	Leaves used to treat chancre Tea from leaves used to treat tuberculosis and other chest ailments Leaves used to sooth nerves and stomach	Chandler *et al.* (1979) Lacey (1993)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
Atuomkminaqsi	Virginia and Woodland Strawberries	*Fragaria virginiana , F. Vesca*	Old fields and road sides	Parts of plant used to treat irregular menstruation Tea from plant used as a good general tonic Tea from plant used to treat dysentery Tea from plant used to treat weakness of the intestines Tea from plant used to treat infections of the urinary organs Leaves used to treat stomach cramps	Chandler *et al.* (1979) Lacey (1993)
	White Ash	*Fraxinus americana*	Intevale forests, low grounds and open woods	Leaves used to treat cleansing after childbirth.	Chandler *et al.* (1979)
	Cleavers/ Sticky Willy	*Galium aparine*	Ballast heaps and waste places	Parts of plant used to treat persons spitting blood Parts of plant used to treat gonorrhea Parts of plant used to treat kidney trouble Parts of plant used to treat gonorrhea	Chandler *et al.* (1979)
Kna'ji'jk	Creeping Snowberry	*Gaultheria hispidula*	Mossy woodland knolls, barrens, and mature bogs, usually in partial shade	Decoction of leaves or whole plant taken to treat unspecified purpose	Speck (1917)
Ka'qaju'mannaqsi	Wintergreen, Teaberry, or Checkerberry	*Gaultheria procumbens*	Woods, barrens, pastures	Used to prevent and treat heart attack Tea from plant thins and regulates the blood to prevent blood clots	Lacey (1993)
	Yellow Avens	*Geum aleppicum*	Along roadsides, riverbanks, waste places and occasionally around outbuildings	Roots used to treat coughs and croup	Chandler *et al.* (1979)
	Chocolate root, purple avens	*Geum rivale*	Swamps, wet fields, and meadows	Root used to treat diarrhea Root decoction used to treat Dysentery Root decoction used to treat coughs and colds in children,	Chandler *et al.* (1979) Speck (1917)
	Witch Hazel	*Hamamelis virginiana*	Shade tolerant, in rocky woods or near cliffs	Leaves steeped and used as an aphrodisiac Leaves steeped and used to treat headache	Lacey (1993)
Pako'si	Cow Parsnip / masterwort	*Heracleum lanatum*	Wet meadows and brook sides in alluvial soils	Root tea used as General preventative medicine Used to treat cold and influenza as well as tuberculosis	Lacey (1977) Lacey (1993)
	Rough cow parsnip/ Eltrot	*Heracleum sphondylium*	Along roadsides and in vacant lots	Green and light color plant used as gynaecological medicine to treat women Dark and ripe plant used as urinary medicine to treat men	Wallis (1922) Chandler *et al.* (1979)
Kjimskiku	Sweet Grass	*Hierochloe odorata*	Moist heavy soils, generally in the upper reaches of tidal marshes	Important ceremonial and spiritual use	Lacey (1993)
	Live to treatever/ Witch's Moneybags	*Hylotelephium telephium ssp. telephium*	Shaded areas with rich soil	Dermatological Aid, Leaves used to treat boils and carbuncles	Chandler *et al.* (1979)
	English Holly	*Ilex aquifolium*	Cultivated non-native species	Root used to treat cough Part of plant used to treat fevers Root used to treat consumption Root used to treat gravel	Chandler *et al.* (1979)
	Jewelweed	*Impatiens capensis*	Moist open places, wet ground, along brooks and ditches, and in wet thickets. Prefers alluvial ground where organic matter and nutrient content are high	Herbs used to treat jaundice	Chandler *et al.* (1979)
	Elecampane	*Inula helenium*	Damp roadsides and neighbouring fields, as an escape	Root used to treat headaches Root used to treat colds Root used to treat heart trouble	Chandler *et al.* (1979)
	Blue Flag Iris	*Iris versicolor*	Meadows, swamps, along streams and grazed pastures	Used as an emetic to rid the stomach of poison Root used to treat wounds Herb used to treat sore throat Root used to treat cholera and the prevention of disease Root used as a "basic medical cure" Herbs used to treat sore throat and root used to treat wounds	Lacey (1993) Chandler *et al.* (1979)
Kini'skweji'jik	Low Bush (Common Juniper)	*Juniperus communis*	Sandy areas, old pastures, heaths and bogs	Bark used to treat tuberculosis Stems used in hair wash Cones used to treat ulcers Gum used to heal cuts, sores, burns and sprains Inner bark used to treat stomach ulcers Roots used to treat rheumatism Used to treat kidney ailments and as a urinary tract medicine	Lacey (1993) Chandler *et al.* (1979) Wallis (1922)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
	Sheep Laurel/ lambkill	*Kalmia angustifolia*	Open ground	Roasted leaves used to treat colds Herb used to treat pain, swellings and sprains Poultice of crushed leaves bound to head to treat headache Herb used to treat swellings, pain and sprains Infusion of leaves considered valuable as a "non-specific remedy" Plant is boiled and used as bathing solution to reduce swelling, ease pain of rheumatism and treat sore legs and feet Plant considered very poisonous	Black 1980 Wallis (1922) Chandler *et al.* (1979) Speck (1917) Lacey (1993)
Apu'tam'kie'jit	Eastern Larch (Tamarack)	*Larix laricina*	Bogs and wet depressions in forests	Bark used to treat colds Boughs brewed into tea and used to treat Sores and swelling, and as a diuretic Bark used to treat physical weakness Tea from bark and twigs used to treat colds and influenza Bark was used externally to treat festering wounds Bark used to treat consumption Bark used to treat gonorrhea	Speck (1917) Chandler *et al.* (1979) Lacey (1993)
	Common Motherwort	*Leonurus cardiaca*	Scattered around old houses and gardens, not often a weed in cultivated land	Part of plant used to treat obstetric cases	Chandler *et al.* (1979)
	Canada Lily	*Lilium canadense*	Local, in meadows and on stream banks	Parts of plant used to treat irregular menstruation	Chandler *et al.* (1979)
	Carolina Sealavender	*Limonium carolinianum*	Characteristic of salt marshes and seashores	Roots pounded, ground, added to boiling water and used to treat consumption with hemorrhage	Mechling (1959)
	Indian Tobacco	*Lobelia inflata*	Dry pastures, run-out fields, roadsides, barrens, and similar locations	Smoke from this plant used to treat earach Smoke from this plant used to treat asthma Smoke used spiritually	Lacey (1977) Lacey (1993)
	Clubmoss	*Lycopodium sp.*	Various species, mostly found in wooded areas	Herb used to treat fever	Chandler *et al.* (1979)
	Feather or False Solomon's Seal	*Maianthemum (*syn. *Smilacina) racemosum ssp. racemosum*	Scattered in open deciduous woods, along edges of thickets and clearings	Leaves and stems used to treat rashes and itch	Chandler *et al.* (1979)
Plamwipkl	Mint (Field Mint)	*Mentha arvensis*	Rich, damp soil	Herb used to treat children with an upset stomach Herb used to treat croup	Chandler *et al.* (1979)
	Common Buckbean	*Menyanthes trifoliata*	Stagnant pools and bogs	Strong decoction of root taken to treat unspecified purpose	Speck (1917)
	Partridge Berry	*Mitchella repens*	Moist places, forest ground cover	Used in the late stages of pregnancy to ease the pain of childbirth	Lacey (1993)
Kljimanaqsi	Northern Bayberry	*Morella (syn. Myrica) pensylvanica*	Coastal, on headlands and beaches. Occasionally in bogs and on heavier soils	Tea, berries, bark,leaves used as exhilarant Plant used to treat headache Root poultice used to treat inflammation Powdered root used to treat arthritic and rheumatic pain Tea from dried roots and leaves used to treat mouth infections Roots pounded, soaked in hot water to treat inflammation	Wallis (1922) Lacey (1993)
Mujila'pij	Cow Lily (Yellow Pond Lily)	*Nuphar variegata*	Lakes, ponds, quite streams and stillwaters	Root brewed into tea or worn around neck as a general preventive Used externally to treat swollen limbs	Lacey (1977) Lacey (1993)
Mujila'pij	Sweet-scented Water Lily, American White Waterlily	*Nymphaea odorata*	Lakes, slow moving rivers and mucky ponds	Leaves used to treat colds Juice of root taken to treat coughs Root decoction used to treat Coughs, swellings Poultice of boiled root applied to swellings Roots used to treat suppurating glands Leaves used to treat colds Leaves used to treat grippe Leaves used to treat limb swellings and colds	Chandler *et al.* (1979) Speck (1917) CLacey (1993)
Kawatkw	White Spruce (Cat Spruce)	*Picea glauca*	Old fields and along the coast	Bark used to treat a variety of symptoms	Lacey (1993)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
Kawatkw	Black Spruce (Bog Spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	Bark used as a cough remedy Bark used to prepare a salve to treat cuts and wounds. Gum used to treat scabs and sores Parts of plant used to treat stomach trouble Bark, leaves and stems used to treat scurvy Bark is chewed to treat laryngitis	Chandler *et al.* (1979) Lacey (1993) Wallis (1922)
	Eastern White Pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Tea from bark, needles and twigs used to treat colds and coughs Tea from bark, needles and twigs used to treat kidney problems Bark used to treat wounds Sap used to treat hemorrhaging Boiled inner bark used to treat sores and swellings Plant parts used to treat kidney trouble Bark, leaves and stems used to treat grippe Inner bark, bark and leaves used to treat scurvy	Lacey (1993) Chandler *et al.* (1979) Speck (1917)
Wijikanipkl	Common Plantain	*Plantago major*	Disturbed areas	Used to draw out poison from wounds and sores Used to treat stomach ulcers	Lacey (1993)
	Tall Northern White Bog Orchid	*Platanthera* (syn. *Habenaria) dilatata* var. *dilatata*	A wide variety of habitats , preferring sunny and wet situations such as bogs, marshes and riverbanks	Root decoction used to treat kidney stones Root juice taken with water to treat kidney stones	Speck (1917) Lacey (1977)
	Rock Polypody	*Polypodium virginianum*	Damp cliffs, on top of large boulders, preferring a rocky substrate with a covering of leaf mould	Infusion of plant used to treat urine retention Roots used to treat pleurisy	Rousseau (1948) Chandler *et al.* (1979)
	Christmas Fern	*Polystichum acrostichoides*	Moist woods, cool ravines, wooded banks and thickets	Roots used to treat hoarseness	Chandler *et al.* (1979)
	Pickerelweed	*Pontederia cordata*	Growing in large pure colonies around the mucky margins of ponds and lakes, and in slow-moving streams	Herbs used to prevent pregnancy	Chandler *et al.* (1979)
A'maqansuti	Balsam Poplar	*Populus balsamifera*	Common along streams and open intervales	Buds and other parts of plant used as salve to treat sores Buds and other parts of plant used as salve to treat chancre	Chandler *et al.* (1979)
	Poplar	*Populus* spp.	Various	Tea from bark used to treat colds and influenza Tea from bark used to treat worms	Lacey (1993) Lacey (1977)
Miti	Trembling Aspen (Poplar)	*Populus tremuloides*	Damp soils	Bark used to treat colds Bark used to stimulate the appetite	Chandler *et al.* (1979)
Maskwe'smanaqsi	Pin Cherry	*Prunus pensylvanica*	Clearings, thickets, and the edges of fields on light soils	Wood used to treat chafed skin and prickly heat Bark used to treat erysipelas	Chandler *et al.* (1979)
	Black Cherry	*Prunus serotina*	Thickets and open wood	Bark used to treat colds Bark used to treat coughs Bark used to treat smallpox Fruit used as a tonic Bark used to treat consumption	Chandler *et al.* (1979) Wallis (1922)
	Red cherry (species unspecified)	*Prunus* sp.	Thickets, clearings and open woods	Tea of the bark from 'red cherry' used to treat high blood pressure	Lacey (1993)
	Wild Black Cherry	*Prunus serotina*	Thickets, clearings and open woods	Black cherry used to treat coughs and colds	Lacey (1993)
Luimanaqsi	Common Chokecherry	*Prunus virginiana*	Roadsides, fencerows, edges of intervales, and the edges of woods	Bark used to treat diarrhea	Chandler *et al.* (1979) Lacey (1993)
	Bracken	*Pteridium aquilinum*	Pastures, old fields, roadsides, borders of woods	Fronds of plant used as stimulant to treat weak babies and old people	Chandler *et al.* (1979)
	Liverleaf Wintergreen	*Pyrola asarifolia* ssp. *Asarifolia*	Rich, mainly calcareous, woods and thickets	Parts of plant used to treat spitting blood Parts of plant used to treat kidney trouble Parts of plant used to treat gonorrhea	Chandler *et al.* (1979)
	Northern Red Oak	*Quercus rubra*	In light or well-drained soils and granitic areas	Bark and roots used to treat diarrhea	Chandler *et al.* (1979)
	Oak	*Quercus* sp.	In light or well drained soils and granitic areas	Used to treat haemorrhaging and intermittent fever	Lacey (1993)
	Tall Buttercup	*Ranunculus acris*	Fields , meadows, and roadsides, mainly in heavy or moist soil,	Herbs used to treat headache Leaves used to treat headaches	Chandler *et al.* (1979)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
	Buttercup	*Ranunculus* sp.	Various	Scent or juice from leaves applied to nostrils said to cure headache Used to treat cancer	Lacey (1993)
	Handsome Harry/ Meadow Beauty	*Rhexia virginica*	Peaty lake margins and swales or wet thickets	Tea from plant used as a wash to clean and clear the throat	Lacey (1993) Chandler *et al.* (1979)
	Yellow Rattle	*Rhinanthus crista-galli*	Old fields, roadsides and waste places	Tea of plant used to treat epilepsy	Lacey (1993)
Apuistekie'ji'jit	Labrador Tea	*Rhododenrdon* (syn. *Ledum) groenlandicum*	Bogs, wooded swamps, wet barrens, and poorly-drained clearings and pastures	Leaves used to treat the common cold Tea brewed from leaves used as dieretic Leaves used to treat scurvy Leaves used to treat asthma Tea from leaves used as a tonic to treat variety of kidney ailments Infusion of leaves taken to treat a "beneficial effect on the system"	Chandler *et al.* (1979) Speck (1917) Lacey (1993)
Ketaqnimusi	Starhorn Sumac	*Rhus typhina*	The edges of woods in dry or rocky soils, along roadsides and other open areas and hillsides	Used to treat coughs, sore throats, and earaches	Lacey (1993) Chandler *et al.* (1979) Wallis (1922)
Ajioqjominaqsi	Common Blackberry	*Rubus alleghaniensis*	Sandy ground, old fields, open woodlands, and clearings	Berry used to treat diarrhoea Tea from runners used to as stomach medicine Tea from leaves and berries used to treat sores in mouth and throat	Lacey (1993)
Mkuo'qminaqsi'k	Cloudberry (Bakeapple)	*Rubus chamaemorus*	Sphagnous bogs, heathlands, and meadows near the coast	Roots used to treat cough Roots used to treat fever Roots used to treat consumption/Tuberculosis	Chandler *et al.* (1979)
	Bristly Dewberry/ Swamp Dewberry	*Rubus hispidus*	Peat bogs, but often on roadsides, damp hollows and barrens	Roots used to treat cough Roots used to treat fever Roots used to treat consumption/Tuberculosis	Chandler *et al.* (1979)
Klitawmanaqsi'k	Red Raspberry	*Rubus idaeus*	Roadsides, deforested land, talus slopes, and rocky ground	Leaves and roots used to treat rheumatism Berries are a good general tonic	Lacey (1993)
	Dwarf Red Blackberry/ Dwarf Raspberry	*Rubus pubescens* var. *Pubescens*	Low-lying boggy land, talus slopes, and often growing luxuriantly under bushes in open woods	Parts of plant used to treat irregular menstruation	Chandler *et al.* (1979)
	Blackberry, Raspberry	*Rubus* spp.	Various, depending on species	Tea from runners used to treat stomach issues	Lacey (1977)
	Curly Dock	*Rumex crispus*	Waste places, cultivated ground, roadsides and around dwellings	Infusion of roots used as a purgative Roots used as a purgative Infusion of roots, hemlock, parsley and Prince's pine used to treat "cold in bladder"	Mechling (1959) Chandler *et al.* (1979)
Lmu'ji'jmnaqsi	Pussy Willow	*Salix discolor*	On low ground, in wet pastures, in damp, open woods, and along the edges of swamps	Bark used externally to treat bruises, and skin cancer Tea from bark also used to treat colds and kidney ailments	Lacey (1993)
	Heartleaf Willow	*Salix eriocephala*	Riverbanks and out on gravel bars. Bottomlands	Bark used to treat colds Bark used to stimulate the appetite Bark used to treat blisters	Chandler *et al.* (1979)
	Shining Willow	*Salix lucida*	Along large streams and lakes, on sand bars, and occasionally in wet ground or ditches	Bark used to treat bleeding Bark used to treat asthma	Wallis (1922) Chandler *et al.* (1979)
Pukulu'skwimanaqsi'l	European Elder	*Sambucus nigra*	Rich soil, open woods, around old fields and along brooks. On damp ground or wet floodplains	Berries, bark and flower used as a purgative Bark used as a physic Bark used as an emetic Berries, bark and flower used as a soporific	Chandler *et al.* (1979)
Pukulu'skwimanaqsi'l	Red Elderberry	*Sambucus racemosa*	Meadows, wet places, rocky hillsides and along streams. In rich soils	Barked used to treat emetic and cathartic purposes	Lacey (1993) Chandler *et al.* (1979)
Malteweknejkl	Bloodroot	*Sanguinaria canadensis*	Low ground in intervales along streams, in the shade	Tea of root used to treat tuberculosis Leaves used to treat rheumatism Roots used to treat irregular menstruation Infusion of roots used to treat colds Roots used to treat infected cuts Roots used to treat hemorrhages and to prevent bleeding Used as an aphrodisiac Infusion of roots used to treat sore throats Roots used to treat consumption/tuberculosis with hemorrhage	Lacey (1993) Rousseau (1948) Chandler *et al.* (1979) Rousseau (1948)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
	Maryland Sanicle/ Black snakeroot	*Sanicula marilandica*	Rich woods and intervale soils, usually where the soil is quite damp and humus content good	Roots used to treat irregular menstruation Roots used to treat rheumatism Roots used to treat menstrual pain and slow parturition Roots used to treat kidney trouble Roots used as a snakebite remedy and to treat rheumatism.	Chandler *et al.* (1979)
Mkoqewik	Northern Pitcher Plant	*Sarracenia purpurea*	Bogs	Herbs used to treat spitting blood Strong decoction of root taken to treat "spitting blood" and pulmonary complaints Herbs used to treat kidney trouble and consumption Roots used to treat smallpox and herbs used to treat consumption Tea from root used to treat tuberculosis, kidney ailments and relieve indigestion Infusion of root taken to treat sore throat Herbs used to treat consumption	Lacey (1993) Speck (1917) Chandler *et al.* (1979)
	Panicled Bulrush	*Scirpus microcarpus*	Swamps, meadows, and along ditches and streams, especially where there is freshwater seepage	Roots used to treat abscesses Herbs used to treat sore throats	Chandler *et al.* (1979)
	White Mustard	*Sinapis alba*	Cultivated, occasionally escaping	Parts of plant used to treat tuberculosis of lungs	Chandler *et al.* (1979)
	Climbing Nightshade/Bittersweet	*Solanum dulcamara*	Thickets, intervales, roadsides and dumps. Along fences and around buildings	Roots used to treat nausea	Chandler *et al.* (1979)
E'psemusi	American Mountainash	*Sorbus americana*	Open woods and along hedgerows	Tea from the bark used to treat stomach pains Bark used to treat "mother pains" Bark used to treat boils Parts of plant used as an emetic Infusion of root taken to treat colic Infusion of bark taken to treat unspecified purpose	Lacey (1993) Speck (1917) Chandler *et al.* (1979)
	Claspleaf Twistedstalk	*Streptopus amplexifolius*	Scattered in moist deciduous or mixed woods, ravines, and wooded intervales	Parts of plant used to treat spitting blood Parts of plant used to treat kidney trouble	Chandler *et al.* (1979)
	Waxberry	*Symphorcarpus albus*	Around buildings and in gardens	Parts of plant used to treat gonorrhea Scent of plant used to treat headache	Chandler *et al.* (1979) Lacey (1993)
	Skunk Cabbage	*Symplocarpus foetidus*	Springy swales, bogs, sphagnum woods and wet thickets	Tea from root used to treat diabetes Tea from root used to cure toothache	Lacey (1993)
	Common Tansy	*Tanacetum vulgare*	In patches along roadsides, becoming a weed infields	Herbs used to prevent pregnancy Leaves used to treat kidney trouble	Chandler *et al.* (1979) Chandler *et al.* (1979)
	Canada Yew	*Taxus canadensis*	Cool damp woods, ravines, climax coniferous, and wooded swamps.	Bark used to treat bowel and internal troubles Parts of plant used to treat afterbirth pain and clots Leaves used to treat fever Parts of plant used to treat scurvy	Wallis (1922) Chandler *et al.* (1979) Lacey (1977)
	Eastern White Cedar	*Thuja occidentalis*	Lakesides and swamps or old pastures	Used externally to treat swollen hands and feet Stems used to treat headaches Inner bark, bark and stems used to treat burns Inner bark, bark and stems used to treat cough Leaves used to treat swollen feet and hands and stems used to treat headaches Gum used to treat toothache Inner bark, bark and stems used to treat consumption	Lacey (1993) Chandler *et al.* (1979)
	Heartleaf Foamflower	*Tiarella cordifolia*	Deciduous forests and intervales. Gravelly roadsides	Roots used to treat diarrhea	Chandler *et al.* (1979)
	Clover	*Trifolium pratense*	Fields and roadsides	Tea from plant used to treat fevers	Lacey (1993)

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources
	Eastern Hemlock	*Tsuga canadensis*	Northern slopes or ravines	Tea from bark and stems used to treat colds, coughs, "grippe" and influenza Inner bark used to treat diarrhea Inner bark used to treat chapped skin Parts of plant used to treat bowel, stomach and internal troubles Roots and stems used to treat "cold in kidney." And "cold in bladder" Bark used to treat grippe Inner bark used to treat scurvy	Lacey (1993) Chandler *et al.* (1979) Wallis (1922)
	Narrow-leaved Cattail	*Typha angustifolia*	Brackish swales near the coast, inland swamps, ditches, along streams	Roots used to treat gravel	Chandler *et al.* (1979)
	Broadleaf Cattail	*Typha latifolia*	Swamps, ponds, and ditches in estuaries above the salt water, occasionally in floating bogs.	Leaves used to treat sores	Chandler *et al.* (1979)
	Slippery Elm	*Ulmus rubra*	Ornamental, planted about towns and villages.	Bark used to treat suppurating wounds	Chandler *et al.* (1979)
Pkumanaqsi	Low Bush Blueberry	*Vaccinium angustifolium*	Headlands, peaty barrens, fields, dry soils, sandy areas	Leaves and roots used to treat rheumatism Berries a good general tonic	Lacey (1993)
	Large -fruited Cranberry	*Vaccinum macrocarpon*	Bogs	Stewed berries used as a general tonic	Lacey (1993)
Wo'jekunmusi	Common Mullein	*Verbascum thapsus*	Light soils, roadsides, hillsides, gravel plains, and pastures. A common weed on rough land	Leaves smoked or steeped (fumes inhaled) to treat asthma Parts of plant used to treat sores and cuts Parts of plant used to treat catarrh	Lacey (1993) Chandler *et al.* (1979)
Nipanmaqsi'l	Highbush Cranberry	*Viburnum opulus*	Swamps and along streams	Bark used to treat swollen glands and mumps	Chandler *et al.* (1979) Lacey (1993)
	Field Pansy	*Viola arvensis*	Fields and roadsides	Used to treat sore eyes	Lacey (1993)

Table A.3: Other Useful Native Plant Species Traditionally Used by Nova Scotia Mi'Kmaq.

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Use	Source
Stoqn	Balsam fir	*Abies balsamea*	Various	Wood used for kindling and fuel Boughs used to make beds	Speck and Dexter (1951), Unama'ki Institute of Natural Resources, 2012
Mimkutaqo'q	Moosewood (striped maple)	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Thin saplings used in wigwam construction	Nova Scotia Museum factsheet, ND
	Red maple	*Acer rubrum*	Swamps, alluvial soils, and moist uplands	Used to make basketware	Speck and Dexter (1951)
Snawey	Sugar maple	*Acer saccharum*	Well-drained soils	Used to make bows and arrows	Speck and Dexter (1951)
Tupsi	Alder	*Alnus* spp.	Low ground in alluvial soils	Bark used to make a dye	Speck and Dexter (1951)
Maskwi	White/paper birch	*Betula papyrifera*	Forests, especially on slopes	Bark used to make baskets Bark used to make boxes, coffins and other containers Bark used to make canoes Bark used to make dishes and cooking utensils Bark used to make house coverings	Speck and Dexter (1951) Speck and Dexter (1951) Rousseau (1948) Speck and Dexter (1951) Speck and Dexter (1951)
	Yellow birch	*Betula alleghaniensis*		Branches used as straps and thongs	Wallis and Wallis 1960
	Birch	*Betula* spp.	Various depending on species	Bark used to make torches for night fishing Bark used to make trumpets for calling game Bark used to construct containers, boxes, and cups Bark sheets used in wigwam construction	Speck and Dexter (1951) Speck and Dexter (1951) Wallis and Wallis 1955 Nova Scotia Museum factsheet, ND.
	Beaked hazel	*Corylus cornuta*		Basketry	Wallis and Wallis 1955
	American beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps	Used to make snowshoe frames	Speck and Dexter (1951)
	White ash	*Fraxinus americana*	Intervale forests, low ground, and open woods	Used to make axe and knife handles	Speck and Dexter (1951)
Wiskoq	Black ash	*Fraxinus nigra*	Low ground, damp woods and swamps	Used to make basketware	Speck and Dexter (1951)
	Stiff marsh bedstraw/ small bedstraw	*Galium tinctorium*	Low-lying areas, brooks, marshes, and bogs	Roots used to make a red dye for porcupine quills	Speck and Dexter (1951)
Kjimskiku	Sweetgrass	*Hierochloe odorata*	Moist heavy soils, generally in the upper reaches of tidal marshes	Used to make baskets Used to make mats	Speck and Dexter (1951) Speck and Dexter (1951)
	Red cedar	*Juniperus* sp.	Various, depending on species	Wood used for kindling and fuel	Speck and Dexter (1951)
Apu'tam'kie'jit	Eastern larch/ tamarack	*Larix laricina*	Bogs and wet depressions in forests	Wood used for kindling and fuel	Speck and Dexter (1951)
Kawatkw	White spruce (cat spruce)	*Picea glauca*	Old fields and along the coast	Boughs used to make beds. Wood used for kindling and fuel	Speck and Dexter (1951) Speck and Dexter (1951)
Kawatkw	Black spruce (bog spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	Boughs used to make beds. Roots used as sewing material for canoe birch bark product Wood used for kindling and fuel	Speck and Dexter (1951) Speck and Dexter (1951) Speck and Dexter (1951)
	Eastern white pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Wood used for kindling and fuel	Speck and Dexter (1951)
	Spruce	*Picea* spp.	See White and/or Black Spruce	Poles for wigwam construction Root used as twine, for sewing	Nova Scotia Museum factsheet, ND Wallis and Wallis (1955)
	Willow	*Salix* spp.	Various, depending on species	Leaves used as tobacco	Speck and Dexter (1951)
	Canada yew	*Taxus canadensis*	Cool damp woods, ravines, climax coniferous woods, and wooded swamps.	Leaves used to make a green dye	Speck (1917)

Mi'kmaq Name	**Common Name**	**Scientific Name**	**Habitat**	**Mi'kmaq Traditional Use**	**Source**
	Eastern white cedar	*Thuja occidentalis*	Lakesides and swamps or old pastures	Used to make arrow shafts Used to make canoe slats Wood used for kindling and fuel Woven into bags and mats Inner bark used as twine, for sewing	Speck and Dexter (1951) Speck and Dexter (1951) Speck and Dexter (1951) Nova Scotia Museum factsheet, ND Wallis and Wallis 1955
	Basswood[2]	*Tilia* sp.	Not native to NS	Bark woven into bags and mats	Nova Scotia Museum factsheet, ND
	Eastern hemlock	*Tsuga canadensis*	Northern slopes or ravines	Bark used to make a dye Wood used for kindling and fuel.	Speck and Dexter (1951) Speck and Dexter (1951)
	Cattails	*Typha* spp.	Marshes, wet depressions	Woven into bags and mats	Nova Scotia Museum factsheet, ND

APPENDIX B

Table B.1: Native Plant Species Traditionally Consumed by Nova Scotia Mi'Kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

Table B.2: Native Plant Species Traditionally Used for Medicinal Purposes by Nova Scotia Mi'kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

Table B.3: Other Useful Native Plant Species Traditionally Used by Nova Scotia Mi'Kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

Table B.1: Native Plant Species Traditionally Consumed by Nova Scotia Mi'Kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

						Observed on Site?		
Mi'kmaq Name	**Common Name**	**Scientific Name**	**Habitat**	**Mi'kmaq Traditional Use**	**Source**	**Greenfield**	**Kemptown**	**Limerock**
Stoqn	Balsam fir	*Abies balsamea*	Various	Bark used for beverage	Speck and Dexter 1951, Lacey 1977	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Mimkutaqo'q	Striped maple/ moosewood/Mountain Maple	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Bark used to make tea	Speck and Dexter 1951, 1952, Lacey 1977, Wallis and Wallis 1955	Observed June 2013		Observed July 2013
Snawey	Sugar maple	*Acer saccharum*	Well-drained soils	Sap boiled into syrup, and a beverage tea was made from the bark and twigs, Used as cooking broth	Speck and Dexter 1951, Stoddard 1962			Observed July 2013
	Serviceberry	*Amelanchier laevis*				Observed June 2013		Observed June 2013 Observed July 2013
Wopapa'kjukal	Wild sarsaparilla	*Aralia nudicaulis*	Dry woodlands and old forests	Used to make a beverage.	Speck and Dexter 1951	Observed June 2013	Observed June 2013 Observed July 2013	Observed June 2013
Nimnoqn	Yellow birch	*Betula alleghaniensis*	Various	Drank sap, rendered it into syrup and sugar, made tea from the twigs	Waugh 1916, Stoddard 1962, Lacey 1977.	Observed June 2013 Observed July 2013		Observed June 2013
	Lambsquarters, Pigweed or Goosefoot	*Chenopodium album and closely related species*	A weed of cultivated and waste ground	Leaves and plants eaten as green, edible greens and seeds. The young plants were cooked as a potherb	Speck and Dexter 1951, 1952	Observed July 2013		
Wjkulje'manaqsi	Red osier dogwood/ red willow	*Cornus sericea ssp. sericea*	The edges of intervales, brook sides, wet meadows, and ditches along roadsides. Most common in rich, alkaline soils	Mi'kmaq people made a tea from the bark of dogwood (probably this species)	Wallis and Wallis 1955			Observed June 2013
Malipqwanj	Beaked hazelnut	*Corylus cornuta*	Dry and open woods. Sometimes ine climax forests, scattered along roadside thickets, along edges of fields and along margins of woods.	Nuts used	Speck and Dexter 1951, 1952, Stoddard 1962	Observed July 2013		Observed June 2013 Observed July 2013
	American beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps	Nuts used	Speck and Dexter 1951, 1952			Observed June 2013 Observed July 2013
Atuomkminaqsi	Virginia and Woodland Strawberries	*Fragaria virginiana , F. vesca*	Old fields and road sides	Berries used fresh or preserved, or made into beverage	Speck and Dexter 1951, 1952, Adney 1944, Rousseau 1945	Observed June 2012 Observed July 2013	Observed June 2013	Observed July 2013
Ka'qaju'mannaqsi	Wintergreen, Teaberry, or Checkerberry	*Gaultheria procumbens*	Woods, barrens, pastures	Berries eaten, Mi'kmaq were said to make juice from the berries	Stoddard 1962, Speck and Dexter 1952, Lacey 1977		Observed June 2013 Observed July 2013	Observed June 2013
Eskitmukewey	Indian Cucumber root	*Medeola virginiana*	Open deciduous woods, usually scattered on well-drained slopes.	Edible root	Unama'ki 2012, MacKinnon *et al.* 2009			Observed June 2013
	Partridge berry	*Mitchella repens*	Moist places, forest ground cover	Berries were eaten fresh or preserved. Used the plant for a beverage tea	Speck 1917, Speck and Dexter 1951, 1952,	Observed June 2013		Observed June 2013
Kawatkw	White spruce (cat spruce)	*Picea glauca*	Old fields and along the coast	Bark used for beverage and medicine	Speck and Dexter 1951, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977	Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Kawatkw	Black spruce (bog spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	The bark of black spruce was used to make a beverage or medicinal tea by the Mi'kmaq of the Maritimes	Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	Eastern white pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Bark used for beverage, Inner bark grated and eaten	Speck and Dexter 1951, Wallis and Wallis 1955, Lacey 1977		Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
Miti	Trembling aspen (poplar)	*Populus tremuloides*	Damp soils	Inner bark eaten , leaf buds and catkins high in vitamin C	Unama'ki 2012, MacKinnon *et al.* 2009	Observed June 2013	Observed July 2013	Observed June 2013
	Wild cherries	*Prunus* spp.	Thickets, clearings and open woods	Boiled cherry twigs and bark for tea	Stoddard 1962, Lacey 1977, Speck and Dexter 1951, 1952, Adney 1944	Observed July 2013 (*P.pennsylvanica*)	Observed July 2013 *(P.pennsylvanica*)	
	Oak	*Quercus* sp.	In light or well drained soils and granitic areas	Nuts used	Speck and Dexter 1951, 1952			Observed June 2013 (*Q. rubra*)
	Labrador tea	*Rhododenrdon (*syn. *Ledum) groenlandicum*	Bogs, wooded swamps, wet barrens, and poorly-drained clearings and pastures	The leaves, and sometimes the whole leafy twigs and flowers, of both species were used, fresh or dried, for tea	Speck 1917, Speck and Dexter 1951,1952, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977		Observed June 2013	

						Observed on Site?		
Mi'kmaq Name	**Common Name**	**Scientific Name**	**Habitat**	**Mi'kmaq Traditional Use**	**Source**	**Greenfield**	**Kemptown**	**Limerock**
	Wild gooseberry/ currant	*Ribes* spp.	Various, depending on species	Fruit	Speck and Dexter 1951, 1952	Observed July 2013 (*R. glandulosum*)	Observed July 2013 (*R. hirtellum*)	Observed June 2013 (*R. glandulosum, R. hirtellum*)
Ajioqjominaqsi	Canada blackberry	*Rubus canadensis*	Clearing, thickets, and the edges of woods.	Berries used fresh or preserved, made into beverage	Waugh 1916, Speck and Dexter 1951, 1952, Arnason *et al.* 1981	Observed June 2013	Observed July 2013	Observed June 2013
Klitawmanaqsi'k	Red raspberry	*Rubus idaeus*	Roadsides, deforested land, talus slopes, and rocky ground	Berries used fresh or dried, juice made from berries	Speck and Dexter 1951, 1952, Stoddard 1962	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013
	Bramble	*Rubus* sp.	Various, depending on species	Fruit & beverage	Speck and Dexter 1951, 1952	Observed July 2013 (*R. pubescens, alleghaniensis*)	Observed July 2013 (*R. hispidus, R. setosus*,	Observed July 2013 (*R. Allegheniensis)*
	Curly dock	*Rumex crispus*	Waste places, cultivated ground, roadsides and around dwellings	Young leaves used as cooked vegetable	MacKinnon *et al.* 2009	Observed June 2013	Observed July 2013	Observed June 2013
Pukulu'skwimanaqsi'l	Red elderberry	*Sambucus racemosa*	Meadows, wet places, rocky hillsides and along streams. In rich soils	The juicy, tart berries were eaten fresh or dried for winter storage	Speck and Dexter 1951, 1952	Observed June 2013 Observed July 2013		Observed June 2013
	Common dandelion	*Taraxacum officinale*	An aggressive weed in lawns, pastures, and even cultivated soil.	Young leaves eaten raw or cooked	Rousseau 1945, Speck and Dexter 1951, 1952		Observed June 2013 Observed July 2013	Observed June 2013
	Eastern hemlock	*Tsuga canadensis*	Lakesides and swamps or old pastures, northern slopes or ravines	The inner bark of was grated and eaten by the Mi'kmaq of the Maritimes, and the bark was also used as a beverage and medicinal tea	Speck and Dexter 1951, Wallis and Wallis 1955, Stoddard 1962, Lacey 1977			Observed June 2013
	Blueberries, bilberries,cranberries	*Vaccinium* spp.	Various, depending on species	Berries used fresh or dried and also the Mi'kmaq made juice from blueberries and bilberries for drinking, but did not state which species were involved.	Speck and Dexter 1951, 1952, Adney 1944, Lacey 1977	Observed July 2013 (*V. angustifolium, V. myrtilloides)*	Observed June 2013 Observed July 2013 (V. *angustifolium, V. mytilloides, V. oxycoccos)*	
	Large -fruited Cranberry	*Vaccinum macrocarpon*	Bogs	Berries eaten fresh	Waugh 1916, Speck and Dexter 1951,1952, Stoddard 1962, Black 1980		Observed June 2013	
Poqomannaqsi	Foxberry (mountain cranberry)	*Vaccinum. vitis-idaea*	Cooler regions, such as exposed, coastal headlands and barrens	Berries	Unama'ki 2012, MacKinnon *et al.* 2009		Observed July 2013 (*V. angustifolium*)	
E'psemusi	American mountain ash (mountain ash)	*Sorbus americana*	Open woods and along hedgerows	Berries used fresh or preserved	Unama'ki 2012, MacKinnon *et al.* 2009		Observed June 2013	Observed June 2013
Jikjawiknejewimusi'l	Common wild rose	*Rosa virginiana*						Observed June 2013 Observed July 2013

Table B.2: Native Plant Species Traditionally Used for Medicinal Purposes by Nova Scotia Mi'kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
Stoqn	Balsam Fir	*Abies balsamea*	Various	Buds, cones and inner bark used to treat diarrhea Gum used to make dressing to treat burns Gum used as cold remedy Cones used to treat colic Gum and sap used to treat bruises, sores, and wounds Buds used as a laxative Gum used to treat fractures Inner bark boiled and used to treat sores and swelling Used to prevent colds and influenza Tea from cones and tops used to relieve colic, asthma and tuberculosis Sap used to treat stomach ulcers Bark used to treat gonorrhea	Chandler *et al.* (1979) Wallis (1922) Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Mimkutaqo'q	Striped maple/ moosewood	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Wood used to treat "spitting blood" Bark used to treat colds and coughs Wood used to treat kidney trouble Bark used to treat "grippe" Unspecified plant parts used to treat "trouble with the limbs" Wood used to treat gonorrhea	Chandler *et al.* (1979) Wallis (1922)	Observe d June 2013		Observed July 2013
	Maple	*Acer* sp.	Various, depending on species	Bark used externally to treat cold and congestion, as well as swollen limbs.	Lacey (1993)	Observed July 2013 *(A. rubrum)*	Observed July 2013 *(A. rubrum)*	Observed July 2013 *(A. rubrum)*
	Common Yarrow	*Achillea millefolium*	Disturbed areas, old fields, meadows, roadsides and sandy shores. Acidic soils	Tea from plant used to treat fevers. Plant pulverized and used externally on bruises, sprains and swellings Dried, powdered bark or green leaves rubbed over swellings, bruises, and sprains Herb used to treat colds Decoction of plant taken with milk to cause a sweat to treat colds	Lacey (1993) Wallis (1922) Chandler *et al.* (1979)			Observed June 2013 Observed July 2013
Tupsi	Speckled Alder	*Alnus incana*	Low ground in alluvial soils	Bark used to treat ulcerated mouth	Chandler *et al.* (1979)	Observed June 2013 Observed July 2013		Observed June 2013 Observed July 2013
Tupsi	Alder	*Alnus* spp.	Low ground in alluvial soils	Bark used to treat bleeding Bark used to treat hemorrhage of lungs Bark used to treat fever Bark used to treat dislocations and fractures Bark used to treat diphtheria Bark used as painkiller to treat cramps Bark used to treat retching Bark used to treat rheumatism Bark used as a physic Bark used to treat wounds Bark and leaves used to treat fevers and festers Tea from bark used to treat neuralgic pain Bark and leaves used externally to treat festering wounds	Chandler *et al.* (1979) Lacey (1993)			Observed June 2013 (*A. viridis*) Observed July 2013 (*A. viridis*)
	Everlasting	*Antennaria* sp or *Anaphalis* sp	Pastures, old fields, roadsides, borders of woods	Smoked, used spiritually	Lacey (1993)			

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
Wopapa'kjukal	Wild Sarsaparilla	*Aralia nudicaulis*	Dry woodlands and old forests	Used externally to treat wounds Root can be used to treat colds, coughs, and flu	Lacey (1993) Chandler *et al.* (1979)	Observed June 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
Nimnoqn	Yellow Birch	*Betula alleghaniensis*	Various	Wood used as a hot-water bottle Bark used to treat rheumatism Bark is also chewed for nourishment Tea from bark used to relieve indigestion , treat stomach cramps and diarrhea	Chandler *et al.* (1979) Lacey (1993) Lacey (1977)	Observed June 2013 Observed July 2013		Observed July 2013
	Gray Birch	*Betula populifolia*	On light soils, in pastures, burnt-over land, and barrens	Inner bark used to treat infected cuts. Inner bark used as an emetic.	Chandler *et al.* (1979)	Observed June 2013	Observed June 2013 Observed July 2013	Observed July 2013
	Yellow Clintonia/Bride's Bonnet	*Clintonia borealis*	Deciduous to mixed woods	Root juice taken with water to treat "gravel" (kidney stones)	Speck (1917)		Observed July 2013	
Wisawtaqji'jkl	Goldthread	*Coptis trifolia*	Coniferous forests, swamps, hummocks on bogs, and roadside banks	Herb used to treat treat sore or chapped lips and mouth ulcers Roots used to treat sore eyes Roots used to treat stomach medicine Roots chewed to treat unspecified medicinal use Used to promote an appetite	Chandler *et al.* (1979) Lacey (1977) Speck and Dexter (1951) Lacey (1993)	Observed July 2013	Observed July 2013	Observed July 2013
Wso'qmanaqsi'l	Bunchberry/ Dwarf Dogwood	*Cornus canadensis*	Various	Leaf tea used to treat bed wetting and kidney ailments Berries, roots and leaves used to treat seizures Used to treat kidney ailments Used to treat stomach problems Leaves were applied to wounds to stop bleeding and promote healing	Lacey (1977) Chandler *et al.* (1979) Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
Wjkulje'manaqsi	Red Osier Dogwood/ Red Willow	*Cornus sericea ssp. Sericea*	The edges of intervales, brook sides, wet meadows, and ditches along roadsides. Most common in rich, alkaline soils	Herb used to treat headache Herb used to treat sore eyes Herb used to treat catarrh Herb used to treat sore throat	Chandler *et al.* (1979)			Observed June 2013 Observed July 2013
	Dogwood	*Cornus* spp.	Various	Smoke used spiritually with parts of other plants such as willows	Lacey (1993)			Observed July 2013 (*C. alternifolia*)
	Pink Lady's Slipper	*Cypripedium acaule*	Acid soil in dry or wet woods; open areas	Tea of roots used to treat nervousness Tea of roots used treat tuberculosis	Chandler *et al.* (1979) Lacey (1993)		Observed June 2013 Observed July 2013	Observed June 2013
	Queen Anne's Lace, Wild Carrot	*Daucus carota*	Hayfields and along roadsides	Leaves used as a purgative	Chandler *et al.* (1979) Wallis (1922)			Observed June 2013 Observed July 2013
	Common Boneset	*Eupatorium perfoliatum*	Wet shores, meadows, the edge of swamps and bogs, along ditches and streams	Used to treat stomach ulcers Used to treat colds Used to treat arthritic pain Used to treat kidney trouble Used to treat spitting blood Used to treat gonorrhea	Lacey (1993) Chandler *et al.* (1979)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
	American Beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps Dry forest ridges and hilltops, scattered elsewhere	Leaves used to treat chancre Tea from leaves used to treat tuberculosis and other chest ailments Leaves used to sooth nerves and stomach	Chandler *et al.* (1979) Lacey (1993)			Observed June 2013 Observed July 2013
Atuomkminaqsi	Virginia and Woodland Strawberries	*Fragaria virginiana , F. Vesca*	Old fields and road sides	Parts of plant used to treat irregular menstruation Tea from plant used as a good general tonic Tea from plant used to treat dysentery Tea from plant used to treat weakness of the intestines Tea from plant used to treat infections of the urinary organs Leaves used to treat stomach cramps	Chandler *et al.* (1979) Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	White Ash	*Fraxinus americana*	Intevale forests, low grounds and open woods	Leaves used to treat cleansing after childbirth.	Chandler *et al.* (1979)	Observed June 2013 Observed July 2013		
Kna'ji'jk	Creeping Snowberry	*Gaultheria hispidula*	Mossy woodland knolls, barrens, and mature bogs, usually in partial shade	Decoction of leaves or whole plant taken to treat unspecified purpose	Speck (1917)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	
Ka'qaju'mannaqsi	Wintergreen, Teaberry, or Checkerberry	*Gaultheria procumbens*	Woods, barrens, pastures	Used to prevent and treat heart attack Tea from plant thins and regulates the blood to prevent blood clots	Lacey (1993)		Observed June 2013 Observed July 2013	Observed June 2013
	Jewelweed	*Impatiens capensis*	Moist open places, wet ground, along brooks and ditches, and in wet thickets. Prefers alluvial ground where organic matter and nutrient content are high	Herbs used to treat jaundice	Chandler *et al.* (1979)	Observed June 2013 Observed July 2013		
	Sheep Laurel/ lambkill	*Kalmia angustifolia*	Open ground	Roasted leaves used to treat colds Herb used to treat pain, swellings and sprains Poultice of crushed leaves bound to head to treat headache Herb used to treat swellings, pain and sprains Infusion of leaves considered valuable as a "non-specific remedy" Plant is boiled and used as bathing solution to reduce swelling, ease pain of rheumatism and treat sore legs and feet Plant considered very poisonous	Black 1980 Wallis (1922) Chandler *et al.* (1979) Speck (1917) Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013
Apu'tam'kie'jit	Eastern Larch (Tamarack)	*Larix laricina*	Bogs and wet depressions in forests	Bark used to treat colds Boughs brewed into tea and used to treat Sores and swelling, and as a diuretic Bark used to treat physical weakness Tea from bark and twigs used to treat colds and influenza Bark was used externally to treat festering wounds Bark used to treat consumption Bark used to treat gonorrhea	Speck (1917) Chandler *et al.* (1979) Lacey (1993)		Observed June 2013 Observed July 2013	
	Clubmoss	*Lycopodium sp.*	Various species, mostly found in wooded areas	Herb used to treat fever	Chandler *et al.* (1979)			Observed July 2013 (*L. annotinum* & *L. dendroideum*)
Plamwipkl	Mint (Field Mint)	*Mentha arvensis*	Rich, damp soil	Herb used to treat children with an upset stomach Herb used to treat croup	Chandler *et al.* (1979)			Observed June 2013
	Common Buckbean	*Menyanthes trifoliata*	Stagnant pools and bogs	Strong decoction of root taken to treat unspecified purpose	Speck (1917)			

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
	Partridge Berry	*Mitchella repens*	Moist places, forest ground cover	Used in the late stages of pregnancy to ease the pain of childbirth	Lacey (1993)	Observed June 2013		Observed June 2013
Kljimanaqsi	Northern Bayberry	*Morella (syn. Myrica) pensylvanica*	Coastal, on headlands and beaches. Occasionally in bogs and on heavier soils	Tea, berries, bark,leaves used as exhilarant Plant used to treat headache Root poultice used to treat inflammation Powdered root used to treat arthritic and rheumatic pain Tea from dried roots and leaves used to treat mouth infections Roots pounded, soaked in hot water to treat inflammation	Wallis (1922) Lacey (1993)			Observed June 2013 Observed July 2013
Kawatkw	White Spruce (Cat Spruce)	*Picea glauca*	Old fields and along the coast	Bark used to treat a variety of symptoms	Lacey (1993)	Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Kawatkw	Black Spruce (Bog Spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	Bark used as a cough remedy Bark used to prepare a salve to treat cuts and wounds. Gum used to treat scabs and sores Parts of plant used to treat stomach trouble Bark, leaves and stems used to treat scurvy Bark is chewed to treat laryngitis	Chandler *et al.* (1979) Lacey (1993) Wallis (1922)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	Eastern White Pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Tea from bark, needles and twigs used to treat colds and coughs Tea from bark, needles and twigs used to treat kidney problems Bark used to treat wounds Sap used to treat hemorrhaging Boiled inner bark used to treat sores and swellings Plant parts used to treat kidney trouble Bark, leaves and stems used to treat grippe Inner bark, bark and leaves used to treat scurvy	Lacey (1993) Chandler *et al.* (1979) Speck (1917)		Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
Wijikanipkl	Common Plantain	*Plantago major*	Disturbed areas	Used to draw out poison from wounds and sores Used to treat stomach ulcers	Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	Christmas Fern	*Polystichum acrostichoides*	Moist woods, cool ravines, wooded banks and thickets	Roots used to treat hoarseness	Chandler *et al.* (1979)			Observed June 2013
	Poplar	*Populus* spp.	Various	Tea from bark used to treat colds and influenza Tea from bark used to treat worms	Lacey (1993) Lacey (1977)	Observed July 2013 (*P. grandidentata*)	Observed July 2013 (*P. grandidentata*)	Observed July 2013 (*P. grandidentata*)
Miti	Trembling Aspen (Poplar)	*Populus tremuloides*	Damp soils	Bark used to treat colds Bark used to stimulate the appetite	Chandler *et al.* (1979)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013
Maskwe'smanaqsi	Pin Cherry	*Prunus pensylvanica*	Clearings, thickets, and the edges of fields on light soils	Wood used to treat chafed skin and prickly heat Bark used to treat erysipelas	Chandler *et al.* (1979)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	
Luimanaqsi	Common Chokecherry	*Prunus virginiana*	Roadsides, fencerows, edges of intervales, and the edges of woods	Bark used to treat diarrhea	Chandler *et al.* (1979), Lacey (1993)			Observed June 2013

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
	Bracken	*Pteridium aquilinum*	Pastures, old fields, roadsides, borders of woods	Fronds of plant used as stimulant to treat weak babies and old people	Chandler *et al.* (1979)		Observed June 2013 Observed July 2013 (*var. latiusculum*)	Observed June 2013
	Northern Red Oak	*Quercus rubra*	In light or well-drained soils and granitic areas	Bark and roots used to treat diarrhea	Chandler *et al.* (1979)			Observed June 2013
	Tall Buttercup	*Ranunculus acris*	Fields , meadows, and roadsides, mainly in heavy or moist soil,	Herbs used to treat headache Leaves used to treat headaches	Chandler *et al.* (1979)	Observed June 2013		Observed June 2013 Observed July 2013
	Buttercup	*Ranunculus* sp.	Various	Scent or juice from leaves applied to nostrils said to cure headache Used to treat cancer	Lacey (1993)		Observed July 2013 (*R. repens*)	Observed July 2013 (*R. repens*)
Apuistekie'ji'jit	Labrador Tea	*Rhododenrdon* (syn. *Ledum) groenlandicum*	Bogs, wooded swamps, wet barrens, and poorly-drained clearings and pastures	Leaves used to treat the common cold Tea brewed from leaves used as dieretic Leaves used to treat scurvy Leaves used to treat asthma Tea from leaves used as a tonic to treat variety of kidney ailments Infusion of leaves taken to treat a "beneficial effect on the system"	Chandler *et al.* (1979) Speck (1917) Lacey (1993)		Observed June 2013 Observed July 2013	
Ajioqjominaqsi	Common Blackberry	*Rubus alleghaniensis*	Sandy ground, old fields, open woodlands, and clearings	Berry used to treat diarrhoea Tea from runners used to as stomach medicine Tea from leaves and berries used to treat sores in mouth and throat	Lacey (1993)	Observed June 2013 Observed July 2013		Observed June 2013 Observed July 2013
	Bristly Dewberry/ Swamp Dewberry	*Rubus hispidus*	Peat bogs, but often on roadsides, damp hollows and barrens	Roots used to treat cough Roots used to treat fever Roots used to treat consumption/Tuberculosis	Chandler *et al.* (1979)		Observed June 2013 Observed July 2013	
Klitawmanaqsi'k	Red Raspberry	*Rubus idaeus*	Roadsides, deforested land, talus slopes, and rocky ground	Leaves and roots used to treat rheumatism Berries are a good general tonic	Lacey (1993)	Observed July 2013	Observed July 2013 (ssp strigosus)	
	Dwarf Red Blackberry/ Dwarf Raspberry	*Rubus pubescens* var. *Pubescens*	Low-lying boggy land, talus slopes, and often growing luxuriantly under bushes in open woods	Parts of plant used to treat irregular menstruation	Chandler *et al.* (1979)	Observed July 2013		
	Blackberry, Raspberry	*Rubus* spp.	Various, depending on species	Tea from runners used to treat stomach issues	Lacey (1977)		Observed July 2013 (R. *setosus*)	
	Curly Dock	*Rumex crispus*	Waste places, cultivated ground, roadsides and around dwellings	Infusion of roots used as a purgative Roots used as a purgative Infusion of roots, hemlock, parsley and Prince's pine used to treat "cold in bladder"	Mechling (1959) Chandler *et al.* (1979)		Observed July 2013	
Lmu'ji'jmnaqsi	Pussy Willow	*Salix discolor*	On low ground, in wet pastures, in damp, open woods, and along the edges of swamps	Bark used externally to treat bruises, and skin cancer Tea from bark also used to treat colds and kidney ailments	Lacey (1993)		Observed July 2013	Observed July 2013
	Heartleaf Willow	*Salix eriocephala*	Riverbanks and out on gravel bars. Bottomlands	Bark used to treat colds Bark used to stimulate the appetite Bark used to treat blisters	Chandler *et al.* (1979)		Observed July 2013	Observed July 2013
Pukulu'skwimanaqsi'l	Red Elderberry	*Sambucus racemosa*	Meadows, wet places, rocky hillsides and along streams. In rich soils	Barked used to treat emetic and cathartic purposes	Lacey (1993) Chandler *et al.* (1979)	Observed June 2013 Observed July 2013		
	Clover	*Trifolium pratense*	Fields and roadsides	Tea from plant used to treat fevers	Lacey (1993)	Observed June 2013		

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Medicinal Use	Sources	Greenfield	Kemptown	Limerock
	Eastern Hemlock	*Tsuga canadensis*	Northern slopes or ravines	Tea from bark and stems used to treat colds, coughs, "grippe" and influenza Inner bark used to treat diarrhea Inner bark used to treat chapped skin Parts of plant used to treat bowel, stomach and internal troubles Roots and stems used to treat "cold in kidney." And "cold in bladder" Bark used to treat grippe Inner bark used to treat scurvy	Lacey (1993) Chandler *et al.* (1979) Wallis (1922)			Observed June 2013 Observed July 2013
	Narrow-leaved Cattail	*Typha angustifolia*	Brackish swales near the coast, inland swamps, ditches, along streams	Roots used to treat gravel	Chandler *et al.* (1979)		Observed June 2013 Observed July 2013	
	Broadleaf Cattail	*Typha latifolia*	Swamps, ponds, and ditches in estuaries above the salt water, occasionally in floating bogs.	Leaves used to treat sores	Chandler *et al.* (1979)	Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
Pkumanaqsi	Low Bush Blueberry	*Vaccinium angustifolium*	Headlands, peaty barrens, fields, dry soils, sandy areas	Leaves and roots used to treat rheumatism Berries a good general tonic	Lacey (1993)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	

Table B.3: Other Useful Native Plant Species Traditionally Used by Nova Scotia Mi'Kmaq Reported from the Greenfield, Kemptown and/or Limerock Sites.

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Use	Source	Greenfield	Kemptown	Limerock
Stoqn	Balsam fir	*Abies balsamea*	Various	Wood used for kindling and fuel Boughs used to make beds	Speck and Dexter (1951), Unama'ki Institute of Natural Resources, 2012	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Mimkutaqo'q	Moosewood (striped maple)	*Acer pensylvanicum*	Rocky woods, rich deciduous forests, wooded slopes and along streams	Thin saplings used in wigwam construction	Nova Scotia Museum factsheet, ND	Observed June 2013		Observed July 2013
	Red maple	*Acer rubrum*	Swamps, alluvial soils, and moist uplands	Used to make basketware	Speck and Dexter (1951)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Snawey	Sugar maple	*Acer saccharum*	Well-drained soils	Used to make bows and arrows	Speck and Dexter (1951)			Observed July 2013
Tupsi	Alder	*Alnus* spp.	Low ground in alluvial soils	Bark used to make a dye	Speck and Dexter (1951)	Observed June 2013 (*A. incana*) Observed July 2013 (*A. incana*)		Observed July 2013 (*A. incana & viridis*)
Maskwi	White/paper birch	*Betula papyrifera*	Forests, especially on slopes	Bark used to make baskets Bark used to make boxes, coffins and other containers Bark used to make canoes Bark used to make dishes and cooking utensils Bark used to make house coverings	Speck and Dexter (1951) Speck and Dexter (1951) Rousseau (1948) Speck and Dexter (1951) Speck and Dexter (1951)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	Yellow birch	*Betula alleghaniensis*		Branches used as straps and thongs	Wallis and Wallis 1960	Observed June 2013 Observed July 2013		Observed July 2013
	Birch	*Betula* spp.	Various depending on species	Bark used to make torches for night fishing Bark used to make trumpets for calling game Bark used to construct containers, boxes, and cups Bark sheets used in wigwam construction	Speck and Dexter (1951) Speck and Dexter (1951) Wallis and Wallis 1955 Nova Scotia Museum factsheet, ND.		Observed July 2013 (*B. populifolia)*	Observed July 2013 (*B. populifolia)*
	Beaked hazel	*Corylus cornuta*		Basketry	Wallis and Wallis 1955	Observed July 2013		Observed July 2013
	American beech	*Fagus grandifolia*	Fertile uplands, rarely in swamps	Used to make snowshoe frames	Speck and Dexter (1951)			Observed June 2013 Observed July 2013
	White ash	*Fraxinus americana*	Intervale forests, low ground, and open woods	Used to make axe and knife handles	Speck and Dexter (1951)	Observed June 2013 Observed July 2013		
Apu'tam'kie'jit	Eastern larch/ tamarack	*Larix laricina*	Bogs and wet depressions in forests	Wood used for kindling and fuel	Speck and Dexter (1951)		Observed July 2013	
Kawatkw	White spruce (cat spruce)	*Picea glauca*	Old fields and along the coast	Boughs used to make beds. Wood used for kindling and fuel	Speck and Dexter (1951) Speck and Dexter (1951)	Observed July 2013	Observed June 2013 Observed July 2013	Observed July 2013
Kawatkw	Black spruce (bog spruce)	*Picea mariana*	Bogs, swamps and poorly drained areas	Boughs used to make beds. Roots used as sewing material for canoe birch bark product Wood used for kindling and fuel	Speck and Dexter (1951) Speck and Dexter (1951) Speck and Dexter (1951)	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013
	Eastern white pine	*Pinus strobus*	Bogs, swamps and poorly drained areas	Wood used for kindling and fuel	Speck and Dexter (1951)		Observed June 2013 Observed July 2013	Observed June 2013 Observed July 2013

Mi'kmaq Name	Common Name	Scientific Name	Habitat	Mi'kmaq Traditional Use	Source	Greenfield	Kemptown	Limerock
	Spruce	*Picea* spp.	See White and/or Black Spruce	Poles for wigwam construction Root used as twine, for sewing	Nova Scotia Museum factsheet, ND Wallis and Wallis (1955)		Observed July 2013 (*P. rubens*)	Observed July 2013 (*P. rubens*)
	Willow	*Salix* spp.	Various, depending on species	Leaves used as tobacco	Speck and Dexter (1951)		Observed July 2013 (S. discolour & S. eriocephala)	Observed July 2013 (S. discolour & S. eriocephala)
	Eastern hemlock	*Tsuga canadensis*	Northern slopes or ravines	Bark used to make a dye Wood used for kindling and fuel.	Speck and Dexter (1951)			Observed July 2013
	Cattails	*Typha* spp.	Marshes, wet depressions	Woven into bags and mats	Nova Scotia Museum factsheet, ND	Observed July 2013 (T. latifolia)	Observed July 2013 (T.angustifolia & T. latifolia)	Observed July 2013 (*T. latifolia*)