

35 Micmac Boulevard Redevelopment

Archaeological Resource Impact Assessment

Heritage Research Permit A2024NS051

April 11, 2024

DAVIS MACINTYRE & ASSOCIATES
ARCHAEOLOGICAL CONSULTANTS

Davis MacIntyre & Associates Ltd.
109 John Stewart Drive, Dartmouth NS B2W 4J7

35 MICMAC BOULEVARD REDEVELOPMENT: ARCHAEOLOGICAL RESOURCE IMPACT ASSESSMENT

Heritage Research Permit A2024NS051
Category C

Davis MacIntyre & Associates Limited
Project No.: 24-017.1

Principal Investigator/Permit Holder: April MacIntyre

Report Compiled by: April MacIntyre

Desktop/Historic Research: April MacIntyre
Predictive Modelling: Diandra Howard, Vanessa McKillop
GIS Mapping: April MacIntyre

Submitted to:

zzap Architecture + Planning
1 Canal Street
Dartmouth, NS B2Y 2W1

-and-

Coordinator, Special Places
Communities, Culture, Tourism and Heritage
1741 Brunswick St. P.O. Box 456
Halifax, NS B3J 2R5

Cover: Looking southwest over the study area, toward Irving Shipbuilding's Bluenose Building at 35 Micmac Boulevard.

TABLE OF CONTENTS

LIST OF FIGURES ii

LIST OF PLATES iii

LIST OF TABLES iv

EXECUTIVE SUMMARY v

1.0 INTRODUCTION 1

2.0 STUDY AREA 1
- 2.1 Palaeoecology 4
- 2.2 Natural Environment 8

3.0 METHODOLOGY 9

4.0 RESULTS 10
- 4.1 Maritime Archaeological Resource Inventory 10
- 4.2 Historic Background 11
  - 4.2.1 L'nuk Settlement During the Precontact and Historic Periods 11
  - 4.2.2 Settler and Euro-Canadian Settlement 21
- 4.3 Predictive Modelling 35
- 4.4 Field Reconnaissance 40

5.0 DISCUSSION 52

6.0 CONCLUSIONS AND RECOMMENDATIONS 52

7.0 REFERENCES CITED 53

Appendix A: Heritage Research Permit 59

LIST OF FIGURES

Figure 2-1: General location of the 35 Micmac Boulevard study area. 2
Figure 2-2: Satellite view of the boundaries of the study area. 3
Figure 2-3: Palaeogeography of Maine and the Atlantic Provinces, depicting how emergent landforms on the continental shelf were gradually submerged. 6
Figure 2-4: Former post-glacial lakes in the Halifax Harbour, prior to post-glacial sea level rise. Location of the study area shown in red. 7
Figure 4-1: The districts of Mi'kma'ki and Wabanaki Traditional Territories. 14
Figure 4-2: Depiction of Mi'kmaw encampment in Dartmouth ca. 1791. 18
Figure 4-3: Mi'kmaw encampment at Tuft's Cove in 1905 with Chief Louis Paul seated on the left. 21
Figure 4-4: The lands originally granted to James Quinn and others. The approximate location of the study area in blue. 22
Figure 4-5: Part of a map of Property along the 1st Dartmouth Lake showing Creighton's (Crichton) lot on the northwest side of Lake Banook near the outlet to Lake Micmac, which encompasses the study area. 23
Figure 4-6: Tract of land in Dartmouth in the County of Halifax belonging to the estate of James Creighton, the elder and sold by his executors (blue arrow, which is also the approximate location of the study area). The land is situated on the northwest side of Lake Banook and fully encompasses the land originally granted to Quinn and others. 24
Figure 4-7: Part of Ambrose F. Church's 1865 map of Halifax City depicting the study area (red). 26
Figure 4-8: Hopkins 1878 map of Dartmouth depicting the area around Lake Banook. "The Brae" is indicated in blue, while the study area is outlined in pink. North is to the upper left. 27
Figure 4-9: Part of Hopkins' 1886 map of Halifax and Dartmouth showing the area around Lake Banook and Lake Micmac, with the location of "The Avenue" (labelled as "Black Settlement") near the study area (red) and a nearby resident by the name of Russley to the south and Keeler's farm to the north. A Mi'kmaw settlement is also shown on the east side of Lake Micmac near Red Bridge Pond. 28
Figure 4-10: 238 Crichton Avenue, part of "the Avenue", photographed in the 1940s during road work. The house still stands today near the intersection with Lyngby Avenue. 29
Figure 4-11: Sketch of The Avenue as it was remembered in the late 1950s by community elders Susan Hewitt and Michael Lewis (1998). 31
Figure 4-12: The 1908 GSC map of the study area showing the location of The Avenue with the approximate location of the study area shown in red. 32
Figure 4-13: Georeferenced 1931 air photo with the boundaries of the study area in pink. 33
Figure 4-14: Georeferenced 1947 air photo with the boundaries of the study area in pink. 33

Figure 4-15: Georeferenced 1974 air photo with the boundaries of the study area in pink. 34
Figure 4-16: Georeferenced 1982 air photo with the boundaries of the study area in pink. 35
Figure 4-17: A map depicting the maximum 30m flood extent of Glacial Lake Shubenacadie 2 ca. 10.6ka in relation to the study area. 39
Figure 4-18: The study area with L'nuk activity potential buffers. 39
Figure 4-19: Satellite image of the study area showing the GPS track logs collected during the reconnaissance. 40

LIST OF PLATES

Plate 1: Looking southwest from the northeast edge of the study area, to the parking lot that dominates the north half of the study area, and Irving's Bluenose Building which dominates the south half. Note the catch basin near the center of frame. 41
Plate 2: Looking southwest over the parking lot in the north end of the study area, showing light standards which are fed by underground conduit. 41
Plate 3: Northwest edge of the study area from near the northwest corner, looking southwest. Note the recent resodding of the area immediately behind the curb and the difference in elevation between the grassed area and the parking lot. 42
Plate 4: Large bedrock outcrop at the southwest corner of the parking lot, looking southwest. 42
Plate 5: Looking southwestward from the southwest corner of the parking lot toward a laneway that leads to the rear parking lot, and an elevated and treed area beyond the fence. 43
Plate 6: Looking southwestward along the fence line in the laneway leading to the rear parking lot. Note the elevation change and stone retaining wall between the laneway and the forested area beyond the fence. 44
Plate 7: Looking southwestward along the top of the ridge outside the fence (at left), where a worn footpath was noted. 44
Plate 8: Blasted rock along the edge of the study area near the southwest corner. 45
Plate 9: The rear parking, on the south side of the Bluenose Building, showing water/wastewater infrastructure and the stone retaining wall, as well as light standards which are fed by underground conduit. Note the difference in elevation between the area inside and outside the fence. 46
Plate 10: A fire hydrant on the south end of the study area near the stone retaining wall. 46
Plate 11: A large above-ground gas generator on the south edge of the rear parking lot. Note the manhole/catch basin at the right edge of the frame. 47
Plate 12: Paved asphalt walkway on the south side of the building. 48
Plate 13: Industrial infrastructure at the southeast corner of the Bluenose Building, inside the fence. 48

Plate 14: Southeast side of the study area showing rocky ground and a semi-mature mixed wood area that stretches along the southeast end, outside the fence. 49
Plate 15: A ditch (right) and manicured lawn (left) along the southeast end of the study area, outside the fence. The driveway off Micmac Boulevard can be seen at left, looking southeast. 49
Plate 16: Continuation of the manicured lawn along the northeast edge of the study area, looking northeast. 50
Plate 17: A construction trailer and work area on the southeast side of the Bluenose Building..... 50
Plate 18: A manicured lawn and light standards along the southeast side of the building, with the driveway off Micmac Boulevard at right, looking northeast..... 51
Plate 19: Outside eating area on the southeast side of the Bluenose Building, inside the fence, looking southeast. 51

LIST OF TABLES

Table 4-1: Mi'kmaw/Archaeological Cultural Periods. 13

EXECUTIVE SUMMARY

In February 2024, Davis MacIntyre & Associates Limited was contracted by zzap Architecture + Planning to conduct an archaeological assessment for the redevelopment of 35 Micmac Boulevard, as part of the M District Future Growth Node in Halifax Regional Municipality (HRM). The assessment included a historic background study, predictive modelling and field reconnaissance in order to determine the potential for archaeological resources in the impact area and to provide recommendations for further mitigation, if necessary.

The study area is located at 35 Micmac Boulevard (PID 40174294) and encompasses approximately 10.7 acres, the majority of which is currently occupied by a 175,000 square foot office building and a parking lot.
The historic background indicates that Mi'kmaq and their ancestors have had a long-standing and intensive tradition of land use and occupancy throughout the Halifax/Dartmouth region since time immemorial. They took advantage of well-established travel routes via the lakes and rivers, particularly along the Shubenacadie waterway, to travel between the coastal and interior regions and had encampments along these waterways, as the archaeological record attests to.

In the historic period, the first known Euro-Canadian settlers obtained grants near the study area soon after the founding of Dartmouth in 1750. Though sparse Acadian use of the Dartmouth area is known, documentation is illusive. Occupation near the study area did not occur in earnest until the mid-19th century. Crichton Avenue was occupied historically by the African Nova Scotian community beginning in the early to mid-19th century. "The Avenue" and its nearby settlement, "The Extension" as they were known, were focussed around Crichton Avenue where a close knit community included a church and cemetery. The remains of the latter (and possibly the former) were disturbed when apartments were constructed in the 1970s on the west side of Mic Mac Boulevard. Historic maps and air photos suggest that the majority of settlement was located south and west of the study area. Historic maps suggest that by the mid-20th century, the study area was cleared fields, likely a part of Keeler's farm.

In the late 19th and early 20th century, the study area was part of a large farm which was cleared up until the mid-20th century. Beginning in the 1970s, construction related to high density housing in the areas adjacent to the study area, as well as commercial development directly in the study area included significant excavation and disturbance, as demonstrated by the surrounding topography and grade. Additional excavation within the study area has been conducted for the installation of subgrade infrastructure including water and wastewater infrastructure as well as buried electrical conduit, thereby diminishing the potential for archaeological resources related to L'nuk as well as Euro-settler use and occupation. Therefore, no additional archaeological investigation or mitigation is recommended.

Should development plans change, then a qualified archaeologist should be contracted to conduct an additional assessment on any new areas outside the project boundaries identified in this report.

In the unlikely event that any archaeological resources are encountered during ground disturbance and an archaeologist is not already on site, it is required that all activity cease and the Coordinator of Special Places (902-229-3159) be contacted immediately regarding a suitable method of mitigation.

1.0 INTRODUCTION

In February 2024, Davis MacIntyre & Associates Limited was contracted by zzap Architecture + Planning to conduct an archaeological assessment for the redevelopment of 35 Micmac Boulevard, as part of the M District Future Growth Node in Halifax Regional Municipality (HRM). The assessment included a historic background study, predictive modelling, and field reconnaissance in order to determine the potential for archaeological resources in the impact area and to provide recommendations for further mitigation, if necessary.

The current assessment was conducted under Category C (Archaeological Resource Impact Assessment) Heritage Research Permit A2024NS051 issued by the Department of Communities, Culture, Tourism and Heritage. This report conforms to the standards required by the Culture and Heritage Development Division under the Special Places Protection Act (*R.S., c. 438, s. 1*).

2.0 STUDY AREA

The study area is located at 35 Micmac Boulevard (PID 40174294) (Figure 2-1) and encompasses approximately 10.7 acres, the majority of which is currently occupied by a 175,000 square foot office building (currently Irving Shipbuilding's Bluenose Building) and a parking lot. A small portion of the study area is wooded along the south and northwest sides (Figure 2-2).

As part of Halifax Regional Municipality's (HRM) Regional Centre Secondary Municipal Planning Strategy, the land has been identified as a Future Growth Node, allowing building additions in excess of 1,000m^2.

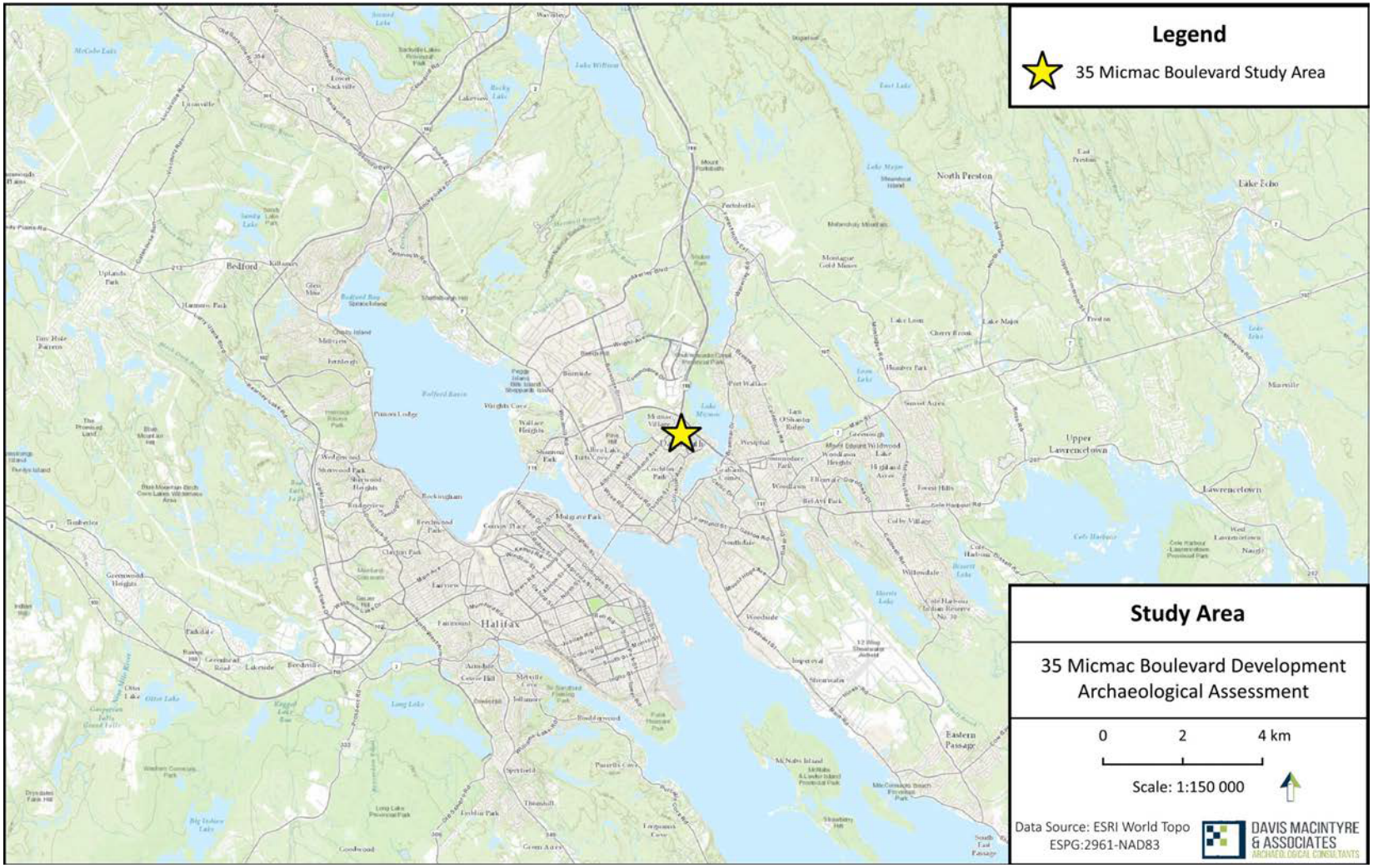


Figure 2-1: General location of the 35 Micmac Boulevard study area.



Figure 2-2: Satellite view of the boundaries of the study area.

2.1 Palaeoecology

Understanding the changing ecology of the early Holocene is paramount to understanding the archaeological record and the course of human history in our region from its beginnings. Processes associated with glacial advance and retreat have made a lasting impression on our province. During the most recent ice age, Atlantic Canada lay beneath the kilometre thick Laurentide Ice Sheet, which at the last glacial maximum (24 ka BP) extended its reach across the continental shelf to ocean depths of 800m.[1] The modern landscape bears the scars and relics of the Wisconsinan glaciation, in the form of drumlins, moraines, glacial erratics, lakes and drainage systems.

Deglaciation in the northeastern United States and the Atlantic Provinces began in earnest by 20 ka BP. Significant ice streams, draining vast areas of the Laurentide Ice Sheet, delivered large volumes of ice to the ocean and it was along these ice streams that calving occurred. The opening of the Gulf of Saint Lawrence in 14 ka BP accelerated this process, and calving ice margins eventually isolated a Newfoundland ice cap.[2] Glaciers were largely land-bound by 13 ka, and reduction continued through melting and climatic conditions rather than calving. In the wake of retreating glaciers, a mixed spruce woodland consisting of sedge, spruce, birch, and pine migrated northwards into Nova Scotia and created an environment suitable for large herds of migratory caribou. It is believed Saqiwe'k L'nu'k bands followed these herds into the region by at least 10,900 BP (12,900 cal BP).[3]

Deglaciation was not a unilinear process, as climate variables caused glaciers to retreat at different rates at different times. The Younger Dryas Cooling event took place between 10,900 and 10,600 BP (or 12,900 – 11,600 cal BP) and had a profound effect on vegetation.[4] Land-bound glaciers reactivated and the advance of forested regions was reversed, with areas of open shrub tundra expanding southwards. A rapid warming period followed the Younger Dryas, and with it, the environment changed again to a more closed, mixed deciduous forest of oak and pine.[5] Unburdened by the Laurentide Ice Sheet, the continental crust rebounded in isostatic uplift, resulting in a drop of relative sea level. At the same time, large volumes of water held in glacial ice was released back to the oceans, resulting in eustatic change. The pace of eustatic change was initially rapid, following a low sea level stand of -65m at 11.3-11.7 ka BP. Sea level rise slowed after 11 ka BP and was outpaced by isostatic change. By about 9.5 ka BP, the pace of land rise diminished and sea levels again began to overtake exposed shores in most areas.[6]

[1] Fader 2005, 2; Lothrop et al. 2011, 549.
[2] Shaw et al. 2006, 2069, 2072.
[3] Ellis 2004, 244; Newby et al. 2005, 151.
[4] Fader 2005, 5; Lothrop et al. 2011, 550.
[5] Newby et al. 2005, 151; Deal et al. 2006, 256.
[6] Shaw et al. 2002a, 1867; Fader 2005, 2.

Glacial isostasy and eustasy changed habitable coastlines over the millennia following deglaciation (Figure 2-3). Significant landforms, subaerially exposed through isostatic uplift were subsequently submerged by rising seas. Seafloors now at 60m depth in the Bay of Fundy, for instance, would have been above sea level.[7] Local conditions varied, as sedimentation near George's Island indicates that the Halifax Harbour emerged sometime between 8,400 BP to 7,000 BP, functioning as a low-productivity estuarine environment, before submerging again after 7,000 BP.[8] Sea level at this point is thought to be somewhere higher than -25 m below its present level. Intact ancient shorelines are elusive. Most have been reclaimed by the sea or reshaped by powerful erosional forces. However, areas like the Bedford Basin and Bras d'Or Lakes as well as certain interior riverine locations retain relatively intact paleoshores.[9] Evidence of human occupation from submerged sites has been found offshore. Artifacts like ridged ulus have turned up as unexpected catches of scallop draggers in the Bay of Fundy, Gulf of Maine, and off the coast of Prince Edward Island.[10]

In the early Holocene, Halifax and the harbour were much different than what we see today. At about 12,000 years ago when the last glaciers retreated from the region, much of Halifax Harbour was characterized by a series of lakes connected by an ancestral Sackville River system.[11] The former marine shoreline was located about 20 kilometers off Chebucto Head, about 65 to 70 meters below current sea levels. The Bedford Basin was occupied by at least three connected lakes - one in Bedford Bay, one in the Basin proper, and one in Fairview Cove. Palaeoshorelines have been identified in these areas by marine geologists. Before about 5,800 years ago, Bedford Basin existed as a lake for a period of roughly 6,000 years and boulder berms located during surveys of the basin indicate the presence of a number of small islands on the west side and a few on the east side as well. At the same time, a bedrock sill (Wellesley Rock) was exposed between Bedford Bay and the Basin proper. Part of the Sackville River system cascaded over the rock ledge creating waterfalls.[12] This area holds great potential for early Holocene archaeological sites potentially dating back as early as the Palaeoindian period (11,500 to 9,000 years BP) as this area would have been favourable for fishing and the rock ledge may have provided a convenient short cut across the Basin.

[7] Fader 2005, 5.
[8] Edgecomb et al. 1999, 814.
[9] Shaw et al. 2009, 24.
[10] Fader 2005, 6.
[11] Fader and Miller 2008, 153.
[12] Fader and Miller 2008, 153–4.

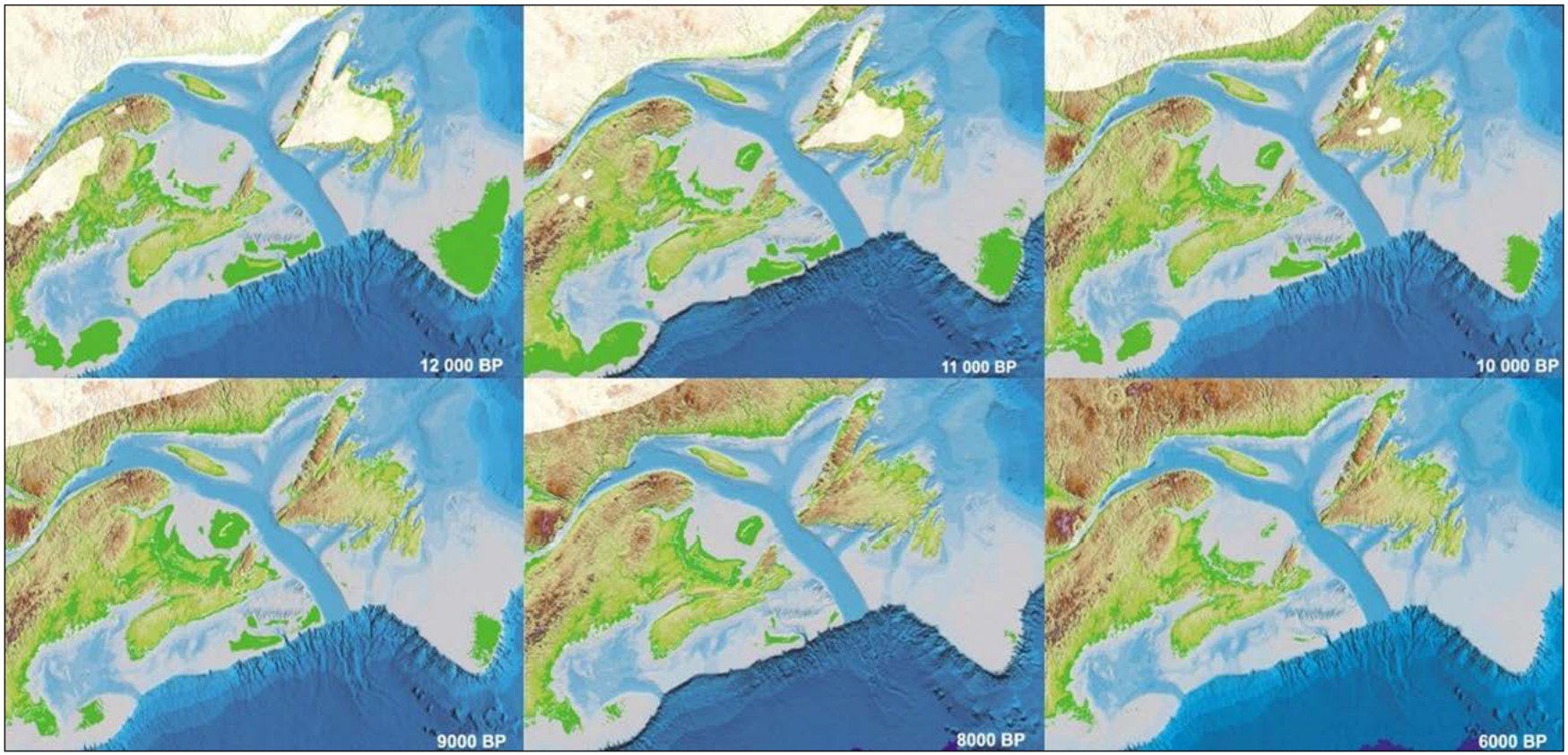


Figure 2-3: Palaeogeography of Maine and the Atlantic Provinces, depicting how emergent landforms on the continental shelf were gradually submerged.[13]

[13] From Shaw et al. 2002a.

Throughout the rest of the harbour, a series of lakes were present with two lakes in the Bedford Basin (Figure 2-4). The lakes were slowly consumed by rising sea levels, culminating in the flooding of the Bedford Basin once the sill at the Narrows was finally breached by the sea at about 5,800 years ago. This inundation caused the freshwater lake to suddenly change to a marine environment and would have had a major impact not only on animals, fish and vegetation, but also on people living in the area.[14] Most ancient shorelines have been reclaimed by the sea or reshaped by powerful erosional forces. However, some sheltered or interior areas may hold the potential for relatively intact palaeoshores, such as the Bedford Basin. More generally, by 6 ka BP, the geographical setting of the Atlantic region nearly matched conditions today. Sea levels continued to rise, reaching within 5m of their present depth off the Atlantic coast by 3,000 BP.[15]



Figure 2-4: Former post-glacial lakes in the Halifax Harbour, prior to post-glacial sea level rise. Location of the study area shown in red.[16]

[14] Fader and Miller 2008, 154.
[15] Shaw et al. 2002a, 1872.
[16] National Resources Canada 2010.

2.2 Natural Environment

The study area is located in the Eastern Interior (#440) ecodistrict, the largest ecodistrict in the province, stretching from Halifax County to Chedabucto Bay in Guysborough County. It is characterized by upland topography of rolling till-plain made up of generally gravelly and stony soils. Where glacial till is thin to non-existent, bedrock ridging is highly visible and where the till is deeper softwood forests can be found.[17]

This ecodistrict has three distinct drumlin concentrations, the nearest to the study area being the one in which Sackville River flows through. The drumlins are oriented north-south to coincide with the route of glaciers heading toward the Atlantic Ocean. They are characterized by finer textured till deposits than other parts of the district, which are primarily made up of quartzite and slate tills. The district is underlain with rock such as quartzite, slate and greywacke, as well as schist and migmatite that make up the Meguma Group.[18] Specific to the study area, the surface geology is glacially deposited ground moraine and streamline drift typically with stony, sandy matrix from local bedrock. The bedrock is composed of Halifax Formation slate, siltstone and sandstone which are metamorphosed to schist in places.[19]

The forest ecology of this region is a combination of black spruce forest, white pine forest, softwood/mixedwood forest; comprised of red spruce, hemlock, yellow birch and red maple, and tolerant hardwood forests of sugar maple, yellow birch and red maple.[20] In the early 20th century, Ben Morris reported that during his childhood (sometime after 1818 when he was born) the Halifax Common was home to a quantity of white pine and red oak and that he would shoot ducks at the black-duck pond (Egg Pond).[21] The forests on the peninsula have been subjected to disturbances such as fire, hurricanes, insects and natural deterioration. Due to the abundance of natural fuel in the form of pine and spruce litter, fires can have severe negative impacts on these sites – especially those sites characterized by a coverage of stones and boulders, or with shallow soils over bedrock.[22] Centuries of urban development and expansions in Halifax and neighbouring communities has drastically reduced, if not eliminated, many aspects of the natural history of this region.

The study area falls within the Sackville watershed, which drains a 996km^2 area along numerous waterways including the Sackville River.[23] In a report from 1882, Veith describes a great number of salmon and grilse in the Sackville River, but notes that the fishermen in the Bedford Basin complained of a lack of salmon compared to previous

[17] Neily et al. 2017, 121.
[18] Neily et al. 2017, 121–2.
[19] Department of Energy and Mines n.d.
[20] Neily et al. 2017, 123.
[21] Piers 2003a, 64.
[22] Neily et al. 2017, 124.
[23] Davis and Browne 1996a, 152.

years.[24] White sucker, shiners, sticklebacks, perch, banded killifish, and brook trout are the predominant freshwater fish.[25]

Avian populations include black duck and Canada goose who use the area as a stopover during migration, and the former species also breeds along this coast. Overwintering birds include goldeneye and scaup, white great blue heron, osprey, piping plover, and bald eagle, which all find various nesting locations in this region.[26]

Watercourses around the harbour have changed greatly since the earliest days of Halifax's settlement. Analysis of maps from the 18th and mid-nineteenth century indicate that there were four major watercourses that flowed across the peninsula, as well as a number of minor watercourses. In many cases, these watercourses were bounded by wetlands (about 83 ha in total).[27] Today, according to the Provincial Wetland Inventory, there are no wetlands on the Halifax Peninsula, and the waterways have been erased either by infilling, undergrounding, or other means undertaken by early development.[28] On the Dartmouth side of the harbour, the development of the Shubenacadie Canal in the 19th century has had a significant influence of the Shubenacadie River, its lakes and tributaries.

3.0 METHODOLOGY

A historic background study was conducted by Davis MacIntyre & Associates Limited in March 2024. Historic maps and manuscripts and published literature were consulted from the Nova Scotia Archives and other online sources. LiDAR and air photos were also examined. The Maritime Archaeological Resource Inventory (MARI), a database of known archaeological resources in the Maritime region, was searched to understand prior archaeological research and known archaeological resources neighbouring the study area.

The Archaeological Research Division at Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO-ARD) was contacted in February 2024 to inquire whether traditional Mi'kmaw land use is known in or near the study area. A response was received on March 13, 2024. While the traditional use information provided is confidential, it has been taken into consideration during this assessment. KMKNO-ARD also provided historical references from their database which has been incorporated into the historical background below.

A field reconnaissance of the study area was conducted in April 2024, with particular attention paid to areas anticipated to be impacted. Detailed notes and photographs were collected, with tracklogs recorded via handheld GPS units.

[24] Veith 1886, 67.
[25] Davis and Browne 1996b, 199.
[26] Davis and Browne 1996b, 199.
[27] Reid 2012, 34–5.
[28] Reid 2012, 37–40.

4.0 RESULTS

4.1 Maritime Archaeological Resource Inventory

The Maritime Archaeological Resource Inventory was accessed on February 7, 2024 in order to determine if known archaeological sites or resources exist within or near the study area. A search radius of 5-km from the study area was examined, within which at least 81 sites have been previously reported. These sites include L'nuk finds dating from the Palaeoindian period up to early 20th century Euro-settler occupation.

The nearest precontact period finds were located on the shores of Lake Micmac where a late Archaic general activity site has been reported (**BeCv-07**). An isolated Palaeo chalcedony fluted point preform was found within fill from a nearby source at Red Bridge Pond (**BeCv-14**), and 19th century Mi'kmaw petroglyphs near Millers Mountain (**BeCv-17**) have also been reported near this location. At the south outlet of Lake Charles, a grooved axe was reported and is representative of L'nuk use and occupation in the Late Mu Awsami Kejikawe'k L'nuk/Archaic period (**BeCv-08**). In addition to sites with designated Borden numbers, a single quartz flake was found in a disturbed context during archaeological testing at nearby Birch Cove Park in 2021. It has been assigned accession number 2022.1.1.

Additional L'nuk archaeological finds have been reported near Dartmouth Cove, including a blocked-end tubular pipe and a large projectile point (BeCv-02), the former which is often associated with human burials.

A number of historic sites have been recorded in the vicinity of Dartmouth Cove and downtown Dartmouth, including the remains of the Starr Manufacturing Company (BeCv-30), a unmarked cemetery near St. James' Presbyterian manse (**BeCv-01**), features related to the Shubenacadie Canal, as well as late 19th through early 20th century dumping and infilling activities (**BdCv-18** and **BdCv-27**) and remains of a 19th century wooden wharf (**BdCv-17**).

The number of known archaeological sites in the Dartmouth area reflects long-standing use and occupation of this area since time immemorial and continuing to the present day by both L'nuk and Euro-settlers. The density of known archaeological sites related to L'nuk presence indicates an important reliance on the coastal region and on the waterways and water bodies neighbouring the study area by the Mi'kmaw and their ancestors.

No registered archeological sites have been identified immediately within the study area. The lack of archaeological data for the immediate area likely reflects a lack of extensive archaeological survey rather than an absence of archaeological sites. This is compounded by poor site preservation and visibility due to historic land development as well as landscape and climate change over the last several thousand years.

4.2 Historic Background

4.2.1 L'nuk Settlement During the Precontact and Historic Periods

Spatially and geographically, L'nuk land use throughout Mi'kma'ki is not considered in the same sense that European occupation is recorded in historic times. Colonialism has had a significant impact on Mi'kmaw lifeways but prior to European contact, the Mi'kmaq and their ancestors had a very dynamic relationship with the land which was reflected in their language, legends, songs, dances, and oral tradition. The landscape was viewed as "sentient, ever-changing, and in a continual process of becoming".[29] Therefore, the euro-centric view of the land as discrete and definitive land parcels does not reflect the Mi'kmaw world view and references to site-specific pre-contact land use from the first-hand perspective of the Mi'kmaq (through oral tradition) are difficult to ascertain. However, historic references by Europeans do exist, although they must be carefully considered due to their inherent bias, and Mi'kmaw land use and occupation is reflected in the archaeological record.

Nova Scotia has been home to the Mi'kmaq and their ancestors for at least 13,000 years. A legacy of experience built over millennia shaped cultural beliefs and practices, creating an intimate relationship between populations and the land itself. The complexity of this history, culturally and ecologically, is still being explored.

The earliest period is Saqiwe'k L'nuk (the Ancient People) or the Palaeoindian period (13,000 - 9,000 cal BP).The changing ecology following deglaciation allowed the entrance of large herds of migratory caribou into Nova Scotia, followed by Palaeoindian groups from the south.[30] Currently, the Debert/Belmont Sites provides the most extensive evidence of Palaeoindian settlement in the province, with isolated finds from this period also present throughout the province. Commonly believed to be big-game hunters, research is now aimed at exploring the diverse subsistence patterns that may have supported populations, and what adaptations were made when the environment shifted once again in the early Holocene.[31]

Succeeding the Saqiwe'k L'nuk is the Mu Awsami Kejikawe'k L'nuk (the Not so Recent People) or the Archaic Period (9,000-3,000 cal BP).This time saw a reorientation to a more maritime subsistence, with settlement pivoting more towards coastal areas, lakes, and bountiful riverine resources.[32] Remnants of these sites along the coast have largely been engulfed by rising seas or battered by wind and wave, though interior sites are increasingly being discovered.[33] Ground stone tools, specialized for woodworking, appear at this time and may have been used to create dug-out canoes. Numerous traditions and

[29] Sable and Francis 2012, 18.
[30] Newby et al. 2005, 151.
[31] Lothrop et al. 2011, 562.
[32] Tuck 1975.
[33] Deal et al. 2006.

distinct technologies have been documented throughout Maine and the Atlantic provinces. A growing catalogue of exotic cultural components demonstrates that groups within Nova Scotia were engaged in spheres of interaction spanning hundreds of kilometers. Unfortunately, a lack of formally excavated sites within Nova Scotia still obscures the degree to which these traditions were present.

By the Kejikawe'k L'nuk (the Recent People) or Woodland/Ceramic period (3,000-550 cal BP), the Mi'kmaq were a maritime people, with known sites concentrating along coastal shorelines and navigable watercourses.[34] Migration of ideas and people introduced new worldviews and technologies from groups originating in places like northern New England and the Great Lakes area, to local populations, including the earliest ceramic forms. Harvesting of marine molluscs and shellfish appears in this period, and substantial shell-middens have gifted archaeologists with well-preserved records of these past lives.[35] Fish weirs populating the province's rivers and streams speak to the importance of migrating fish species to Mi'kmaq life. Terrestrial hunting and foraging were practiced with varying degrees of intensity depending on seasonality and region. A generally stable cultural form is believed to have developed by 2,000 cal BP, forming the way of life first encountered by Europeans arriving on our shores.[36]

Mi'kmaw life was substantially altered in the Kiskukewe'k L'nuk (Today's People) or Contact Period (500 BP- Present). Trade and European settlement introduced change and upheaval to the traditional way of Mi'kmaw life. Mobile hunting and gathering still defined Mi'kmaw life, with identity residing within family households.[37] Trading posts and fishing villages became intersections of European and Mi'kmaq interaction, affecting traditional seasonal rounds and access to land. The hunting of fur-bearing mammals intensified to satisfy the mutual exchange of skins for European goods.[38]

Archaeological evidence of this trade is best represented by the emergence of the "Copper Kettle Burial" tradition, dating from around 1500 to the late 1600s.[39] This burial tradition, which is primarily associated with the Mi'kmaq, involved the internment of the deceased with overturned copper pots, European trade goods, alongside items of Mi'kmaw manufacture. It is not accurate, however, to say that Mi'kmaq *adopted* European goods and culture, but rather *adapted* to it. Furthermore, the cultural exchange went both ways, with European settlers adopting aspects of Mi'kmaw culture, like language, and material culture such as canoes, snowshoes, and forms of dress. The Mi'kmaq remained an influential social and political force in the 18th century forming a triadic narrative of contention with the English and French. However, disease, colonial

[34] Davis 1993, 100.
[35] Davis 2005, 18.
[36] Wicken 2004, 26.
[37] Wicken 2004, 30.
[38] Whitehead 1993, 89.
[39] Deal 2016, 130.

policy, and alienation from their traditional territory wreaked a ruinous effect on the Mi'kmaq by the 19th century, pushing people to the margins of colonial society.[40]

Table 4-1: Mi'kmaw/Archaeological Cultural Periods.[41]

Mi'kmaw Period	Archaeological Period	Years (C^{14} Uncalibrated)	Calendar Years (Calibrated)
Saqiwe'k L'nuk (the Ancient People)	Palaeoindian *Early/Middle* *Late*	**11,500 – 9,000 BP** *11,500 – 10,000 BP* *10,000 – ~9,000 BP*	**13,000 – 9,000 cal BP** *13,000 – 11,600 cal BP* *11,600 – 9,000 cal BP*
Mu Awsami Kejikawe'k L'nuk (the Not so Recent People)	Archaic *Early/Middle* *Late/Transitional*	**9,000 –3,000 BP** *9,000 – 5,000 BP* *5,000 – 2,500 BP*	**9,500 – 3000 cal BP** *9500 – 5,500 cal BP* *5,500 – 3,000 cal BP*
Kejikawe'k L'nuk (the Recent People)	Woodland/Ceramic *Early* *Middle* *Late*	**3,000 –500 BP** *3,000 – 2,400 BP* *2,400 – 1,700 BP* *1,700 – 500 BP*	**3,000 –550 cal BP** *3,000 – 2200 cal BP* *2,200 – 1,300 cal BP* *1,300 – 550 cal BP*
Kiskukewe'k L'nuk (Today's People)	Protohistoric Historic/Modern	**500 BP – 350 BP** **500 BP – present**	**550 – 350 cal BP** **350 cal BP – present**

The Mi'kmaq inhabited the territory known as Mi'kma'ki or Megumaage, which included all of Nova Scotia including Cape Breton, Prince Edward Island, New Brunswick (north of the Saint John River), the Gaspé region of Quebec, part of Aroostook County in northern Maine and southwestern Newfoundland (Figure 4-1). The study area is located within the Mi'kmaw territory known as Sipekne'katik meaning "wild potato area" or "place of groundnuts." Sipekne'katik encompasses parts of what today are Hants, Lunenburg, Kings, Colchester, Halifax and Cumberland Counties. Historic European records suggest there were three summer villages within the territory, located at Shubenacadie, Truro, and Tatamagouche. Several villages are also recorded in and around Kjipuktuk/Halifax.[42] More villages were likely established throughout Sipekne'katik, but either fell outside of the knowledge of European sources or were simply not recorded.

[40] Reid 2009.
[41] Lewis 2006; Confederacy of Mainland Mi'kmaq 2007, 3; Davis 2011, 22; Betts and Hrynick 2021, 19.
[42] Hoffman 1955, 534-35.

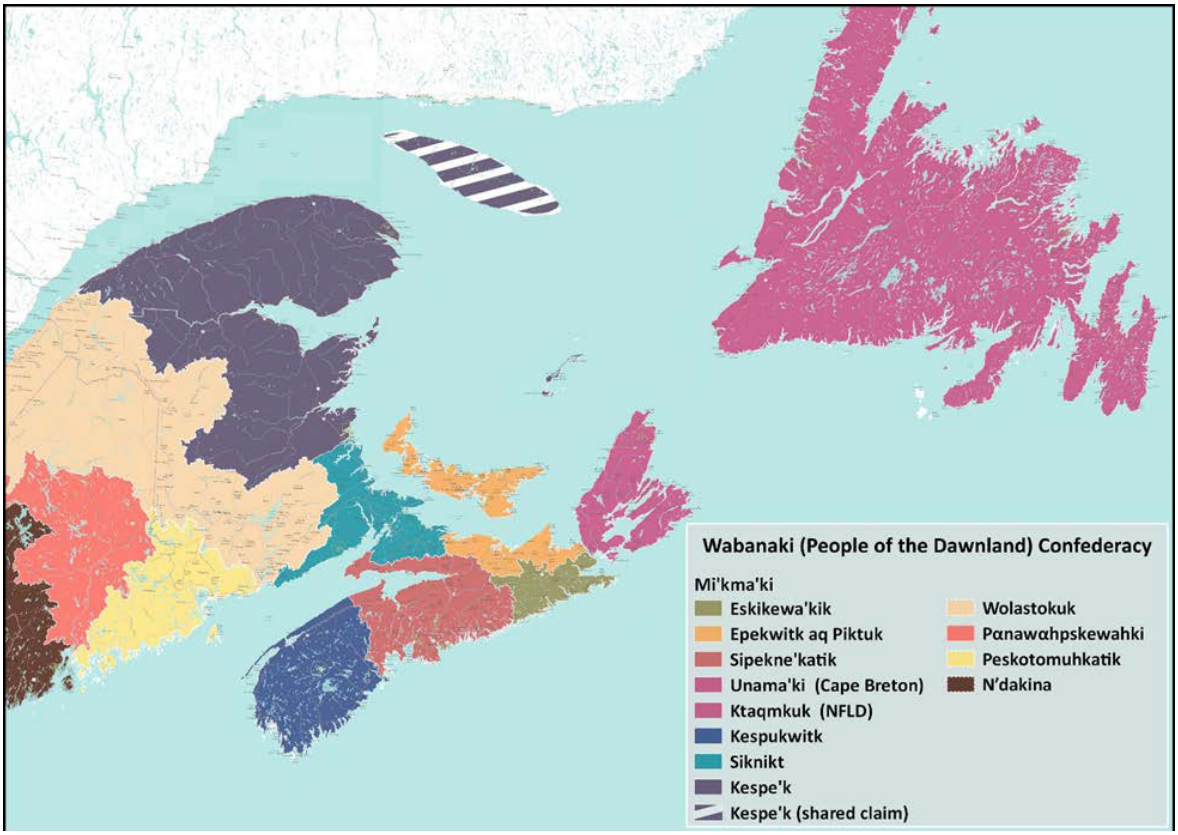


Figure 4-1: The districts of Mi'kma'ki and Wabanaki Traditional Territories.[43]

The cultural significance of the study area to the Mi'kmaq and their ancestors is recorded in the Mi'kmaw language. The Mi'kmaw language, inseparable from Mi'kma'ki, is embedded with knowledge of the land and a unique way of understanding the world, reflected in both oral traditions and place names.[44] For archaeologists, the Mi'kmaw language can provide powerful insights into traditional land-use, available resources, and how these places were perceived.

According to the French missionary and orthographer, Capucin Pacifique, Dartmouth is known in the Mi'kmaw language as Punamu'kwati'jk, meaning "at the tomcod place".[45] Lonecloud, speaking in the early 20th century to former museum curator Harry Piers,

[43] Adapted from Sable et al. 2012; Maliseet Nation Conservation Council 2009; Johnson 2020; Membertou Geomatics Solutions (MGS) and Unama'ki Institute of Natural Resources (UINR) 2016; EPA 2015; Abbe Museum s.d. Some traditional territory overlap exists in western New Brunswick, Quebec and Northern New England. This adaptation is based upon modern watershed delineations. Boundaries within modern territories were likely fluid during periods of landscape and climactic changes. Current delineations are more reflective of series of treaties, negotiated between various Wabanaki nations and contemporary indigenous groups, and post contact treaties with the French, English, and federal governments of Canada and USA.

[44] Sable and Francis 2012, 26.

[45] Pacifique 1934, 278.

indicated that where the Shubenacadie River enters the harbor, was known as Ponamogoatitjg or "the salmon place". Several place names are recorded in the vicinity of Dartmouth, including in locations of historic habitation. Several of these names refer specifically to important resources. Mnikwaqnik or Birch Cove, translates to "the place where they get bark". Tkipowik or Sandy Cove, is another location where Mi'kmaq are recorded to have camped in the historic period. The name means "there is a spring there".

Other place names describe the landscape or cultural activities in that place. Loqutujk or Morris Lake is called the "place of scaffold or drying flats", perhaps referring to fish flakes and harvesting activity in this area. Lake Banook derives its name directly from the Mi'kmaq name Panuk, meaning "at the opening" or "first lake". This is a common descriptive name for the first lake in a river system and is used for other locations across the province. The 'first lake' is an important distinction for people who travelled so frequently along waterways. The Mi'kmaq name for Prince Arthur Park, north of the study area is Kuowa'qmitu'jk or "little pine hill".

Halifax Harbour was Kjipuktuk, meaning "Great Harbour", and today is often used to refer to the Halifax landscape. The main entrance to the harbour is recorded as Dwidden or "the big passage". [46] The peninsula of Halifax is known as Kuowa'qumikt or Gwowaqmicktook meaning "the place of white pine, white pine forest". Bedford Basin was Asogômapsgiatjg, meaning "at the rocky crossing".[47] Jerry Lonecloud, a Mi'kmaw legend keeper and resident of Tuft's Cove, gave a name for a location in Fairview – Al-e-sool-a-way-ga-deek, meaning "at the place of measles", in reference to the tragic death of many Mi'kmaq from disease transmitted by the French, perhaps during Duc d'Anville's doomed 1746 expedition.[48]

Archaeological evidence supports occupation of Kjipuktuk and surrounding area by the Mi'kmaq and their ancestors from the Palaeoindian period to the historic period. Historic documents record Mi'kmaq living throughout Kjipuktuk. The indented coves and inlets of the harbour provided ideal camping grounds at places such as Birch Cove, Fairview Cove, McNab's Island, and Sandy Cove. Kjipuktuk offered Mi'kmaw families numerous advantages including sheltered coves, numerous freshwater sources, and access to marine, coastal, and riverine resources, as well as easy movement throughout the greater landscape along waterways like the Shubenacadie and Sackville Rivers.

The most significant travel route was the Kjipuktuk/We'kopektik trail along the Shubenacadie River System, which allowed cross-provincial travel between Halifax Harbour and Cobequid Bay. This trail, which archaeological evidence suggests dates to the Precontact period, could be travelled by canoe over several portages or by foot during times of the year when the lakes were impassable. Travel to the Cobequid area could also

[46] Christianson 2005, 2.
[47] Ta'n Weji-sqalia'tiek.
[48] Christianson 2005, 2.

be achieved by a short trip up the Little Sackville River, a portage of less than 1 kilometre to First Lake, then a passage through Second and Third lakes, before entering the Shubenacadie River system.[49] A review of topographic mapping indicates that one could also follow the river upstream to Tomahawk Lake, portage approximately 1 kilometre to Pockwock Lake, then descend Pockwock and Indian Rivers to reach the head of St. Margaret's Bay. A precontact pedestrian path may have connected the northeastern cove of Lake Micmac to the historic base of Lake Major, with historic mapping showing several early roads sharing the same northeast/southwest alignment.[50]

The Kjipuktuk/We'kopektik trail along the Shubenacadie River continued to be used into the historic period as well. Between 1831 and 1835, two Mi'kmaw men, Noel Jeddore and Handley Squegun, used this route to travel from Dartmouth to St. John, New Brunswick in a single day, which they had heard that other Mi'kmaq had previously accomplished. They were said to have left Dartmouth in a birchbark canoe and travelled through the Dartmouth Lakes, travelling onto the Shubenacadie River to Milford. Here, the Fundy tides were flowing out, carrying them to Maitland at the mouth of the river and then down the Minas Basin near Blomidon. Here, they crossed to Advocate Harbour and coasted westward to Cape Chignecto. The tide was still going out at this point in their journey, when they crossed Chignecto near the Three Sisters to the New Brunswick shore.[51]

Mi'kmaw settlement in and around Kjipuktuk is reflected in historic documents as early as 1688, when Sieur de Gargas recorded thirty-three Mi'kmaq living in seven 'cabanes' when he visited Halifax Harbour in 1688.[52] Sieur de Diereville, a French surgeon and author, met three Mi'kmaw chiefs at Halifax Harbour in 1699, leading Diereville to speculate the harbour was an important gathering place for the Mi'kmaq.[53] The Governor of Acadia, Jacques Monbeton de Brouillan, describes hundreds of Mi'kmaq living around Kjipuktuk in 1701.[54] While these population descriptions are helpful, the number of Mi'kmaq living on the harbour likely fluctuated throughout the year. For example, during the spring salmon run, there is evidence that Mi'kmaq gathered in a large encampment on a rise upstream of the outlet of the Sackville River into the Bedford Basin.[55] This may be the same location, near Fort Sackville, where four Mi'kmaw camps are known in the 19th century. It is likely that more habitation sites were in use around the harbour in the 17th century, however fewer historic records exist during this period due to the lack of French activity in the area.

[49] Sanders and Stewart 1999, 7.
[50] Sanders 2016, 23.
[51] Whitehead 2015, 212–3.
[52] Wicken 2004, 171.
[53] Hoffman 1955, 335.
[54] Ingalls and McGrath 1998, 10.
[55] Ingalls and Ingalls 2010, 11–2.

Contact between the Mi'kmaq of Kjipuktuk and Europeans became more frequent during the eighteenth century. This period also marked a time of increasing strife between Mi'kmaw and British authorities. The Mi'kmaq of Kjipuktuk were deeply involved in these conflicts and were central in a historical tragedy which unfolded on the shores of the Bedford Basin in the mid-18th century. In the summer of 1746, Mi'kmaw warriors from Chebucto and bands throughout Mi'kma'ki gathered in Kjipuktuk. They were awaiting a French armada of over 70 ships led by Duc d'Anville, the greatest naval military force ever sent from France to North America. Together, their goal was to avenge the loss of Louisbourg the year prior, destroy the British fort at Annapolis Royal, and retake all of Acadia from the British.[56]

The expedition was doomed nearly from the onset. Delayed by weather and poor organization, only forty-four ships arrived in the harbour. By the time of their arrival, many of the Mi'kmaq had dispersed and gone home. The remaining Mi'kmaq assisted the French soldiers to their camps at Fairview and Birch Coves. The sailors were in poor health and the Mi'kmaq were exposed to highly contagious diseases to which they had no immunity.[57] These illnesses killed countless Mi'kmaq in Kjipuktuk. Surviving Mi'kmaq left, unknowingly carrying these fatal diseases to their home villages, spreading the contagion further. The Mi'kmaq buried their dead "back of the site of Forrest's Tannery", located in the vicinity of Titus Smith Park in Fairview today.[58]

In 1884, during construction of the railway along the Dartmouth side of the harbour, it was noted that human remains were discovered "to the eastward of the town-plot, which was known as the plague graveyard when the [Mi'kmaq] died in large numbers" as a result of a scurvy outbreak transmitted by the French. It is stated the French who succumbed to the disease were also buried here.[59]

The historical consequences of French disease for the Mi'kmaq were immediate. Due to the depopulation of Kjipuktuk, in 1749 Edward Cornwallis and ships full of British settlers arrived at a Halifax Harbour nearly absent of its Mi'kmaw residents. Though devastated by disease, the Mi'kmaq defended their claim on Kjipuktuk and resisted British settlement in the area for years after the founding of the colony. British settlement in Kjipuktuk, seen by the Mi'kmaq as a violation of the 1726 treaty, resulted in a deterioration of relations between the two nations and numerous confrontations.[60] This includes the 1749 attack by the Mi'kmaq on the burgeoning settlement of Dartmouth. In response, a small group of Mi'kmaq living on the Dartmouth side of the Harbour were deported.[61] They were moved to the northeastern portion of McNab's Island, now called "Indian Point", and lived there for some time.

[56] Ingalls and Ingalls 2010, 11–2.
[57] Ingalls and Ingalls 2010, 14.
[58] Ingalls and Ingalls 2010, 15–7.
[59] Martin 1957, 417.
[60] Paul 2008, 112.
[61] Kinsman 1995, 2.

Though displaced through disease, war, and colonial policy, the Mi'kmaq continued to live in Kjipuktuk through the 18th and 19th centuries (Figure 4-2). Dartmouth became a gathering place for local Mi'kmaq, with historic references to habitations on the harbour shores and along the area's plentiful lakes. In 1836, it was reported that canoe races were held in Halifax Harbour and that Lewis Paul and Mary Tony were the winners of the men's and women's races. Martin suggests that they were likely residents of Dartmouth.[62] There is also reference to a canoe contest for Mi'kmaw women on "First Lake", or Lake Banook, in October 1846.[63]



Figure 4-2: Depiction of Mi'kmaw encampment in Dartmouth ca. 1791.[64]

Local historian John Martin recorded the presence of "rows of wigwams along the side of Silver's Hill from the present MicMac Club to Graham's cross roads".[65] He also describes a second encampment at the Second Red Bridge, located across Lake Micmac at Miller Mountain, and other camps near Pleasant and Erskine Streets. Hills on the side of Lake Banook and Lake Micmac were the "most favourable camp sites" and coves like Hoogaininny Cove (at the end of Sinclair Street, directly west across the lake from study area) and Carter's Pond were also occupied by the Mi'kmaq. Mi'kmaq continued camping at the junction of Highway 7 and 18 until the 1880s and at the Second Red Bridge by the early 20th century.[66]

[62] Martin 1957, 219.
[63] Martin 1957, 299.
[64] Binney 1791.
[65] Martin 1957, 276.
[66] Jones 2018.

In the April 1899 edition of the Atlantic Weekly, Martin recounts an old resident's accounts of life in Dartmouth during the 1830's. The resident recounts that young men would gather above Sullivan's Pond to "watch the Indians go through their war dances, jigs, etc., in all the paint, feathers and style of a more remote period".[67]

Martin also states that in June 1845, a visit to Mi'kmaq camps at Lake Banook was described in the *Acadian Recorder.* Unfortunately, this account could not be located in the June issues for 1845 and the year or month provided by Martin may have been reported in error. According to Martin, the camps were visible from "The Brae", where Mr. Crichton's house was located (this estate was located on the southeast side of Lake Banook and the house was in the vicinity of Cleveland Crescent). This suggests the camps were in the south end of Lake Banook. Martin quotes the newspaper as follows:

> *[The camps were] on the facing side of two rising grounds, and the intermediate valley between had its occasional rude domicile. In one wigwam, men were preparing wicker work for their baskets. In another, women were busy plying porcupine quills which, in various and gorgeous dyes, they were fashioning into fanciful and graceful figures […].*[68]

In 1873, Charles Hallock noted that the Mi'kmaq had villages "[a]t the Dartmouth Lakes, six miles from Halifax".[69]

The route through the Dartmouth Lakes was an important transportation route from Shubenacadie Grand Lake to Halifax Harbour and around 1831-1835, two Mi'kmaq were documented using this route to travel onward to St. John, New Brunswick. They were said to have left Dartmouth in a birchbark canoe and travelled down the Dartmouth Lakes and through the Shubenacadie waterway to the Minas Basin.[70]

Red Bridge, on the eastern shore of Lake Micmac, was another significant Mi'kmaq encampment. A number of notable Mi'kmaq called Red Bridge their home as well. Harry Piers, in 1880, noted that Gorham Paul's wife lived at Red Bridge in Dartmouth, though she was known as Mohawk not Mi'kmaq.[71] Lewie Newell (Louis Noel) and Peter Joe Cope were both from Red Bridge, Dartmouth.[72] Jerry Lonecloud also lived at Red Bridge for a year in the late 19th century.[73]

[67] Martin 1957, 241.
[68] Martin 1957, 286–7.
[69] Hallock 1873, 120–1.
[70] Piers 2003a, 95.
[71] Piers 2003b, 109.
[72] Piers 2003b, 26.
[73] Piers 2003b, 113.

Joe Cope's father, Peter Cope (c. 1816-1913), remembered seeing Wedge-it-doo, a "great [Mi'kmaq] who died, it is said, at age of 113 years... His camping ground was on the eastern side of First Lake Dartmouth [Lake Banook] about halfway or so up the lake." Cope knew Lake Banook as Wedge-it-doo-ek meaning "Lake belonging to Wedge-it-doo". Wedge-it-doo's name was also recorded as Jeddore or We'jitu and was apparently related to Isodre [sic].[74]

By at least the late 18th century, local Mi'kmaq established a community at Tuft's Cove called Turtle Grove (Figure 4-3). A school was constructed, and several families lived in the area earning a living as artisans of baskets, hockey sticks, firkins and other goods. In 1870, Mi'kmaq living at Shubenacadie were also known to spend the summer at Dartmouth Lake or Tufts Cove.[75] In 1880, it was reported that Mi'kmaq "from other counties" came to Bedford, Dartmouth "and other places near the city" in the summer to camp.[76] The Mi'kmaw community at Tuft's Cove was a casualty of the Halifax Explosion in 1917 and never re-built.

In 1880, the Indian Agent for Halifax County reported that the largest Mi'kmaw settlements in the district were located in Dartmouth.[77] Among these settlements were likely the one at Tuft's Cove as well as at Cole Harbour. In that year, 70 acres of land were set aside at Cole Harbour for the establishment of a reserve, located between Bissett Lake and Morris Lake. A school was built on the reserve in 1888 but there was difficulty in retaining teachers for the school. The reserve also proved to be difficult to cultivate and ran out of firewood resources within a decade, prompting most of the Mi'kmaq inhabitants to depart.[78] Today, the Cole Harbour IR30 encompasses nineteen hectares of land administered by Millbrook First Nation.[79]

The 1914 census indicates that 64 Mi'kmaq were residing in Dartmouth.[80]

[74] Piers 2003b, 29.
[75] Whitehead 1993, 158.
[76] Canada House of Commons 1881, 42.
[77] Canada House of Commons 1881, 42.
[78] Department of Indian Affairs 1889.
[79] Millbrook First Nation.
[80] Department of Indian Affairs 1915.



Figure 4-3: Mi'kmaw encampment at Tuft's Cove in 1905 with Chief Louis Paul seated on the left.

4.2.2 Settler and Euro-Canadian Settlement

Although the presence of a few Acadians in Dartmouth is known in association with the Mi'kmaq, a more substantial European presence in the area is not recorded until 1749 when the English settlement of Halifax was founded on the peninsula.[81] The earliest known European to settle on the Dartmouth side of Halifax Harbour was Major Ezekiel Gilman, who erected a sawmill "by the large cove on the opposite side of the harbour. At the time three streams emptied into the cove from a nearby lake. The middle stream was called Sawmill River."[82] It is not clear in this account whether or not this stream represents the mouth of what would be the Shubenacadie Canal. However, one author notes that this first mill was on the east bank of the Canal, where the Dartmouth Scrapyard would later reside.[83]

Gilman was also the original grantee of much of the southern portion of Lake Banook, having received this grant sometime between his arrival in Halifax in 1749 and before his death on January 4th, 1755. The land that encompasses the present-day site of Mic Mac Mall was first granted to James Quinn and eight others on June 8, 1763 and included 800 acres, with the agreement that they would improve or cultivate the entirety of the land

[81] Raddall 2007, 1.
[82] Chapman 2001, 22.
[83] Martin 1957, 38.

within 30 years of the date of the grant (Figure 4-4). It was also stipulated that each of the grantees must build "on their Respective Shares a House at Least Eighteen feet Square, on or Before the last day of June" of 1765.[84]

By the summer of 1756, Governor Cornwallis noted that Gilman was managing the sawmill poorly, and that no clapboards or shingles were yet being made. In July 1750, the Major gave the mill up to Capt. William Clapham. By early September, a fresh group of settlers had arrived on the *Alderney,* which sailed from Plymouth and carried 340 English, Swiss, and German passengers. These new arrivals were the inhabitants of the planned town lots of Dartmouth, located adjacent to the sawmill and bounded by present-day North Street, Alderney Drive, Dundas Street, and the Halifax Harbour.[85] For several years afterwards the Mi'kmaw population, as allies of the French and enemies of the English, continued to attack the settlement, and numbers of casualties continued to rise on both sides. Settlers began to trickle away from Dartmouth, reaching a mere 39 persons by 1766.[86]



Figure 4-4: The lands originally granted to James Quinn and others.[87] The approximate location of the study area in blue.

[84] Bulkeley 1787; Chapman 2001, 27.
[85] Chapman 2001, 27.
[86] Chapman 2001, 32.
[87] Department of Lands and Forests 1954.

Dartmouth businesses and residences continued to cluster around the downtown core and around Dartmouth Cove for several generations. Eighteenth and early 19th century historic maps generally depict the shoreline area of Dartmouth and do not extend to the study area at Lake Banook and Lake Micmac.

In 1784, the farm of the late Major Gilman was put up for auction. The 210-acre plot was sold for £90 to James Creighton. Creighton, a wealthy merchant, came to Halifax with Cornwallis' first settlers when he was 16, and was the largest land holder in Dartmouth until his death in 1813. He owned several hundred acres obtained by both grant and purchase near the original Dartmouth town plot (Figure 4-5).[88] Creighton hosted the Duke of Kent on the western side of the lake as it was his favorite hunting grounds.[89] Before his death, Creighton deeded 200 acres on the western side of Lake Banook in trust to his newly born grandson John Crichton in 1810, which encompassed the study area (Figure 4-6).[90] Sometime prior to 1784, the property on the northwest side of Lake Banook that was originally granted to Quinn and others was either sold or escheated as it was included in the lands held by Creighton.



Figure 4-5: Part of a map of Property along the 1st Dartmouth Lake showing Creighton's (Crichton) lot on the northwest side of Lake Banook near the outlet to Lake Micmac, which encompasses the study area.[91]

[88] Martin 1957, 94.
[89] Martin 1957, 221.
[90] Martin 1957, 117.
[91] Anonymous 1853.

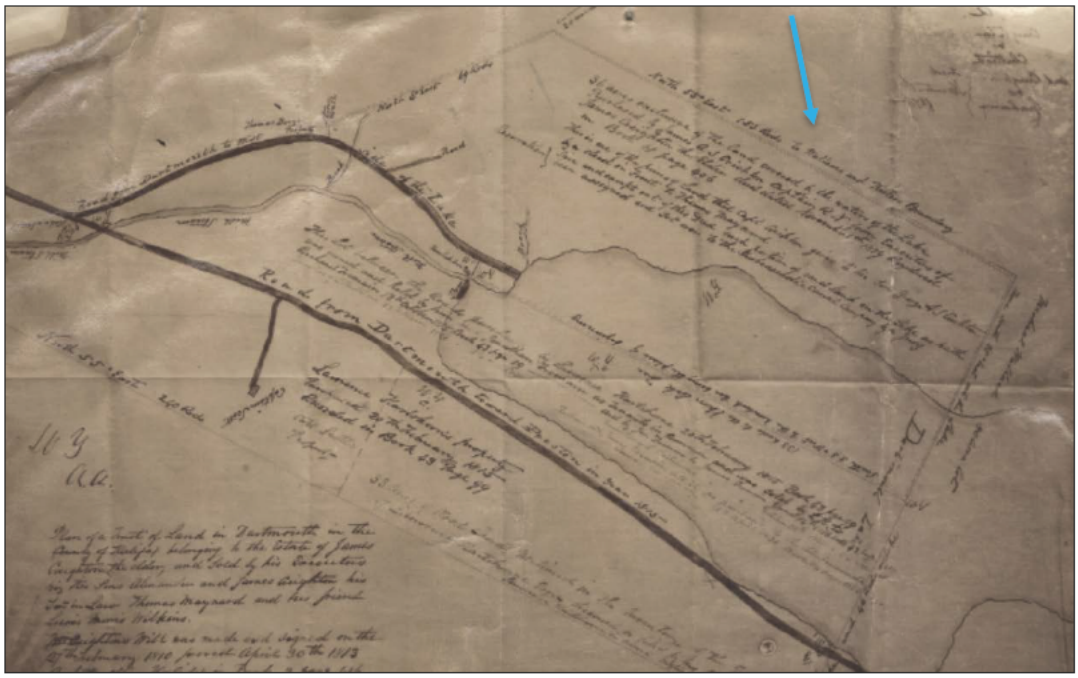


Figure 4-6: Tract of land in Dartmouth in the County of Halifax belonging to the estate of James Creighton, the elder and sold by his executors (blue arrow, which is also the approximate location of the study area).[92] The land is situated on the northwest side of Lake Banook and fully encompasses the land originally granted to Quinn and others.

The Nantucket Whalers, having sailed into the harbour to resettle in Dartmouth in 1786, continued the work of building up the shores of Dartmouth Cove, this time to support the whaling industry. In addition to a wharf, warehouses, and workshops, they constructed a spermaceti candle factory. Houses for some 40 families were built in the area around the former meeting house at the northeast corner of King and Queen Streets, once known as Quakertown.[93] Though they were relocated to Wales in 1791, their wharves, warehouses and homes still stood along the cove's shores and were eventually reused by other residents.[94]

By that same year, 1791, new waves of Loyalist settlers had somewhat bolstered Dartmouth's population, and a two-storey gristmill was established at Dartmouth Cove by Lawrence Hartshorne and Jonathan Tremain. The mill's dam was once near the Portland Street bridge over what would become the end of the Shubenacadie Canal.[95] In 1796, Hartshorne and Tremain provided flour to Halifax residents at a reduced price when provisions were scarce. As the supplier of flour to the British army and navy for Nova Scotia, Newfoundland, Bermuda, and the West Indies, the gristmill was the largest and

[92] Anonymous 1877.
[93] Martin 1957, 39.
[94] Chapman 2001, 56.
[95] Martin 1957, 35.

most profitable in the province.[96] Still, by 1809 only 19 dwelling houses were recorded in Dartmouth.[97]

The Shubenacadie Canal, transecting Nova Scotia by running between the Minas Basin and Dartmouth, began construction in July 1826 after years of debate. The stream at Dartmouth Cove was chosen as the ideal outlet due to its sheltered position. Nearly half a million dollars were poured into the project.[98] A series of locks was created, and after 1860 an inclined plane leading upwards from Dartmouth Cove enabled vessels to travel up and down an embankment too steep for locks alone. Lake Banook was dammed and water levels were raised by several metres. However, completion of the Canal did not yield the prosperity that was expected. Superior railway systems and other methods of transportation made the Canal obsolete almost as soon as it was ready for use.

One of the earliest detailed maps of the study area is A. F. Church's 1865 map of Halifax City. The area around Lake Banook and Lake Micmac appears as a more sparsely settled area in comparison to downtown Dartmouth. Three families of Tines are shown near the study area, the closest being T. Tines on the north shore of the narrows between the two lakes (Figure 4-7).

[96] Chapman 2001, 39.
[97] Fergusson 1967, 155.
[98] Martin 1957, 39.

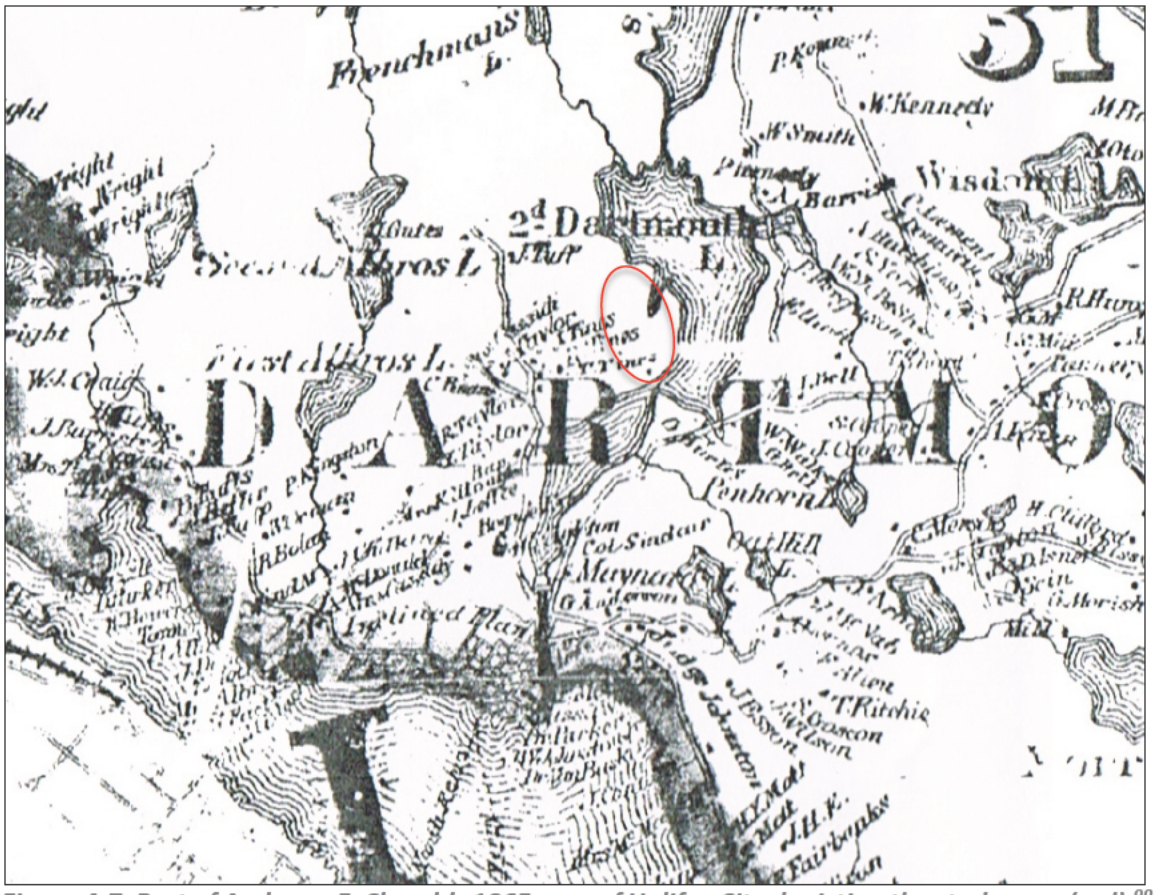


Figure 4-7: Part of Ambrose F. Church's 1865 map of Halifax City depicting the study area (red).[99]

Hopkins' 1878 map of the Town of Dartmouth provides more details depicting one of George A. S. Crichton's multiple structures, along what is now modern-day Crichton Avenue, just outside the study area (Figure 4-8).[100] In about 1932, "The Brae" burnt to the ground. Up until that time, very few homes were located on the hill on the western side of Lake Banook.[101] The Hopkins map also shows the most detail of the shoreline of Lake Banook. The land on which the study area is located appears to have been farmland or woodlot.

[99] Church 1865.
[100] Hopkins 1878.
[101] Martin 1957:221.

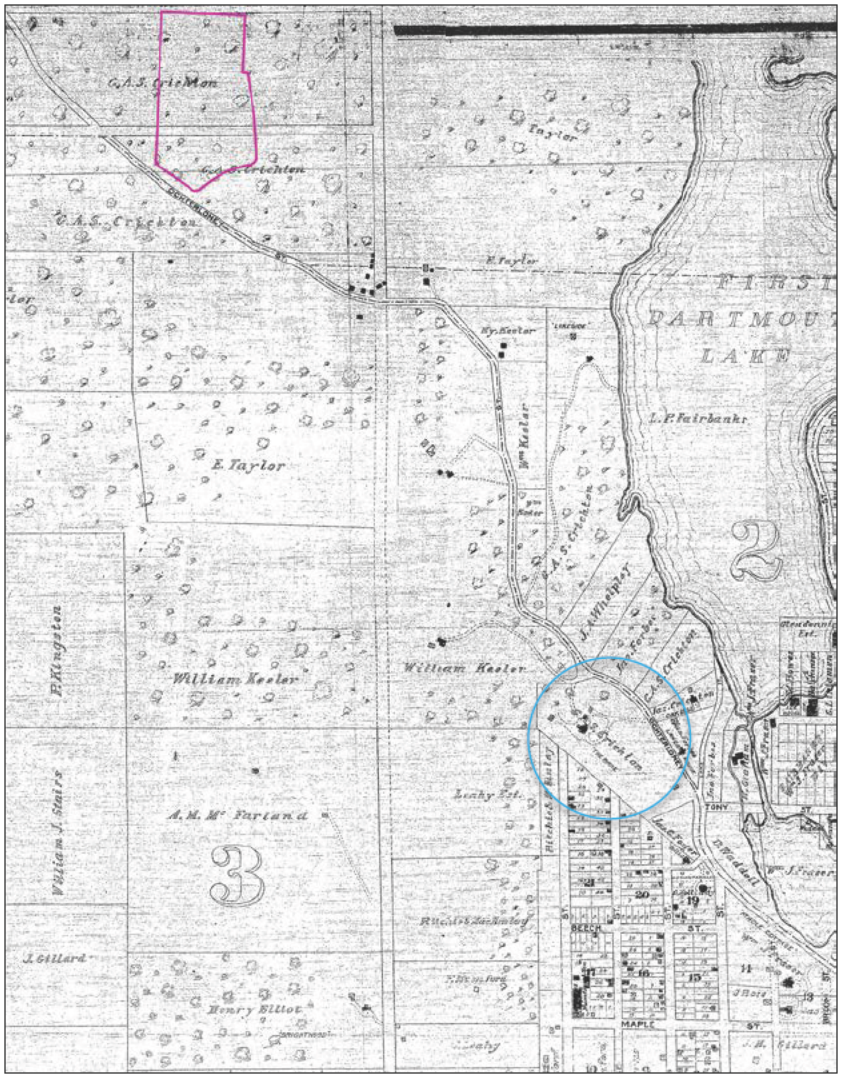


Figure 4-8: Hopkins 1878 map of Dartmouth depicting the area around Lake Banook.[102] "The Brae" is indicated in blue, while the study area is outlined in pink. North is to the upper left.

As early as the 1880's, an African Nova Scotian community was located at the extension of Crichton Avenue. Before 1894, Crichton Avenue was known as Coloured Meeting House Road, named for the church, first founded in 1844 located near the modern-day corner with Micmac Blvd.[103] This community referred to locally as "The Avenue", was first settled by Black Refugees and individuals relocating from other African Nova Scotian communities.[104] Some of the earliest settlers were freed or escaped slaves from the US.[105] Though it is believed that some individuals arrived much earlier in 1814, records of early African Nova Scotian settlements are poor. References to The Avenue being a bustling

[102] Hopkins 1878.
[103] Martin 1957, 452.
[104] Sehatzadeh 1998, 408.
[105] Foster.

community exist beginning in the late 19th century. The Hopkins 1886 map of Dartmouth is the first known map to record the community (Figure 4-9).[106] In 1824, Louis Cassidy, a Black Refugee, purchased 8 acres of land in the Avenue from Henry Keeler.[107] Keeler's farm is shown to the north of the study area in Hopkins' 1886 map (Figure 4-9).

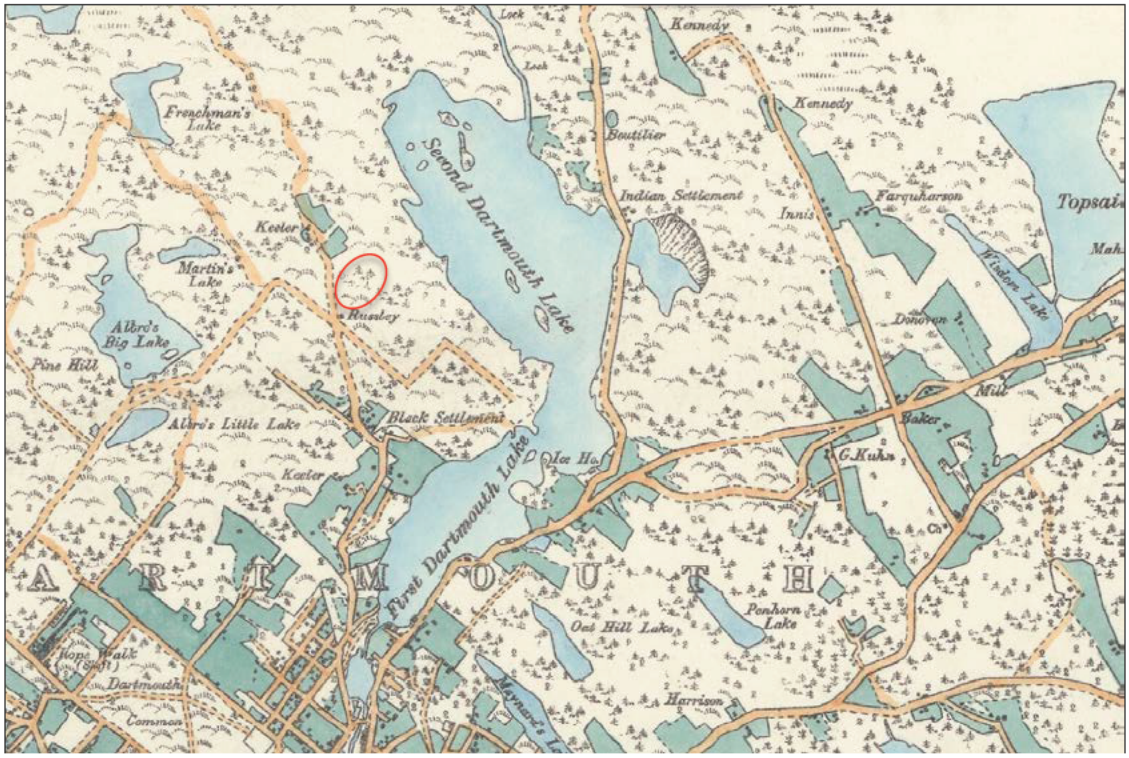


Figure 4-9: Part of Hopkins' 1886 map of Halifax and Dartmouth showing the area around Lake Banook and Lake Micmac, with the location of "The Avenue" (labelled as "Black Settlement") near the study area (red) and a nearby resident by the name of Russley to the south and Keeler's farm to the north.[108] A Mi'kmaw settlement is also shown on the east side of Lake Micmac near Red Bridge Pond.

The Avenue extended from the terminus of Crichton Avenue across the present-day Highway 111 to the area known as "The Extension". Oral tradition states that the land was originally owned by Smiths, who may have been enslaved, and who subdivided the property and sold it.[109] Settlers came from downtown Dartmouth as well as from more distant Black settlements to take up residence at The Avenue. By 1926, there were 82 people living here – approximately 12 families. Earlier city directories indicate that there were a small number of Black families living here in 1869/70 and in the 1897/98 directory, the settlement was referred to as Tynesville.[110] The Tines families shown on A. F. Church's

[106] Sehatzadeh 1998, 37.
[107] Foster.
[108] Hopkins and Akers 1886.
[109] Sehatzadeh 1998, 35.
[110] Sehatzadeh 1998, 37.

map were likely Black, attesting to a fledgling Black settlement here at least as early as 1865.

Community elders recall that in the 1920s, the area was surrounded by woods and the area was relatively isolated. A pathway lead from The Avenue out to Keeler's Farm, owned by a white family, which was located at the end of The Extension. In 1947, the road through the settlement was widened (Figure 4-10).[111]

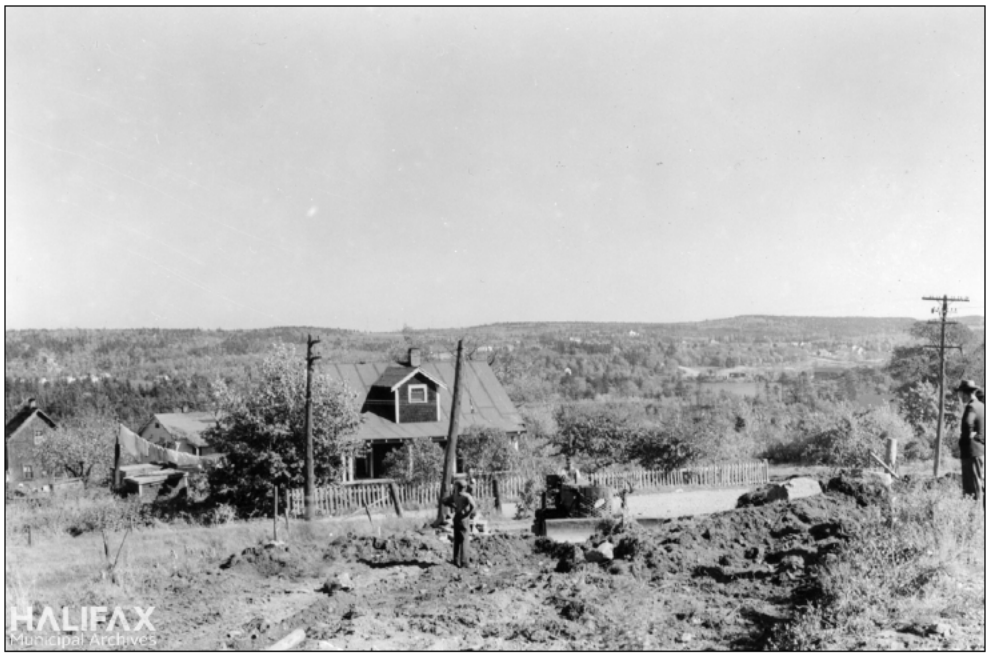


Figure 4-10: 238 Crichton Avenue, part of "the Avenue", photographed in the 1940s during road work.[112] The house still stands today near the intersection with Lyngby Avenue.

The first Black Baptist Church in Dartmouth was located at The Avenue near the corner of Crichton Avenue and Micmac Boulevard and a cemetery was located nearby. The land for the first church was purchased by Jacob Allen, Richard Preston and James Slaughter from Henry Keeler in 1827.[113] The first church was burned by arsonists in 1865 and was later replaced by a second church in a new location.[114] In 1976, during development of a townhouse complex, Kings Arms Apartments, human remains from the cemetery were uncovered and those that were not disturbed by construction were removed to the cemetery across the road from Victoria Road United Baptist Church in downtown Dartmouth. The second Colored Meeting House, as it was known, was destroyed by fire in 1896.[115]

[111] Sehatzadeh 1998, 39–40.
[112] Dartmouth Planning and Development Department 2020.
[113] Registry of Deeds 1827.
[114] Foster.
[115] Sehatzadeh 1998, 40.

The community had a number of common wells that could be used by anyone in the community but some families also had their own well. The road that ran through the settlement was not maintained by the city and it began as a narrow pathway. There was no school in the settlement so children attended schools in nearby parts of Dartmouth with white students, where they were often subjected to racism and marginalization.[116] By the 1950s, the population of The Avenue grew to 134 people or approximately 23 families.[117] New houses continued to be built in the community in the late 1940s and settlement spread to The Extension as well, where three very impoverished white families were also settled. In the 1930s, the town built a stone crusher in The Avenue and in the 1940s, the town dump was relocated to The Avenue (Figure 4-11).[118] It was not until the 1980s that city services like sewerage, water and improved roads were brought to the settlement and by that time, most of the Black inhabitants had been replaced with white families who were taking up residence in nearby Crichton Park.[119]

By the mid 1970s, the last generation of Black inhabitants left The Avenue and only a few of the previous generation remained. The stone crusher was removed in 1964 and the town dump was closed by 1970. In the 1970s, Mic Mac Mall was built, as was a block of apartment townhouses at the eastern edge of The Avenue. The City of Dartmouth expropriated the lands surrounding the Crichton Avenue Extension during the late 1960's to expand the circumferential highway. By the 1970's the last generation born in The Avenue out-migrated and much of the land was sold to developers save for a few elders that remained in the community.[120]

By the time of the 1908 Geological Survey of Canada map, the settlement of The Avenue is clearly depicted southwest of the study area. The water levels of Lake Banook are illustrated as higher than Hopkin's 1878 map (Figure 4-12). No structures are depicted within the study area.

[116] Sehatzadeh 1998, 48–53.
[117] Sehatzadeh 1998, 57.
[118] Sehatzadeh 1998, 59–61.
[119] Sehatzadeh 1998, 64.
[120] Sehatzadeh 1998, 97–8.

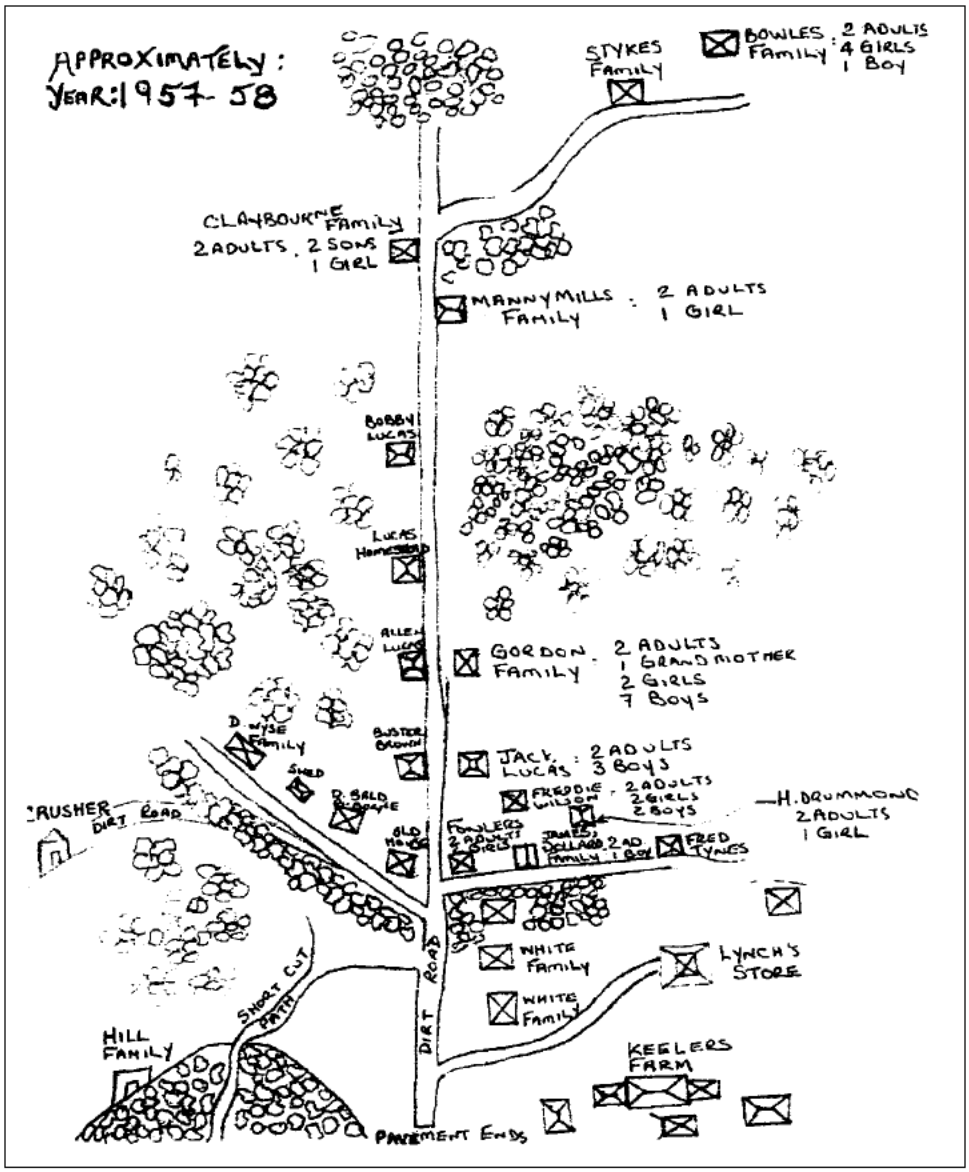


Figure 4-11: Sketch of The Avenue as it was remembered in the late 1950s by community elders Susan Hewitt and Michael Lewis (1998).[121]

[121] Sehatzadeh 1998, 153.

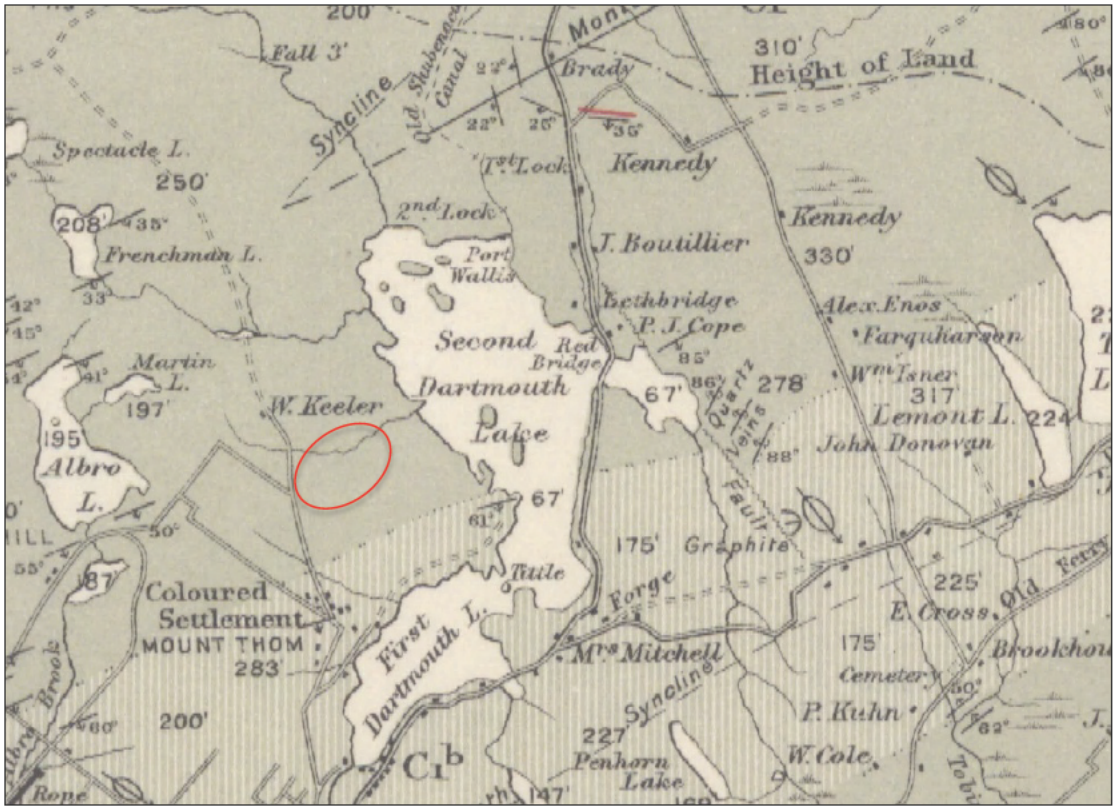


Figure 4-12: The 1908 GSC map of the study area showing the location of The Avenue with the approximate location of the study area shown in red.[122]

Historic air photos of the study area offer a snapshot of the changes the study area went through in the roughly 60 years from the earliest available photo in 1931 to the last decade of the 20th century. In 1931, the study area appears as fields surrounded by forests (Figure 4-13). The road through The Avenue can be clearly seen running along the same alignment as the present-day courses of Crichton Avenue and Horizon Court, which was then a long continuous road that ran northward toward Keeler's Farm. Keeler's Farm appears to have been abandoned by this time. There are no discernable buildings in the study area, though a road does run around what were likely Keeler's fields. Most significantly, several roads and buildings can be seen near the present-day junction of Crichton Avenue and Micmac Boulevard (now approximately the location of Kings Wood Apartments) which are related to the Black settlement.

There was not a great deal of change in the surrounding area in the 1947 air photo (Figure 4-14). The Avenue community is still clearly visible, though what was likely the town dump can be seen to the southwest of the study area, and likely the stone crusher further to the south of that. Some development was also underway to the north of the study area, including along the shore of Lake Micmac, which may have been related to increased settlement of The Extension.

[122] Faribault 1908.



Figure 4-13: Georeferenced 1931 air photo with the boundaries of the study area in pink.[123]



Figure 4-14: Georeferenced 1947 air photo with the boundaries of the study area in pink.[124]

[123] National Air Photo Library 1931.
[124] National Air Photo Library 1947.

By 1974, the Mic Mac Mall was under construction, with expansion getting underway to the north as well, in the present-day location of the annex (Chapters Indigo) (Figure 4-15). The land that was the former town dump is now transected by the extension of Micmac Boulevard and by 1991, it became the location of sports fields. While many of the residents of The Avenue had moved on, there is increased residential development in the nearby vicinity throughout the 1970s and '80s and by 1992, the study area looked much as it does today.

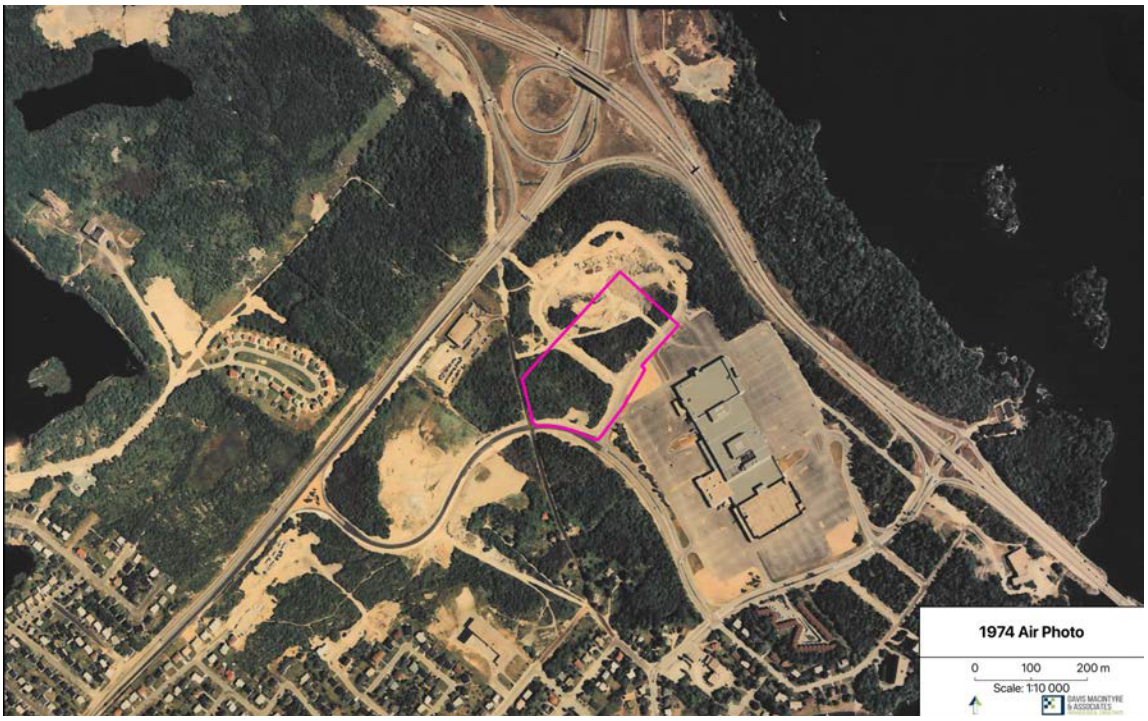


Figure 4-15: Georeferenced 1974 air photo with the boundaries of the study area in pink.[125]

In 1972, during planning to construct the mall, the Dartmouth Lakes Advisory Board expressed concerns about plans to discharge the water into the lake by way of building a rock filled dam across a cove in the lake, as well as an artificial channel between the outfall and the lake. This would necessitate dredging the cove at regular intervals. Instead, the Nova Scotia Water Resources Commission requested that the developers, MacCulloch & Company Limited, install a settling tank in the storm runoff line, a 7-foot diameter pipe that would discharge into Lake Micmac just north of the interchange between Highway 111 and Mic Mac Boulevard. It was proposed that the tank be 82 feet by 82 feet and 10 feet deep, to be installed "at the point of outfall well above the lake".[126] No plans of the settling tank could be located, but it is visible on air photos in 1974 and 1982 just

[125] National Air Photo Library 1974.
[126] Rowe 1972; Steele 1972.

northeast of the interchange on the shore of Lake Micmac at the present-day location of civic #s 10 and 14 Lakemist Court (Figure 4-16).



Figure 4-16: Georeferenced 1982 air photo with the boundaries of the study area in pink.[127]

4.3 Predictive Modelling

Predicting the occurrence of L'nuk heritage resources during the Late Pleistocene to the Holocene is a complicated task. Understanding localized geomorphological factors that influenced this rapidly evolving landscape and how the landscape may have been utilized by the ancestors is paramount for the prediction of potential site locations. Often, face value modern visual interpretations of these landscapes are not sufficient. This may lead to unintentionally overlooked resources for this expansive time period.[128] However, human movement is seldom tied solely to resource collection and to the ease of passage between resource collection areas. Exchange networks, familial histories, traditions, and ceremonial practices are also important factors to consider when seeking the relationships of past peoples and a given landscape.[129] Nevertheless, the prediction of past resource collection areas and travel corridors, such as the evolution of individual watercourses, can help narrow down potential activity areas. Difficulty in predicting landscape use for a specific study area is also compounded by the lack of localized

[127] National Air Photo Library 1982.
[128] Suttie et al. 2007.
[129] Lacroix 2015, 31.

geomorphological, climactic, and archaeological research. Historic anthropogenic landscape alterations further complicate desktop models. This is additionally muddied by innumerable unknown factors. However, broader regional trends and statistical modeling may offer insight into how the landscape may have been utilized as it evolved, thus, predicting the occurrence of previously unknown resources with greater accuracy and efficiency.

The earliest known occupation of the Maritime Peninsula occurred just before, and roughly overlapping with, the Younger Dryas cooling event that occurred from ~11,000 ^{14}C to 10,000 BP (13,000 to 11,600 cal BP). During this time glaciers residing in the Highlands of Nova Scotia were reinvigorated, blocking several river systems near these areas with sediments and ice. New glacial lakes and outflows were formed (See Section 2.1). [130] The Minas Basin Glacier was reactivated and blocked the outlet to the Shubenacadie drainage system with an ice and clay dam. At around 10.6 ^{14}Cka, this caused the Shubenacadie River and its tributaries to overflow their banks resulting in the flooding of low-lying areas in the Shubenacadie, Musquodoboit and Stewiacke River valleys under 30m. This massive lake, coined Glacial Lake Shubenacadie II, the second such lake flooding the region, essentially bisected the province for the duration of its existence. New outflows were created through the Dartmouth lakes into Dartmouth Cove and near Gibraltar Rock in Musquodoboit Harbour. [131] The Dartmouth outlet flowed into the remnants of the Ancient Sackville River north of George's Island towards the sea. which at the time, was located at approximately 65m below modern levels, with sea level raising rapidly, and then less quickly after 11 ka.[132] The landscape eventually rebounded, and ice dammed lakes breached as glaciers retreated as the climate again warmed. These once flooded regions emerged as bogs and fens. Relative sea level reached approximately 40 m below modern levels by 10,000 BP.[133]

This significant environmental change of the period would have drastically altered how the landscape could have been utilized by early Palaeo peoples. Several regions had been restricted by flooding and ice, while at the same time, areas above these flooded regions could have been more lucrative for subsistence and mobility. Strandlines surrounding active and former glacial lakes are known activity areas throughout the Palaeo period.[134] The study area is in close proximity to the former glacial lake bounds and a Palaeo find site.[135] Strandlines that could represent potential Palaeo activity areas may be found just to the east and southeast of the study area (Figure 4-17). Archaeological evidence for mobility patterns southward beyond the Debert/ Belmont site into the interior of Nova Scotia is supported by isolated finds of fluted points recovered from approximately 1km east of the study area at Miller Mountain in Dartmouth, and further south at Medford,

[130] Stea 2011.
[131] Stea and R.J. Mott 1989.
[132] Shaw et al. 2002a, 1867.
[133] Fader and Miller 2008.
[134] Dickinson and Jeandron 1999; Boyd 2007.
[135] Stea and Mott 1998; McKillop 2019.

Sable River and Yarmouth.[136] Later Palaeo period artifacts postdating the glacial lakes have been found further inland along the Lower Mersey and at Gaspereau Lake.[137] Evidence of continuing occupation spanning the Late Palaeo to the Transitional Archaic Period in the region, though sparse, have been found in private collections that are generally attributed to the southwest Nova area.

Predictive modeling for the early Holocene Archaic Period presents a unique set of challenges for archaeologists. Over this approximately 3,000-year period post deglaciation, riverine systems and coastlines of the Maritime Peninsula experienced a series of dramatic changes influenced by numerous factors including localized isostatic rebound, lake formation and collapse, changes in relative sea levels, and rapid sediment depositions.[138] Recent studies, following examples from Northern Maine suggest that during the period between 9,000 BP and 7,000 BP, river systems in the region were largely unstable, with near continual gradation and reworking due to accelerated sea level rise. Inland archaeological sites from this period may be masked by deep aggraded deposits of alluvium. The small fraction of isolated finds representing this period are likely "dislodged" by a multitude of natural and unnatural disturbances.[139] Submerged palaeoshores and ancient channels have been mapped at nearby Lake Banook indicating significant water fluctuations in the Dartmouth Lakes throughout the postglacial period.[140] By 6,000 BP, sea levels had largely stabilized, rising approximately 0.36 m/100 years.[141] The last remaining lake in Halifax Harbour, Lake Bedford, transitioned from freshwater to marine as the waters raised over the shallow sill at The Narrows around 5,700 BP.[142] By 5,000 to 4,000 BP, the lake and river systems in Nova Scotia largely stabilized coinciding with the latter half of the Late Archaic Period.[143] By 3,000 BP, Halifax Harbour had resembled its current conditions with its shoreline residing less than 5m from modern levels.[144]

The general location of Woodland to Historic period occupation sites along the river systems and coastlines of Nova Scotia are largely predictable owing, in part, to river stabilization and the characteristic slow predictable sea level rise of this period. Yet, the increasing pace of mid-20th century sea level rise has left near coastal sites from this period vulnerable to rapid erosion and loss. Sea level rise and increasing storm severity will undoubtedly affect upstream watercourse alignments and sediment depositions, especially in low lying areas, in the years to come with upper limits of SLR projections at 1.3m over the next 100 years.[145] This process has submerged known L'nuk cultural

[136] Davis and Christianson 1988., Betts et al. 2018.
[137] Pentz 2008, 167.
[138] Murphy 1998, 93.
[139] Murphy 1998, 93.
[140] Webster et al. 2015.
[141] Baechler 2017, 394.
[142] Fader and Miller 2008.
[143] Shaw et al. 2002b, 143.
[144] Fader and Miller 2008, 6.
[145] Forbes et al. 2009.

resources first recorded in the early 20th century and has undoubtedly caused the erosion of numerous unknown sites along coastlines and river systems within recent memory. Modern and historic development activities within the HRM, including the construction of the Shubenacadie Canal System, has also effectively masked the former cultural landscape. Watercourse alteration and development in this area has increased the likelihood of encountering cultural resources out of their original depositional context. Though potentially displaced, these resources continue to hold significant cultural value to the Mi'kmaw and require great care and consideration. These resources enrich the evolutionary story of the cultural landscape of greater Kjipuktuk.

Understanding the geomorphological changes of shorelines and individual river systems is paramount in the prediction L'nuk cultural resource potential due to the strong connections between Mi'kmaq, waterways, and bodies of water.[146] Yet, modeling landscape change and its subsequent landscape usage is a challenge that is often limited to the amount of prior localized geological and archaeological research. Historic alterations can further complicate these interpretations. However, the use of ground-truthed archeological potential buffers can be used to statistically highlight areas to inform interpretations in the field for archaeological potential when previous research is unavailable. Following the model required to be used for archaeological consulting by New Brunswick Archaeological Services (developed from the Sevogle River Test Plot),[147] a 50-meter high and an 80-meter moderate L'nuk archaeological potential buffer was created for the study area using the Nova Scotia Topographic DataBase - Water Features layer (Figure 4-18).

Using the watercourses recorded by the DNR, L'nuk heritage resource predictive buffers were created for the region. Of the 14 sites attributed solely to L'nuk occupation recorded within a 15-kilometer radius of the study area, 12 sites lie within these predictive buffers providing an accuracy rate of 86% using the Sevogle model. It is important to note that many of these sites were recorded before the implication of handheld GPS. Their locations may rely solely on memory and human transcription; therefore, they may not be exact. Site locations are recorded within the MARI database as a single coordinate, therefore, recorded site locations are reflective of overall mobility trends rather than site extents. It should also be noted that the sites recorded within urban HRM that lie outside potential buffers may be due to the historic watercourses alteration or these sites may be related to non-watercourse-based movement.

[146] Thwaites 1896; Cook 2007, xxiii.
[147] Archaeological Services 2012.

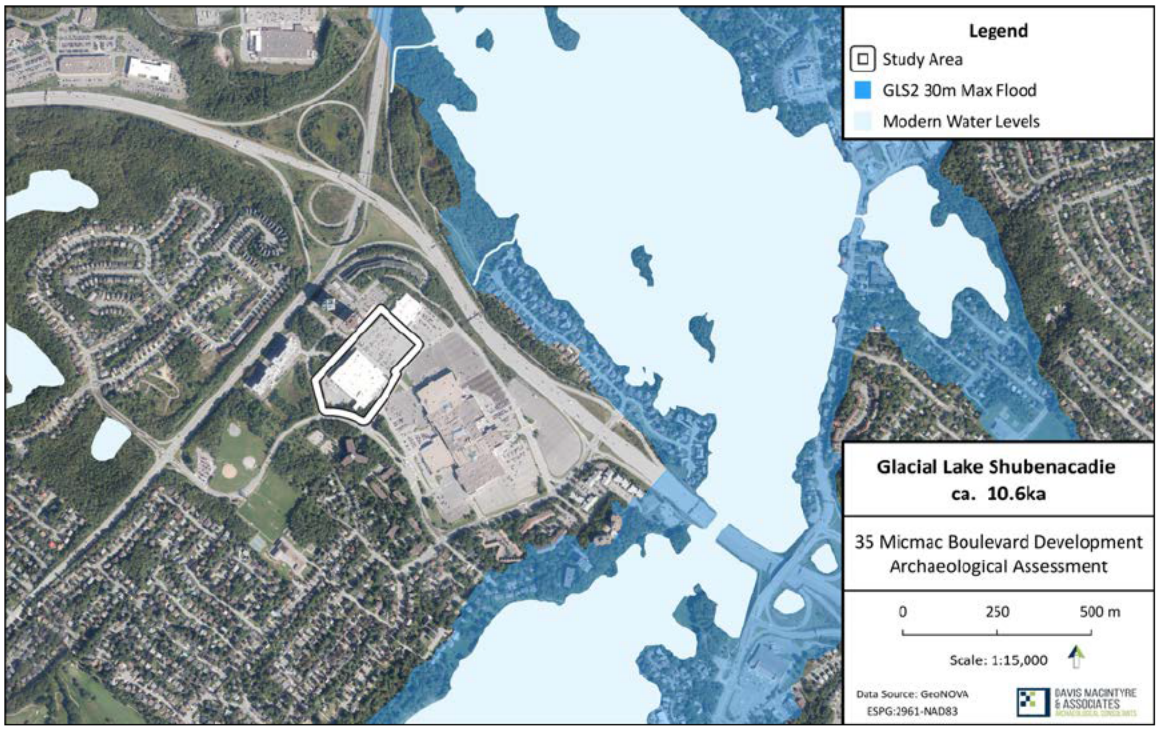


Figure 4-17: A map depicting the maximum 30m flood extent of Glacial Lake Shubenacadie 2 ca. 10.6ka in relation to the study area.[148]

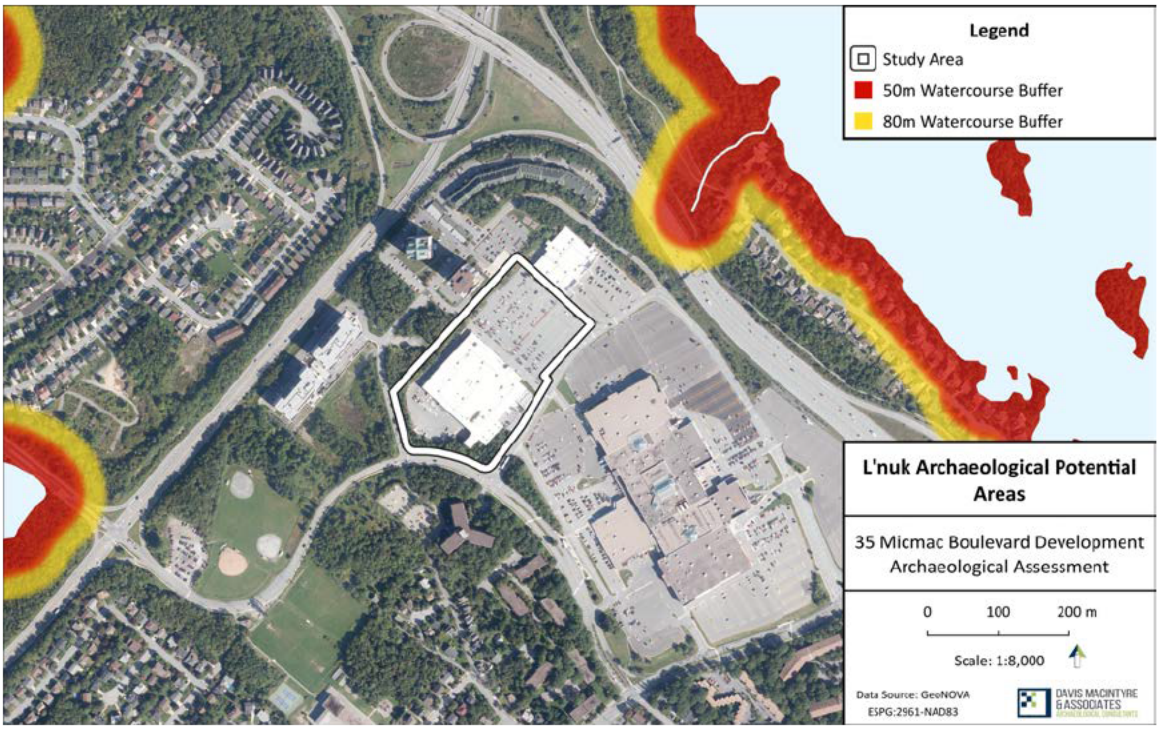


Figure 4-18: The study area with L'nuk activity potential buffers.

[148] Stea and Mott 1998; McKillop 2019.

4.4 Field Reconnaissance

A field reconnaissance was conducted by April MacIntyre on April 2, 2024 under sunny and warm conditions (Figure 4-19). The majority of the study area is developed, with only a narrow margin along the northwest and south edges of the study area being forested. The south half of the study is dominated by a large building (Irving's Bluenose Building) with a small parking area and loading bays to the rear, or south side, of the building. The north half of the study area is a paved parking lot (Plate 1).

Underground infrastructure including water/wastewater utilities and buried electrical conduit feeding light standards were noted in the parking lot in the north half of the study area (Plate 2). There were numerous vehicles parked in the lot at the time of the reconnaissance. However, of those portions of the parking lot's surface that were visible during the reconnaissance, no indication of subsidence or heaving suggesting buried archaeological resources (particularly foundations) were noted. Along the northwest edge of the parking lot, the land slopes upward toward a modern apartment building/condominium on the adjacent property and recent sod was noted just behind the parking lot curb. The parking lot has been cut into the higher elevation, suggesting significant excavation for development of the study area (Plate 3). Along the slope, there is dumped asphalt and a large bedrock outcrop was noted at the southwest corner of the parking lot which extends northward into the adjacent property (Plate 4).

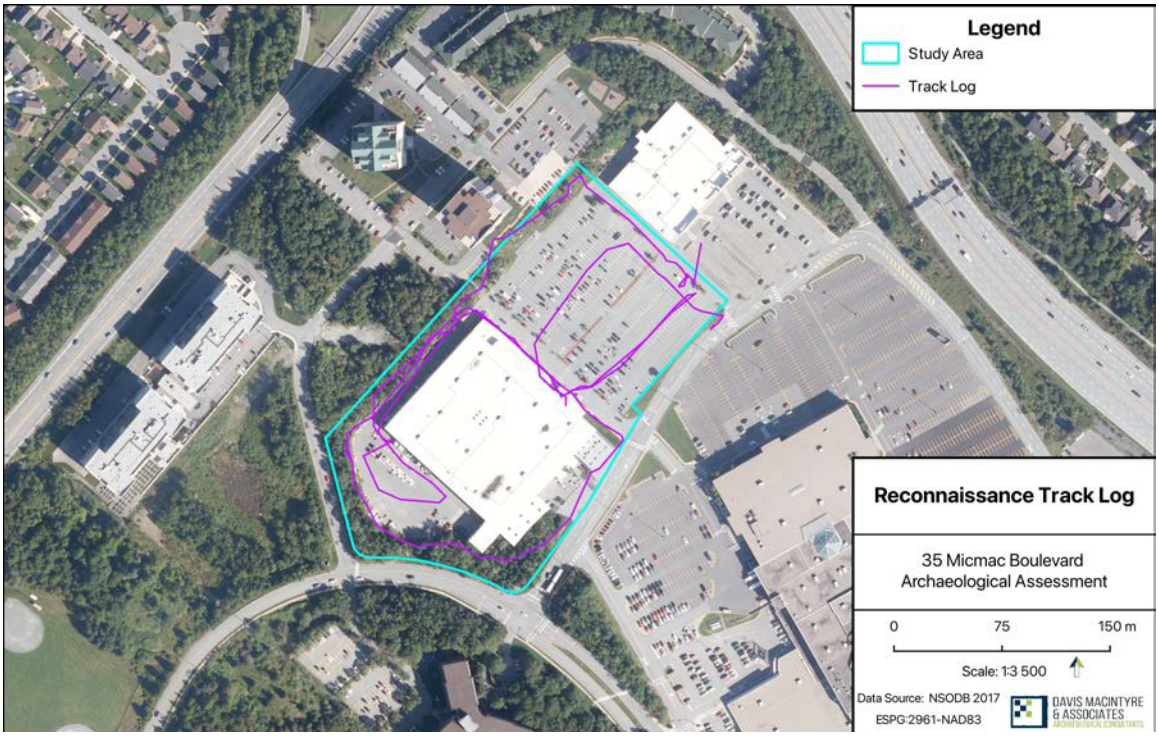


Figure 4-19: Satellite image of the study area showing the GPS track logs collected during the reconnaissance.



Plate 1: Looking southwest from the northeast edge of the study area, to the parking lot that dominates the north half of the study area, and Irving's Bluenose Building which dominates the south half. Note the catch basin near the center of frame.



Plate 2: Looking southwest over the parking lot in the north end of the study area, showing light standards which are fed by underground conduit.



Plate 3: Northwest edge of the study area from near the northwest corner, looking southwest. Note the recent resodding of the area immediately behind the curb and the difference in elevation between the grassed area and the parking lot.



Plate 4: Large bedrock outcrop at the southwest corner of the parking lot, looking southwest.

From the southwest corner of the parking lot, the reconnaissance proceeded southwestward just outside a fence that bounds the northwest, south and southeast sides of the Bluenose Building (Plate 5). This area is elevated by at least 1.5 meters above a laneway that leads to the rear parking lot on the south side of the building, and is forested in semi-mature to mature mixed wood (Plate 6). The land rises to the southwest near the south end of the property. The land beyond the fence appears to be natural and undisturbed and a worn footpath leads along the top of the ridge (Plate 7). The land is very rocky, some of the rock likely being deposited by development of the adjacent property to the north. A number of cut off metal posts were noted along the top of the ridge which may be related to a previous fence. Modern refuse was noted throughout the forested area at the top of the slope, as was blasted rock likely related to construction of the adjacent properties (Plate 8).



Plate 5: Looking southwestward from the southwest corner of the parking lot toward a laneway that leads to the rear parking lot, and an elevated and treed area beyond the fence.



Plate 6: Looking southwestward along the fence line in the laneway leading to the rear parking lot. Note the elevation change and stone retaining wall between the laneway and the forested area beyond the fence.



Plate 7: Looking southwestward along the top of the ridge outside the fence (at left), where a worn footpath was noted.



Plate 8: Blasted rock along the edge of the study area near the southwest corner.

On the south side of the property, the forested area beyond the fence is at least 2.5 meters above the parking lot at the rear of the Bluenose Building, which has been extensively excavated. A stone retaining wall runs along the periphery of the parking lot immediately inside the fence. Numerous underground water/wastewater utilities (catch basins/manholes), as well as fire hydrant were noted throughout the rear parking lot, as was a large above-ground generator (Plate 9, Plate 10, Plate 11).



Plate 9: The rear parking, on the south side of the Bluenose Building, showing water/wastewater infrastructure and the stone retaining wall, as well as light standards which are fed by underground conduit. Note the difference in elevation between the area inside and outside the fence.



Plate 10: A fire hydrant on the south end of the study area near the stone retaining wall.



Plate 11: A large above-ground gas generator on the south edge of the rear parking lot. Note the manhole/catch basin at the right edge of the frame.

An asphalt-paved footpath leads around the rear of the Bluenose Building where additional industrial utilities are located inside the fence (Plate 12, Plate 13). Along the southeast edge of the study area, the land outside the fence is forested in semi-mature mixed wood and is very rocky (Plate 14). The area along the driveway off Micmac Boulevard is ditched and a narrow manicured lawn stretches between the ditch and the driveway's curb (Plate 15). This landscaped lawn continues along the east edge of the north end of the study area (Plate 16). A construction trailer is located on the southeast side of the building (Plate 17). Additional light standards, fed by underground electrical lines, are located on the southeast side of the building, as well as an outdoor eating area which is paved (Plate 18, Plate 19).



Plate 12: Paved asphalt walkway on the south side of the building.



Plate 13: Industrial infrastructure at the southeast corner of the Bluenose Building, inside the fence.



Plate 14: Southeast side of the study area showing rocky ground and a semi-mature mixed wood area that stretches along the southeast end, outside the fence.



Plate 15: A ditch (right) and manicured lawn (left) along the southeast end of the study area, outside the fence. The driveway off Micmac Boulevard can be seen at left, looking southeast.



Plate 16: Continuation of the manicured lawn along the northeast edge of the study area, looking northeast.



Plate 17: A construction trailer and work area on the southeast side of the Bluenose Building.



Plate 18: A manicured lawn and light standards along the southeast side of the building, with the driveway off Micmac Boulevard at right, looking northeast.



Plate 19: Outside eating area on the southeast side of the Bluenose Building, inside the fence, looking southeast.

5.0 DISCUSSION

The historic background indicates that Mi'kmaq and their ancestors have had a long-standing and intensive tradition of land use and occupancy throughout the Halifax/Dartmouth region since time immemorial. They took advantage of well-established travel routes via the lakes and rivers, particularly along the Shubenacadie waterway, to travel between the coastal and interior regions and had encampments along these waterways, as the archaeological record attests to.

In the historic period, the first known Euro-Canadian settlers obtained grants near the study area soon after the founding of Dartmouth in 1750. Though sparse Acadian use of the Dartmouth area is known, documentation is illusive. Occupation near the study area did not occur in earnest until the mid-19th century. Crichton Avenue was occupied historically by the African Nova Scotian community beginning in the early to mid-19th century. "The Avenue" and its nearby settlement, "The Extension" as they were known, were focussed around Crichton Avenue where a close knit community included a church and cemetery. The remains of the latter (and possibly the former) were disturbed when apartments were constructed in the 1970s on the west side of Mic Mac Boulevard. Historic maps and air photos suggest that the majority of settlement was located south and west of the study area. Historic maps suggest that by the mid-20th century, the study area was cleared fields, likely a part of Keeler's farm.

The majority of the study area has been extensively disturbed by late 20th century development which has included significant excavation, as demonstrated by the surrounding topography and grade. Additional excavation has been conducted for the installation of subgrade infrastructure including water and wastewater infrastructure as well as buried electrical conduit. Previous to this, the study area was part of a large farm field which was cleared in the first half of the 20th century. Therefore, the potential for archaeological resources within the study area has been determined to be low.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The historic background study, predictive modeling and archaeological reconnaissance have indicated that the study area has been extensively impacted by previous farming, commercial development, and associated extensive excavation, thereby diminishing the potential for archaeological resources related to L'nuk as well as Euro-settler use and occupation. Therefore, no additional archaeological investigation or mitigation is recommended.

Should development plans change, then a qualified archaeologist should be contracted to conduct an additional assessment on any new areas outside the project boundaries identified in this report.

In the unlikely event that any archaeological resources are encountered during ground disturbance and an archaeologist is not already on site, it is required that all activity cease and the Coordinator of Special Places (902-229-3159) be contacted immediately regarding a suitable method of mitigation.

7.0 REFERENCES CITED

Abbe Museum. s.d. "People of the First Light Maps Interactive." *Places of the Dawnland*. https://peopleofthefirstlight.org/maps/.

Anonymous. 1853. "Dartmouth, Property along the 1st Dartmouth Lake." F/239-1853. Nova Scotia Archives Map Collection.

———. 1877. "Tract of Land in Dartmouth, Halifax County Belonging to the Estate of James Creighton, the Elder and Sold by His Executors." F/239 - 1877. Nova Scotia Archives Map Collection.

Archaeological Services. 2012. *Guidelines and Procedures for Conducting Professional Archaeological Assessments in New Brunswick*. Fredericton, NB: Archaeological Services, Heritage Branch, Department of Culture, Tourism and Healthy Living.

Baechler, F. 2017. "The Geology and Hydrogeology of Buried Bedrock Valley Aquifers on Cape Breton Island, Nova Scotia: An Overview." *Atlantic Geology* (53):301–24.

Betts, M., M.G. Hrynick, and A. Pelletier-Michaud. 2018. "The Pierce-Embree Site: A Palaeoindian Findspot from Southwestern Nova Scotia." *Canadian Journal of Archaeology* 42 (2).

Betts, M.W., and G. Hrynick. 2021. *The Archaeology of the Atlantic Northeast*. Toronto, ON: University of Toronto Press.

Binney, H.N. 1791. *A Family of Micmac Indians with Their Chief in Nova Scotia* [Watercolour Painting]. P113/ 79.146.1/ N-9410, N-8420. Nova Scotia Archives.

Boyd, M. 2007. "Paleoindian Geoarchaeology of the Assiniboine Delta of Glacial Lake Agassiz." *Canajarch Canadian Journal of Archaeology / Journal Canadien d'Archéologie* 31 (3):198–221.

Canada House of Commons. 1881. *Annual Report of the Department of Indians Affairs for the Year Ended 31st December 1880* Sessional Papers. Canada: House of Commons.

Chapman, H. 2001. *In the Wake of the Alderney*. Halifax, N.S.: Nimbus and The Dartmouth Historical Association.

Christianson, D. 2005. "First Nations Archaeology in Halifax." In *Underground Halifax: Stories of Archaeology in the City*, edited by Paul A. Erickson. Halifax, N.S.: Nimbus Publishing.

Church, A.F. 1865. "Topographical Township Map of Halifax County, Nova Scotia." Bedford: A. F. Church & Co.

Confederacy of Mainland Mi'kmaq. 2007. *Kekina'muek: Learning about the Mi'kmaq of Nova Scotia*. Truro: Eastern Woodland Print Communication.

Cook, D.S. 2007. *Above the Gravel Bar: The Native Canoe Routes of Maine*. 3rd ed. Solon, Maine: Polar Bear & Company.

Dartmouth Planning and Development Department. 2020. *238 Crichton Avenue, at Crichton and Lyngby* [Photograph]. Flickr.

Davis, D., and S. Browne. 1996a. *Natural History of Nova Scotia, Volume I: Topics and Habitat*. Halifax: Nova Scotia Museum.

———. 1996b. *Natural History of Nova Scotia, Volume II: Theme Regions*. Halifax: Nova Scotia Museum.

Davis, S. 1993. "The Ceramic Period of Nova Scotia." In *The Maritime Provinces: Past & Present Research*, edited by Michael Deal and Susan Blair, 85–100. Reports in Archaeology 8. Fredericton: New Brunswick Archaeology Services.

———. 2005. "Early Sequences of Change." In *The Atlantic Region to Confederation: A History*, edited by P. Buckner and John G. Reid, 3–22. Halifax: Acadiensis Press.

Davis, S., and D. Christianson. 1988. "Three Paleo-Indian Specimens from Nova Scotia." *Canadian Journal of Archaeology* 12:190–6.

Davis, S.A. 2011. "Mi'kmakik Teloltipnik L'nuk-Saqiwe'k L'nuk: How Ancient People Lived in Mi'kma'ki." In *Ta'n Wetapeksi'k: Understanding from Where We Come. Proceedings of the 2005 Debert Research Workshop, Debert, Nova Scotia, Canada*, edited by Tim Bernard, Leah Morine Rosenmeier, and Sharon L. Farrell, 11–22. Truro, N.S.: Eastern Woodland Print Communications for the Confederacy of Mainland Mi'kmaq.

Deal, M. 2016. *The Collection of Ages: Pre-Contact Archaeology of the Maritime Provinces*. St. John's: Memorial University.

Deal, M., Douglas Rutherford, Brent Murphy, and Scott Buchanan. 2006. "Rethinking the Archaic Sequence for the Maritime Provinces." In *The Archaic of the Far Northeast*, 253–83. Orono: University of Maine Press.

Department of Energy and Mines. n.d. "Nova Scotia's Geoscience Atlas." https://fletcher.novascotia.ca/DNRViewer/?viewer=Geoscience.

Department of Indian Affairs. 1889. *Annual Report of the Department of Indian Affairs for the Year Ended 31st December 1888*. Dominion of Canada. Indian Affairs Annual Reports, 1864-1990. Library and Archives Canada.

———. 1915. *Annual Report of the Department of Indians Affairs for the Year Ended March 31, 1914* Sessional Papers. Canada: House of Commons.

Department of Lands and Forests. 1954. "Crown Land Grant Index Map - Halifax County." Index Sheet No. 84. Crown Land Information Management Centre.

Dickinson, P., and J. Jeandron. 1999. *Glacial Lake Madawaska Archaeological Survey 1998*. New Brunswick Manuscript in Archaeology 30. Fredericton, NB: Secrétariat de la culture et du sport.

Edgecomb, R.B., D.B. Scott, and G.B. Fader. 1999. "New Data from Halifax Harbour: Paleoenvironment and a New Holocene Sea-Level Curve for the Inner Scotian Shelf." *Canadian Journal of Earth Science* 36:805–17.

Ellis, C. 2004. "Understanding 'Clovis' Fluted Point Variability in the Northeast: A Perspective from the Debert Site, Nova Scotia." *Canadian Journal of Archaeology* (28):205–53.

EPA. 2015. *The Penobscot River and Environmental Contaminants: Assessment of Tribal Exposure Through Sustenance Lifeways* Regional Applied Research Effort (RARE) Project. EPA.

Fader, G.B. 2005. *Marine Archaeology Offshore Digby Neck, Bay of Fundy*. Atlantic Marine Geological Consulting Ltd.

Fader, G.B., and R.O. Miller. 2008. *Surficial Geology, Halifax Harbour, Nova Scotia* Bulletin. Geological Survey of Canada.

Faribault, E.R. 1908. "Province of Nova Scotia, Halifax County (City of Halifax Sheet No. 68)." Geological Survey of Canada, "A" Series Map. Canada Department of Mines, Geological Survey Branch Publication No 1019.

Fergusson, C.B. 1967. *Place-Names and Places of Nova Scotia*. Halifax, N.S: Public Archives of Nova Scotia.

Forbes, M., G.K. Manson, J. Charles, K.R. Thomas, and R.B. Taylor. 2009. *Halifax Harbour Extreme Water Levels in the Context of Climate Change: Scenario for a 100-Year Planning Horizon*. Ottawa: Geological Survey of Canada.

Foster, K. "'Where I Belong': Tracing the History of Dartmouth's 'The Avenue.'" https://www.halifaxpubliclibraries.ca/blogs/post/where-i-belong-tracing-the-history-of-dartmouths-the-avenue.

Hallock, C. 1873. *The Fishing Tourist: Angler's Guide and Reference Book*. New York: Harper & Brothers.

Hoffman, B.G. 1955. "The Historical Ethnology of the Micmac of the Sixteenth and Seventeenth Centuries." Ph.D. Thesis, University of California.

Hopkins, E. 1878. "Map of the Town of Dartmouth."

Hopkins, E., and C.S. Akers. 1886. "Co. Halifax Nova-Scotia." Southhampton: Ordnance survey office. GE C-2040. Bibliothèque nationale de France, département Cartes et plans.

Ingalls, S., and W. Ingalls. 2010. *Sweet Suburb: A History of Prince's Lodge, Birch Cove & Rockingham*. Halifax: Glen Margaret Publishing.

Ingalls, S., and J. McGrath. 1998. *Chebookt: "The Great Bay" of the Mi'kmaq*. Halifax: Rockingham Heritage Society.

Johnson, T. 2020. *The Geography Of Stories: When the Link between Culture, Territory and Language Is Lost*. the Canadian Commission for UNESCO's Idealab. Ottawa: Eskasoni First Nation.

Jones, D. 2018. "Remember This? First Red Bridge." *Halifax Today*, July 24.

Kinsman, B. 1995. *An Historical Overview*. Halifax, N.S.: Department of the Environment.

Lacroix, D. 2015. "Mobility, Ceremonialism and Group Identity in Archaic Newfoundland." Ph.D. Thesis, Memorial University.

Lewis, R. 2006. "Mi'kmaq Rights and Title Claim: A Review of the Pre-Contact Archaeological Factor." *Mi'Kmaq Maliseet Nations News*, June.

Lothrop, J.C., Paige Newby, Arthur Spiess, and James Bradley. 2011. "Paleoindians and the Younger Dryas in the New England-Maritimes Region." *Quaternary International* (242):546–69.

Maliseet Nation Conservation Council. 2009. *Maliseet Nation (Wolastoqwik) Traditional Knowledge Protocol (MTK Protocol)* Traditional Knowledge Working Group.

Martin, J.P. 1957. *The Story of Dartmouth*. Dartmouth, NS: Privately Printed.
McKillop, V. 2019. "They 'Sprouted up from the Earth': Archaeology and Management of Shubenacadie River Valley Paleoshorelines, Nova Scotia." Simon Fraser University.
Membertou Geomatics Solutions (MGS) and Unama'ki Institute of Natural Resources (UINR). 2016. *Traditional Use Study Mi'kmaq and Wolastoqiyik Fisheries Scotian Basin Exploration Drilling Project*.
Millbrook First Nation. "Culture and History." https://www.millbrookband.com/new-page-4.
Murphy, B.M. 1998. "Researching the Early Holocene of the Maritime Provinces." MA Thesis, Memorial University.
National Air Photo Library. 1931. *Air Photo - Dartmouth Lakes* [Photograph]. A3525-18. National Air Photo Library.
———. 1947. *Air Photo - Dartmouth Lakes* [Photograph]. A11767-39. National Air Photo Library.
———. 1974. *Air Photo - Dartmouth Lakes* [Photograph]. 74122-163. National Air Photo Library.
———. 1982. *Air Photo - Dartmouth Lakes* [Photograph]. 82317-109. National Air Photo Library.
National Resources Canada. 2010. "The Origin of Halifax Harbour." *National Resources Canada*. http://www.bedfordbasin.ca/halifaxharbour/origin_halifax_harbour-eng.php.
Neily, P., S. Basquill, E. Quigley, and K. Keys. 2017. *Ecological Land Classification for Nova Scotia*. Nova Scotia Department of Natural Resources, Renewable Resources Branch.
Newby, P., James Bradley, Arthur Spiess, Bryan Shuman, and Philip Leduc. 2005. "A Paleoindian Response to Younger Dryas Climate Change." *Quaternary Science Reviews* 24:141–54.
Pacifique, C. 1934. *Le Pays Des Micmacs*. Montreal: La Réparation Press.
Paul, D. 2008. *We Were Not the Savages*. Halifax, Nova Scotia: Fernwood Publishing.
Pentz, B.C. 2008. "A River Runs through It: An Archaeological Survey of the Upper Mersey River and Allains River in Southwest Nova Scotia." MA Thesis, Memorial University.
Piers, H. 2003a. *The Harry Piers Ethnology Papers* Ed. Ruth Holmes Whitehead. Vol. *2*. 3 vols. Halifax: Nova Scotia Museum.
———. 2003b. *The Harry Piers Ethnology Papers* Ed. Ruth Holmes Whitehead. Vol. *3*. 3 vols. Halifax: Nova Scotia Museum.
Raddall, T. 2007. *Halifax: Warden of the North*. Halifax: Nimbus Publishing Ltd.
Registry of Deeds. 1827. "Henry Keeler to Jacob Allen, Richard Preston and James Slaughter." Halifax County Register of Deeds, Book 50, page 15. Family Search.
Reid, J.G. 2009. "Empire, the Maritime Colonies, and the Supplanting of Mi'kma'ki/Wulstukwik, 1780-1820." *Acadiensis* XXXVIII (2):78–97.
Reid, M. 2012. "Better Planning from Better Understanding: Incorporating Historically Derived Data into Modern Coastal Management Planning on the Halifax Peninsula." Master of Marine Management, Dalhousie University.

Rowe, E.L.L.Letter to W. B. Hardman (MacCulloch & Company Limited) from Nova Scotia Water Resources Commission. 1972. “City of Dartmouth - Micmac Shopping Centre.” Letter to W. B. Hardman (MacCulloch & Company Limited) from Nova Scotia Water Resources Commission. Dartmouth City Administrator’s Office, Subject Files, 101-56-1974.L45 - .N2. Halifax Municipal Archives.

Sable, T., and B. Francis. 2012. *The Language of This Land: Mi’kma’ki*. Sydney: Cape Breton University Press.

Sable, T., B. Francis, and R.J. Lewis. 2012. *The Language of This Land, Mi’kma’ki*. Cape Breton University Press.

Sanders, M. 2016. “Port Wallace Land Suitability & Capacity Analysis: Cultural Assets/Resources Screening Port Wallace, Nova Scotia.” Heritage Research Permit A2014NS51. Special Places.

Sanders, M., and W.B. Stewart. 1999. “Archaeological Screening Bedford Rifle Range Halifax Regional Municipality.” Heritage Research Permit A1999NS44. Special Places.

Sehatzadeh, A.L. 1998. “Survival of an African Nova Scotian Community: Up the Avenue, Revisited.” MA Thesis, Dalhousie University.

Shaw, J., G.B. Fader, and R.B. Taylor. 2009. “Submerged Early Holocene Coastal and Terrestrial Landforms on the Inner Shelves of Atlantic Canada.” *Quaternary International* (206):24–34.

Shaw, J., P. Gareau, and R.C. Courtney. 2002a. “Palaeogeography of Atlantic Canada 13-0kyr.” *Quaternary Science Review* (21):1861–78.

Shaw, J., D. Piper J.W., and R.B. Taylor. 2002b. “The Geology of the Bras d’Or Lakes, Nova Scotia.” *Geological Survey of Atlantic Canada* 42 (Part 1):127–47.

Shaw, J., D.J.W. Piper, G.B. Fader, E.L. King, B.J. Todd, T. Bell, M.J. Batterson, and D.G.E. Liverman. 2006. “A Conceptual Model of Deglaciation of Atlantic Canada.” *Quaternary Science Reviews* (25):2059–81.

Stea, R.R. 2011. “Geology and Palaeoenvironmental Reconstruction of the Debert-Belmont Site.” In *Ta’n Wetapeksi’k: Understanding from Where We Come: Proceedings of the 2005 Debert Research Workshop, Debert, Nova Scotia, Canada*, edited by Tim Bernard, Leah Rosenmeier, Sharon L. Farrell, and Confederacy of Mainland Micmacs, 55–75. Truro, N.S: Eastern Woodland Print Communications for the Confederacy of Mainland Mi’kmaq.

Stea, R.R., and R.J. Mott. 1998. “Deglaciation of Nova Scotia: Stratigraphy and Chronology of Lake Sediment Cores and Buried Organic Sections.” *Geographic Physique et Quaternaire* 52 (1):1–19.

Stea, R.R. and R.J. Mott. 1989. “Deglaciation Environments and Evidence for Glaciers of Younger Dryas Age in Nova Scotia, Canada.” *Boreas* 18:169–87.

Steele, D.E.Letter to Dartmouth City Council from Dartmouth Lakes Advisory Board. 1972. “Letter Re: Recommendation - MicMac Shopping Centre.” Letter to Dartmouth City Council from Dartmouth Lakes Advisory Board. Dartmouth City Administrator’s Office, Subject Files, 101-56-1974.L45 - .N2. Halifax Municipal Archives.

Suttie, B.D., Vincent Bourgeois, and Michael Nicholas. 2007. *Developing Localized Predictive Models for New Brunswick, Canada: The Sevogle River Test Plot*. Fredericton: Archaeology Services Unit, Heritage Branch, Department of Wellness, Culture and Sport.

Ta'n Weji-sqalia'tiek. "Mi'kmaw Place Names Digital Atlas." *Ta'n Weji-Sqalia'tiek – Mi'kmaw Place Names*. https://placenames.mapdev.ca/.

Thwaites, R.G. 1896. *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610-1791*. Vol. *Volume 1*. Cleveland: The Burrows Brothers Company.

Tuck, J.A. 1975. "The Northeastern Maritime Continuum: 8000 Years of Cultural Development in the Far Northeast." *Arctic Anthropology* 12 (2):139–47.

Veith, F.H.D. 1886. *Report on the Condition of the Rivers in Nova Scotia in Connection with the Fisheries in That Province*. Ottawa: MacLean, Roger and Co.

Webster, T., K. McCguigan, K. Collins, N. Crowell, and C. MacDonald. 2015. *Evaluating a Topo-Bathymetric Lidar Sensor to Map Submerged Aquatic Vegetation in Lake Banook* Technical Report. NSCC Middleton, NS: Applied Geomatics Research Group.

Whitehead, R.H. 1993. *Nova Scotia: The Protohistoric Period 1500-1630*. Curatorial Report 75. Halifax: Nova Scotia Museum.

———. 2015. *The Old Man Told Us: Excerpts from Mi'kmaw History, 1500-1900*. Halifax: Nimbus Publishing Limited.

Wicken, W.C. 2004. *Mi'kmaq Treaties on Trial: History, Land, and Donald Marshall Jr*. Toronto: University of Toronto Press.

Appendix A: Heritage Research Permit

NOVA SCOTIA

Heritage Research Permit (Archaeology)

Office Use Only
Permit Number:
A2024NS051

Special Places Protection Act 1989

(Original becomes Permit when approved by Communities, Culture and Heritage)

Greyed out fields will be made publically available. Please choose your project name accordingly

Surname MacIntyre | First Name April

Project Name 35 Micmac Boulevard Development

Name of Organization Davis MacIntyre & Associates Limited

Representing (if applicable)

Permit Start Date 12 March 2024 | Permit End Date 31 December 2024

General Location: 35 Micmac Boulevard, Dartmouth, HRM

Specific Location: *(cite Borden numbers and UTM designations where appropriate and as described separately in accordance with the attached Project Description. Please refer to the appropriate Archaeological Heritage Research Permit Guidelines for the appropriate Project Description format)*

20T 455452.00 m E 49448440.32 m N

Permit Category:
Please choose one

- ☐ Category A – Archaeological Reconnaissance
- ☐ Category B – Archaeological Research
- ☑ Category C – Archaeological Resource Impact Assessment
- ☑ I certify that I am familiar with the provisions of the *Special Places Protection Act* of Nova Scotia and that I have read, understand and will abide by the terms and conditions listed in the Heritage Research Permit Guidelines for the above noted category.

Signature of applicant [redacted] | Date 27 February 2024

Approved by Director Beth Lewis Digitally signed by Beth Lewis Date: 2024.03.07 19:37:21 -04'00'