

APPENDIX H
ARCHAEOLOGICAL STUDY



Heritage Research Permit (Archaeology)

Special Places Protection Act 1989

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

Office Use Only
Permit Number:

A2016NS058

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

Surname Stewart First Name Kathryn J.

Project Name Lake Major Dam Replacement Project Archaeological Shovel Testing

Name of Organization Cultural Resource Management Group Ltd

Representing (if applicable) Halifax Water

Permit Start Date July 13, 2016 Permit End Date December 31, 2016

General Location: Lake Major, 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)


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  Date June 30, 2016

Approved by Executive Director  Date July 11-16

MECO ENGINEERING

**LAKE MAJOR DAM REPLACEMENT PROJECT
ARCHAEOLOGICAL SCREENING & RECONNAISSANCE 2014
HALIFAX REGIONAL MUNICIPALITY
NOVA SCOTIA**

FINAL REPORT

Submitted to:

Meco Engineering

and the

**Special Places Program of the Nova Scotia Department of
Communities, Culture and Heritage**

Prepared by:

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Report Preparation: Kiersten Green

Heritage Research Permit Number: A2014NS112

CRM Group Project Number: 2014-0012-01

APRIL 2015



*The following report may contain sensitive archaeological site data.
Consequently, the report must not be published or made public without
the written consent of Nova Scotia's Coordinator of Special Places Program,
Department of Communities, Culture and Heritage.*

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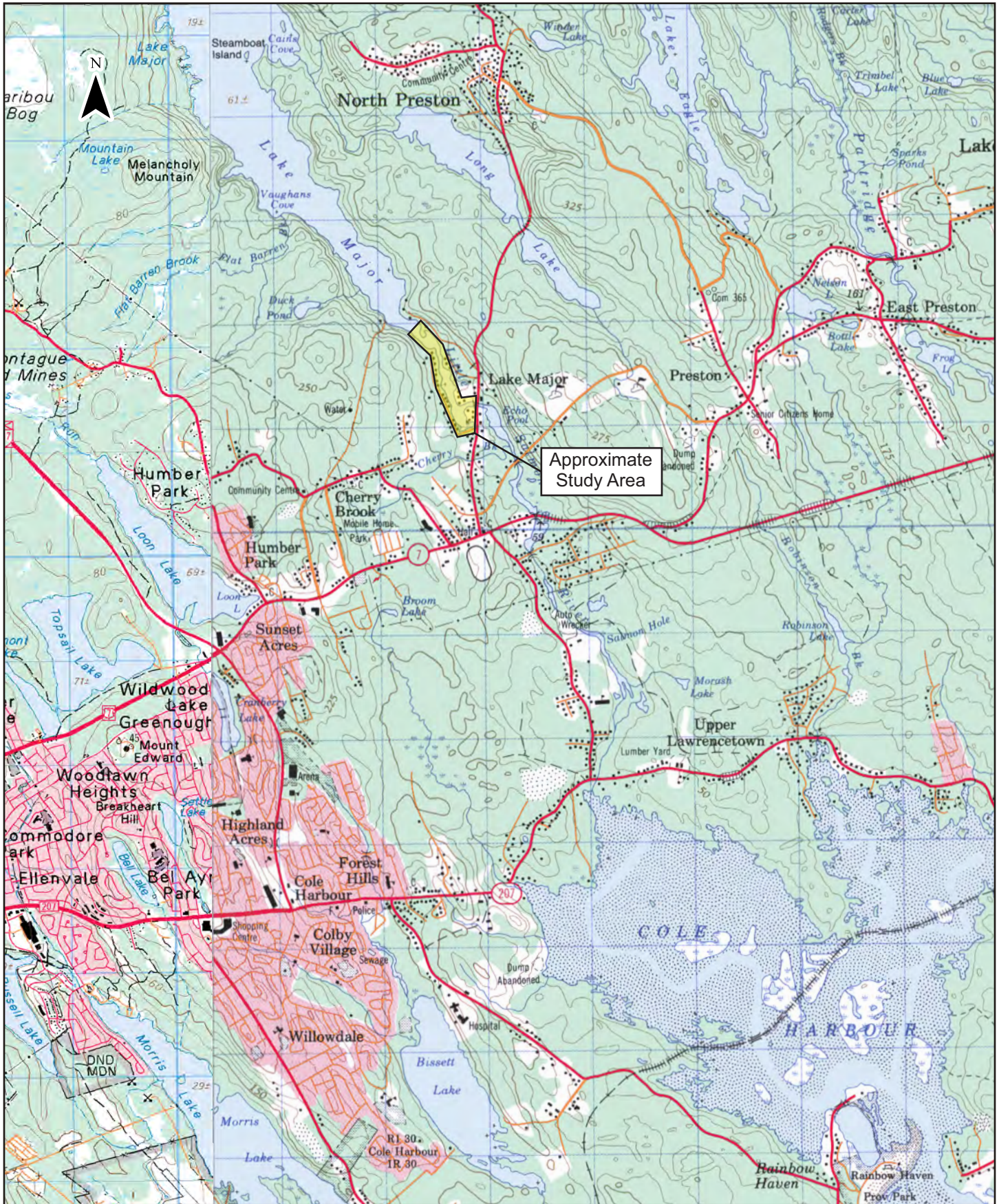
**LAKE MAJOR DAM REPLACEMENT PROJECT
ARCHAEOLOGICAL SCREENING & RECONNAISSANCE 2014
HALIFAX REGIONAL MUNICIPALITY
NOVA SCOTIA**

1.0 INTRODUCTION

In the late fall of 2014, Cultural Resource Management Group (CRM Group) was retained by Meco Engineers (Meco), on behalf of the Halifax Regional Water Commission (Halifax Water), in order to investigate the potential for encountering archaeological resources during the replacement of the Lake Major Dam. Replacement of the Lake Major Dam, currently a rock-filled timber crib structure, is proposed either at the current or an upstream location. The current dam is located at the outflow of Lake Major, immediately upstream of Lake Major Road (*Figure 1*).

The archaeological screening and reconnaissance was directed by CRM Group Archaeologist Kiersten Green with the assistance of Senior Archaeologist Mike Sanders and technical input from W. Bruce Stewart, CRM Group President and Senior Technical Advisor.

The archaeological investigation was conducted according to the terms of Heritage Research Permit A2014NS112 (Category 'C'), issued to K. Green through the Special Places Program. This report describes the screening and reconnaissance of the proposed dam locations, presents the results of these efforts and offers cultural resource management recommendations.



Approximate Study Area



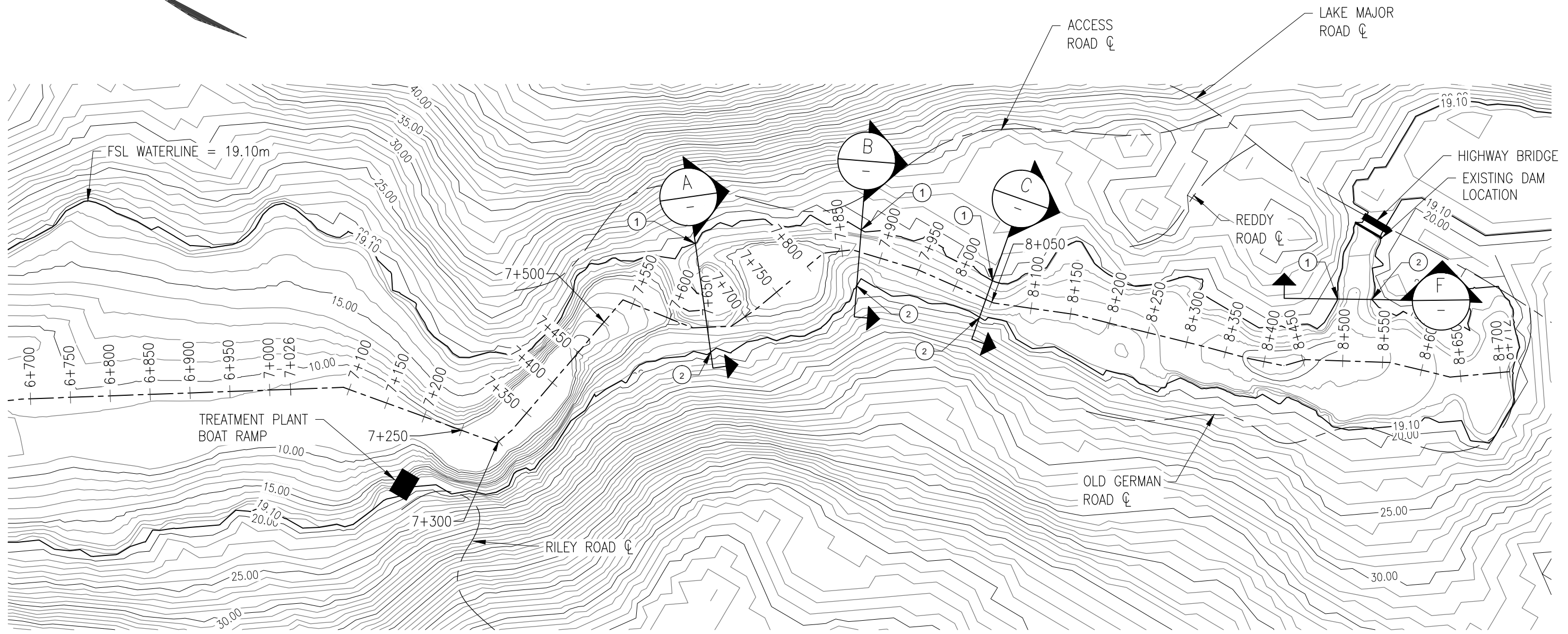
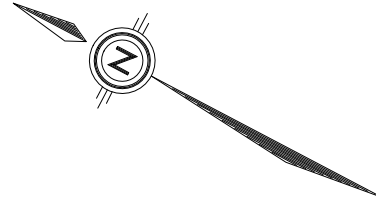
Approximate Study Area

LAKE MAJOR DAM REPLACEMENT PROJECT
 ARCHAEOLOGICAL SCREENING & RECONNAISSANCE 2014
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Figure 1

April 2015

Scale 1:50 000

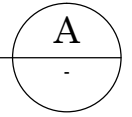


PROJECT: 10256 LAKE MAJOR DAM REPLACEMENT CONCEPTUAL DESIGN
 TITLE: POTENTIAL NEW DAM LOCATIONS- PLAN Sketch No.

SECTION	POINT	NORTHING	EASTING
A	1	(N) 4952187.14	(E) 462505.89
	2	(N) 4952071.63	(E) 462413.92
B	1	(N) 4952003.47	(E) 462645.14
	2	(N) 4951953.64	(E) 462578.38
C	1	(N) 4951808.22	(E) 462674.86
	2	(N) 4951802.63	(E) 462626.90
F	1	(N) 4951430.47	(E) 462884.06
	2	(N) 4951387.07	(E) 462899.67



Detailed Study Area	Figure 2
LAKE MAJOR DAM REPLACEMENT PROJECT ARCHAEOLOGICAL SCREENING & RECONNAISSANCE 2014 HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA	April 2015
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LAKE MAJOR PL 
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2.0 STUDY AREA

Lake Major Dam Replacement Project study area is located at the outflow of Lake Major, extending upstream for a distance of approximately 1 kilometre above Lake Major Road (**Figure 1; Plate 1**). Access to the study area is gained off Lake Major Road. CRM Group conducted screening and reconnaissance of four proposed dam locations consisting of eight areas situated along the shoreline of both sides of Lake Major (four on either side) (**Figure 2**). In keeping with geographical convention, all references contained within the report to the "left bank" and "right bank" of a watercourse are based on the perspective gained while looking downstream.



PLATE 1: Lake Major Dam Replacement study area. Existing dam structure and left bank of Lake Major. Facing west. December 5, 2014.

3.0 METHODOLOGY

Meco retained CRM Group to undertake archaeological reconnaissance of the four potential locations for the proposed new dam structure. To assess the potential for archaeological resource impacts associated with the dam relocation, CRM Group developed a work plan consisting of the following components: review relevant site documentation to develop archaeological potential model; archaeological reconnaissance of the areas that could potentially be impacted by construction activities related to the potential dam relocation sites; and, a report summarizing the results of the background research, and field survey, as well as recommendations for assessment and management of areas exhibiting high archaeological potential and/or features.

3.1 Background Study

The archival research component of the archaeological screening and reconnaissance was designed to explore the land use history and ownership history of the study area, and provide information necessary to evaluate the area's archaeological potential. To achieve this goal, CRM Group utilized the resources of various institutions including documentation available through the Nova Scotia Archives, the Department of Natural Resources, the Black Cultural Centre of Nova Scotia and the Crown Land Information Management Centre.

The background study included a review of relevant historic documentation focusing on land grant records, legal survey and historic maps, as well as local and regional histories. Topographic maps and aerial photographs, both current and historic, were also used to evaluate the study area. This data facilitated the identification of environmental and topographic features that would have influenced human settlement and resource exploitation patterns. The historical and cultural information was integrated with the environmental and topographic data to identify potential areas of archaeological sensitivity. In preparation for the archaeological reconnaissance, the information obtained from this suite of research materials was reviewed to facilitate the interpretation of any archaeological features encountered within the study area.

3.2 Field Reconnaissance

The goals of the archaeological field reconnaissance were to conduct a visual inspection of the study areas, document any areas of archaeological sensitivity or archaeological sites identified during the course of visual inspection, and design a strategy for testing areas of archaeological potential, as well as any archaeological resources identified within the study areas. Although the ground search did not involve sub-surface testing, the researchers were alert for topographic or vegetative anomalies that might indicate the presence of buried archaeological resources. The process and results of the field reconnaissance were documented in field notes and photographs.

A hand-held Global Positioning System (GPS) unit was used to record UTM coordinates for survey areas, as well as any identified diagnostic artifacts, formal tools, isolated finds and site locations. The areas are described and labeled as depicted in *Figure 2*. The four potential dam locations are identified alphabetically as A, B, C and F (Options D and E had previously been dropped from consideration), while the land-based areas surveyed at either end of the potential dam locations are identified numerically as 1 (left bank) and 2 (right bank) to identify study areas as Areas A-1, A-2, B-1, B-2, etc.

4.0 RESULTS OF SCREENING AND RECONNAISSANCE

4.1 Background Study

The following discussion details the environmental and cultural setting of the study area. This background study provides a framework for the evaluation of archaeological potential and the initial interpretation of any resources encountered during the field component of the assessment.

4.1.1 Environmental Setting

A number of environmental factors such as water sources, physiographic features, soil types and vegetation have influenced settlement patterns and contribute to the archaeological potential of the area.

Water Sources

The Lake Major Dam Replacement study area falls within the Lake Major Watershed which provides water to Dartmouth, Cole Harbour, Eastern Passage, Westphal, Cherry Brook, North Preston and Montague Gold Mines (Halifax Regional Municipality 2015). The watershed is a protected area with portions of it falling in the Waverly-Salmon River Long Lake Wilderness Area. Proximity to water, for both drinking and transportation, is a key factor in identifying Precontact and historic Native, as well as early Euro-Canadian, archaeological potential.

Topography

The study area is located within the greater terrestrial region known as the Atlantic Interior – Quartzsite Barrens (Halifax) Unit (Davis & Browne 1996: 134). The bedrock-dominated topography can be generally described as undulating to rolling. Low-lying areas are typically swampy. Elevated areas within the study area may have provided important vantage points for viewing the surrounding region and for sighting large game.

Soils

The Lake Major area is covered by *Halifax* series soils. *Halifax* soils are well drained but typically shallow, stony and porous. The parent material is olive to yellowish-brown sandy loam to gravelly sandy loam glacial till derived primarily from quartzite. In general, *Halifax* soils are too stony for agriculture (MacDougall *et. al.* 1963: 32-33).

Vegetation

The forest growth within this ecological region includes Balsam Fir, Red Spruce, White Spruce, Eastern Hemlock and Yellow Birch. Slow-moving streams are bordered by broad swampy areas populated with Balsam Fir, Red Maple and Black Spruce. The nature of the soils found within the study area does not encourage heavy forest growth (Davis & Browne 1996: 56-57).

4.1.2 Native Land Use

The land within the study area was once part of the greater Mi'kmaq territory known as *Sipekne'katik*, meaning 'area of wild potato/turnip' (Sable & Francis 2012: 21). The surrounding area is dense with lakes and watercourses that would have been important transportation corridors and a resource base for the Mi'kmaq, their ancestors and predecessors for millennia prior to the arrival of European settlers. Lake Major itself would have been utilized as a transportation route as it is part of a series of connected lakes and rivers providing access into the interior of Nova Scotia. The waterway would have also served as a significant source of fish.

A review of the Maritime Archaeological Resource Inventory (MARI) determined that there are three archaeological sites within two kilometres of the Lake Major Dam. Two of the sites, BeCu-1 and BeCu-2, represent historic features (late eighteenth to early nineteenth century settlement) located back from the Salmon River while the third site, BeCu-3, represents a stone plummet (isolated find) found along the Salmon River in the late nineteenth century.

Based on available historic documentation, there is evidence to suggest a historic Mi'kmaq presence in the Lake Major area. The following account was related to Harry Piers by Joseph C. Cope in 1886 (Whitehead 1991: 287):

About the last of November or first of December of about 1887, Abram Paul, Indian, tracked in a little snow some bears to their den. about 1/4 mile north of the head of north end of Lake Major, beyond Dartmouth, Hx. Co.

Based on the environmental setting and Native land use, the Lake Major Dam Replacement study area is ascribed elevated potential for encountering Precontact and/or early historic Native archaeological resources.

4.1.3 Property History

Issuance of land grants in the vicinity of Lake Major began with the establishment of the Township of Preston in 1784. Located north of the Township of Lawrencetown, the Preston lots were issued to “Theophilous Chamberlain and one hundred and sixty-three others, principally Loyalists, who at the time of the American revolution against English rule, left home and country, so as to maintain inviolate their allegiance to the British Empire” (Lawson 1893: 151). These early settlers were generally of English descent, but also included German immigrants. Included among the grantees was “Samuel Greenwood & Co.” – a consortium that was given title to a 1,000 acre “Mill Lot” that straddled the southern end of Lake Major. This grant encompassed all sections of the present study area for the Lake Major Dam Replacement Project (Crown Land Grant Sheet 66; **Figure 3**). Samuel Greenwood, a Halifax businessman, 'crier' in the Supreme Court and a naval mast maker, also operated the naval mast yard on the Dartmouth waterfront (Trider 1999: 345).

The granting of the Mill Lot created the potential for construction of a sawmill on the Little Salmon River. This project received further impetus in 1785 with increases in demand for lumber for shipbuilding and for housing of Loyalist refugees (Trider 1999: 284). In that year, John Wentworth, the Surveyor General of the Kings Woods actively searched the forests north of Lake Major and reported

I found a tract of land . . . which is only 7 miles from Bedford Basin, and has water communication with Cole Harbour [via Lake Major] with about 2 miles of land carriage from whence Timber may be rowed in boats in one tide (12 hours) to the Careening Yard . . . The growth of timber is pine, not exceeding 25 inches (mainly 12-15 inches) in width . . . Spruce of the best qualities for small spars, beech and birch, there are some fir, Norway or Red Pines about 12-15 inches. There is a settlement (Preston) extending to this timber Reservation, which in 2 or 3 years will be able to supply labor and cattle (oxen) to get any timber out. I have therefore secured this tract and believe it will be a valuable appendage to the Careening Yard . . . although it hath not the largest and soundest pine timber, there is a great quantity of good quality on it . . . the other growth good . . . the situation eligible and there is no other timber near so good and commodious as this is . . .” (Trider 1999: 289). As established in 1785, the Lake Major naval timber reserve “started at a river that ran into Lake Major, being on the northern

line of a tract of land granted to Theopolis Chamberlain, et al., extending 2 miles east and west on each side of a brook or river and running on a northerly course for 5 miles.
(Trider 1999: 289).

When the naval timber reserve was being established in 1785, a large number of freed African American slaves were immigrating to Nova Scotia as Loyalists and were being settled within the Preston Township at the present community of Preston, about 2.0 kilometres east of the study area (Anonymous 1816). Ultimately, most of these new settlers (nearly 1,200) would leave Preston in 1792 in favour of resettlement in Sierra Leone (Lawson 1893: 156).

Sometime before this departure, the planned sawmill on Little Salmon River was established, involving construction of a dam at the upstream edge of the present Lake Major Road crossing. Prior to construction of the dam, the water level within Lake Major would have been significantly lower and the watercourse within the study area would have been more fluvial than lacustrine. Surviving elements of this dam can still be seen in the form of hand-cut granite blocks located within the riverside riprap on the upstream (western) side of the road.

Further research would be required to confidently determine the exact construction date of the mill, but it is probable that it was built in 1785 or 1786. In the span of those two years, four new sawmills were built in the vicinity of the port of Halifax when, previously, there had only been three (Trider 1999: 284, 293). The Lake Major mill was certainly in existence in 1788, when it was advertised for sale along with its 1,000 acre woodlot (Trider 1999: 308).

In 1796, Jamaican refugees known as Maroons, were settled in the community of Cherry Brook, located west of the “Mill Lot”, outside of the current study area for the Lake Major Dam Replacement Project (Anonymous *ca.* 1800; Chamberlain 1813; Grant 2002: 41-46; **Figures 4 & 5**). As many of the Preston Loyalists had done in 1792, these settlers of African-Jamaican descent departed for Sierra Leone in 1800.

By the early nineteenth century, the Lake Major mill facility included a bark mill, (**Figure 5**), which would have crushed hemlock and oak bark for extraction of the tannin used for leatherworking. The facility remained active into the twentieth century and was situated only slightly downstream from the dam, immediately east of Lake Major Road and immediately north of the river (**Figures 6 & 7**). The residence of the mill owner (J. Ernst by 1908) was also located on the northern side of the river, but on the western side of the road (**Figure 7**).

Aerial photographs from 1931, 1945, and 1954 show that some of the study area underwent a significant amount of development in this time period (**Figure 8**). Specifically, the air photos indicate that in the time between 1945 and 1954, Potential Impact Areas A-1 and B-1 underwent heavy clearing. This development would have severely likely impacted any archaeological resources in this area with the exception of the peninsula portion of area 'a'. During reconnaissance, further evidence of this ground clearing and levelling, as well as quarrying and milling operations, was discovered (**Plates 2**).

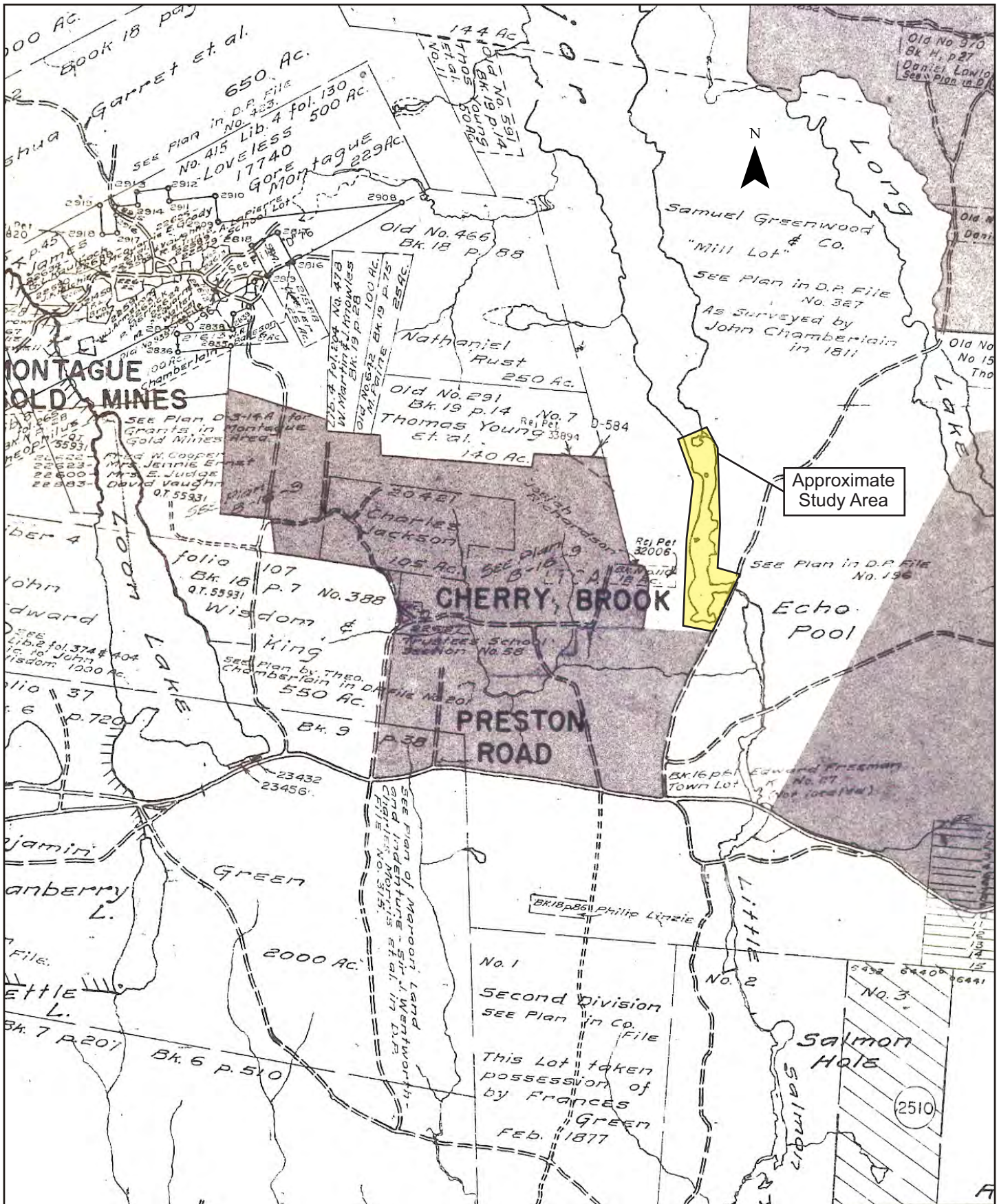
Based on the historical setting within the study area, the Lake Major Dam Replacement study area is ascribed elevated potential for encountering historic Euro-Canadian archaeological resources.



PLATE 2: Evidence of quarrying in the vicinity of Potential Impact Areas A-1 and B-1. Facing east. December 5, 2014.

4.1.4 Archaeological Potential

Based on the various components of the background study, including environmental setting, Native land use and property history, the Lake Major Dam Replacement study area is considered to exhibit high potential for encountering Precontact and historic Native archaeological resources and high potential for encountering historic Euro-Canadian archaeological resources.



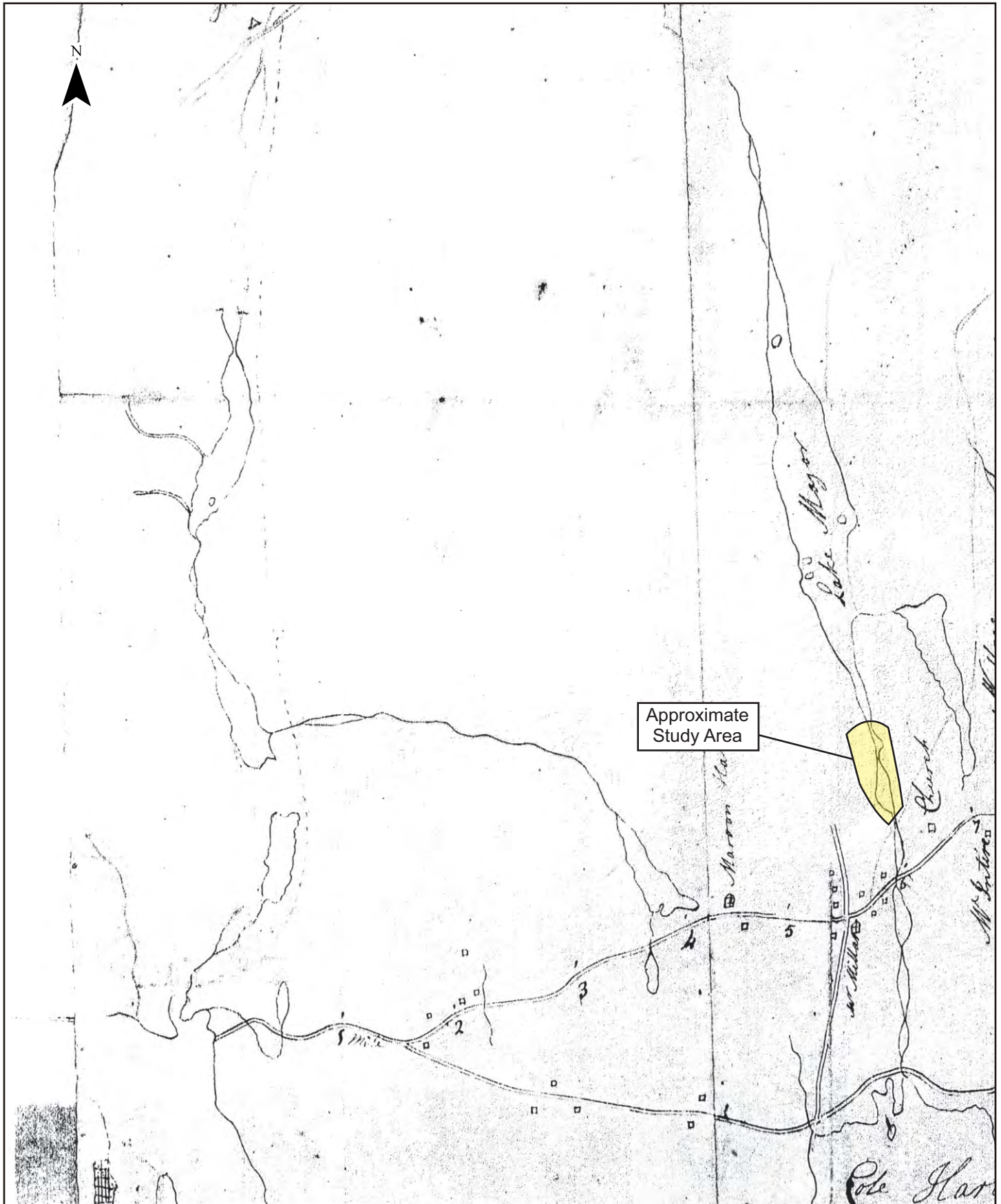
Crown Land Grant Sheet 66

Figure 3

LAKE MAJOR DAM REPLACEMENT PROJECT
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 HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA

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Anonymous, 1800

Figure 4



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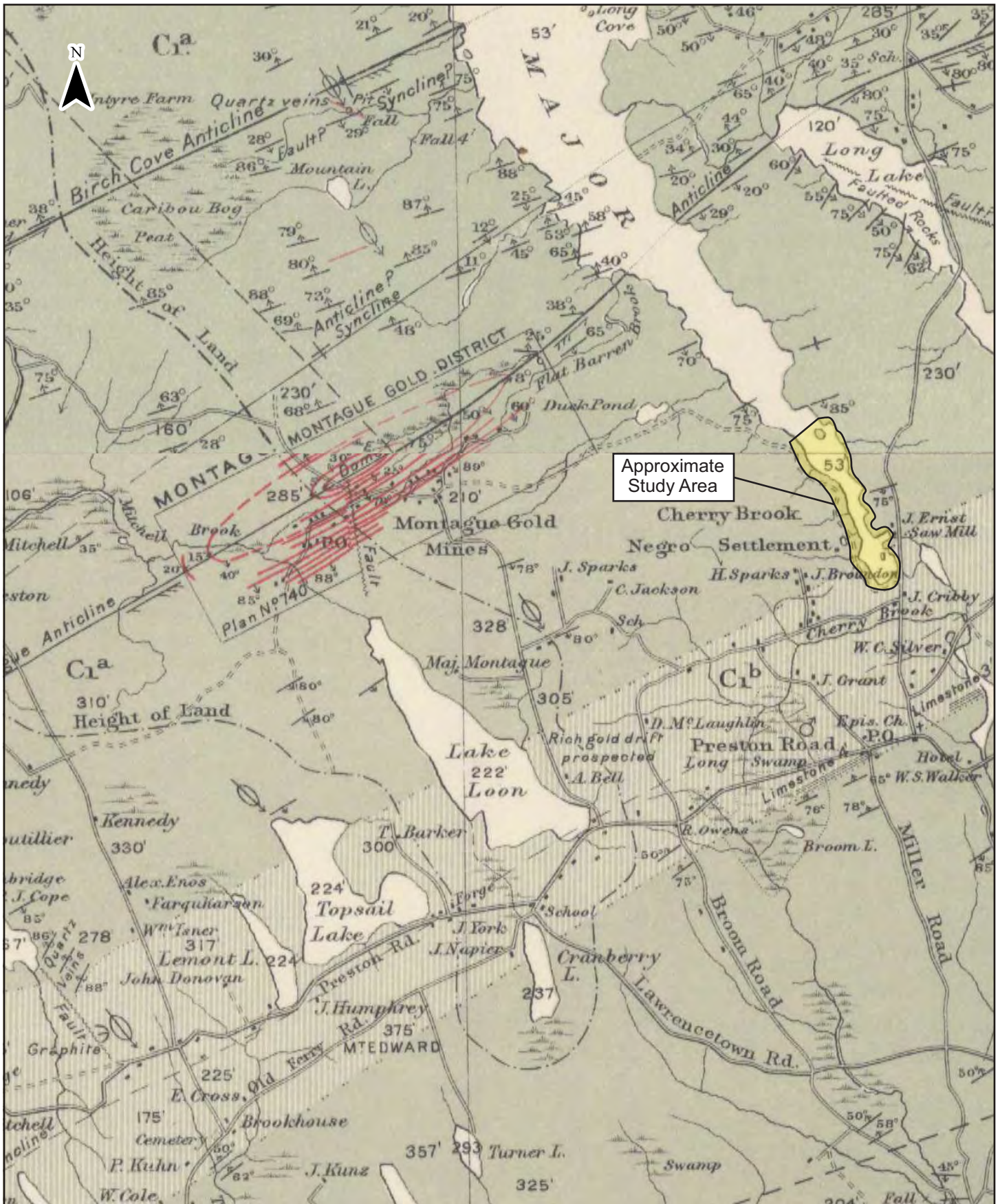
A.F. Church Map 1865

Figure 6

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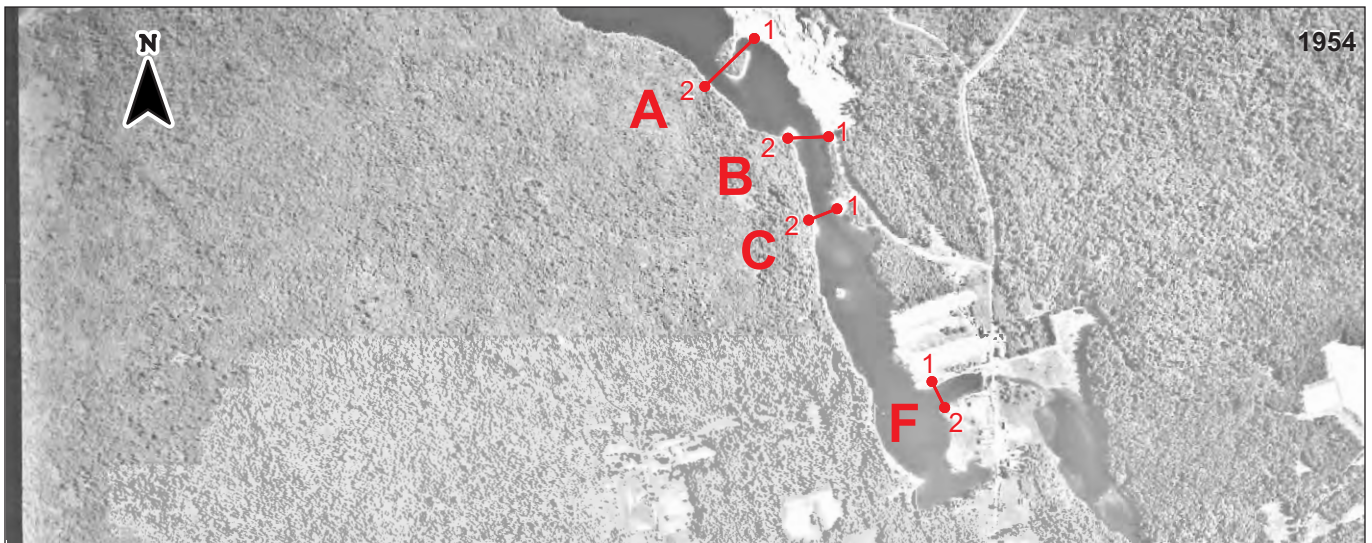
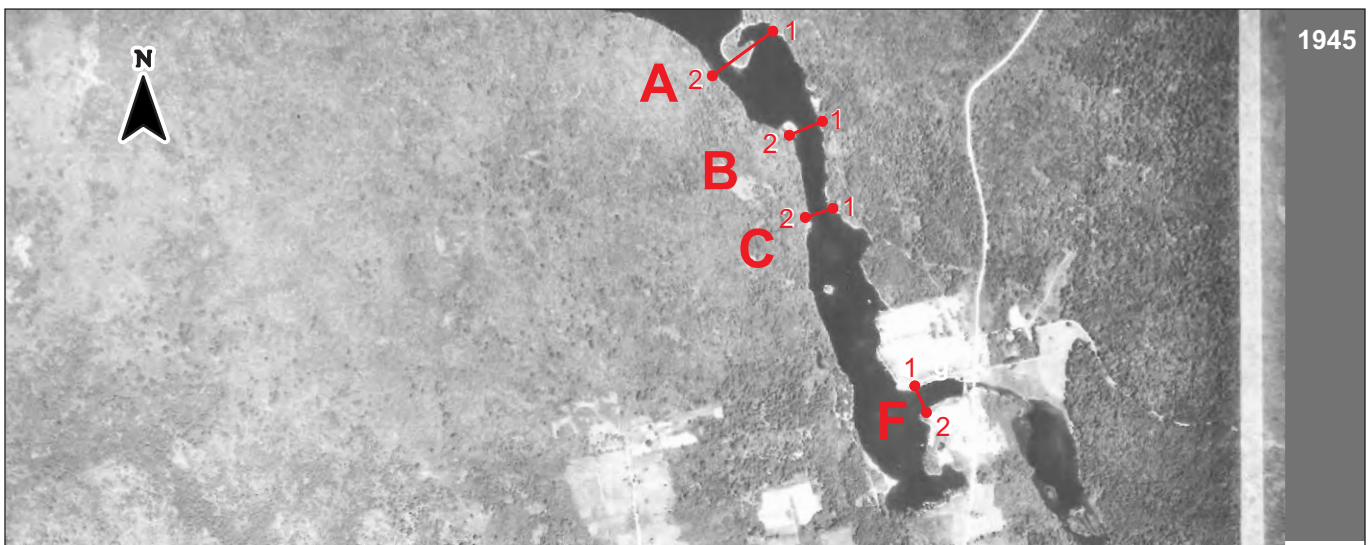
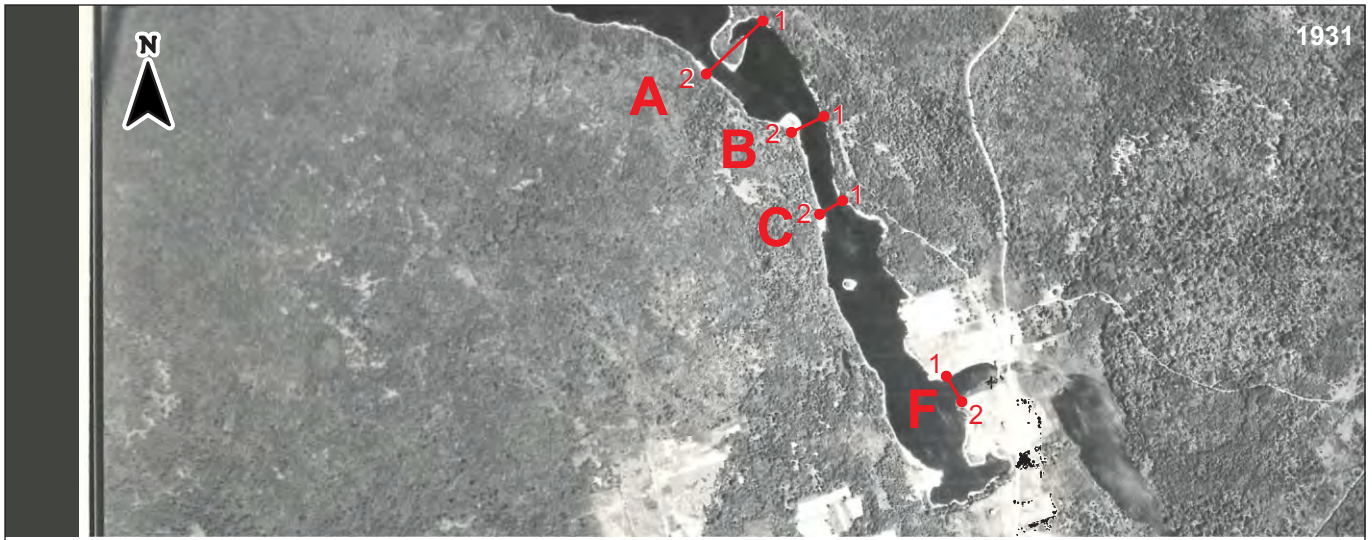
Faribault, 1908

Figure 7

LAKE MAJOR DAM REPLACEMENT PROJECT
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Aerial Photography 1931, 1945, 1954

Figure 8

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April 2015

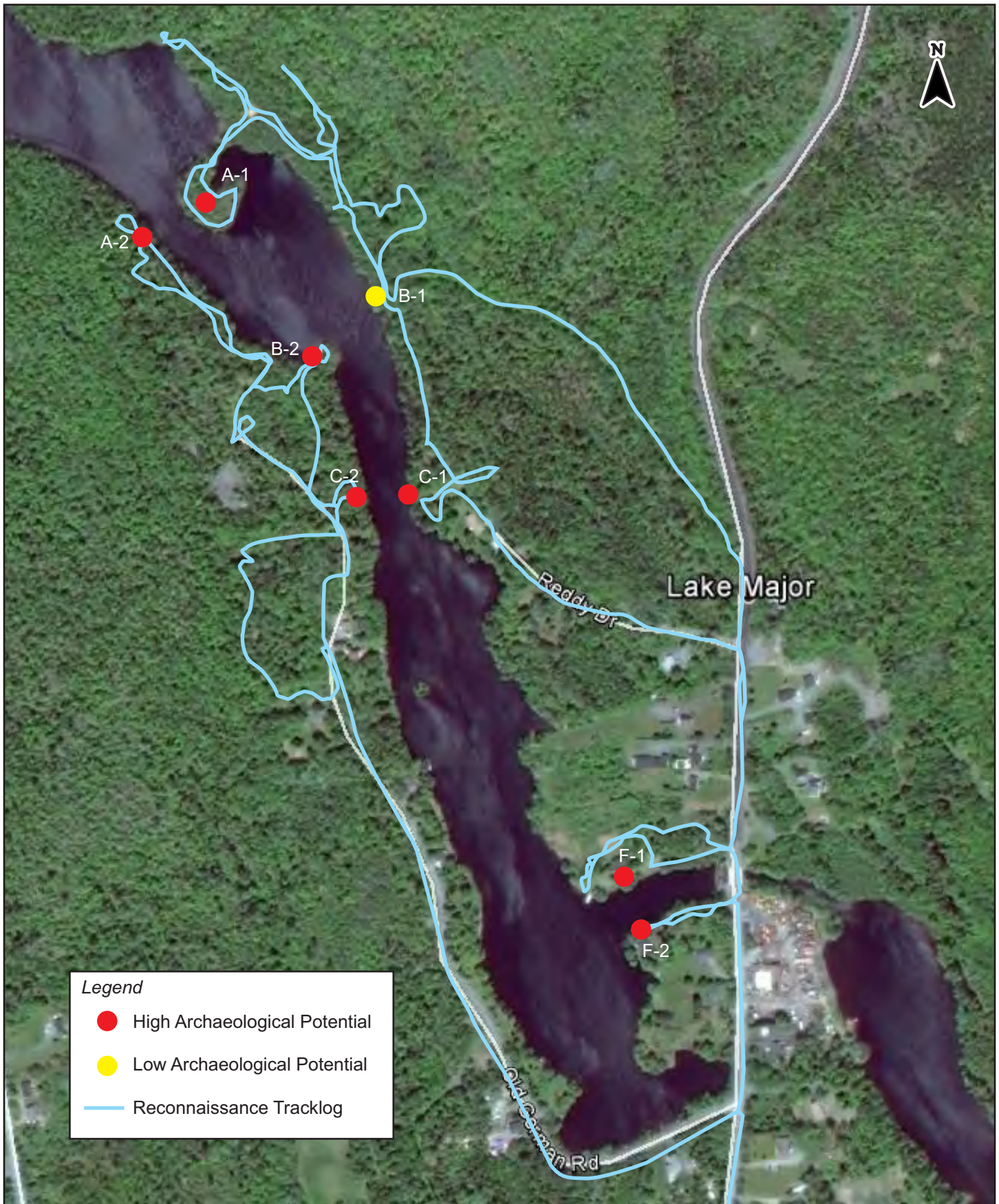
4.2 Field Reconnaissance

Fieldwork, consisting of a visual inspection of the study area, was conducted by CRM Group archaeologists on December 5, 2014. The primary purpose of the visit was to assess the archaeological potential of the proposed dam locations.




PLATE 3: Standing on Potential Impact Area B-2 and facing north with Potential Impact Area A-1 (right) and A-2 (left) in the background. December 5, 2014.

As a result of the background research and field reconnaissance, 7 of the 8 potential impact areas (A-1, A-2, B-2, C-1, C-2, F-1 and F-2), were identified as exhibiting moderate to high potential for encountering Precontact and historic Native, and/or early Euro-Canadian archaeological resources (*Figure 9*). These areas are described in detail below.



Legend

- High Archaeological Potential
- Low Archaeological Potential
- Reconnaissance Tracklog

	<i>Approximate Study Area</i>	<i>Figure 9</i>
	LAKE MAJOR DAM REPLACEMENT PROJECT ARCHAEOLOGICAL SCREENING & RECONNAISSANCE 2014 HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA	April 2015
		Scale 1:5000

AREA A-1
(Figure 9)

UTM Coordinates: 20 T 462458.25E 4952119.69N

Description: Potential Impact Area A-1 is located on a small peninsula of land protruding from the left bank of Lake Major. The peninsula is considered suitable for Precontact habitation due to its flat and dry nature (**Plate 4**). Area A-1 covers a spot measuring approximately 40 meters (east/west) by 60 meters (north/south). The periphery of Area 1 is bounded to the north, south and west by Lake Major and to the east by disturbance (**Figure 8**).

Potential: The area is considered to have high potential for encountering Precontact archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 4: Potential Impact Area A-1. Facing northwest. December 5, 2014.



PLATE 5: Standing on peninsula of Potential Impact Area A-1. Facing northeast to disturbance on shore. December 5, 2014.



PLATE 6: Large sawdust/woodchip pile located inland from peninsula. Potential Impact Area A-1 disturbance. Facing north. December 5, 2014.

Area A-2
(Figure 9)

UTM Coordinates: 20 T 462413.00E 4952071.00N

Description: Potential Impact Area A-2 is a large flat terrace located across the lake from Area A-1 on the right bank of Lake Major. The area measures approximately 80 metres north-south by 30 metres east-west. It is bounded on the north by a steeply sloped ridge and bedrock outcrop (**Plate 7**), on the west and south by a stream and standing water (**Plate 8**) and on the east by Lake Major (**Plate 9**). Potential Impact Area A-2 is considered suitable for Precontact habitation due to its flat and dry nature.

Potential: The area is considered to have high potential for encountering Precontact archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 7: Steep slope and bedrock bounding the north edge of the high potential area of Potential Impact Area A-2. Facing north. December 5, 2014.



PLATE 8: Flat terrain of Potential Impact Area A-2 bounded on the west by standing water. Facing south. December 5, 2014.



PLATE 9: Potential Impact Area A-2. Facing east. December 5, 2014.

AREA B-1
(Figure 9)

UTM Coordinates: 20 T 462645.00N 4952003.00E

Description: Potential Impact Area B-1 is a low flat area located on the left bank of Lake Major. The area measures approximately 40 metres north-south by 25 metres east-west. It is bounded on the north by a brook flowing into the lake, on the east by a former road (Reddy Drive) but now a trail running parallel to the bank of Lake Major and on the west by Lake Major. The archaeological potential is considered to have been diminished in Potential Impact Area B-1 due to past disturbance as evident in aerial photography. Physically, the Potential Impact Area B-1 appears to be disturbed as well, as demonstrated by the extreme flatness of the surface in addition to the very new growth trees and lack of large old growth trees (**Plate 10**)

Potential: The area is considered to have low potential for encountering intact archaeological resources.

Recommendation: The area should be cleared of any requirement for future archaeological investigation.



PLATE 10: Potential Impact Area B-1 showing flat terrain and new growth trees. Facing east. December 5, 2014.

AREA B-2
(Figure 9)

UTM Coordinates: 20 T 462578.00E 4951953.00N

Description: Potential Impact Area B-2 is a small flat peninsula located on the right bank of Lake Major. The area measures approximately 23 metres north-south by 25 metres east-west (**Plate 11**). It is bounded on the north, east and south by Lake Major and on the west by a steep slope. The area appears to have been used recently as a camp site and is easily accessible by a clearly marked trail (**Plate 12**). The peninsula is considered suitable for Precontact habitation due to its flat and dry nature.

Potential: The area is considered to have high potential for encountering Precontact archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing



PLATE 11: Flat terrain of Potential Impact Area B-2 with modern fire pit on right. Facing east. December 5, 2014.



PLATE 12: Potential Impact Area B-2 showing marked trail/path. Facing east. December 5, 2014.

AREA C-1
(Figure 9)

UTM Coordinates: 20 T 462674.00E 4951808.00N

Description: Potential Impact Area C-1 is a medium-sized, flat area situated on the left bank of Lake Major. The area is located along the road/trail that runs parallel to Lake Major and just north of a large rock barricade keeping ATVs off the trail. The area measures approximately 30 metres north-south by 40 metres east-west (**Plate 13**). The area is considered suitable for Precontact habitation due to its flat and dry nature.

Potential: The area is considered to have high potential for encountering Precontact archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 13: Potential Impact Area C-1. Facing north. December 5, 2014.

AREA C-2
(Figure 9)

UTM Coordinates: 20 T 462626.00E 4951802.00N

Description: Potential Impact Area C-2 is a very small terrace area situated on the right bank of Lake Major. The area contains a 1970s/80s cottage foundation as well as a stone and concrete landscaping retaining wall (**Plate 14**). The area of elevated potential is located just east of this wall and measures approximately 15 metres north-south and 20 metres east-west (**Plate 15**). Although the area was possibly disturbed due to modern construction, the terrace is high, flat and dry and is thus still considered suitable for Precontact habitation.

Potential: The area is considered to have moderate potential for encountering Precontact archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 14: Retaining wall located on Potential Impact Area C-2. Facing north. December 5, 2014.



PLATE 15: Potential Impact Area C-2 with retaining wall on far left. Facing north. December 5, 2014.

AREA F-1
(Figure 9)

UTM Coordinates: 20 T 462884.00E 4951430.00N

Description: Potential impact area 'g' is a flat area of manicured lawn on the left bank of Lake Major. The area consists of a manicured lawn and gravel driveway of an existing house/cottage on the property as well as a portion of ploughed agricultural field (**Plates 16-18**). The area of elevated potential includes all areas of relatively flat dry land on the property.

Potential: The area is considered to have high potential for encountering Precontact and/or historic archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 16: Potential Impact Area F-1 across water. Facing north. December 5, 2014.



PLATE 17: Manicured lawn and gravel driveway on Potential Impact Area F-1. Facing west. December 5, 2014.



PLATE 18: Ploughed agricultural field on Potential Impact Area F-1. Facing southwest. December 5, 2014.

AREA F-2
(Figure 9)

UTM Coordinates: 20 T 462899.00E 4951387.00N

Description: Potential Impact Area F-2 is a flat area of manicured lawn on the left bank of Lake Major. The area consists of manicured lawn and gardens as well as both gravel and asphalt driveways of an existing house/cottage on the property (**Plates 19-21**). The area of elevated potential includes all areas of relatively flat dry land on the property.

Potential: The area is considered to have high potential for encountering Precontact and/or historic archaeological resources.

Recommendation: The area should be subjected to a program of shovel testing.



PLATE 19: Potential Impact Area F-2 across the water. Facing south. December 5, 2014.



PLATE 20: Gravel driveway on Potential Impact Area F-2. Facing east. December 5, 2014.



PLATE 21: Manicured lawn, gravel driveway and asphalt driveway on Potential Impact Area F-2. Facing west. December 5, 2014.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 2014 archaeological screening and reconnaissance of the Lake Major Dam Replacement Project study area site consisted of a visual inspection of the ground surface and did not involve sub-surface testing. The preliminary archaeological background research and field reconnaissance conducted by CRM Group archaeologists identified that 7 of the 8 potential impact areas (A-1, A-2, B-2, C-1, C-2, F-1 and F-2) exhibited high potential for Precontact and historic archaeological resources (*Figure 9*).

Based on these results, CRM Group offers the following management recommendations for the study area:

1. It is recommended that the potential for archaeological impact be reviewed once a development plan has been finalized.
2. It is recommended that any areas of potential archaeological significance as identified in this report (Potential Impact Areas A-1, A-2, B-2, C-1, C-2, F-1 and F-2) that are to be impacted in conjunction with the Lake Major Dam Replacement Project be subjected to a program of shovel testing to determine whether or not buried archaeological resources are present and intensified historical research to provide a more comprehensive context for interpreting any archaeological resources.
3. It is recommended that should plans be made to alter or remove the current dam structure, the dam and the area immediately surrounding it be subjected to archaeological assessment.
4. It is recommended that any additional construction related impacts not defined above (including access roads, staging areas, etc.) be subjected to archaeological screening and reconnaissance prior to development.
5. It is recommended that the remainder of the study area (Potential Impact Area B-1 as defined in this report) be cleared of any requirement for future archaeological investigation.
6. In the event that archaeological deposits or human remains are encountered during construction activities, all work in the associated area(s) should be halted and immediate contact made with the Coordinator of the Special Places Program (Sean Weseloh-McKeane: 902-424-6475).

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