

ARCHAEOLOGICAL AND HERITAGE RESOURCES

OVERVIEW ASSESSMENT

HALIFAX REGIONAL MUNICIPALITY

PROJECT NO. 14368

REPORT TO

HALIFAX REGIONAL MUNICIPALITY

ON

ARCHAEOLOGICAL AND HERITAGE RESOURCES

OVERVIEW ASSESSMENT

Jacques Whitford Environment Limited
3 Spectacle Lake Drive
Dartmouth, NS B3B 1W8
Tel:(902)468-7777
Fax:(902)468-9009

October 1, 1999

TABLE OF CONTENTS

	Page No.
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Objectives	1
2.0 METHODOLOGY	2
2.1 Marine Heritage Resources	2
2.2 Terrestrial Heritage Resources	2
3.0 STUDY RESULTS	3
3.1 Marine Heritage Resources	3
3.1.1 Herring Cove	3
3.1.2 Halifax South	3
3.1.3 Halifax North	3
3.1.4 Dartmouth	3
3.2 Terrestrial Heritage Resources	4
3.2.1 Herring Cove	4
3.2.2 Halifax South	5
3.2.3 Halifax North	6
3.2.4 Dartmouth	6
4.0 POTENTIAL PROJECT INTERACTIONS	7
4.1 Herring Cove	7
4.2 Halifax South	7
4.3 Halifax North	7
4.4 Dartmouth	7
5.0 RECOMMENDATIONS	8
5.1 Herring Cove	8
5.2 Halifax South	8
5.3 Halifax North	8
5.4 Dartmouth	9
6.0 REFERENCES CITED	10
7.0 PERSONAL COMMUNICATIONS	12

LIST OF TABLES

Page No.

Table 3.1	Recorded Shipwrecks, Four Diffuser Locations	4
-----------	--	---

LIST OF FIGURES

After Page

Figure 1.1	Proposed Sewage Treatment Plant and Diffuser Location, Herring Cove	1
Figure 1.2	Proposed Sewage Treatment Plant and Diffuser Location, Halifax South	1
Figure 1.3	Proposed Sewage Treatment Plant and Diffuser Location, Halifax, North	1
Figure 1.4	Proposed Sewage Treatment Plant and Diffuser Location, Dartmouth	1
Figure 3.1	Herring Cove Location Heritage and Archaeological Resources	3
Figure 3.2	Dartmouth Location Heritage and Archaeological Resources	3
Figure 3.3	Herring Cove, ca A.D. 1851	4
Figure 3.4	Detail From 1878 Fire Insurance Map, Halifax South Location	5
Figure 3.5	Detail From 1895 Fire Insurance Map, Halifax South Location	5
Figure 3.6	Detail From 1914 Fire Insurance Map, Halifax South Location	5
Figure 3.7	Detail From 1886/8 Map, Halifax South Location	5
Figure 3.8	Detail From 1914 Map, Halifax South Location	5
Figure 3.9	Detail From Jeffreys Map, A.D. 1750	5
Figure 3.10	Detail From Bayfield Map, A.D. 1853	5
Figure 3.11	Detail From Hopkins A.D. 1858 Map of Dartmouth	6
Figure 3.12	Detail From 1886/8 Map, Dartmouth Location	6
Figure 3.13	Detail From 1914 Map, Dartmouth Location	6

1.0 INTRODUCTION

1.1 Background

The current state of the Halifax Harbour shows significant pollution effects from the discharge of untreated sanitary, storm and combined sewer outfalls. In recognition of these effects the Halifax Harbour Task Force established desired water quality objectives for various areas of the harbour. In order to facilitate these improvements the Harbour Solutions Advisory Committee has developed a set of recommendations to advance the project. A Concept Plan has been adopted by the Halifax Regional Municipality which is projected to meet the desired water quality objectives.

This plan involves the development of four advanced primary level treatment plants, which will be phased in over time. In this strategy one plant would be located in Herring Cove to service the south mainland. Two plants, one located south of the harbour narrows and another on the south end of Halifax Peninsula, would service Halifax. The fourth plant would be located in the Dartmouth Cove area to service Dartmouth. Along with the treatment facilities, sewer diffuser outfalls would also be required. The locations of the four plants and their corresponding outfalls are detailed in Figures 1.1 to 1.4.

As part of a program of environmental studies the Halifax Regional Municipality retained Jacques Whitford Environment Limited to carry out a series of Oceanographic Baseline Studies including: a Marine Benthic Habitat survey; a Sediment Quality study; a Commercial Fisheries study, and; an Archaeological and Heritage Resources Overview Assessment. This document details the findings of the Archaeological and Heritage Resources component of the baseline studies.

1.2 Objectives

The archaeological and heritage resources study for the four proposed project locations had two objectives:

- C to conduct a program of background research to determine the presence of known heritage resources in the areas of the onshore facilities and the areas of sewer diffuser outfalls; and,
- C in the absence of any documented and/or registered resources, to assess the heritage potential of the four sites.

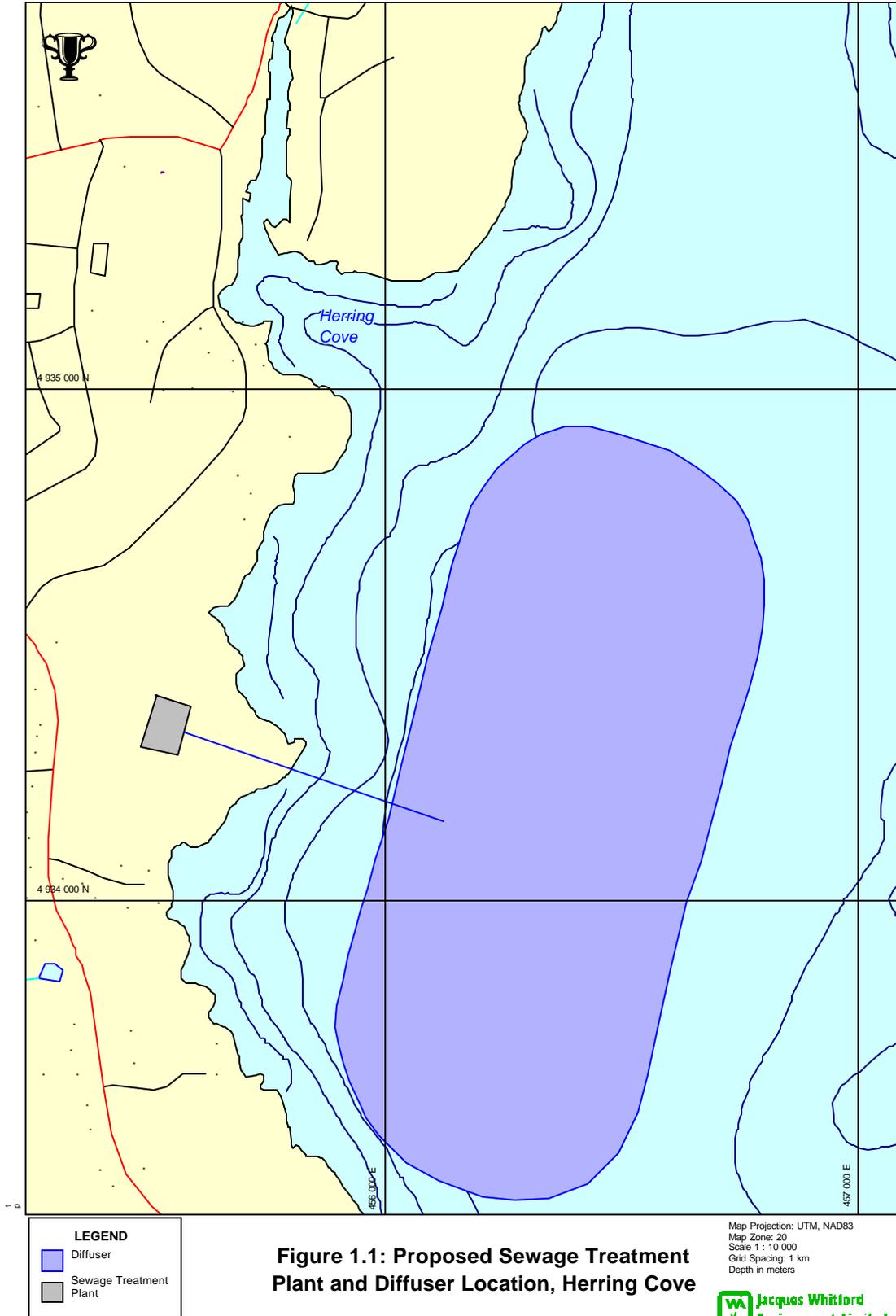
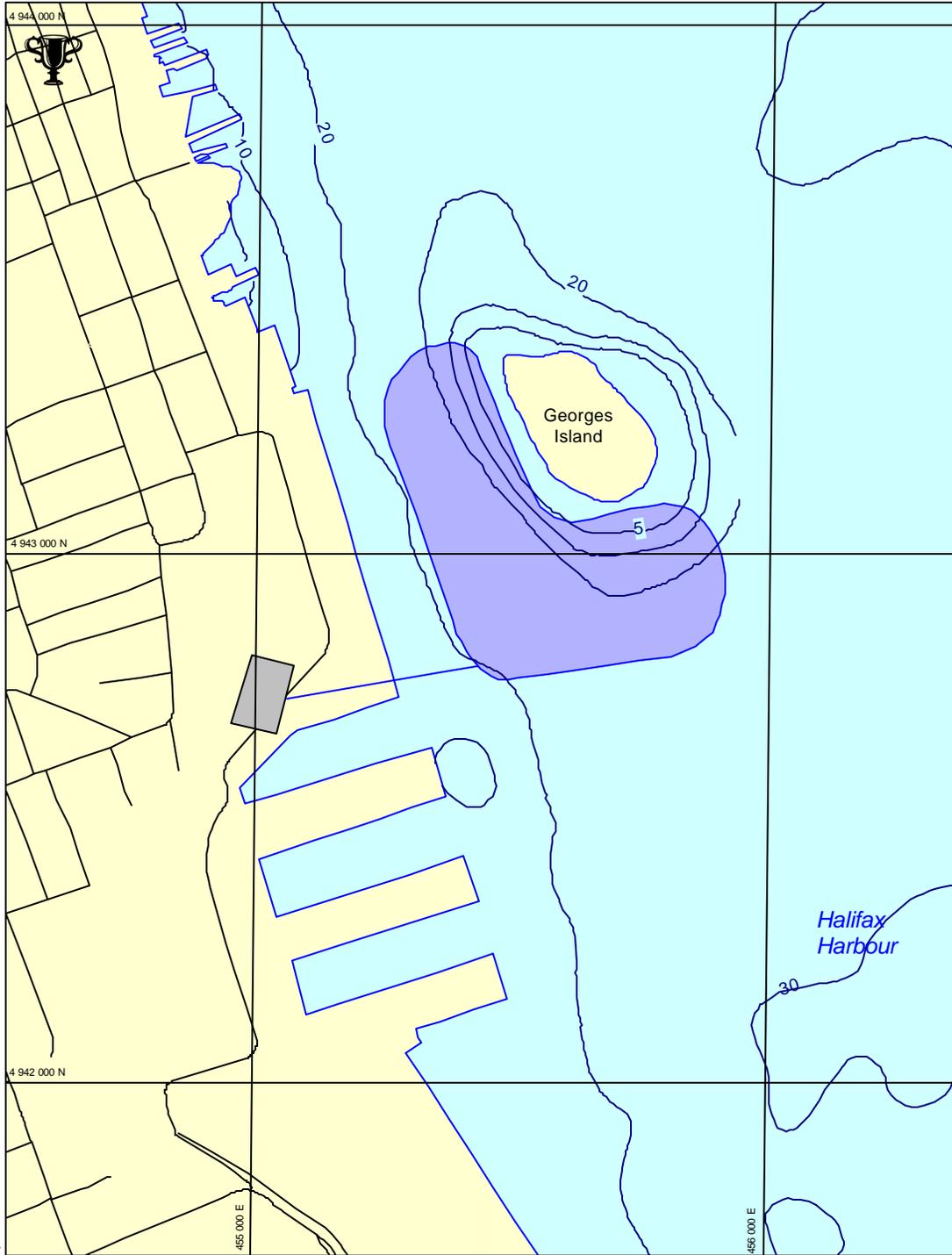


Figure 1.1: Proposed Sewage Treatment Plant and Diffuser Location, Herring Cove

Map Projection: UTM, NAD83
 Map Zone: 20
 Scale 1 : 10 000
 Grid Spacing: 1 km
 Depth in meters



1
2
3
4
5
6
7
8
9
10



LEGEND

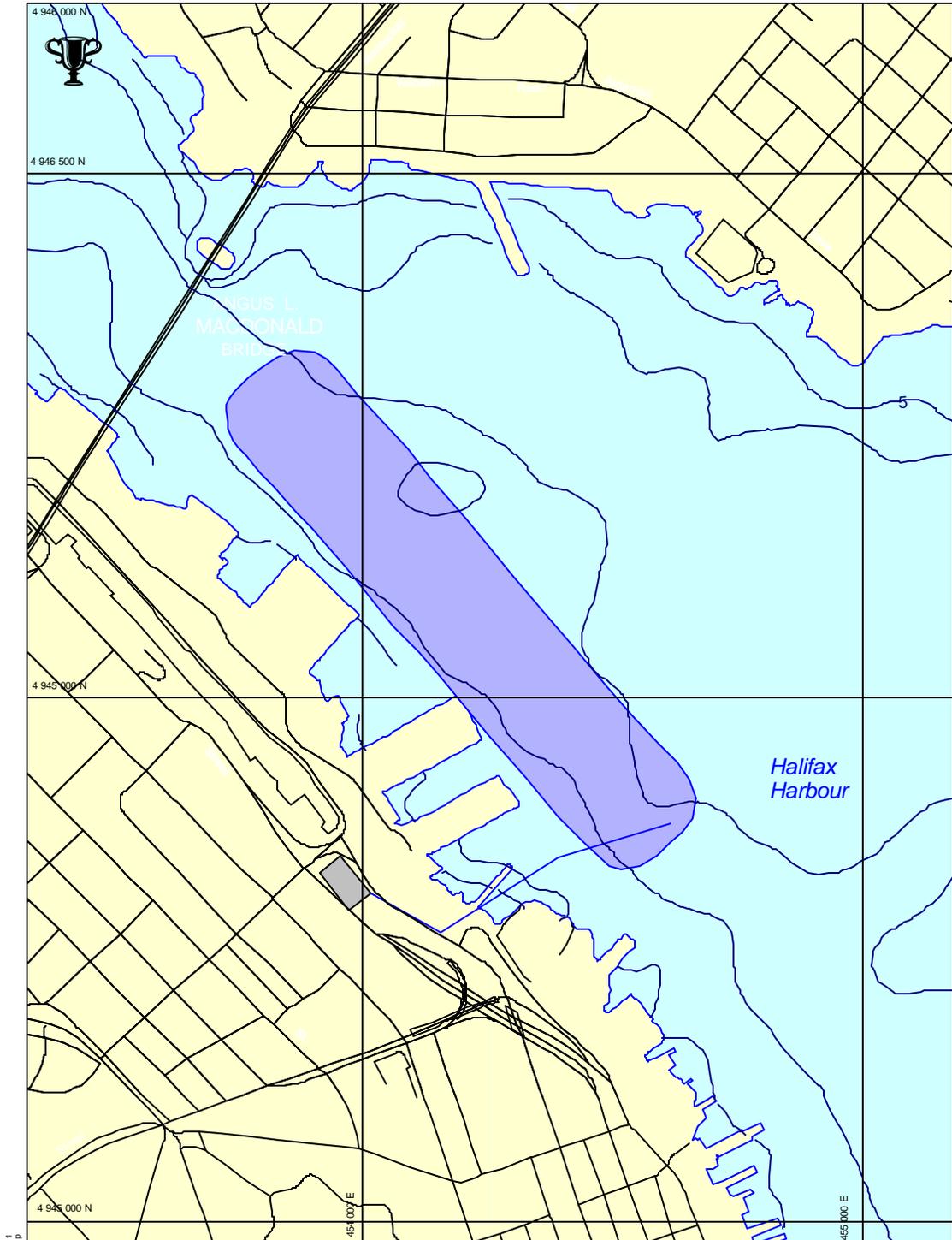
- Diffuser
- Sewage Treatment Plant

Figure 1.2: Proposed Sewage Treatment Plant and Diffuser Location, Halifax South

Map Projection: UTM, NAD83
 Map Zone: 20
 Scale: 1 : 10 000
 Grid Spacing: 1 km
 Depth in meters



1
 3
 9
 e



LEGEND

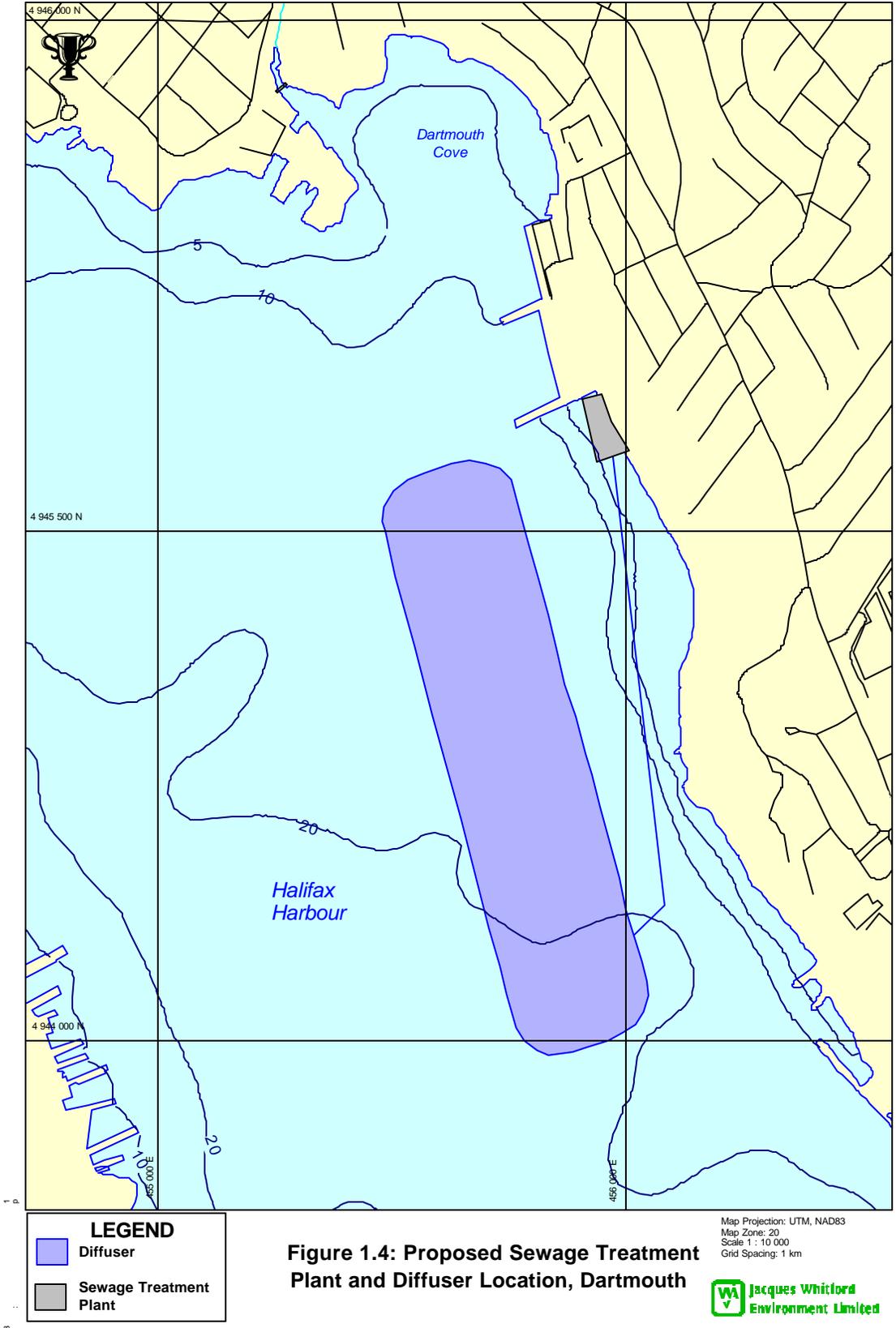
- Diffuser
- Sewage Treatment Plant

Figure 1.3: Proposed Sewage Treatment Plant and Diffuser Location, Halifax North

Map Projection: UTM, NAD83
 Map Zone: 20
 Scale 1 : 10 000
 Grid Spacing: 1 km
 Depth in meters

 **Jacques Whitford**
 Environment Limited

3
 2
 1
 0
 1
 2
 3
 4
 5
 6



1
2
3
4
5
6
7
8
9

2.0 METHODOLOGY

2.1 Marine Heritage Resources

Data pertaining to the presence of marine heritage resources were received from staff at the Nova Scotia Museum (NSM) (R. Ogilvie, pers. comm.). The NSM maintains a database of recorded and documented shipwrecks. Results of presence or absence of recorded shipwrecks were obtained for all four sewer diffuser outfall locations. It should be noted that the NSM database is incomplete for some areas, and of varying accuracy in regard to specific locations (R. Ogilvie, pers. comm.). This database information was augmented by observing the Marine Benthic Habitat video footage, as recorded by JWEL on August 26 and 27, 1999. No evidence of wrecks was noted in the video footage.

2.2 Terrestrial Heritage Resources

For the terrestrial component of the heritage resources study, a program of background research conducted at the NSM, the Public Archives of Nova Scotia (PANS), the Halifax Regional Library, the National Historic Sites Registry, and with persons knowledgeable of the area was undertaken. This program of research was augmented by field visits to each of the sites to help determine the heritage resource potential at each of the locations.

3.0 STUDY RESULTS

3.1 Marine Heritage Resources

3.1.1 Herring Cove

Three recorded shipwrecks were identified within or near the proposed diffuser outfall area at Herring Cove (Figure 3.1). These wrecks include the *H.M.S Tribune* (20TME05404), the *Deliverance* (20TME05406), and the *Costa Rican Trader* (20TME05407) (Table 3.1). The only wreck which could potentially be affected by the predicted diffuser outfall is the *Deliverance* (Figure 3.1).

The *Tribune*, a French frigate captured by the British and placed in their naval fleet, sank in 1797 after foundering on the rock shoals outside the entrance to Herring Cove. In all, 238 lost their lives in the wreck (Miller and Fader, 1998; Zinck, 1975:76). The *Deliverance* sank in 1917 in 30 m of water. It is a 40 m long wreck and a popular location for recreational divers, despite its proximity to a current sewer outfall (Miller and Fader, 1998). The *Costa Rican Trader* foundered on April 28, 1967. The 26 member crew all survived. Attempts to salvage the vessel whole failed, so the ship was cut into pieces and salvaged as scrap iron (Zinck, 1977:164).

3.1.2 Halifax South

No wrecks were shown within 100 m of the study area boundaries.

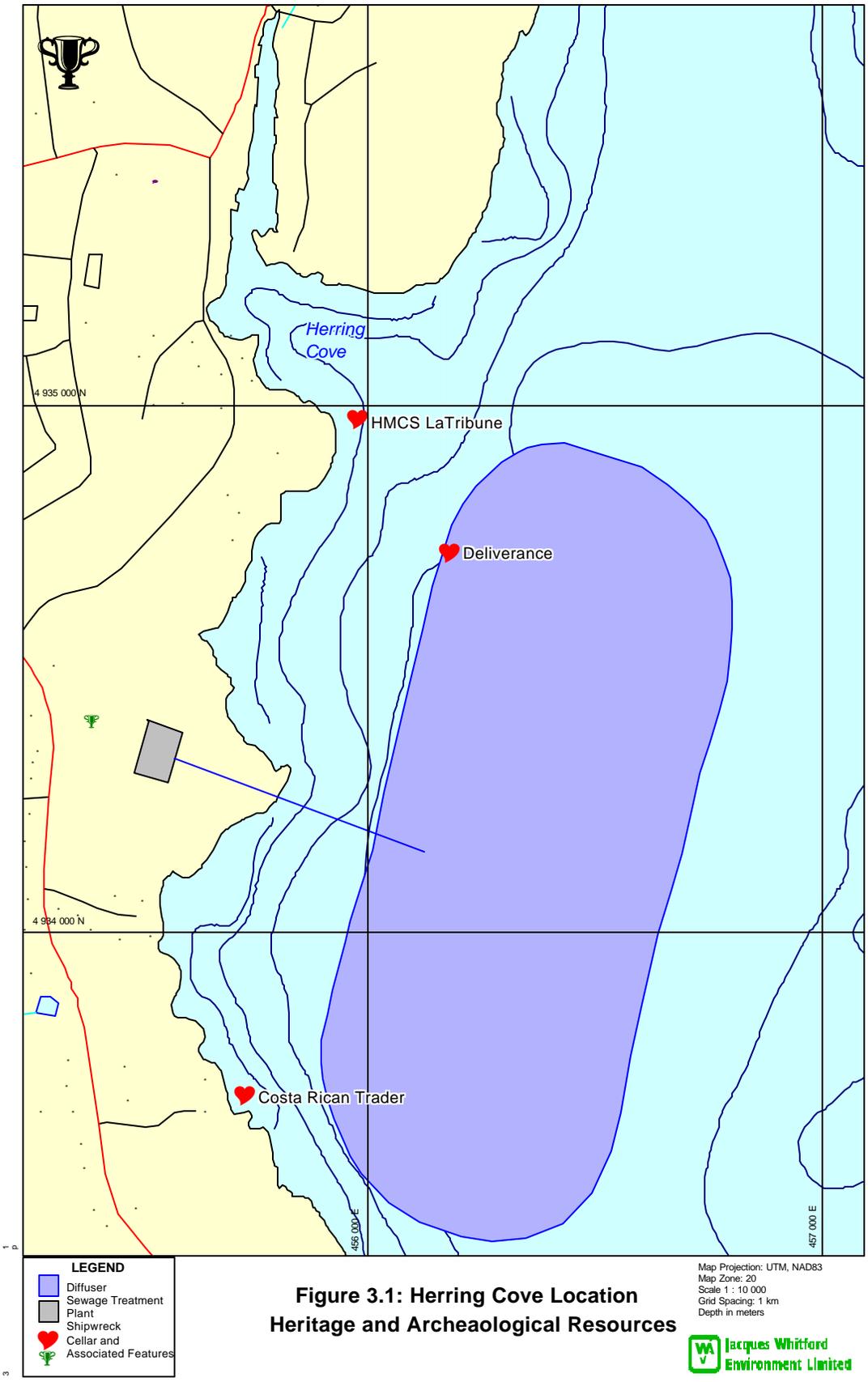
3.1.3 Halifax North

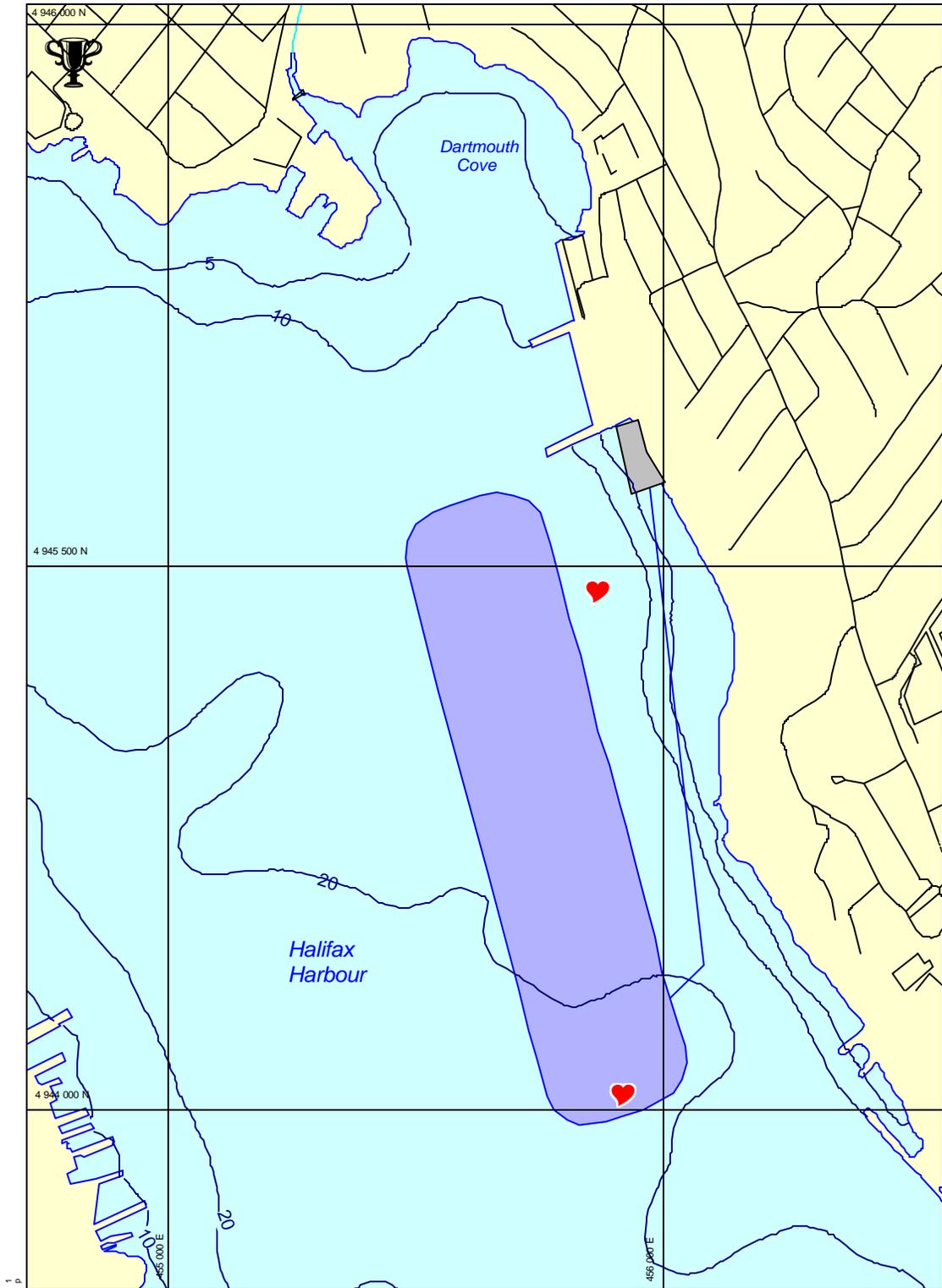
No wrecks were shown within 100 m of the study area boundaries.

3.1.4 Dartmouth

One shipwreck was reported from the NSM database for the Dartmouth Diffuser location (Figure 3.2 and Table 3.1). This wreck occurs at the north end of the project boundary, northeast of George's Island. As documented in the NSM database this ship is labeled as unidentified.

The location of the *Trongate* wreck has been documented by others as lying within the southern end of the Dartmouth diffuser area (Table 3.1). This ship was a military cargo transport vessel which caught fire in the Halifax Harbour in 1942. At the time the ship was laden with a cargo of explosives and, fearing another "Halifax Explosion", the Navy sank the ship with dummy bullets. The ship itself was later cut into pieces and salvaged. However, a number of items remain on the harbour floor, including four inch shells, cordite, 303 shells, paper rolls and leather boots (Miller and Fader, 1998).





LEGEND

- Diffuser
- Sewage Treatment Plant
- Shipwreck

Map Projection: UTM, NAD83
 Map Zone: 20
 Scale 1 : 10 000
 Grid Spacing: 1 km

**Figure 3.2: Dartmouth Location
 Heritage and Archeological Resources**



3
:
9
/

TABLE 3.1 RECORDED SHIPWRECKS, FOUR DIFFUSER LOCATIONS			
Site Name	Site Number	Latitude	Longitude
H.M.S. Tribune	20TME05404	443400.32	633315.72
Deliverance	20TME05406	443352.17	633306.47
Costa Rican Trader	20TME05407	443318.78	633326.6
Trongate	n/a	443853.94	633321.35
Dartmouth Unidentified Wreck 2	20TME05522	443924.00	633323.98

3.2 Terrestrial Heritage Resources

3.2.1 Herring Cove

The NSM Maritime Archaeological Resource Inventory indicates that there is one recorded archaeological site in the Herring Cove area. However, the site lies about 1 km north of the study area.

By as late as 1845 there is no indication of either a grant of land, or of any development in the proposed project area (PANS). Archival research indicates that the original 40 acre land grant for the property was made on December 30, 1854 to Alexander Umlah, for a sum of 10 pounds, 18 shillings and 9 pence. A hand drawn map of the Herring Cove area made some time after 1851 shows a structure and small road or path through the west side of the property, and the property owner identified as A. Umlah (Figure 3.3) (PANS). Alexander Umlah appears to be the grandson of a John Umlach, a Scottish soldier, who settled in Nova Scotia in the 1760's. The alteration of the family name continued and in some cases the same family is known as Hemlow. The name of the 'street' which runs onto the subject property is Hemlock, but is apparently a misspelling of the Hemlow name.

Curiously, by the time of the publication of the 1865 A.F. Church map of Halifax County there is no indication of either a building or a road on the property. Since there are a number of houses shown on the Church map on the road just north of the property, and further south along Ketch Harbour Road it is possible that the building was no longer standing. A visual reconnaissance of the area showed that there are a cellar depression and the remains of several stone walls on the property. Although the area of the proposed onshore facility does not appear to lie within the area of the historic features, it is possible that any required excavation for underground sewer mains may interact with the cultural features.

The cultural remains on the property are not a registered historic site either provincially or nationally (Brown, pers. comm.; Lush, pers. comm.; Powell, pers. comm.).

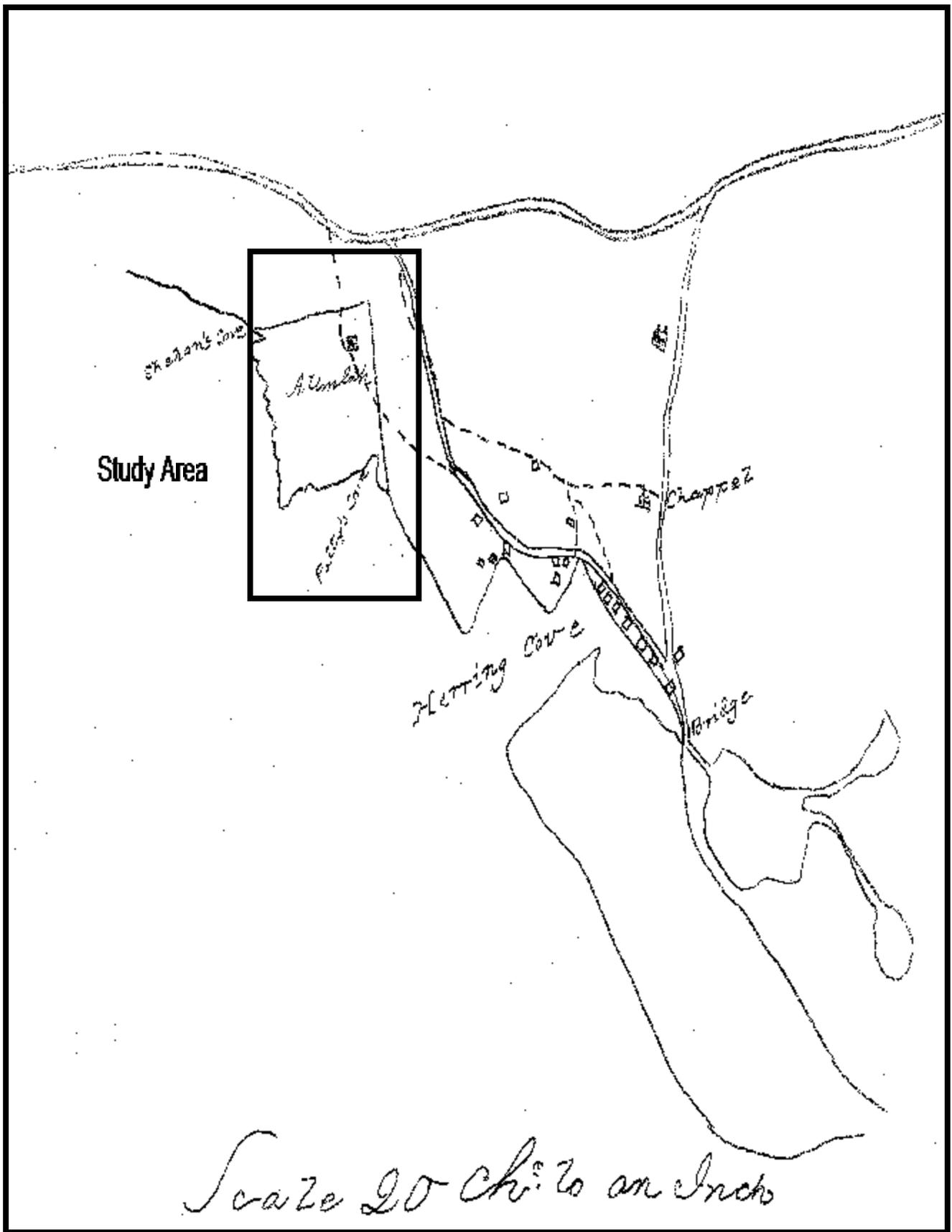


Figure 3.3 Herring Cove, ca. A.D. 1851

3.2.2 Halifax South

The Halifax South onshore facility is proposed to be developed on lands east of the end of Inglis Street. The current use of the land is for rail transportation. There is one National Historic Site, Pier 21, in the vicinity of the proposed development, although it is unlikely to be directly affected by the facility.

Historic maps, including a number of Fire Insurance Maps, indicate that the proposed onshore facility would lie over an area that in its natural state was part of Halifax Harbour (Figures 3.4-6). The Fire Insurance maps of 1878 and 1895 clearly show that the original shoreline of the harbour lay roughly 30 m east of the junction of Inglis and Pleasant (later renamed Barrington) Streets. A Fire Insurance Map of 1914 has a note which refers to the area as “(Being filled in Nov^r 1914)” and (Under Construction, Nov^r 1914)(Figure 3.6) and clearly indicates that the proposed facility would sit on reclaimed land. A comparison of maps of the same scale from 1886/8 (PANS) and 1914 (PANS)(Figures 3.7 and 3.8) show very clearly the extensive change that the 1914 infilling project brought to the shoreline of the harbour. The earliest material that could be affected through any development of the site would date to the latest part of 1914, or early 1915.

The lands to the west of current Barrington Street, north and south of Inglis Street, have been an area of some lengthy historic use and could be affected by any underground excavation for the installation of sewer mains west of, or along, Barrington Street.

The earliest reference to the occupation of the area is found on the 1750 plan of the harbour and town drawn by T. Jefferys (in Dawson, 1988: 26). South of the town, and outside the defensive network, is an area identified as ‘Warburtons Camp’ (Figure 3.9). Although the extent of the camp is not well delineated, the map does suggest that the study area could have been part of this area.

Subsequent maps of 1777 (DesBarres), 1808 (Toler), and 1826 (PANS) indicate that no development of the study area had yet taken place. By 1853, however, two wharves and a large building, possibly a warehouse, have been built near the intersection of Inglis and Pleasant Streets (Bayfield, 1853)(Figure 3.10) and on Church’s map in 1865 a building identified as Thomas Mitchell’s Brewery is shown in that location. On Clarke’s 1869 map (PANS) the north wharf is identified as belonging to “Mitchell”. On the 1886/8 map of Halifax the west side of Pleasant Street still shows the presence of a number of buildings associated with the Mitchell Distillery or Brewery, as well as the Nova Scotia Foundry. On the east side of Pleasant Street are indications of Gibsons Saw Mill and the Chebucto Foundry (Figure 3.7). A detail from a 1914 (PANS) map of Halifax (Figure 3.8) clearly shows that the infilling operation which forms Bulkhead Quay has covered the lands formerly occupied by the saw mill and the Chebucto Foundry. The 1914 Fire Insurance Map (Figure 3.6) indicates that the area of Mitchell’s Distillery /Brewery has undergone significant change, and that only a series of smaller buildings occupy the corner of Inglis and Pleasant Streets. It is also of note

that a public park evident on the 1895 map is still shown along the edge of the proposed infill area for Bulkhead Quay.

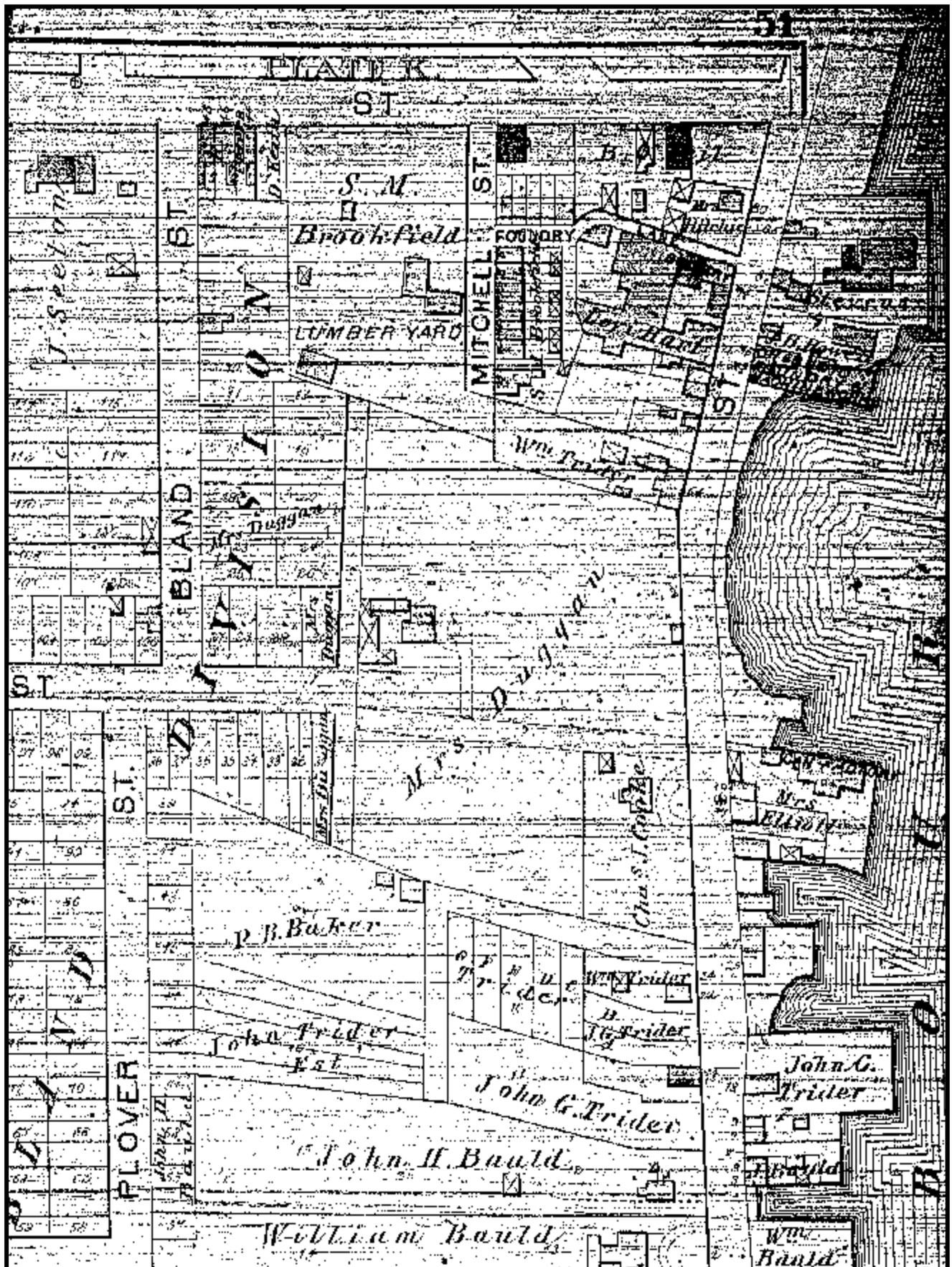


Figure 3.4 Detail From 1878 Fire Insurance Map, Halifax South Location



Figure 3.5 Detail From 1895 Fire Insurance Map, Halifax South Location

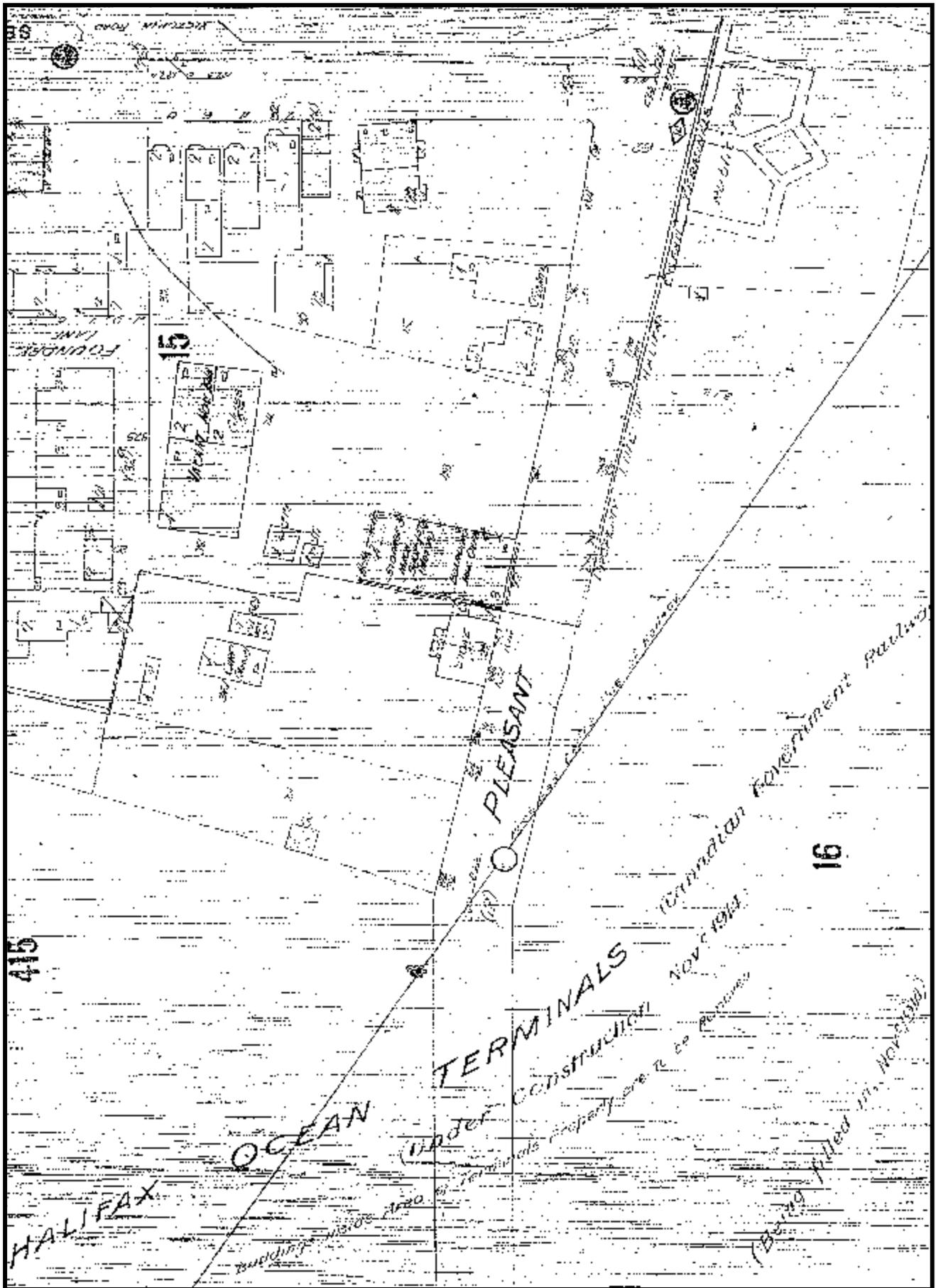


Figure 3.6 Detail From 1914 Fire Insurance Map, Halifax South Location



Figure 3.7 Detail From 1886/8 Map, Halifax South Location

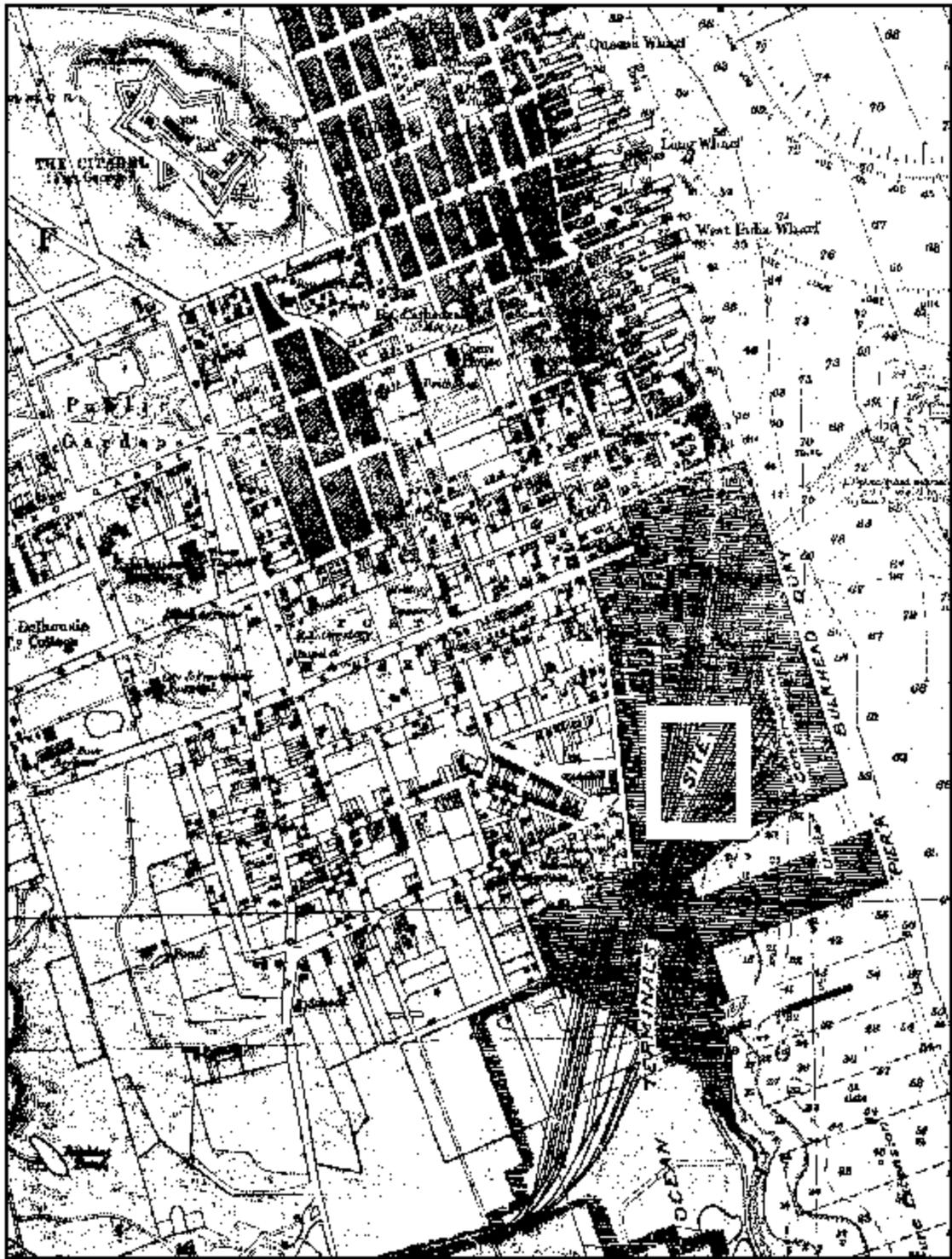


Figure 3.8 Detail From 1914 Map, Halifax South Location
(Proposed Facility Location Outlined in White)

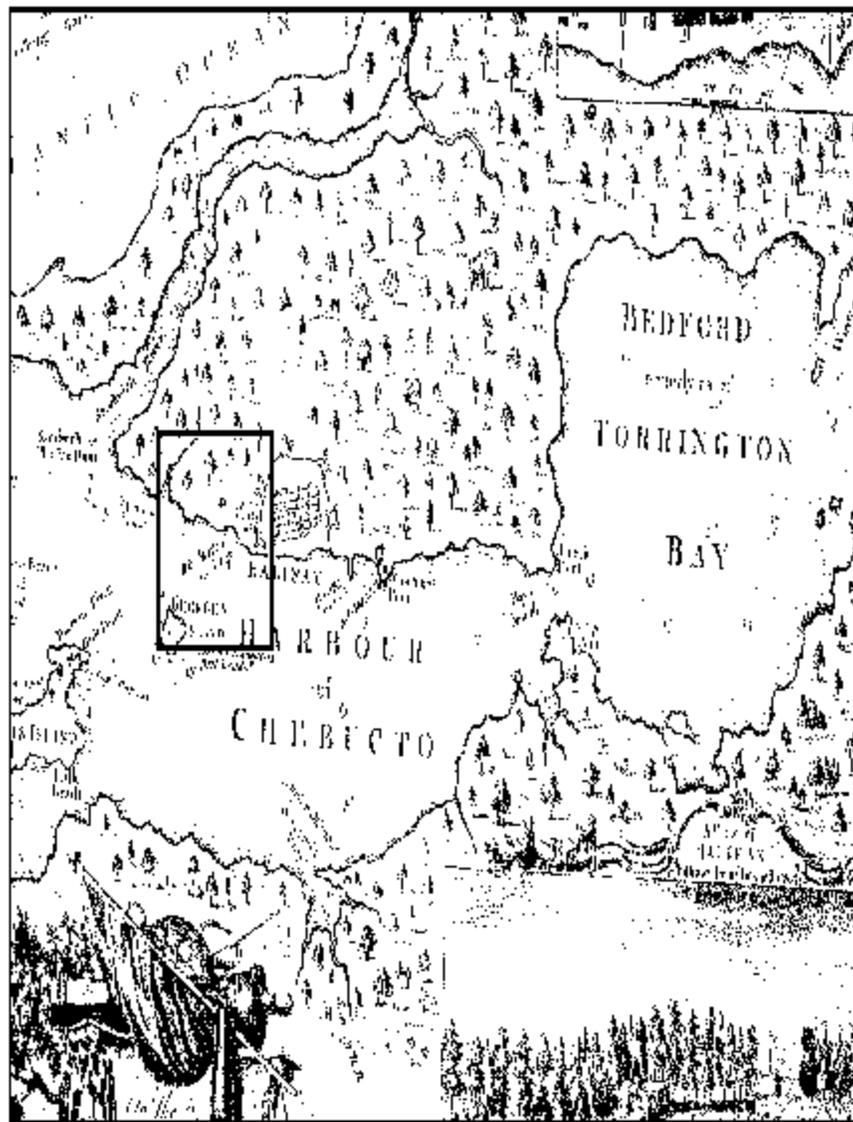


Figure 3.9 Detail From Jeffreys Map, A.D. 1750

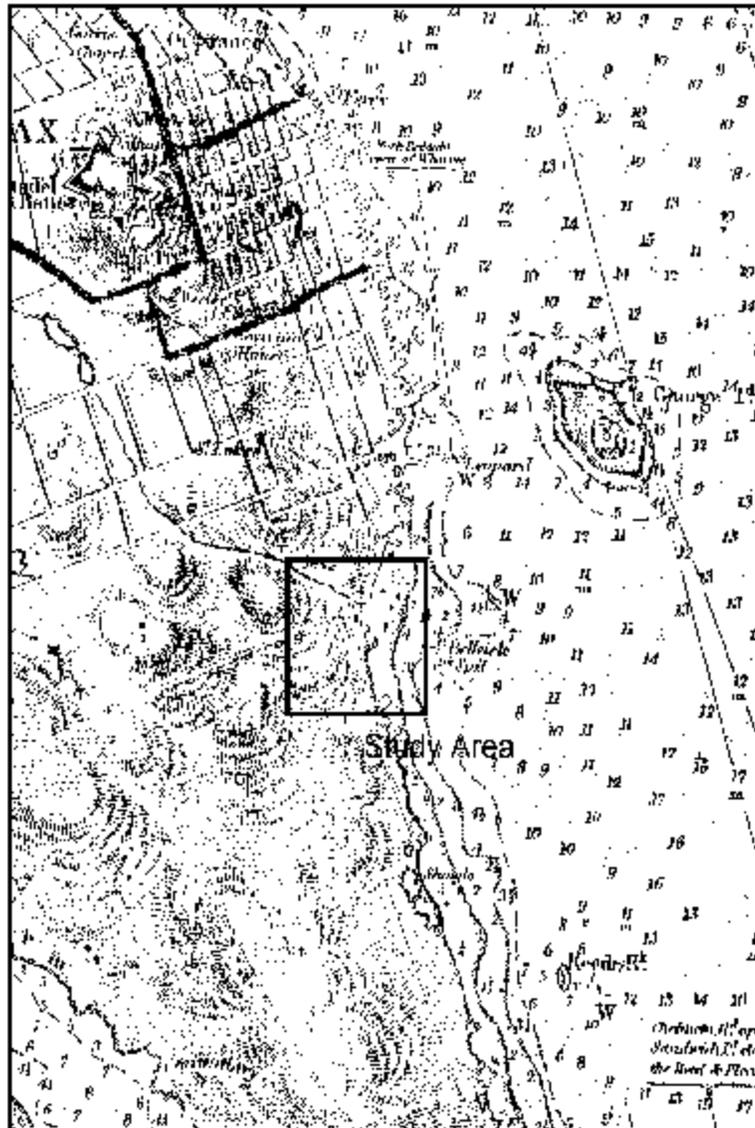


Figure 3.10 Detail From Bayfield Map, A.D. 1853

3.2.3 Halifax North

A study of the onshore heritage resources of the Halifax North site was previously undertaken by Cultural Resources Management Group (CRM, 1999), and a separate program of research for the onshore facility was not conducted by JWEL. The CRM study documents that the area of the proposed Halifax North facility has been subject to development since 1777 and subsequent demolition and redevelopment well into the late 1900's. No historic buildings remain standing in the study area, although ground level traces of historic structures are still visible.

3.2.4 Dartmouth

The Dartmouth onshore facility is proposed to occupy a parcel of land at the south end of the current Coast Guard base, roughly along the area of the rail line. At least some of the land where the facility is proposed to sit appears to be reclaimed through infilling. Although no archaeological or heritage sites are recorded for the property, its location along the shoreline of Halifax Harbour suggests that there is the possibility of prehistoric archaeological sites on the property, at least in the natural topographic contours.

Maps of the Halifax area for 1826 (PANS) and 1853 (Bayfield) show no development in the area of the proposed facility. By 1878 (Hopkins) property has been deeded to C.H.M. Black (the north portion of the proposed facility) and to Dr.'s Parker and Tupper jointly (the south portion of the proposed facility) (Figure 3.11). On the 1886/8 (Figure 3.12) map of the Halifax area the same parcels of land are indicated. The smaller north parcel has undergone some clearing on the shore side of the property. A very small portion of the north-west corner of the south property has also been cleared. However, except for the very evident railway line, no development appears on either property. The study area is still undeveloped on the 1914 map of Halifax (Figure 3.13). Fire Insurance Maps of 1895, 1914 and 1936 also show that no development has taken place on the proposed lands.

As with the Herring Cove and Halifax South locations, while there are no documented heritage resources on the proposed facility grounds, the installation of below grade sewer mains may interact with areas of historic development north of the proposed facility, in the area of George Troop's residence and wharf, as well as along Pleasant Street to the east of the proposed facility (Figures 3.11-13).



Figure 3.11 Detail From Hopkins A.D. 1858 Map of Dartmouth



Figure 3.12 Detail From 1868/8 Map, Dartmouth Location

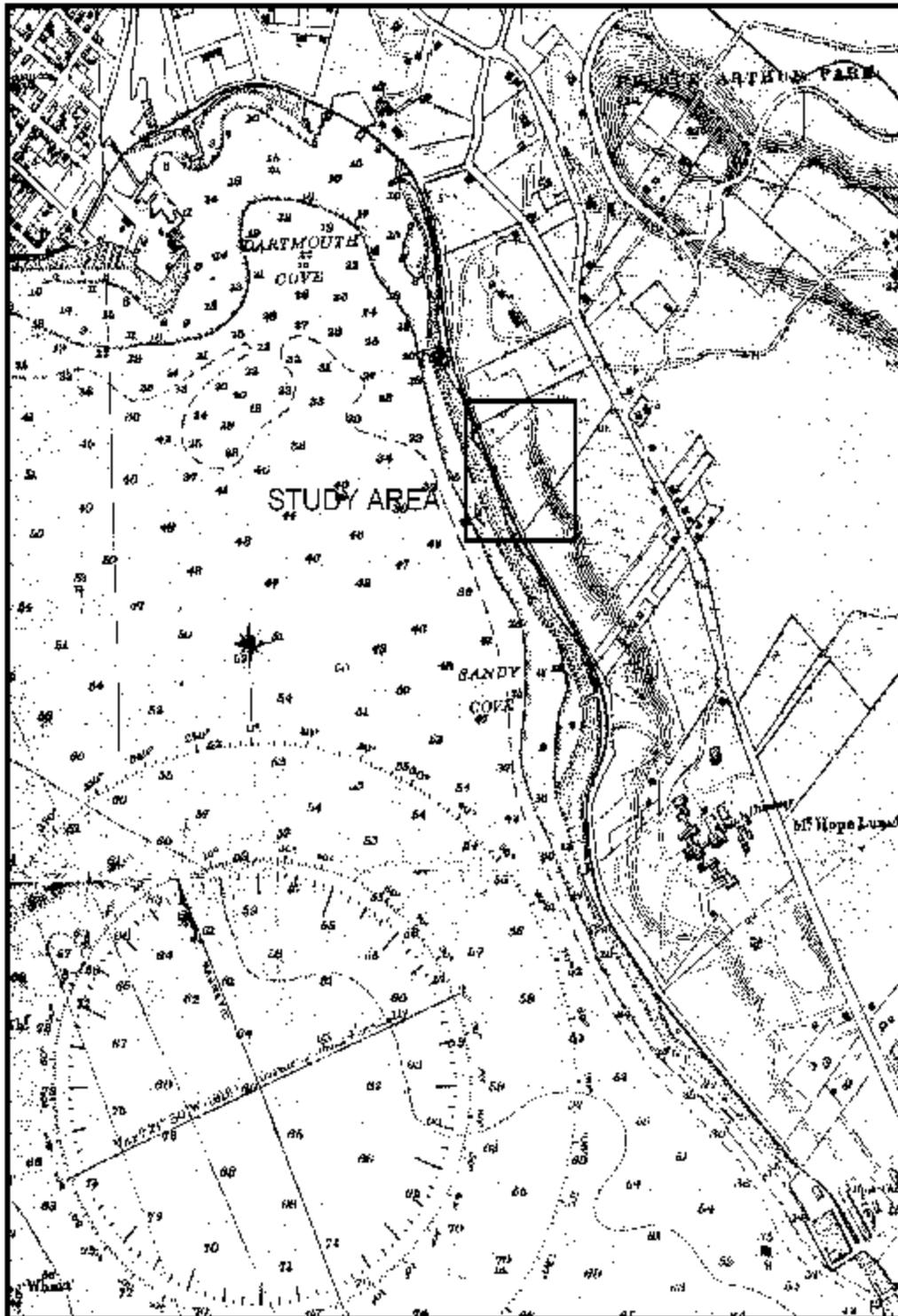


Figure 3.13 Detail From 1914 Map, Dartmouth Location

4.0 POTENTIAL PROJECT INTERACTIONS

4.1 Herring Cove

The recorded wreck of the *Deliverance* lies on the very edge of the proposed sewage diffuser outfall area and is likely to be affected by the operation of the facility. Historic remains including a cellar depression and stone walls are located onshore and, dependant upon the precise location of the onshore facility, may be affected by project development.

4.2 Halifax South

No recorded shipwrecks were documented in the diffuser outfall area. The proposed onshore facility is located on reclaimed land, part of a construction project initiated in 1914. As shown in Figure 1.2 the facility is not anticipated to interact with heritage resources.

4.3 Halifax North

No recorded shipwrecks were documented in the area of the diffuser outfall. The onshore facility is proposed to be located in an area which has been subject to development since the earliest part of the development of Halifax, by at least 1777. Subsequent redevelopment well into the late 1900's has already impacted previous historic resources, although there are some small vestiges of historic development present in the area of the proposed facility.

4.4 Dartmouth

One well-known shipwreck, the *Trongate*, is documented on the southern portion of the sewer diffuser outfall area and is likely to be affected by project development. Other than the rail line along the shore of Halifax Harbour, no historic development is apparent in the area of the proposed onshore facility prior to the mid-1900's.

5.0 RECOMMENDATIONS

There is the potential for the various project components to interact with some heritage resources. The following recommendations for further work are suggested as a minimum. It must be noted that any program of work for archaeological and heritage resources must be approved by Provincial (Nova Scotia Museum) and Federal (Department of Fisheries and Oceans, receiver of Wreck) regulatory agencies.

At all of the facilities there will be a need for the construction of underground sewer mains and other facilities to transport sewage. When the location of these installations is determined a program of detailed archival research and possible archaeological excavation, depending upon the findings of the archival research, should be undertaken at all four locations.

5.1 Herring Cove

The proposed project has the potential to interact with the recorded shipwreck *Deliverance*. Prior to the operation of the facility this wreck should be documented through a program of archaeological research including, at a minimum, mapping, photographs, and if possible, the collection of a representative sample of artifacts from the wreck area.

When a precise location for the onshore facility is available, a survey of the property to determine whether the development of the onshore facility will affect the cellar depression and/or stone walls should be conducted. If the resources are to be affected a program of archaeological research including mapping of resources and the excavation of test units, or a mitigative excavation of the cellar depression should be undertaken.

5.2 Halifax South

The facilities as proposed should not affect any heritage resources.

5.3 Halifax North

The CRM report has made recommendations that archaeological testing be undertaken in the area of the proposed development. In spite of the redevelopment of the area well into the late 1900's there is still the potential for valuable information to be gained from excavation of this area. Work at the Central Trust site in downtown Halifax has previously demonstrated that valuable heritage resources may still be present in areas of the city with a history of redevelopment (Davis et al., 1987). JWEL supports the recommendations of the CRM report with regard to the Halifax North site.

5.4 Dartmouth

The operation of the facility will interact with the known wreck of the *Trongate*. Prior to the operation of the facility this wreck should be documented through a program of archaeological research including, at a minimum, mapping, photographs, and if possible, the collection of a representative sample of artifacts from the wreck area.

When the proposed onshore facility is delineated on the ground a program of archaeological testing, including the excavation of archaeological test pits, should be undertaken in areas of natural topography in order to determine the presence of prehistoric archaeological sites.

6.0

REFERENCES CITED

Bayfield, H.W., 1853. **Halifax Harbour**. PANS 1853, 2320, Nautical Chart.

Church, A.F., 1865. **Topographical Township Map of Halifax County**.

CRM (Cultural Resource Management Group Limited), 1999. Archaeological Screening, Proposed STP Site, Barrington/Cornwallis/Upper Water Streets, Halifax. Archaeological Screening Report prepared for ADI Limited.

Davis, Stephen A., Catherine Cottreau, Laird Niven, 1987. Artifacts from Eighteenth Century Halifax. Report on file at the Saint Mary's University Archaeology Laboratory, Halifax.

DesBarres, J.F.W., 1777. The Harbour of Halifax. In **The Mapmaker's Eye: Nova Scotia Through Early Maps**, J. Dawson. Halifax: Nimbus Publishing.

Hemlow, Joyce, 1990. John Umlach (*ca.* 1726-1821): a "Native of Scotland", Soldier and Settler. **Nova Scotia Historical Review**, v.10(1): 35-52.

Hopkins, H.W., 1878. **Map of the Town of Dartmouth, Nova Scotia**. PANS V7/239-1878.

Jeffreys, Thomas, 1750. A Map of the South Part of Nova Scotia and Its Fishing Banks. In **The Mapmaker's Eye: Nova Scotia Through Early Maps**, J. Dawson. Halifax: Nimbus Publishing.

Miller, Robert, and Gordon Fader, 1998. **The Bottom of Halifax Harbour**. Geological Survey of Canada Open File 3154, Internet Publication.

PANS (Public Archives of Nova Scotia)

1826 **Chart of Part of the Coast of Nova Scotia**. H.O. 345, 1826, Sheet VII.

1845 **Herring Cove**. V7/239-1845.

c.1851 **Herring Cove (Watermark 1851)**. F/239-c.1851.

1869 **New Map of the City of Halifax (Compiled From Most recent Surveys)**. Clarke's Lith Estab^T. V6/240-1869.

1878 **Fire Insurance Map, Halifax and Area**. MFM #596

1886/8 **Halifax and Area 1886 (Copied 1888)**. 239-1886/8, Sheet #4

1895 **Fire Insurance Map, Halifax and Area**. MFM #596

1914 **Halifax Harbour, 1899 (Revised 1914)**. 239-1914, H.O. 311

1914 **Fire Insurance Map, Halifax and Area.** MFM #596

Toler, John G., 1808. **Plan of the Peninsula and Harbour of Halifax.** PANS 239-1808.

Zinck, Jack, 1975. **Shipwrecks of Nova Scotia, Volume 1.** Hantsport, NS: Lancelot Press.

Zinck, Jack, 1977. **Shipwrecks of Nova Scotia, Volume 2.** Hantsport, NS: Lancelot Press.

7.0

PERSONAL COMMUNICATIONS

Brown, Wade, Provincial Heritage, Halifax, Nova Scotia, September, 1999.

Lush, Glen, Parks Canada (Heritage Division), Halifax, Nova Scotia, September, 1999.

Ogilvie, Robert, Curator of Special Places, Nova Scotia Museum of Natural History, Halifax, Nova Scotia, September, 1999.

Powell, Steve, Assistant Curator, Archaeology, Nova Scotia Museum of Natural History, Halifax, Nova Scotia, September, 1999.