Appendix K Archaeological Resource Impact Report

ARCHAEOLOGICAL RESOURCE IMPACT ASSESSMENT CANSO WIND FARM

Heritage Research Permit A2004NS53



June 2004

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Cover: Study area looking southwest toward Chapel Gully Bridge.

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EXECUTIVE SUMMARY

In January 2004, the Nova Scotia Museum Heritage Division responded to a request by AMEC Earth and Environmental Limited for an environmental screening of the proposed Barrington Wind Farm development zone in Canso, Guysborough County. This screening identified one precontact site located within the study area which was recorded by Harry Piers in 1900, based on scattered artifact finds. Subsequent attempts to relocate this site by reconnaissance in 1973 were unsuccessful. The Nova Scotia Museum recommended that an archaeological resource impact assessment be conducted prior to any ground disturbance within the development zone.

In June 2004, Davis Archaeological Consultants Limited was contracted by AMEC Earth and Environmental to conduct an archaeological resource impact assessment of the study area prior to the construction of ten wind powered turbines on the Atlantic Coast of Canso. Between 14 June and 17 June, three qualified archaeologists conducted a pedestrian survey of the study area as well as subsurface testing in order to determine the potential for impact on precontact and historic resources. The team included a First Nations liaison who's partial task it was to consult with local aboriginal bands regarding concerns for aboriginal resources. An archaeological technician was also employed to conduct historical research for the study area and to identify the potential presence of heritage resources prior to field investigations. The project was overseen by a principal investigator who was responsible for planning a program of assessment acceptable to the Nova Scotia Museum, and for reporting results of the impact assessment to the client and the provincial regulator of Special Places.

This report follows the guidelines set out by the Nova Scotia Museum in accordance with a Category C permit. It details the natural and cultural environments of the study area and the extent of impact within that area, the method of field investigation employed, the history of the study area, an inventory and evaluation of heritage resources encountered, and recommendations for mitigation of those resources.

1.0 Introduction

In June 2004, Davis Archaeological Consultants Limited conducted an archaeological resource impact assessment of the Canso wind farm property as recommended by the Nova Scotia Museum. Barrington Wind Energy proposed to erect ten wind-powered turbines on a 6.75-kilometre² parcel of land near the Atlantic Coast of Canso.

Three archaeologists conducted a pedestrian survey of the study area on 14-17 June 2004. All work was carried out in accordance with the *Special Places Protection Act* and under the guidelines for a Heritage Research Permit, Category C (Appendix A). The assessment was documented by field notes and photographs (Appendix B).

Four archaeological sites were encountered within the study area. However, only one site is expected to be impacted by the current proposed construction, and dates to the early nineteenth century.

2.0 Development Area

The development area is situated within 6.75 kilometres² of land on the east coast of mainland Nova Scotia south of the town of Canso which has been set aside for the construction of a windpower generation facility. Ten turbines are proposed to be constructed in various areas throughout the study area (Figure 2.0.1). The construction of each turbine will require that an area 20 metres by 100 metres be cleared and levelled for storage, building, and operation. A concrete pad constructed to grade and measuring ten metres in diameter will be necessary to erect the turbines. Each of the ten sites will be connected by an access road which will require excavation and grading of a ten-metre-wide right-of-way with an adjacent 20-metre-wide corridor for the movement and operation of heavy machinery during construction.

The development area is part of the geographically-classified region known as the Canso Barrens. The Canso Barrens is composed mainly of metamorphosed schists, granite, and slate. Soil deposits are thin and much of the ground surface is exposed bedrock. In the area immediately surrounding and within the study area, there is only one major tributary which feeds into the ocean from Hazel Hill Lake, known as Winter Creek. There are few small tributaries within the study area which feed into the Atlantic. The development area includes pine, spruce, fir, and birch trees. Black spruce predominate in the wet areas. The shoreline is dominated by cobble beaches.

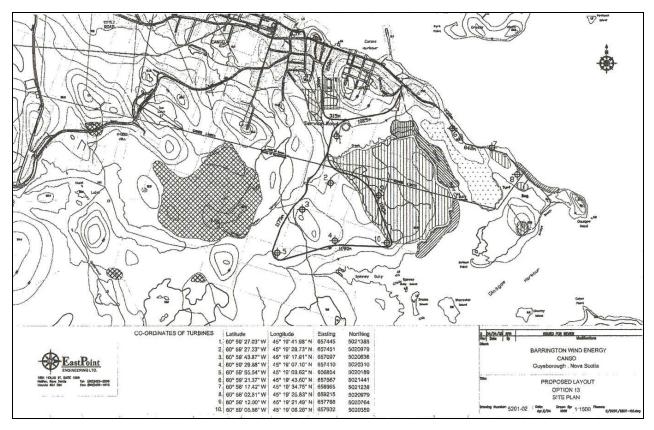


Figure 2.0.1: Proposed locations of wind turbines within the study area.

3.0 Study Area

The study area extends from the south edge of the town of Canso to the north shore of Spinney Gully. It is bounded on the east by the Atlantic Ocean and on the west by a wet ground east of Hazel Hill Lake. It encompasses the Chapel Gully Coastal Trail - a municipal recreational trail which is maintained year round. Several local citizens (Dollard, Hart, Taylor, and Kavanagh, among others) have been surveying this area for the past four to five decades and have indicated several historic resources within and surrounding the study area. Fire swept through this area approximately 15 years ago.

Impact areas along the east shore of the study area in the vicinity of turbines 6, 7, and 8 were surveyed. Near the south end of the turbine # 6 impact zone, two hand-forged iron hinges and fragments of machine-made glass were found eroding out of the bank at the water's edge. Four 40-centimetre by 40-centimetre shovel tests were conducted two metres west of the bank but produced no artifacts. On the west side of the road near the south end of the turbine # 6 impact zone, the remains of an early nineteenth-century homestead were encountered.

On the west side of Chapel Gully, three sites were encountered but are not expected to be impacted by the current development plan. The area west of the Chapel Gully Trail is rugged

terrain interspersed with swamp land and thick brush. Access to the impact zones within this area is very limited and could not be properly surveyed.

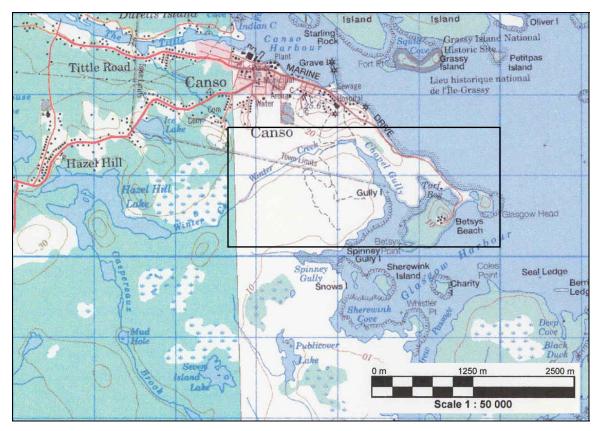


Figure 3.0.1: Map showing the study area outlined.

3.0.1 Historical Background

Canso is said to be the oldest fishing port visited by Europeans in the Maritimes. As early as 1504, the town on the easternmost extremity of mainland North America was a regular fishing spot for Basques, Breton and French fishermen. Its name is believed to be derived from one of two sources. Some say "Canso" is a derivation of the Mi'kmaq word "kamsok" or "camsoke" meaning "opposite a high bluff". Others attribute the name to the Spanish word "Ganso" meaning "goose", possibly a testament to the number of geese that flock to the eastern shore in the spring. The earliest-known map showing the Canso area is from 1686 and was produced by Jean-Baptiste-Louis Franquelin to illustrate the fort and fishing posts established by Nicholas Denys on the shore and in the vicinity of Chedabucto Bay around 1659 (Figure 3.0.2). Because cod stocks were so plentiful offshore and the fishermen often had to venture far from the fishing base at the head of Chedabucto Bay, they found it more convenient to set up *dégrats*, or

¹ Canso Historical Society 1986:1-2.

² Ibid.:1; Public Archives of Nova Scotia (PANS) 1982:102.

³ Hart 1975:9; PANS 1982:102.

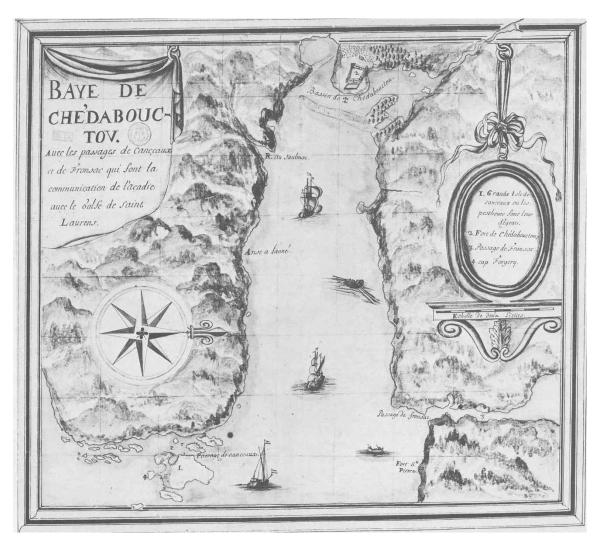


Figure 3.0.2: "Baye de Che'dabouctou. Avec les passages de Canceaux et de Fronsac qui font la communication de l'acadie avec le Golfe de Saint Laurens". Map of Chedabucto Bay by Jean-Baptiste-Louis Franquelin. 1686. The island in Canso Harbour indicated with "I" shows several temporary fish processing stations.⁴

temporary processing stations, along the shores which could be moved in accordance with the fish stocks.⁵ Franquelin's map shows several processing stations along the shores of the islands in the harbor.

The earliest attempt at settlement in Canso was by the Frenchman Baron deLery in 1518. deLery landed at Canso and Sable Island on his way to Acadia and was said to have left cattle and horses. He mapped the harbour but returned to France that winter, the settlement having failed.⁶ Canso would not be settled again until the eighteenth century.

⁴ In Dawson, op. cit.:38.

⁵ Dawson 1988:38-39.

⁶ Hart, op. cit.; PANS, op. cit.:103.

Throughout the seventeenth and eighteenth centuries, the islands off Canso were used as a fishing base for both English and French. During episodes of war in the eighteenth century, possession of the islands was greatly contested. After the Treaty of Utrecht in 1713 which ceded the whole of Acadia (Cape Breton, mainland Nova Scotia and New Brunswick) to the British, the French were driven out of Canso. In 1718, the HMS *Squirrel* was sent from New England to remove the last of the French stationed at fishing posts on the mainland portion of Canso as well as on the Canso islands. The majority of fishing over the previous century, however, was done from the islands with only the scattered isolated post along the Canso shoreline. The Canso islands would become the primary center for the New England cod fishery in the eighteenth century. The abundant stocks and its close proximity to the Atlantic fishing banks and Western Europe – the largest market for export – made Canso a coveted fishing ground for both English and French, one which they would continue to fight for throughout the first half of the eighteenth century.

Governors Phillips and Armstrong set up headquarters at Canso in the 1720s and 1730s and governed the entire province from here. Because of its extreme eastern locale and isolation from the remainder of the mainland, however, Canso would not become the provincial capital. Settlement of the town of Canso was retarded by heavily forested ground which prevented an agricultural base from being established. Settlement on the shore of the mainland was seasonal so there was little time in the spring and summer months for clearing and planting when there was lucrative fishing to be done. The constant threat of attack by the French also discouraged people from settling. It was not until 1758 when the fort at Louisbourg was destroyed and the threat of the French was removed that the town of Canso would be settled.

In 1764 Charles Morris, Surveyor-General of the province, surveyed and mapped the land around Canso Harbour and proposed a settlement on the mainland opposite Piscatiqui Island which he named Wilmot after Lieutenant Governor Montague Wilmot (Figure 3.0.3). The original plan for Wilmot was situated where the present-day town of Canso lies. However, within only six years of the town plot being established, it began to expand southward and westward, as far south as Spinney Gully and Betsy's Point and as far west as Hazel Hill Lake (Figure 3.0.4, 3.0.5). As late as 1822, however, there had not yet been a town plot set aside for burial. At least until that time, when Morris petitioned the government to reserve a burial ground, it is presumed that town residents buried their dead on Burying, or Graves, Island in the harbor.

By 1844, there were 250 families residing in Wilmot Township, presumably engaged in the lucrative fishery. Some time in the second half of the nineteenth century, Wilmot reverted back to the name Canso and the town was incorporated on July 25, 1901.¹¹

⁷ Dawson, op. cit.:40; Hart, op. cit.:10-12.

⁸ Canso Historical Society, op. cit.:3.

⁹ Hart, op. cit.:24; PANS, op. cit.:103.

¹⁰ Nova Scotia Department of Lands and Forests, Guysborough Land Records no. 106.

¹¹ PANS, op. cit.:104.

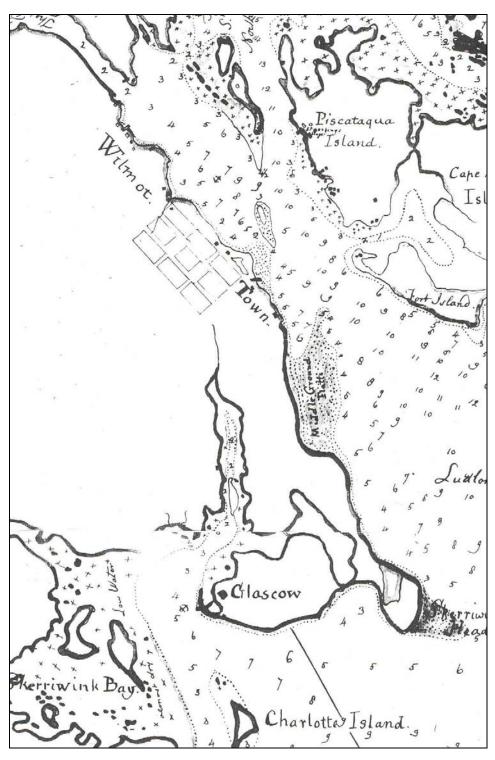


Figure 3.0.3: A Draught of the Harbour of Canso By Charles Morris, 1764. Shows Morris' original plan for the layout of Wilmot Township. 12

¹² Parks Canada Atlantic Region Map Collection 107-01-1-764-0003.

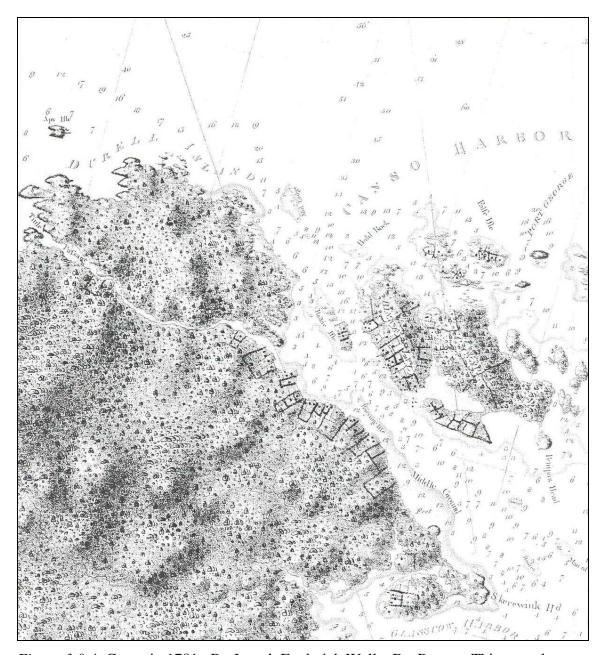


Figure 3.0.4: Canso in 1781. By Joseph Frederick Wallet DesBarres. This map shows several land lots and structures along the eastern shore of the town of Wilmot as well as lots and structures at Betsy's Point and on the south east shore of Chapel Gully.¹³

¹³ Atlantic Neptune vol. 2, no. 58, plate 28.

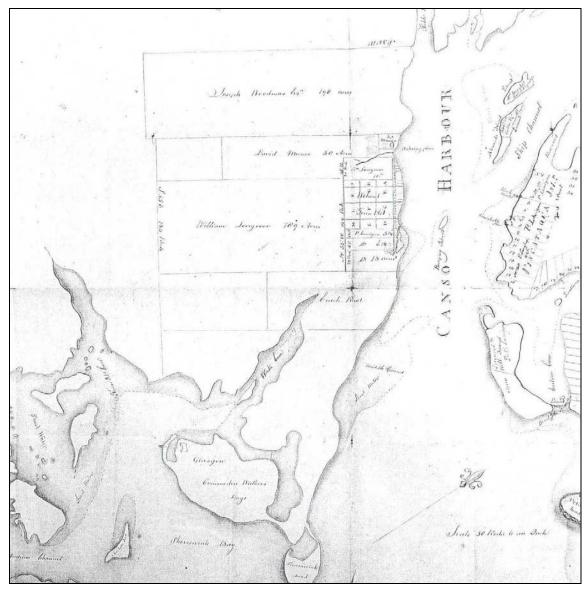


Figure 3.0.5: Expansion of Wilmot Township as of 1800. 14

Several residents of Canso have indicated that Mi'kmaq families from Eskasoni and Chapel Island in Cape Breton travelled to Canso in the late nineteenth century and first half of the twentieth century to set up temporary summer basket-making camps. Sources have confirmed that these camps were located at Indian Cove on Durrell's Island (hence the name). The camp was made up of four or five families, probably *Cremos*. The baskets the Mi'kmaq made at Indian Cove were sold to the townspeople in Canso. Archaeologists and local citizens have discovered First Nations artifacts on the Canso Islands. However, the First Nations bands of

¹⁶ Kavanagh, pers. comm.; Fergusson, pers. comm.

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¹⁴ Nova Scotia Department of Land and Forests, Guysborough Land Records no. 224.

¹⁵ Dollard, pers. comm..; Doucette, pers. comm..; Murphy, pers. comm..; Taylor, pers. comm.; Walsh, pers. comm.

Chapel Island and Eskasoni were contacted and no direct concern for First Nations sites within the study area have been presented.

4.0 Methodology

The study area was surveyed on foot by three qualified archaeologists, paying particular attention to those areas which are slated for the construction of turbines and access roads and which will, consequently, be heavily impacted. Reconnaissance began on the east side of the study area along the gravel extension of Union Street. The ground surface was surveyed for evidence of archaeological features. In addition, the erosional faces of the bank adjacent to the shore as well as along the west side of the road cut were surveyed for artifacts and buried cultural deposits. This resulted in the discovery of surficial remains of an early nineteenth century homestead including a house, a possibly well and associated outbuilding, and a linear stone property boundary. These features are located on the Hart's Content campground near the top of Christy's Hill in the vicinity of camping lot # 28 (Figure 4.0.1 A). This site, named the Burns site, was recorded on a standard Nova Scotia Museum Maritime Archaeological Resource Inventory (MARI) form (Appendix C), photographed and mapped.

Opposite the Burns site to the east, the erosional face of the bank produced two hand-forged iron hinges (Plate 4.0.1) and fragments of machine-made clear bottle glass. Four 40-centimetre by 40-centimetre shovel tests were conducted at five-metre intervals and excavated to an orange/brown sandy sterile loam (Figure 4.0.1 B). No additional artifacts were encountered.

On the west side of Chapel Gully, three archaeological sites were recorded with the assistance of Mr. Harry Dollard, senior member of the Chapel Gully Trail committee and long-time resident of Canso. These sites included the nineteenth-century Pestilence House (Figure 4.0.1 C), used for quarantine of diseased immigrants, and the Euloth House likely built in the 1840s (Figure 4.0.1 D). Neither of these sites was tested as they are not slated for impact. The third site is of indeterminate function and age (Figure 4.0.1 E). Although it is not located within the impact zone, a single 20-centimetre by 20-centimetre trowel test was conducted within the feature in an attempt to determine its age. No subsurface artifacts were discovered although a sherd of semi-vitrified earthenware was found on the surface as well as fragments of a purple-tinted blown glass lamp chimney on the west side of the road, opposite the feature. All three sites were recorded on MARI forms, photographed, and mapped.

No additional archaeological features were encountered within the area surveyed. However, the areas of turbine #s 1 to 5 could not be properly surveyed as the ground was too rugged and wet and the area too heavily treed and covered in insurmountable brush to obtain access.

As no turbines are presently proposed to be constructed on Betsy's Beach area, this area was not included in the impact assessment. However, historic research as well as consultation with local informants and representatives at the Whitman House Museum has shown that this is a historically significant area, having been settled at least as early as 1781. Several archaeological features are purported to exist on the Betsy's Point peninsula.

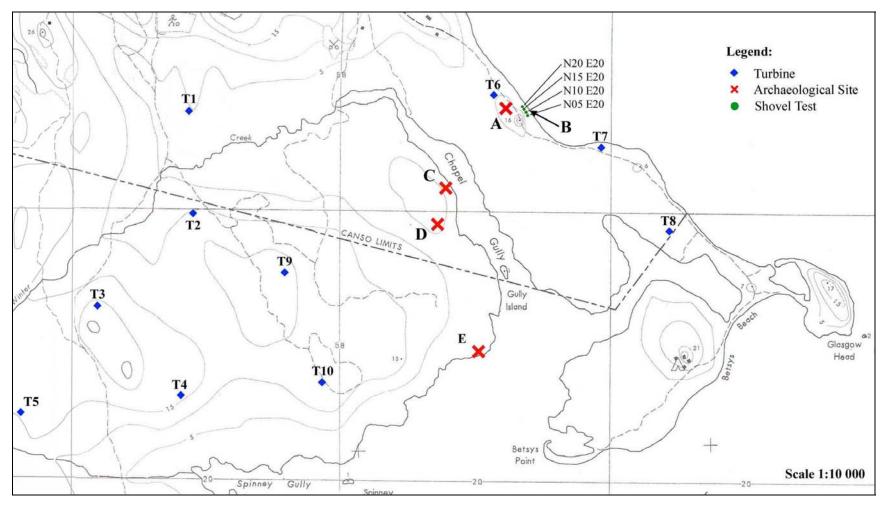


Figure 4.0.1: Map showing the locations of the four archaeological sites encountered in relation to the proposed turbine locations.

5.0 Resource Inventory

J. Burns Site:

The Burns site is located at the south end of the impact zone for construction of turbine # 6, on the west side of the Union Street gravel extension. It is located on Hart's Content campground which is used primarily for tents and is visited every summer by campers during the local Stan Rogers Festival. The site includes a house eight metres west of the road, a possible well and associated outbuilding, and a linear stone property boundary. The footprint of the house measures ten metres east-west by 5.84 metres north-south and appears to have an interior partition near the centre of the house (Plate 5.0.1). The interior of the house contains recently deposited clean soil and gravel fill. Twelve metres south of the house in the high grass is a poorly defined depression which may represent an in-filled well. Ten metres southwest of the house is a very shallow depression with one apparent corner indicated by earth mounding, possibly the remains of an outbuilding. Its extent is difficult to determine. A linear stone feature was discovered sixteen metres southwest of the house and extends southward 27 metres.

Local informants Mr. Harry Dollard and Mr. Syd Hart, property trustee, indicated that this house dated to the early nineteenth century. Ambrose F. Church's map of Guysborough County, published in 1876 shows a house in this general location owned by one J. Burns.

Canso Pestilence House:

The Canso Pestilence House is located on the west side of Chapel Gully approximately 420 metres south-southeast from the southwest end of the Chapel Gully pedestrian bridge. The Pestilence House was built in the early nineteenth century to quarantine immigrants with communicable diseases. According to Harry Dollard, the Pest House was torn down and rebuilt in the same location in the late nineteenth century to house those infected with smallpox.

The Pest House is represented by a deep rectangular depression measuring approximately three metres east-west by five metres north-south. The depression, which was likely a cellar, is bounded by stone and earth mounding which marks the exterior extent of the building, although it is not well defined on the east side. The exterior walls of the building measure seven metres east-west by eight metres north-south. At the northeast corner of the feature, there appears to be an entrance into the cellar. There is no clear chimney mound within the feature.

23.5 metres northeast of the Pest House is a circular depression, possibly a well, which is bricklined on the surface and located immediately adjacent to the roadway. 3.5 metres west of it is a second depression which is irregular in shape and appears to be recent disturbance as there are several stones scattered around the feature which appear to have been removed from it.

Local citizens have also indicated that there may be graves located in close proximity to the Canso Pest House as those that died there may have been buried quickly nearby.¹⁷

¹⁷ Dollard, pers. comm.

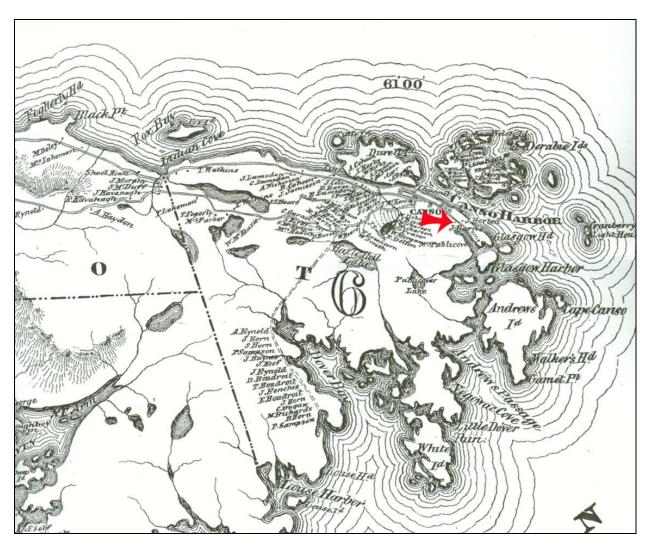


Figure 4.0.2: Ambrose F. Church's map of Guysborough County in 1876 showing the location of J. Burns' house.



Plate 4.0.1: Hand-forged iron hinges recovered from east bank near turbine # 6.

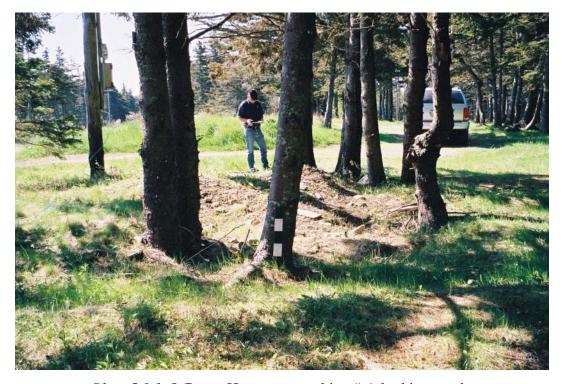


Plate 5.0.1: J. Burns House near turbine # 6, looking south.

Euloth House:

The Euloth House is located approximately 1.45 kilometres along the trail south of the Chapel Gully pedestrian bridge and approximately 25 metres north of the trail. The house is indicated by a depression measuring 2.50 metres east-west by 3.20 metres north-south and has been recently heavily disturbed by bottle hunters. The north wall of the house has been cut into by hand, resulting in collapse of much of that wall. In addition, there is a significant amount of boulder fill inside the depression, likely having been removed from the perimeter of the feature. Three metres south-southeast of the feature is a linear stone alignment which extends three metres northeast-southwest. Four metres south of the linear stone feature is an area of recent disturbance measuring approximately two metres by two metres and 0.80 metres in depth. This area was dug by shovel and, consequently, sherds of pearlware can be seen on the surface. Local informant Harry Dollard indicated that this house was built in the 1840s although it is not certain that the house was built by the Euloth family. Local lore attributes this house to the Euloth family but no land deeds exist for this property other than the original crown land grant to Patrick Lanigan sometime in the early nineteenth century. 18

Spinney Gully Site:

The Spinney Gully Site is located 1.70 kilometres along the trail southwest of the Chapel Gully pedestrian bridge immediately adjacent the walking trail to the southeast. The function and age of this feature are not known and the extent of the feature is poorly defined. It is comprised of two linear stone alignments which intersect at roughly a right angle to form the corner of a structure. Within the feature, it is apparent that some stones have been removed.

A 20-centimetre by 20-centimetre trowel test was conducted in an attempt to discern the function and age of the feature. However, no subsurface artifacts or cultural deposits were encountered. A sherd of semi-vitrified earthenware was discovered on the surface adjacent to the feature as well as several fragments of a purple-tinted blown glass lamp chimney. Neither of these artifacts is effective in determining an age for the feature as each of them was produced for several decades during the early nineteenth through early twentieth centuries.

6.0 Resource Evaluation

Since it is the only site slated to be impacted by construction of the wind turbines, the Burns site is the only site of elevated sensitivity for this impact assessment. As it remains relatively undisturbed, this site is archaeologically significant. The remaining three sites, although located within the study area, are not expected to be impacted by development at this time and, therefore, are deemed of low sensitivity for the purpose of this assessment. However, this is not to imply that they are of low archaeological significance and, consequently, they should be protected from future destruction.

¹⁸ Taylor, pers. comm.

7.0 Evaluation of Research

Although archaeologists remained cognisant of possible First Nations resources within the study area, no such resources were encountered. Reconnaissance of the Atlantic shore showed that most of the beaches were too exposed and lithic resources too limited to be suitable for First Nations settlement. Although marine resources are abundant - including mussels, clams, crab, and lobster – the scarcity of freshwater sources also makes much of this area unsuitable for habitation.

However, the numerous deep coves along the shore may have been attractive areas not only for settlement and for accessing marine resources, but also for mooring boats engaged in the fishery (Plate 7.0.1). This was an activity in which English, French, and Mi'kmaq were active in throughout the eighteenth and nineteenth centuries. Some of these coves are adjacent to wide flat terraces which would be ideal for setting up fishing huts which were occupied during the summer months. The coves themselves may have also been suitable for the construction of fish flakes used for drying the fish prior to export to Europe and the West Indies. Local citizen Harry Dollard recalls there being log skids in place at French Cove during his childhood (Mr. Dollard is 69 years old). This may account for the clearing of beach rocks within these areas. However, these coves are located outside the impact zones and, therefore, no subsurface testing was conducted. Archaeologists and developers should remain aware of the archaeological potential of these areas in the future.

Because much of the inland portion of the study area, notably turbine #s 1 to 5, was relatively inaccessible and precisely locating the proposed construction zones would be difficult at best, the level of confidence in determining archaeological potential within these zones is negligible at this time.

8.0 Conclusions and Recommendations

Due to the low level of confidence regarding archaeological potential in the west end of the study area (turbine #s 1 to 5), it is recommended that this area be surveyed by a qualified archaeologist once an access road into these areas has been surveyed but prior to it being excavated and graded to minimize the potential of impact to resources during road construction.

As the Canso Pestilence House, the Euloth House, and the Spinney Gully site lie outside the impact zones, no recommendations for further mitigation are made. However, should any of these areas be proposed for future construction of the wind farm, it is recommended that they be evaluated by a qualified archaeologist and mitigation procedures undertaken.

Likewise, the peninsula on which Betsy's Beach is situated is archaeologically sensitive and there is concern among residents of the community of Canso to protect these resources from destruction. Consequently, it is recommended that this area be protected from any future development should additional wind turbines be proposed for the study area.

The Burns site is the most archaeologically sensitive of the areas surveyed as it lies within the impact zone of turbine # 6. In order to avoid disturbance and/or destruction of this site, it is recommended that the construction site of turbine # 6 be relocated or adjusted. If this is not feasible, it is recommended that the site be excavated by a qualified archaeologist according to standards approved by the Nova Scotia Museum.



Plate 7.0.1: Cove along the southwest shore of Chapel Gully opposite Betsy's Point.

9.0 References

Primary Sources:

Atlantic Neptune, vol. ii no. 57. (Parks Canada Atlantic Region map collection 107-01-2-781-0003)

Canso 1764. (Parks Canada Atlantic Region map collection 107-01-1-764-0002)

Church, Ambrose F. 1876. Map of Guysborough County. (PANS 3rd floor map cabinet)

Crown Land Grants, Index Sheet no. 113. (PANS 3rd floor map cabinet)

MacKay, William. 10 July 1831. "Map of the Province of Nova Scotia Including the Island of Cape Breton compiled from actual recent surveys & under the authority of the Provincial Legislature." (PANS sheet no. R102[4])

Morris, Charles. 1764. "A Draught of the Harbour of Canso with the Islands circumjacent, Shoals, Soundings, etc. taken by Order of his Excellency Montagu Wilmot Esq. Governor of the Province of Nova Scotia." (Parks Canada Atlantic Region map collection 107-01-1-764-0003)

Nova Scotia Department of Lands and Forests. Plans, surveys and other records relating to Crown Land Grants. No date. <u>Plan of the Town of Wilmot</u>. (PANS RG 20 Series "C" vol. 87 no. 160)

Nova Scotia Department of Lands and Forests. Plans, surveys and other records relating to Crown Land Grants. 1819. No title. (PANS RG 20 Series "C" vol. 87 no. 75)

Nova Scotia Department of Lands and Forests. Plans, surveys and other records relating to Crown Land Grants. 1823. Report of a Survey of the Town Plot of Wilmot at Canso made in August and September 1822. (PANS RG 20 Series "C" vol. 87 no. 115)

Steven Powell, Nova Scotia Museum. Personal communication, 8 June 2004.

Robert Fergusson, Parks Canada Atlantic Region. Personal communication, 10 June 2004.

Leah Rosenmeier, Confederacy of Mainland Mi'kmaq. Personal communication, 14 June 2004.

Martha Murphy, Whitman House Museum. Personal communication, 15 June 2004.

Harry Dollard, Canso. Personal communication, 15 – 16 June 2004.

Syd Hart, Canso. Personal communication, 16 June 2004.

Joe Walsh, Durrell's Island. Personal communication, 16 June 2004.

Tom Kavanagh, Grassy Island National Historic Site. Personal communication, 18 June 2004.

Denise Doucette, Chapel Island. Personal communication, 24 June 2004.

Jim Taylor, Halifax. Personal communication, 28 June 2004.

Secondary Sources:

Canso Historical Society. 1986. *Historic Canso*. (PANS V/F v. 85 no. 40)

Dawson, Joan. 1988. *The Mapmaker's Eye: Nova Scotia Through Early Maps*. Halifax: Nimbus Publishing Limited and the Nova Scotia Museum.

Flemming, David B. 1977. *The Canso Islands: An 18th Century Fishing Station*. Parks Canada Manuscript Report Series, no. 308. (PANS F5015 C21)

Hart, Harriett Cunningham. 1975. *History of the County of Guysborough*. Ontario: Mika Publishing Company.

Public Archives of Nova Scotia. 1982. *Place-Names and Places of Nova Scotia*. Ontario: Mika Publishing Company.

Ringer, James A. 1985. *Canso Islands Marine Archaeological Survey: A Preliminary Report*. Parks Canada Research Bulletin no. 259. (PANS F5015 R432 no. 259)

Town Council of Canso and Canso Board of Trade. 1928. *Historic Canso*. (PANS V/F v. 259 no. 21)

Tulloch, Judith. 1987. *Canso Trade 1720-1744*. Parks Canada Research Bulletin no. 253. (PANS F5015 R432 no. 253)

APPENDIX A:

Heritage Research Permit

Permit No. A2004NS53



Nova Scotia Museum Special Places Protection Act, R.S.N.S. 1989

Application for Heritage Research Permit

(Archaeology)

(Original becomes Permit when approved by the Executive Director of the Nova Scotia Museum)

The undersigned Stephen A. Davis
of 6519 Oak Street, Halifax, Nova Scotia B3L 1H6
representing (institution) Davis Archaeological Consultants Limited
hereby applies for a permit under Section 8 of the Special Places Protection Act to carry out archaeological investigations during the period:
from June 8, 2004 to December 31, 2004
Canso Wind Farm
general location Canso Harbour, Guysborough Co.
specific location(s) (cite Borden numbers and UTM designations where appropriate
N/A
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.
I certify that I am familiar with the provisions of the Special Places Protection Act of Nova Scotia, and that I will abide by the terms and conditions listed in the Heritage Research Permit Guidelines for the category (check one).
O Category A - Archaeological Reconnaissance O Category B - Archaeological Research O Category C - Archaeological Resource Impact Assessment
Signature of applicant Stephen Davis Date Jule 8/04
Approved: Executive Director Sell. Date Date 8/09

APPENDIX B:

Field Notes

Field Notes April D. MacIntyre

Monday, 14 June 2004:

Kelly and I stopped at CMM (Confederacy of Mainland Mi'kmaq) after lunch on our way to Canso to consult with representatives regarding First Nations concerns within study area and to get contacts for reps in Afton and Chapel Island. Spoke to Leah Rosenmeier who indicated that there were known First Nations burials in Torbay, southwest of the study area but she did not know of any recorded First Nations presence in the area. She suggested we contact Danny Dyke regarding his work on archaeological modelling on the Mulgrave Plateau.

Chapel Island contact – Charles Doucette.

Union of Nova Scotia Indians (Cape Breton) contacts – Deborah Ginnish & Peter Christmas

Tuesday, 15 June 2004:

8:30. Arrived in Canso. Took a drive down Union Street extension to the Chapel Gully campground at Betsy's Beach and up to the head of the Chapel Gully Trail behind the local ballfields to get a sense of the study area and its access routes. Drizzly and foggy but warm.

Went up to Whitman House Museum at 9:30. Spoke to Martha Murphy:

- 56 markers and headstones recorded in old interdenominational cemetery beside Star of the Sea R. C. cemetery. These were catalogued and mapped by the Whitman House in 1988.
- Pest house likely located east of Chapel Gully. Used for quarantine.
- Likely Mi'kmaq settlement and basket-making camp on east side of Durrell's Island at Indian Cove. Still there in the 1960s. People came from Eskasoni.
- Graves on Glasgow head near station.
- Publicovers lived on Glasgow head (see Church's map).
- Harry Dollard (366-2311). Local contact, head of Chapel Gully Trail committee. 3rd house after Flaherty Street, right hand side: 1616 Union Street). Martha set up meeting for us with him at 2:00.

Returned to trail at 10:15. Stopped near turbine # 8 site. Met Syd Hart on the roadway who is the trustee of the property. Indicated that there was a property dispute.

Turbine # 8: Surveyed area on foot. Found no cultural remains except an iron wedge blade on the eroding bank of the road cut. Area here is too open for settlement and there is no fresh water source. Area is heavily treed and the ground surface is rugged. Narrow footpath runs through the turbine site roughly parallel to the road. Beach is cobble. Surveyed it on foot and found no heritage resources. Bank here is heavily eroded. Approximately 8 metres south of turbine location is modern refuse including orange garbage bags and fish buckets.

Surveyed the beach and eroded road face between turbine #s 8 and 7. Milky quartz cobbles throughout but the rest is beach cobbles (no suitable lithic resources). Mussel, crab, and scallop shells along beach. Lobster traps in the harbour. Indicates that there are sufficient marine

resources for sustaining a settlement but all other indications are negative. Approximately 1/3 of the way between turbine #s 8 and 7 (moving northward) is a heavily eroded bank on the shore with a buried A horizon but there is nothing cultural contained within. Likely a result of road construction and maintenance.

Moved up to turbine # 7 location. Land here is hilly and changes from moss-covered soft ground adjacent to roadway to spruce tree-covered land toward the beach. Scattered modern refuse throughout, including plate glass just beside road, galvanized metal bucket partially buried, plastic containers, and beer bottles. Plate glass likely discarded from roadway. Steep drop-off at beach (heavily eroded face) up to 1½ metres high. Very open to wind. Bedrock outcrops on beach. Study area is adjacent to a shallow cove. Approximately 50 metres south of turbine location is an apple tree on the roadside and a drainage ditch leading to the beach beside the apple tree. On the west side of roadway near the south end of the turbine site, bank has been dug into by hand (with a shovel). Nothing cultural present. Near the north end of the turbine site on the west side of the roadway is modern refuse and what appears to be commercial cutting. Cut trees are up to 40 cm in diameter.

Turbine # 6: Linear stone feature approximately 25-30 metres west of roadway. Runs north-south for approximately 25 metres. At north end, adjacent to the feature is a young (c. 15 years old) apple tree. Approximately 20 meters northeast of the apple tree and 8 metres west of the roadway is an area 3 metres by 3 metres that has been recently dug. Soil is clean.

On the shore at the south end of turbine # 6 site is a heavily eroded cliff face. Modern refuse over the bank and two hand forged iron hinges eroding out of the bank. Also clear bottle glass (machine-made) above the hinges.

Dug a shovel test 40 cm by 40 cm 2 metres west of the erosional face. Rich dark organic soil (A horizon) overlaying grey/brown clayey loam. Orange/brown sandy loam beneath that. Dug 4 test pits in total. No cultural material.

Went for lunch at 12:30. Stopped at Parks Canada to talk to Tom Kavanagh who operates the Grassy Island ferry. Rob Fergusson at Parks Canada (Halifax) suggested Tom as a good contact. Spoke to Tom briefly but we had to leave to meet with Harry Dollard.

Met with Harry Dollard at 2:00 at his house. He indicated that there was a homestead near where we tested which is associated with the linear stone features. Also a well nearby.

- Chapel Gully, east side spot where boats may have moored.
- Betsy's Point 6 graves of Studley/Publicover family.
- 2 foundations one on Betsy's Beach and another on the southwest side of Chapel Gully.
- Didn't know of any substantial Mi'kmaq settlements but there may have been maximum of four families in the area. Mi'kmaq used to travel from Chapel Island to sell baskets.
- Rob Fergusson found projectile points on Grassy Island.
- Jim Taylor (443-7351) (Halifax). May know of Mi'kmaq lore.
- No First Nations artifacts found in study area to his knowledge.
- Tom Kavanagh may found arrowheads.

Took a drive up to trail on east shore of ocean with Harry. Stopped at Christy's Hill (turbine # 6 site). The area we had identified as recent disturbance west of the road is the site of an early 19th century house. Low earth mounding surrounding a shallow rectangular depression. Well approximately 5 metres south. Stone property boundary is associated with this.

Walked the low-lying peat bog west of this. In the 19th century, this area was drained in order to harvest the peat. Drainage ditches throughout which stretch back to the gully.

Harry took us down to the east side of Chapel Gully and showed us a spot where he thought boats might have moored. There is an iron stake wedged between the crevices of a bedrock outcrop on shore.

Osprey's nest opposite this spot on the west shore of the gully.

Harry took us to the site of the Pest House and then on to a homestead approximately 20 metres off the footpath on the west side of the gully. This house was originally owned by the Euloth family in the 1840s.

Harry took us to a spot further down the gully where he knew about another feature which is roughly rectangular, approximately 3 metres wide (length is not defined). Located very near the shore on low-lying ground in a stand of alders. Across the footpath on the west side are fragments of a purple-tinted blown glass lamp chimney which Harry had discovered but left buried where he found them. Steve found a large fragment of undecorated vitrified earthenware plate on the east side of the footpath adjacent to the feature, lying on the surface.

On the way back along the gully, I found fragments of flat glass on the footpath approximately 7 metres south of the Pest House site.

Made our way out at 4:30 and finished up for the day.

Wednesday, 16 June 2004:

8:30. Sunny and warm (14°C). Slight breeze at Christy's Hill. Starting out the morning by recording features here opposite yesterday's test pits.

200 metres north of Christy's Hill site, a linear boulder alignment runs 55 metres south-southwest from the road.

10:00. Headed up to top of Chapel Gully below the ball fields to do reconnaissance. Kelly and I recorded features pointed out by Harry on our way, while Steve moved on ahead of us to survey the south end of the trail. Met up with one another at Euloth site and headed out for lunch at 12:00.

After lunch, spoke to Joe Walsh at Indian Cove, Durrell's Island. Indicated that this was the site of Mi'kmaq encampment where people came from Chapel Island and Eskasoni (Cremo family)

to make and sell baskets. Showed us a photo that showed the birchbark tents on the point on the east side of the Cove.

We headed out along the west branch of Chapel Gully trail and Steve and I split off from Kelly at the lookout tower. Steve and I headed east to survey this section of the trail and record the site indicated by Harry south of French Cove. Kelly headed south along the west branch of the trail to survey the turbine #s 9 and 10 sites.

The terrain that Steve and I followed eastward to Chapel Gully was very rugged and swampy in many areas. There were drumlins throughout this area as well as several very large glacial erratics. We also noticed several areas where the land on the north side of us formed linear ridges which appeared to have been pushed up, most likely by heavy equipment since many of the boulders (glacial erratics?) area to big to have been moved by manpower alone. Saw no indications of sites within this area.

Stopped at cove south of French Cove and recorded the feature there. Steve excavated a trowel test pit but found nothing. The subsoil was very wet, as was expected. We did not want to draw attention by digging on the roadside so we did not excavate any more since other sites in the area have been previously disturbed and this area is not slated for impact anyway.

Headed south again to meet up with Kelly. Along the way, we noticed several coves, one in particular, which appeared to be good sites for mooring. The one in particular was located just north of Spinney Gully and was a narrow cove with a pebble beach and bedrock banks along the sides. It was well protected with no large cobbles. It is difficult to say whether this beach was cleaned up recently by the Trail committee or if the terrain is natural. Immediately south of this cove are two very flat terraces along the shore which appear suitable for setting up fishing huts. The land west of the footpath is also fairly flat and suitable for setting up camp. The cove meets up with a freshwater source which drains from the northwest. This area is outside the impact zone and so it was not investigated any further.

Thursday, 17 June 2004:

9:00. Arrived in Canso. Warm (20°C) with a slight breeze. Tried to approach turbine # 1 site from behind the ball fields but the ground was very wet and the brush very thick. Then tried approaching it from behind the R. C. cemetery on Chapel Road but also found the brush too thick. From here, there is a wide vista overlooking the entire study area. We can see that the ground near turbine # 1 site is very difficult to traverse and the brush to thick to get into and determine the precise impact zone. It is best that this end of the study area be surveyed once a line is cut into them.

10:00. Went to Parks Canada to speak to Tom Kavanagh:

- Grassy Island and Indian Cove are only known First Nations resources.
- Divers along coast of Chapel and Spinney Gully have found clay pipes c.200 years old.
- Betsy's Point historic resources (foundations).
- Frank Sullivan (local contact). Green house left of Hazel Hill School.

- Modern debris from camps dating to last 40 years through study area. Nothing of historic value in them.
- Local stories of Viking presence on Cape Canso and of "foreigners" with a large ship on Durrell's Island who came regularly to worship at a monument which had inscriptions on it. Locals rolled monument out into bog where it eventually was buried.

Headed out at 11:00 to return to Halifax.

Photo Record

Frame	Description
Roll 1	•
7	Buried A horizon on eroded face of roadbed between turbine #s 7 and 8, looking west.
8	Road cut north of turbine # 7, looking north.
9	Erosional face on beach near turbine # 7, looking north.
10	Roadway near turbine # 7, looking north.
11	Erosional face showing hand-forged iron hinges and clear bottle glass in profile.
12	Hand-forged hinges.
13	Shovel tests along bank east of turbine # 6, looking south.
14	Christy's Hill house, looking west.
15	Christy's Hill house, looking south.
16	Pest house, looking east.
17	Pest house, looking north.
18	Euloth house, looking west. Showing disturbance.
19	Euloth house, looking east. Showing disturbance.
20	Study area from lookout tower, looking northwest.
21	Study area from lookout tower, looking north.
22	Study area from lookout tower, looking north northeast.
23	Study area from lookout tower, looking northeast.
24	Study area from lookout tower, looking east.
25	Study area from lookout tower, looking southeast.
Roll 2	
1	Study area from lookout tower, looking south southeast.
2	Study area from lookout tower, looking south.
3	Study area from lookout tower, looking west southwest.
4	Study area from lookout tower, looking west.
5	Study area from lookout tower, looking west northwest.
6	Spinney Gully site, looking north.
7	Lamp chimney near Spinney Gully site.
8	Cove south of French Cove, looking east.
9	French Cove, looking east.
10	Study area looking southwest toward Chapel Gully bridge.