



Appendix F

Historic Resources Overview

APPENDIX F
Historic Resources Overview
Assessment

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List of Acronyms & Abbreviations

Acronym	Definition
BP	Before Present
CE	Common Era
GIS	Geographic Information System
HRDEM	High Resolution Digital Elevation Model
HROA	Historic Resources Overview Assessment
LiDAR	Laser Imaging, Detection, and Ranging
LP	Limited Partnership
MW	megawatt
NL	Newfoundland and Labrador
NRCan	Natural Resources Canada
PA	Potential Area
PAO	Provincial Archaeology Office
SEM	Sikumiut Environmental Management Ltd.
SRF	Site Record Forms
TL	Transmission Line
US	United States
WWII	World War II

1.0 Introduction

Argentia Renewables Wind LP (Argentia Renewables), an affiliate of Pattern Energy Group LP (Pattern), is planning to develop the Argentia Renewables Project (the “Project”), which consists of a green hydrogen and ammonia production and export facility (Argentia Green Fuels Facility) powered by onshore wind generation (Argentina Wind Facility). The Project will be designed to generate approximately 300 megawatts (MW) of wind energy, powering a hydrogen electrolyzer system with an installed capacity of approximately 160 MW. The Argentia Green Fuels Facility will be connected to the Newfoundland and Labrador Hydro (NLH) grid at the Long Harbour terminal station via a 35 kilometre (km) transmission line (the Project Interconnect Line), and there will be overhead transmission infrastructure to facilitate interconnection of the wind turbines. The Argentia Green Fuels Facility will be constructed on brownfield private land owned by the Port of Argentia (the “POA Property”) that is zoned for industrial use, while the Argentina Wind Facility will be situated on adjacent private lands (the “Argentia Backlands”) north of the communities of Dunville, Ferndale, and Freshwater. The Argentina Wind Facility will include up to 46 potential wind turbine sites, electrical infrastructure, and access roads. The produced hydrogen will be combined with high purity nitrogen extracted from the air. The resulting synthetic process will produce 146,000 metric tonnes (t) of green ammonia annually, which will be stored and exported to international markets by ship from a marine terminal at the Argentia Peninsula.




1.1 Study Area

A desktop review of Precontact and Historic Period, historic and archaeological resources registered for Placentia Bay was conducted, comprising the Regional Assessment Area (RAA) for this study. The Local Assessment Area (LAA) selected for the study comprised a circular area measuring 50 km in diameter centered on a point near the Town of Placentia. For the purposes of this study, the Project Area was divided into three principal sectors based on the potential for direct interaction with Project activities and infrastructure, which are:

- The Argentia Peninsula, where the Argentia Green Fuels Facility will be located;
- The Argentia Backlands, situated adjacent to the Argentia Peninsula and on the north side of Northeast Arm; and
- A linear corridor of 250 m on either side of the Project Interconnect Line, which extends beyond the eastern boundary of the Argentia Backlands northeast and north to Long Harbour.




No part of the marine environment of Placentia Bay, either within Argentia Harbour or Placentia Sound, is included as part of the Project Area (Figure F-1.1-1).



	Project Interconnect Line
	Project Area
	Local Assessment Area (50km diameter)

 **Argentia Renewables**

FIGURE NUMBER: F - 1.1 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N
FIGURE TITLE: Historic Resources Overview Assessment Study Area	NOTES: The location of proposed project infrastructure is considered preliminary and is subject to change.
PROJECT TITLE: Argentia Renewables	

PREPARED BY: C. Bursey	DATE: 17/05/2024
REVIEWED BY: 	APPROVED BY: 
	

1.2 Environmental Setting of the Project Area

1.2.1 Argentia Peninsula

The most westerly sector of the Project Area includes the site where the Argentia Green Fuels Facility and other related Project infrastructure will be situated on the Argentia Peninsula in the area formerly encompassed by the US Naval Air Station. Since the 1940s, when the property was initially acquired by the US Government, virtually the entire peninsula has been developed for military and industrial purposes, which involved the demolition and removal of many dwellings and outbuildings comprising the former community of Argentia (see Section 3.3 and 3.3.2 below), as well as the extraction of a massive quantity of rock, bog and soil overburden, along with the levelling and contouring of the terrain for construction of an airfield and associated infrastructure. Also constructed as part of the Argentia Naval Air Station were several large housing developments to accommodate thousands of service personnel and their families, a hospital and school, and a wide range of recreational and occupational facilities, all of which incorporated above and below ground electrical and water services. In addition to the terrestrial components of the Argentia Peninsula, large sections of the shoreline and foreshore, notable along the eastern side of the peninsula within Argentia Harbour, were developed as docking and servicing facilities for military and supply vessels.

During the latter part of the twentieth century and in the early 2000s, following the complete closure of the Argentia Naval Air Station, major decommissioning activities involving extensive ground and shoreline excavations and alterations were undertaken at the former base (Janes and Worthman 2005), and in more recent times large segments of the peninsula were developed with the intent of using it for future industrial purposes. An undertaking of note that is currently in progress on the site includes construction of a concrete fixed drilling platform that will be used in the offshore as part of the West White Rose Project. As is apparent from this summary of activities, virtually the whole of the Argentia Peninsula has seen a vast amount of ground and shoreline disturbance since the 1940s, thus this sector of the Project Area is appropriately referred to as a brownfield site (see Figure F-1.1-1 above).

1.2.2 Argentia Backlands

The largest sector of the Project Area is the Argentia Backlands situated to the south and east of the Argentia Peninsula and between Northeast Arm in the south and Placentia Sound in the north. Overall, this sector of the Project Area measures approximately 11 km east to west by a maximum of 4 km north to south at its widest point, and the elevations of the generally uneven and hilly terrain range from sea-level to a maximum of 170 m above it in roughly the central location. Like the Argentia Peninsula where the Naval Air Station was constructed, operated, and eventually decommissioned, a narrow strip of low-lying terrain on the north side of the Argentia Backlands, near the isthmus connecting the headland to the mainland (where the former community of Marquise was located: see Sections 3.3 and 3.3.2 below),

was also developed and used for military purposes by the US and was eventually decommissioned in the early 2000s. Due to the extensive and varied ground and shoreline disturbances that occurred throughout this sector of the Argentia Backlands since the 1940s (Janes and Worthman, 2005), this location too is appropriately referred to as a brownfield site.

A recent ecological land classification map shows that a large segment of the Argentia Backlands to the south and east of the area, as discussed above, supports a growth of mature but modest-sized coniferous trees, including stands of spruce and fir. There are many locations where trees have been felled in the recent past, possibly for firewood, but are now regenerating. While there are also relatively small patches of terrain that host mixed species of wood such as fir, spruce, larch (locally referred to as “juniper”) and potentially alder and birch, a large portion of the Argentia Backlands is classified as wetlands and scrub.

Over and above the terrestrial landscape features, the Argentia Backlands has approximately 15 small and moderate-sized ponds that contribute to several small watersheds, the largest pond being Gull Pond situated in roughly the central location. Though the Argentia Backlands has no large rivers, there are many brooks and streams draining from the elevated waterbodies and wetlands, including a relatively large watercourse that flows from Gull Pond toward the northwest into Placentia Sound. While the shoreline back from the water’s edge along most of the north side of the Argentia Backlands is steep-sided, there are a small number of locations where the terrain appears relatively level and potentially well-drained (see Figure F-1.1-1 above).

The image below, produced in part from LiDAR provided by Natural Resources Canada (NRCan), has been altered to show the underlying topography with the surface vegetation removed. As displayed, it clearly highlights that the terrain throughout most of the Argentia Backlands is generally undulating and hilly, and apart from a small strip of ground along the southeast side of Argentia Harbour (where the former community of Marquise and US military facilities were situated), the shoreline back from the water’s edge all the way to the eastern end is relatively steep, with only narrow strips of beach. Coastal locations where the terrain is generally level are restricted to the mouths of small waterways, and even those are few (Figure F-1.2.2-1).

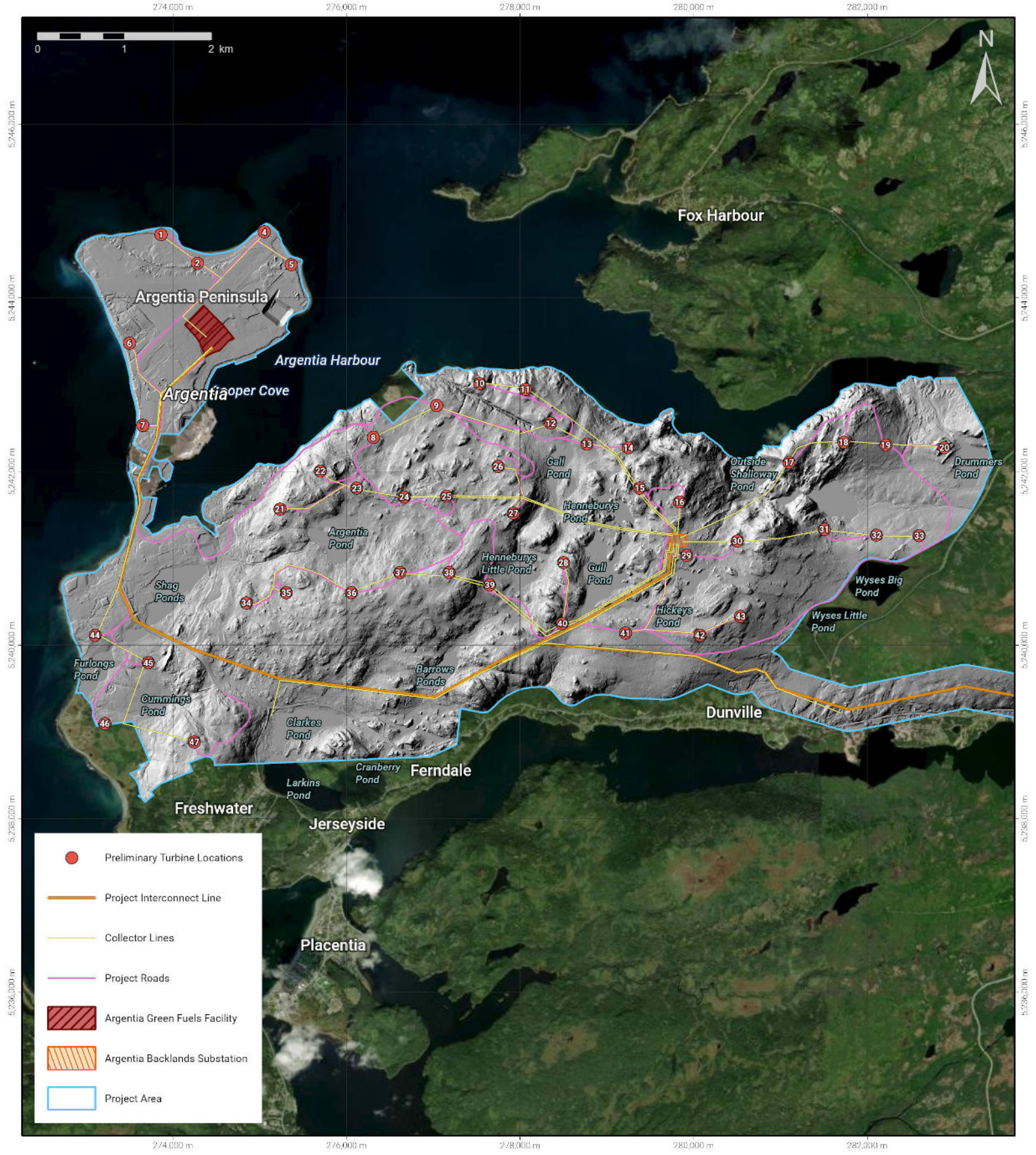


	FIGURE NUMBER: F - 1.2.2 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 17/05/2024
	FIGURE TITLE: Topographic Relief of the Project Area	NOTES: Elevation data source: Government of Canada - High Resolution Digital Elevation Model (HRDEM) - CanElevation Series	REVIEWED BY:	
	PROJECT TITLE: Argentia Renewables		APPROVED BY: 	

1.2.3 Project Interconnect Line

The portion of the Project Interconnect Line that extends from the eastern edge of the Argentia Backlands will mainly parallel existing rights-of-way, either existing Newfoundland and Labrador Hydro (NLH) transmission line corridors or public roads, and has an overall length of approximately 35 km. The precise location of the Project Interconnect Line is not determined; however, it will be contained within the 500 m wide corridor (i.e., 250 m on either side of a centreline) identified as part of the Project Area.

While parts of the corridor are relatively level, particularly the sections that extend along the north side of Northeast Arm to the north of Dunfield, and the portion situated to the south of the NLH infrastructure at Long Harbour, the bulk of the central area is relatively uneven and steeply contoured. Most of the Project Interconnect Line is wooded with stands of fir, spruce, and juniper, though several locations are wet and boggy. There are approximately five small ponds or parts of ponds situated within the corridor toward the northern end, and the line does intersect with two relatively large waterbodies - Ship Harbour Big Pond and Rattling Brook Big Pond.

1.2.4 Potential Food Resources of the Project Area

It is likely that wood for heating and building was relatively plentiful within the Argentia Backlands and along the Project Interconnect Line. However, food resources in the Project Area were probably limited, with the exception of various types of seasonal, edible berries and several maritime species obtainable from the waters surrounding the Argentia Peninsula. There are locations along the coastline of the Argentia Backlands where mussels could be harvested, and many of the ponds and small waterways likely contained trout in limited numbers. Both sea and freshwater birds were likely present on and around some of the waterbodies at certain times of the year. Beaver, muskrat and other small mammals likely occupied the shorelines of many of the rivers, streams, and brooks. Black bear may also have been extant. Currently, moose are known to be present within the Argentia Backlands and the Project Interconnect Line; however, the habitat is such that caribou would likely not have used the area on a regular basis in the past at any time of year.

2.0 Historic Resources

In NL, historic resources include archaeological materials such as stone tools, ceramics, glass, and metal objects, as well as structural remains (e.g., wooden or stone) that are 50 years old or older and show evidence of manufacture, alteration, or use by humans. It can also include burial, cultural, spiritual, and other heritage sites and artifacts dating to the Precontact and Historic Periods. The Precontact Period refers to the time prior to the sustained presence of Europeans in the “New World” and ongoing “contact” with Indigenous Peoples, which began *circa* 1500 CE. The Historic Period refers to the time after contact and up until *circa* 1970 CE. Historic resources are valued by Indigenous Peoples and the public at large for the general and scientific information they can provide about past peoples, their societies, cultures and lifeways, and the connections and interactions they may have had with other groups.

Historic resources, as defined by the **Historic Resources Act (1985)**, also comprise architectural resources (i.e., buildings, structures or sites of built-heritage importance that are registered with Heritage NL), as well as palaeontological resources, which are fossils that if deemed rare and/or significant, are inventoried by the Provincial Archaeology Office (PAO) of the Department of Tourism, Culture, Arts and Recreation, and protected under the provisions of the **Act**.

2.1 Regulatory Requirements

In September 2023, a request for information was submitted to the PAO for information on whether any specific regulatory requirements were warranted for the Project under the **Historic Resources Act (1985)**. Following a review of the Project mapping and other relevant details, Provincial Archaeologist Dr. Jamie Brake responded by stating that, *“Notwithstanding the paucity of known archaeological sites, the PAO feels that a comprehensive desktop survey of the project area is warranted, due to the long history of the region, and the lack of previous archaeological work in this area. Such assessment [hereinafter referred to as the Historic Resources Overview Assessment – HROA] should include limited field survey and recording of the [mid-twentieth century] military bunkers (ChAI-14) and any other areas deemed to have high [archaeological] potential as identified by the desktop and/or field assessment.”* The PAO correspondence went on to say that *“...While any sites may be mitigated in lieu of development, any known and/or high potential areas should be avoided where possible”* (PAO email, September 13, 2023).

2.2 HROA Objectives and Rationale

While there are currently no formal provincial guidelines for conducting a HROA, for the purposes of this report, the primary objectives of this study are to:

- Summarize, through a review of publicly available sources, the Precontact and Historic Period human occupation of insular Newfoundland, with a focus on Placentia Bay and the section in the northeast where the Project Area is situated; and

- Based on the background information, identify and plot on mapping the locations of all registered archaeological, architectural, and palaeontological resources situated within the Project Area, as well as any structures or features potentially worthy of registration with the PAO or Heritage NL, along with any terrain where the information review and professional judgement suggest other such resources might occur.

This HROA will serve as an initial statement of the historic resources potential of the Project Area and will be used to assist with Project planning by defining the nature and extent of any future Historic Resources Impact Assessment (HRIA) study that might be required by the PAO to avoid or reduce any potential adverse Project interactions with said resources.

2.3 HROA Principal Investigator

All aspects of this HROA were completed by Roy Skanes (B.A, M. Phil), Senior Archaeologist with SEM. Roy Skanes has 30 years of professional experience in historic resources / archaeological and related background research, and has worked extensively in Newfoundland and Labrador, Nova Scotia, New Brunswick, Quebec, Ontario, and Alberta. Since 1990, he has completed many historic resources overview and impact assessments and research projects related to various types of developments in the province and is qualified to hold an Archaeological Investigation Permit under the provincial **Historic Resources Act (1985)**.

2.4 HROA Approach and Sources

To achieve the objectives of the HROA, it was important to understand which cultural groups may have used the Project Area at various points in time and the types of sites, structures, and materials (including architectural and palaeontological resources) that could be extant within certain environmental settings. This entailed defining a broader study area and investigating what is known about its past from the historical and documentary record and the available archaeological and geological evidence. In accordance with this approach, following a review of information related to the cultural / historical sequence of Newfoundland generally, the full range of Precontact and Historic Period, historic resources / archaeological sites registered for Placentia Bay (*i.e.*, the RAA) was reviewed, along with those that are known for the LAA and the Project Area. The Town of Placentia itself was selected as a key location, as it is the place in Placentia Bay that has seen the most concentrated historical review and archaeological research and site registration projects since its beginnings in the 1970s. Understanding its history and that of the former town of Argentia, situated on the Argentia Peninsula, could provide insight into the cultural groups that may have used the Argentia Backlands and Project Interconnect Line components of the Project Area in the past. To this end, short histories of the longstanding European land-use and occupancy of both these communities are presented, along with a brief discussion of the former fishing village of Marquise, which was situated slightly east of the southern end of the isthmus that connects the Argentia Peninsula to the mainland, within the Project Area.

A principal source of information researched for this HROA was the archaeological site mapping provided by the PAO that showed the locations of all the archaeological sites registered for Placentia Bay, with colour-coding that highlights which cultural groups were identified at each site. Also provided by the PAO was a table listing the Borden numbers of all the sites (the Borden system being the Canadian registry for archaeological finds), along with the relevant archaeological Site Record Forms (SRFs) for those that are located within the LAA. Details obtained from the SRFs provided critical insight into the types of sites and materials that had been recorded during past field research projects; as well as site descriptions and locations; the topographic / geographic settings of each and its elevation above sea level (asl); the degree of field research completed to date; a listing of any informants (local or otherwise) who may have provided details about the find; and a brief statement regarding the current site condition and any factors (natural or otherwise) that may have caused disturbance. Additionally, the archaeological SRFs provide a bibliographic listing of all relevant reports and published articles associated with the site, and the location where any artifacts recovered during sampling or detailed excavation and recording projects are currently housed.

Other material reviewed as part of the HROA included archaeological and historic documentary sources pertaining to the cultural / historical setting of Precontact and Historic-Period Newfoundland, with a particular reference to the longstanding settlement of the northeast section of Placentia Bay. Literature and other information on the environmental factors that could pertain to archaeological potential within the Project Area were also reviewed, some of which discussed the availability of terrestrial and marine fauna within the LAA. Several online and printed sources related to the twentieth century military history of the Argentia Peninsula and the adjacent mainland were researched (some of which was provided by Heritage NL via its Executive Director Mr. Dale Jarvis and Municipal Outreach / Provincial Registrar Andrea O'Brien), as was information related to the past mining activities that occurred in the area - most notably at the late nineteenth / early twentieth century mine situated within the Argentia Backlands near Broad Cove on the south side of Placentia Sound. Sources related to the potential for fossils to be present in the Project Area were also examined and two geologists (Dr. Richard Taylor, formerly of Carlton University, Ottawa, and Gerald Squires, retired NL geologist) were consulted for information on the subject. An enquiry was also made at the PAO to establish if any palaeontological resources were registered for the Project Area.

It is worth noting that despite an online search for published sources discussing the postglacial relative sea-level history of the sector of Placentia Bay where the Project Area is situated, and using such data to better understand where coastal archaeological sites might now be situated in relation to current sea-level, none that adequately describe or illustrate the process and timescale of shoreline submergence and/or emergence were found. While some information was obtained to suggest that the shoreline throughout northern Placentia Bay is currently being inundated at a relatively consistent rate of approximately 2 mm per year or 20 cm per century (2019 personal communication: Melanie Irving & Jenifer Organ, then with the Geological Survey of NL), it could not be established with any certainty when

this process began and the intricacies of how sea-levels changed in relation to the terrestrial landscape over time.

Also examined in detail for the HROA were conventional aerial photographs available from the Province of NL as well as two aerial imagery sources, including a Google Earth kmz file that shows the full extent and lay-out of the Project Area and how it will interact with coastal areas, vegetation and landscape features, waterbodies, and any registered archaeological sites situated within its boundaries. From an analytical point of view, the kmz file was an indispensable tool for achieving a primary objective of the HROA, which was to identify and delineate any known archaeological sites and/or suspected cultural materials or structures (such as WWII and/or historic mining infrastructure), as well as landforms and topographic features within the Project Area that appeared conducive to past human settlement and exhibit potential to contain currently unknown historic resources.

A second set of aerial imagery analysed for the HROA was created from high resolution digital elevation model (HRDEM) data acquired from NRCan, which was combined with aerial imagery collected by a remotely piloted aircraft system (RPAS) flight in 2022. The HRDEM data were captured from airborne LiDAR, and a contour and shaded relief map was produced from a Digital Terrain Model, which represents the underlying bare ground with the vegetation removed. The map was then plotted at a resolution of 1 m, with the full extent of Project infrastructure superimposed ontop (for an example of the mapping, see Figure F-1.2-1 above). This imagery was invaluable for analysing the landscape within the Project Area for visible historic resources, and for identifying and delineating terrain where past human settlement and/or other types of land-use was theoretically possible.

2.4.1 Informant Interview Data

Contact was made with both the Placentia Historical Society and Heritage NL for assistance with identifying individuals from the Placentia area who could provide general information regarding how the Project Area may have been used in the relatively recent past for land-use activities such as hunting, fishing, berry picking, and/or wood-cutting, whether they knew if any archaeological materials had ever been found there, or if they could highlight any locations on mapping where potentially significant cultural materials or other types of historic resources might be situated (including, for example, structural remains associated with the WWII defense facilities and/or historic mining activities). Unfortunately, no such individuals were identified. Nevertheless, continuing efforts are encouraged to locate potential informants who might address this data-gap, and questions such as those outlined above should be posed to informants in the event a Land and Resource Use study is conducted for the Project.

3.0 Historic Resources Overview Assessment Results

3.1 Newfoundland Cultural / Historical Overview

3.1.1 Precontact Period

Archaeological research conducted on the Island of Newfoundland since the early-mid twentieth century confirms an occupation by several Indigenous First Nations and Pre-Inuit groups, the earliest of which crossed the Strait of Belle Isle from southern Labrador to the Northern Peninsula approximately 5,500 years ago. These “Maritime Archaic” peoples gradually moved into several other parts of western and eastern Newfoundland (seemingly including the area now encompassed by St. John’s on the Avalon Peninsula¹), and eventually to the south coast and the interior, with sites and materials attributable to this culture dating to the period 5,500 to 3,200 years before present (BP). No sites associated with this group dating to more recent times have been identified (Stantec 2023; Schwarz 2010).

The Maritime Archaic presence in Newfoundland is followed, after a gap of approximately 400 years, by Early Pre-Inuit (Groswater) peoples, with sites attributable to this culture dating to the period *circa* 2,800 to 1,800 years BP. The Early Pre-Inuit presence is followed by Late Pre-Inuit groups (referred to by archaeologists as Middle Dorset) beginning *circa* 1,900 years BP and continuing for only 800 years or so until *circa* 1,100 BP. Research has also shown that Dorset sites are larger and more numerous than those of any other Precontact Period group that occupied the Island of Newfoundland (Stantec 2023; Schwarz 1992), though calculating population numbers from the data currently at hand is not possible.

What is referred to as the Recent First Nations Period of occupation of Newfoundland began *circa* 2,000 years BP and continued until sometime shortly after 1500 CE, which is generally considered to be the time when Europeans arrived in northeastern North America and contacted with Indigenous Peoples. A significant outcome of that contact was the change that occurred in existing Indigenous material culture technology, whereby stone tools were rapidly replaced by metal equivalents.

The earliest expression of the Recent First Nations Period in Newfoundland is referred to as the Cow Head Complex dated to *circa* 1,900 – 1,000 BP,² which has been shown to be contemporary with the Dorset occupation, thus confirming a shared presence on the Island of Newfoundland by First Nations

¹ See 2010 article by R. Skanes available at: <https://www.gov.nl.ca/tcar/files/Vol9-2010.pdf> (p.164-165).

² In archaeology, a “complex” is a network of interrelated cultural traits typically represented by specific characteristics of the material culture (artifacts) left behind by a cultural group. The artifacts that are interrelated usually date to a specific time-period and can provide insight into the lives of those who made and used them, and the connections they may have had with earlier and, potentially, more recent peoples.

and Pre-Inuit groups (Mills 2022). The Recent First Nation Period also includes subsequent occupations by the Beaches Complex (*circa* 1,800 – 800 BP) and the Little Passage Complex peoples, which evidence indicates began *circa* 800 BP and ended with the arrival of Europeans in Newfoundland early in the sixteenth century (Marshall 1996; Schwarz 1992). In the case of the three cultural complexes identified for Newfoundland, each was named after the places on the Island where they were originally identified. It is important to note as well that the Newfoundland Beothuk³ of the Historic Period are not considered part of the Precontact Period Recent First Nations tradition, but rather are the direct descendants of the Beaches and Little Passage peoples.⁴

3.1.2 Historic Period

3.1.2.1 Indigenous Cultures of the Historic Period

Beothuk sites of the Early Historic Period (also referred to as the Early Contact Period), date to *circa* 1500-1700 CE and have been located throughout Norte Dame Bay and Bonavista Bay, on the east coast of the Avalon Peninsula at Ferryland (see Section 3.1.2.2 below), and at several places on the south coast (Gilbert 2011; Gilbert 1990; Mills 2022). It has also been shown that later, more recent Historic Period Beothuk sites are generally restricted to the Exploits Valley and the shoreline of Beothuk Lake (formerly Red Indian Lake), which appears to have been one of the final refuges of this group during the period leading up to the death of Shanawdithit at St. John's in 1829 - the last person of her culture known to have lived in insular Newfoundland (Pastore 1987; Pastore 1992; Schwarz 1992; Marshall 1996). A small number of Beothuk sites have also been recorded in Placentia Bay (Mills 2022), including one at Come by Chance located approximately 50 km north of the Project Area (taken from PAO site record data).

An early reference that likely refers to Mi'kmaq travelling to Newfoundland from the northeastern North American mainland dates to 1602, when the English explorer Bartholomew Gosnold reportedly encountered a Basque "shallop" (i.e., a relatively small and open wooden boat that could be rowed and/or sailed) off the coast of New England manned by eight "Indians", who described to him parts of the Island and indicated on a drawing what he concluded to be the harbour at Placentia.⁵ Other mention of Mi'kmaq in Placentia Bay in the seventeenth century can be found in a recent report prepared for Parks Canada regarding the longstanding yet intermittent land-use and occupancy of the south coast of Newfoundland by Indigenous groups (see: Mills 2022).

³ <https://www.heritage.nf.ca/articles/indigenous/beothuk.php>

⁴ (see: 2012 article by S. Hull available at: <https://nlarchaeology.wordpress.com/2012/03/09/recent-period-tradition-newfoundland/>).

⁵ See the 2013 article by S. Hull *Newfoundland Mi'kmaq* available at: <https://nlarchaeology.wordpress.com/2013/03/01/newfoundland-mikmaq/>

Throughout the mid-late eighteenth century, the Mi'kmaq appear to have favoured locations on the Island of Newfoundland such as St. George's Bay, Cape Ray, Bay d'Espoir and Placentia, and in the early period of their occupation they are reported to have travelled back and forth to Cape Breton on a relatively regular basis (Stantec 2023). However, following the demise of the Beothuk in the 1820s, the Mi'kmaq extended their range to include much of the central and western Newfoundland interior, as well as the Bay of Exploits and Gander Bay. It has been reported that by the 1850s, Mi'kmaq hunters and trappers had a large portion of interior Newfoundland to themselves (Pastore 1978; Pastore 1998;⁶ Stantec 2023).

3.1.2.2 European Cultures of the Historic Period

The earliest Historic-Period European archaeological site known for the Island of Newfoundland is the well-documented Norse settlement at L'Anse aux Meadows situated near the tip of the Northern Peninsula and dated to just over 1,000 years ago. Though the Norse presence in Newfoundland was likely short-lived and may have lasted for as little as three seasons, starting sometime around the year 1021 CE, the site is significant from the point of view that its occupation occurred at least five centuries prior to the sustained presence of Europeans in the "New World", which began and steadily increased in the years following *circa* 1500 CE. The site at L'Anse aux Meadows is also of importance in that it is the only Viking occupation recorded to date in North America (Handwerk 2021).⁷

Historical records and archaeological research confirm that the first part of the sixteenth century saw the beginnings of the Newfoundland "migratory" fishery, with crews from Brittany, Normandy, England, and other western European countries travelling to ports on the east coast each year to pursue a seasonal fishery that usually began sometime between January and April and continued until August or September, when crews departed with the summer's catch for markets in Europe and the Caribbean. It has also been shown that the well-publicized archaeological site at Ferryland on the Southern Shore of the Avalon Peninsula contains ample evidence deriving from the Early Historic Period. The longstanding research project at Ferryland, currently being conducted under the direction of Dr. Barry Gaulton of Memorial University of Newfoundland, has recorded artifact-bearing soil deposits and cultural features below seventeenth century levels that date to the previous century and are thought to derive from the earlier migratory period. Stone artifacts and the remains of small cobble hearths recorded in association with sixteenth century materials confirm the presence of Beothuk peoples at the site, presumably during fall and/or winter when the area would have been temporarily vacated by migratory European fishers.⁸ Other

⁶ The history of the Newfoundland Mi'kmaq. Newfoundland Heritage article available at: <https://www.heritage.nf.ca/articles/indigenous/mikmaq-history.php>

⁷ Handwerk 2021: *New Dating Method Shows Vikings Occupied Newfoundland in 1021* available at: <https://www.smithsonianmag.com/science-nature/new-dating-method-shows-vikings-occupied-newfoundland-in-1021-ce-180978903/>

⁸ For summaries of past and ongoing archaeological research at Ferryland, see the Annual Review Series of the PAO available at: <https://www.gov.nl.ca/tcar/artsh heritage/culture/archaeology/arch-resources/archaeology-reviews-and-reports/> Also see: Beothuk Archaeology at Ferryland, Heritage Newfoundland and Labrador available at: <https://www.heritage.nf.ca/articles/exploration/beothuk-archaeology-ferryland.php>

seventeenth century archaeological sites on the Avalon Peninsula that have seen detailed research and analysis include those at Cupids⁹ and Placentia in Placentia Bay, including the French fortification Vieux Fort dating to the period 1660-1690 (Crompton 2012).

The eighteenth century, a period which saw significant growth in the resident population of Newfoundland, is well represented at archaeological sites around the Island, including many located within the Town of Placentia (Mills 2022) and at St. John's (Pope 1997), as well as several others at Carbonear in Conception Bay (Skanes 2019) and at locations in Trinity Bay (Skanes 2018). English settlement, confined until 1713 to the area between Bonavista Bay and Trepassey, gradually expanded into St Mary's Bay and Placentia Bay, and then north of St. John's to Fogo and Twillingate, to many locations along the "French Shore" on the Northern Peninsula and eventually even further north into Labrador (Matthews 1988).

Over time, the migratory fishery gradually gave way to a resident-based industry, which eventually saw increasing numbers of European settlers (primarily from southwest England and parts of Ireland) arrive in Newfoundland and, by the beginning of the nineteenth century, the population had grown to approximately 40,000. Though relatively large communities were present in Conception Bay and at other locations on the Avalon Peninsula, many people still resided and fished from remote towns and settlements spread out along the coast. While virtually all permanent residents were involved in the fishery in one way or another, most also partook in small-scale agriculture and logging, and it was not uncommon for families who spent the spring, summer and fall fishing and farming, to move to other more remote, inner-bay locations in the winter where firewood, logs for lumber, and game were more plentiful. This practice of seasonal movements from the outer bays to more sheltered inland locations, referred to as transhumance, was common in many parts of Newfoundland in the Early Historic Period and continued throughout the nineteenth century and into the twentieth, and in recent years has seen degree of professional investigation. The earliest archaeological evidence for "winter housing" in Newfoundland comes from a seventeenth century site situated at the bottom of Trinity Bay near the community of Sunnyside that was partially excavated and recorded in 2010 and 2013 (Gaulton and Mills 2011, 2014). Other winter house sites that have been investigated are situated in St. Mary's Bay near the small community of O'Donnells, and these have been dated to the period 1820s to 1840s (Gaulton and Mills 2011, 2014). A small winter settlement situated on the Pinware River in southern Labrador, upstream of the community of Pinware, is reported to have been used seasonally from the late nineteenth century until as late as the 1940s CE (Skanes 2021).

Given the nature of the economy at other Newfoundland fishing communities near the Project Area such as Placentia, Argentia and Marquise, it is likely that the seasonal movement of people from these relatively exposed coastal locations to inner bay sites was also practiced throughout that area in the early

⁹ For summaries of past and ongoing archaeological research at Cupids, see articles by W. Gilbert published in the PAO's Annual Review Series available at: <https://www.gov.nl.ca/tcar/provincial-archaeology-annual-report-series/>

period of settlement. Noteworthy here is the very exposed and treeless Argentia Peninsula, which would have been a particularly difficult location to reside in winter. Thus, it is likely that many people did relocate from there to more sheltered inner bay locations such as the northern part of Placentia Bay or to the inner reaches of Northeast Arm where the Argentia Backlands are situated once fishing had slowed in the fall and the weather became progressively colder and windy.

3.2 History of Placentia

The Town of Placentia is located on the east side of Placentia Bay, at the far western end of Northeast Arm and to the southeast of the present-day communities of Dunville, Ferndale and Jerseyville. Despite the considerable amount of archaeological research that has taken place there, starting in the 1970s and intensifying during the 1990s and 2000s with the Placentia Uncovered Project, no artifacts attesting to a Precontact or Early Historic Period Indigenous presence are registered for the community with the PAO. Moreover, according to one archaeologist whose research was focused there in the 2000s, no materials such as stone artifacts and/or stone chipping debitage were located during her work, nor does she know of any having been found (PAO correspondence from Amanda Crompton relayed to SEM). Despite these results, it is worth noting that this lack of findings is not to say that the area had not been occupied by Indigenous Peoples prior to the regular usage and eventual settlement by Europeans in the sixteenth and seventeenth centuries, it simply means that no materials to confirm such a presence have been discovered. Given the apparent rate of sea-level rise suggested for the region (see 2019 personal communication described in Section 2.2 above), it is possible that any low-lying coastal areas occupied by Indigenous Peoples during the Precontact Period may have been partially or totally inundated and destroyed.

Like other coastal settlements on the Avalon Peninsula where Early Historic-Period fisheries and settlements sprung up, (e.g., Ferryland and Cupids), Placentia can date its beginnings to the first part of the sixteenth century, when crews from several western European countries travelled to the area each year to pursue a seasonal migratory fishery. Having a large and deep harbour for securing vessels, plenty of freshwater nearby and an expanse of cobble beaches (*graves*) ideally suited for processing and drying fish, an additional critical asset that proved important for the development of Placentia in the early period was access to relatively good stands of timber that were essential for construction of dwellings and the broad range of physical infrastructure required for the fishery (Cromwell 2011).

While it is known from historical records that French, Spanish and Portuguese fishers all frequented Placentia Bay during the sixteenth and early seventeenth centuries, Placentia itself was also a principal centre for fishers from the Basque region of the Iberian Peninsula.¹⁰ In 1594, for example, it was noted

¹⁰ For a brief discussion of Basque fishers at Newfoundland and Placentia in the sixteenth and seventeenth centuries, see the article by S. Hull available at: <https://nlarchaeology.wordpress.com/2020/09/04/basque-beothuk-and-the-big-squeeze/>

by English mariners Whyte and Jones that most ships using the harbour were from the Basque port of St. Jean de Luz (Cromwell 2011; Gaulton and Carter 1996).

By the mid-seventeenth century, the Newfoundland fishery at several ports on the Avalon Peninsula was well established, and to protect their assets and other critical infrastructure at Placentia, some rudimentary fortifications were constructed by Basque and/or English fishers, which were subsequently taken over by French soldiers and expanded (Cromwell 2011; Proulx 1979). In 1662, when the colony of Plaisance was formerly established as the capital of the French fishing and colonial interests in Newfoundland, a group of fifty settlers and thirty soldiers arrived and constructed a new defense works referred to as “Le Vieux Fort” on elevated ground to the east of Placentia’s “Great Beach” (Mills 2022; Crompton 2021; Cromwell 2011; Gaulton and Carter 1996).

In 1691, Le Sieur de Saint-Ovide de Brouillon, who was appointed Governor, arrived at “Plaisance” and oversaw the construction of Fort Louis on the north side of the harbour entrance and quickly turned the community into a French military stronghold. The following year, the new fortifications were tested, when Plaisance was attacked by approximately 800 English personnel with only 50 soldiers in the garrison. Though the fort withstood the assault, the town was severely damaged, and it was apparent to the French military that the facility was critically inadequate. Consequently, a four-gun battery was constructed on the south shore of “The Gut” and another was established on what is now known as Castle Hill to the north, which was referred to as the “Gaillardin” (Proulx 1979). A series of English attacks on Plaisance in the 1690s led to a renewed recognition that the harbour needed to be better defended, as Placentia was a key port where the French fishing fleet in Newfoundland could operate from and serve as a location where naval vessels could complete repairs prior to or at the end of an Atlantic crossing. Between 1694 and 1695, some effort was expended in rebuilding Fort Louis (Crompton 2021; Cromwell 2011; Gaulton and Carter 1996).

The period of French control of Plaisance was temporary and, in 1713, the colony passed to Britain under the Treaty of Utrecht (Mills 2022; Crompton 2012). In accordance with the terms and conditions outlined in the Treaty, France lost not only the expanding town and fishery, but also all other rights and possessions it held in Newfoundland (Gaulton and Carter 1996).

In the early part of the English control of Placentia, considerable effort was expended in fortifying strategic locations around the harbour, including construction of Fort Fredick near the mouth of The Gut. By the 1770s, a census shows that the population of the town had expanded to 700 and there were an additional 800 people residing throughout the surrounding area. By the end of the century, Placentia played a very limited role for English commerce, as there was a considerable decline in the fishery and trade, with the result that many of the settlement’s buildings and structures fell into an advanced state of disrepair (Gaulton and Carter 1996). From that time on, Placentia was dominated by the new British capital at St. John’s, and with the withdrawal of the military garrison from Placentia at the beginning of the nineteenth

century, the community quickly reverted to its former role as a fishing outpost (Gaulton and Carter 1996). For a short period near the end of the nineteenth century, Placentia and other communities in the area did see the development of a shipbuilding industry, but as large steel vessels rapidly replaced wooden ones, that business also fell into decline (Encyclopedia of NL, 1993, Volume 4, pgs. 317-319).

3.3 History of the Argentia Peninsula and Marquise

The Argentia Peninsula is situated at the far western end of the Project Area. Early maps and photographs suggest that at one time, even as late as the early twentieth century, the peninsula was more-or-less an island connected to the adjacent mainland by only a narrow strip of terrain.¹¹ Though it is likely that this relatively flat peninsula, which had many large beaches on which to land and deploy small craft and potentially establish encampments of short duration, was used by Indigenous Peoples during the Precontact and Early Historic Periods, no cultural materials, lithic or otherwise, attesting to any such occupation are registered with the PAO.

Settled originally by French fishers in the seventeenth century and known as Petit Plaisance, census records for the peninsula from 1687 suggest a population of 35 and, by the beginning of the eighteenth century, that number had grown to approximately 150 individuals residing in 14 dwellings (taken from Penney 2006). In 1713, in accordance with the terms and conditions of the Treaty of Utrecht, the town fell under the authority of Britain and became known as Little Placentia. It is of particular interest that an inventory of resources remaining at several Placentia Bay communities completed in 1714 following the departure of most of the French residents (apparently some remained and pledged their allegiance to the British Crown), indicates that at that time there were *14 stages, 30 houses and two churches* still in existence at Little Placentia (taken from Penney 2006). Due to its well-protected harbour and expanse of beach-space for processing and drying cod, it rapidly developed into a successful British fishing station and, by the mid-nineteenth century, the population had grown to approximately 600. *Circa* 1900, the community adopted the name Argentia due to the discovery of silver ore deposits in the area, which resulted in the eventual exploration and limited development of Silver Cliff Mine situated on the north side of the Argentia Backlands near Broad Cove.

The former fishing community of Marquise was situated on the south side of Argentia Harbour (formerly known as Baye de la Marquise) on terrain that was eventually acquired by the US Military in the 1940s. Recorded in the 1845 census as a separate community (but in literature sometimes referred to as the Marquise section of Little Placentia), it had a population of 67. While fishing and small-scale farming had always been the backbone of the economy, the opening of the aforementioned mine in the early nineteenth century did provide some employment until *circa* the 1920s (Encyclopedia of NL, 1993, Volume 3, pgs. 466-467).¹² An aerial view of the Argentia Peninsula and Argentia Harbour looking north

¹¹ See : MUN Digital Archive Initiative, early eighteenth century map - Carte des Bayes, Rades, et Port de Plaisance dans L'Isle de Terre-Neuve, available at: <https://collections.mun.ca/digital/collection/maps/id/856/>

¹² Also see report available at: https://gis.geosurv.gov.nl.ca/geofilePDFS/ReceivedBatch51/001N_0869.pdf

toward the community of Argentia and including the small fishing village of Marquise is included below (Figure F-3.3-1).¹³

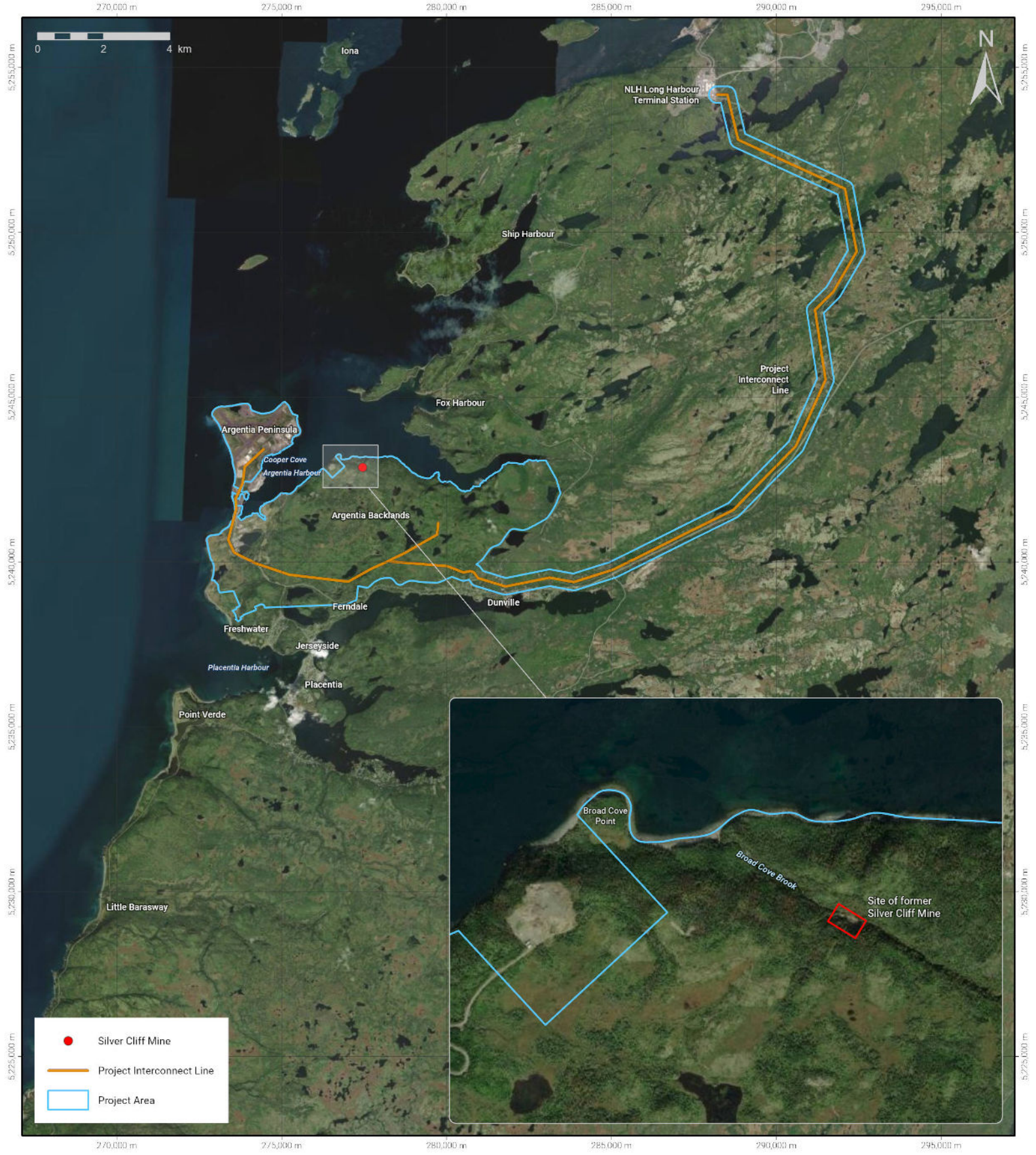


Figure F-3.3-1 North View of the Argentia Peninsula Circa 1940. Marquise Situated on the Mainland at the Foot of the Hill Near the Pond.

3.3.1 Silver Cliff Mine

The Silver Cliff Mine was located on the northern side of the Argentia Backlands to the east of the Argentia Peninsula and on the south side of Placentia Sound slightly inland of Broad Cove and Broad Cove Point. It appears from the review of literature and historic aerial imagery completed for this HROA that the principal aboveground components of the mine were situated in what is now an open gravel pit / clearing on the western shore of the small waterway known as Broad Cove Brook (below in Figure F-3.3.1-1). The various mineshafts and subsurface excavations associated with the historic mine were situated near the brook and the aboveground infrastructure (e.g., the mill), but also extended away from there toward the south and southwest.

¹³ Online image of unknown source, but likely taken by the US Military circa 1940 prior to construction of the Naval Air Base and removal and demolition of housing and infrastructure at Little Placentia and Marquise.



- Silver Cliff Mine
- Project Interconnect Line
- Project Area



FIGURE NUMBER: F - 3.3.1 -1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 14/06/2024
FIGURE TITLE: Location of aboveground infrastructure associated with the former Silver Cliff Mine	NOTES:	REVIEWED BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
PROJECT TITLE: Argentia Renewables			

While limited documentation on the history of the mine is available, a chronology of key operational events listed in the online publication *Fourth Year Assessment Report of Prospecting on claim License 14798M* compiled by Jason White and submitted to the Government of NL in 2008, suggest that veins of galena-bearing sulfide were discovered on terrain slightly inland of Broad Cove in the early 1880s, with the Mineral Rights being sold to an English company for \$4,500 who then worked the area for a brief period but closed the mine without finding the main deposit. The only record of any ore being shipped during the early period of operation is a reference to a cargo of between 30-40 tons that was sent by sailing vessel to England; however, the vessel and all the crew were reported to have been lost at sea. Subsequently, a second company took control of the mine and worked it for approximately six months, again with limited results. In the early 1920s, work restarted at the mine, with no recorded production available, and in 1928 the mine closed due to lack of working capital, ongoing and costly technical problems with equipment, and a drop in world lead price (summarized from online source by J. White, dated February 2019).¹⁴ Ten years later in 1938, mapping of the mine's subsurface assets were "issued", though it is uncertain if the plans produced at that time were based on new exploration activities or if they were simply copies of existing documents that had been reworked for clarity and scale, possibly by the then Newfoundland Government Geological Survey (copies of plans housed at the NL Government's Air Photo and Map Library, Corner Brook).

Another report compiled in 1925 suggests that at that time the workings at the mine included (or had included) several surface trenches and excavations as well as underground shafts and tunnels where ore was being extracted. Additionally, a scale plan of the operation included with the 1925 report shows that the infrastructure in place on the surface included: a Manager's House and Office; two Stores; a Workman's Shack (also reported as being "Bunk Houses for about 25 men", though another part of the report states "shacks to house 50 to 60 men"); a Mess and Cookhouse; a Carpenter's Shop and Mill (or a "building covering a portion of the mill" capable of "treating" 50 tons of ore per day); a Rock House, an Ore House Crushers; a Power House with a Compressor, a Boiler House and; a Compressor and Smithy (see Figure F-3.3.1-2 below; information and image taken from 1925 online report¹⁵). It was reported as well that the whole of the plant was driven electrically by power supplied by the United Town Electric Company who had constructed a transmission line more than 60 miles long to deliver power. While there are some discrepancies in the reporting regarding the number of people working and housed at the site, it appears nonetheless that even though short-lived, Silver Cliff Mine at one time had been a relatively considerable operation.

¹⁴ Article available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://gis.geosurv.gov.nl.ca/geofilePDFS/Batch2022/001N_1042.pdf

¹⁵ Article available at: https://gis.geosurv.gov.nl.ca/geofilePDFS/Batch04/001N_0061.pdf

To help verify if the aboveground infrastructure and buildings listed and illustrated above were in fact constructed on the site (or if they were simply “proposed”), and for how long they may have stood, contact was made with the Air Photo and Map Library at the provincial Department of Fisheries, Forestry and Agriculture to obtain copies of any aerial photography that showed the portion of the Argentia Backlands where Silver Cliff Mine was located. While the library does have several relevant photographs in their collections dating back to 1940s when the US Military commenced operations in the area (see Section 3.3.2 below), most were taken at such a high altitude and scale (e.g., 1:50,000 or more) that identifying and confirming what infrastructure (if any) was on the ground was not possible. However, one photograph of the area taken in 1951 at a 1:15,840-scale (26 years after the 1925 report), does show the large clearing next to Broad Cove Brook where the aboveground infrastructure was reported to be situated, though no clear evidence of the range of buildings listed above is discernible. While it seems unlikely, due to the amount of work that would have been involved, it is possible that all the aboveground structures shown on the plan of the mine compiled in 1925 were demolished or dismantled and/or removed intact.¹⁶ Despite a similar search of the photographic collections housed at The Rooms Provincial Museum in St. John’s and at the Centre for Newfoundland Studies at Memorial University of Newfoundland, no ground-level historic images showing the mine and its buildings were located.

¹⁶ Aerial photograph, dated 1951, available at Department of Fisheries, Forestry and Agriculture’s Air Photo and Map Library, Corner Brook, NL, reference code: A-13363-48

001N/05/0061/1

- LEGEND**
- Managers House & Office --- A
 - Store --- B
 - Workmans Shacks --- C
 - Mess & Cookhouse --- D
 - Store --- E
 - Carpenters Shop --- F
 - Mill --- G
 - Rock House --- H
 - Ore Shute --- I
 - Ore House --- J
 - Crushers --- K
 - Power House with Compressor --- L
 - Boiler House --- M
 - Compressor --- N
 - Smithy --- O

UNDERGROUND WORKINGS
 SHOWING
 PROSPECTING DEVELOPMENT
 TO 11th JULY 1925
 carried out on
 FEE SIMPLE CLAIM of
 SILVER CLIFF MINING Co. LTD. AT
 ARGENTIA. N.F.L.D.
 Note:- See Report dated 31st Oct 1925
 11 July 1925

Note:- For Outcrops. says, and
 Location of Claim See Dwg's Z83

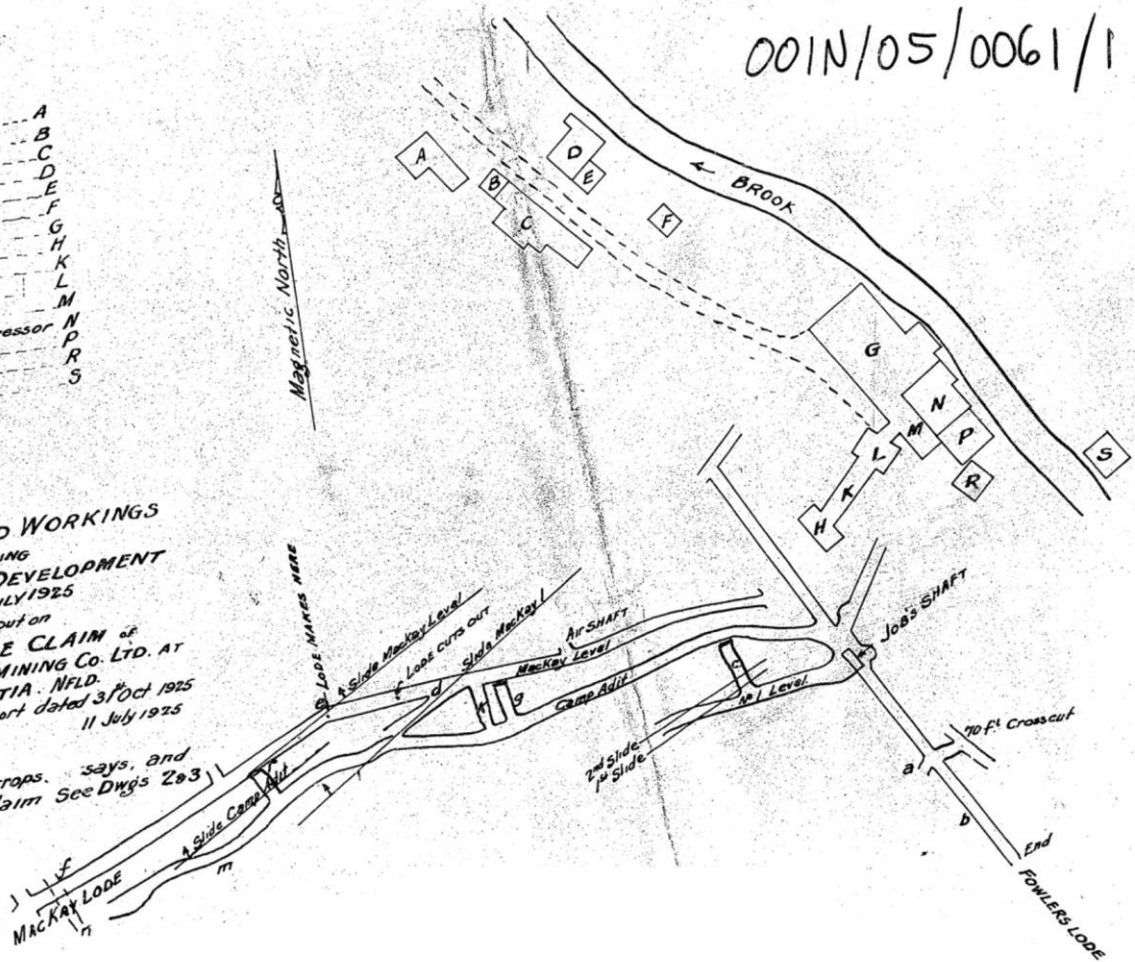


	FIGURE NUMBER: F - 3.3.1 - 2	COORDINATE SYSTEM: n/a	PREPARED BY: C. Bursley	DATE: 17/05/2024
	FIGURE TITLE: Plan of aboveground components of Silver Cliff Mine and its "Underground Workings" dated 1925	NOTES: Plan drawing sourced from NL Government Department of Industry, Energy and Technology	REVIEWED BY:	APPROVED BY:
	PROJECT TITLE: Argentia Renewables			

Despite the generally negative findings of the photographic searches and the lack of supporting documentary information to confirm the full nature and extent of the aboveground mining infrastructure, there are several modern photographs available online that show a variety of dilapidated equipment scattered throughout the area thought to be the location of the former mill situated next to Broad Cove Brook at the upstream end of the facility (see Figure F-3.3.1-2 above and Figures F-3.3.1-3 to F-3.3.1-5 below).¹⁷ Other than the mill, no evidence of buildings such as accommodations, occupational or storage facilities, were identified in any of the modern photographs reviewed for this HROA.



Figure F-3.3.1-3 North View Toward Broad Cove Brook Showing Dilapidated Mining Equipment at the Site of the Former “Mill” (listed as G in the Legend shown on F-3.3-3 and included within the area defined on Figure F-3.3-2 above).

¹⁷ Images for Figures F-3.3-4, F-3.3-5 and F-3.3-6 were taken from the online article Nomadic Newfies: Adventure a la Mine d’Argent available at: <https://nomadicnewfies.blogspot.com/2018/08/aventure-la-mine-dargent.html>



Figure F-3.3.1-4 View Southeast Along the South Shore of Broad Cove Brook Showing Dilapidated Mining Equipment at the Site of the Former Silver Cliff Mine Mill.



Figure F-3.3.1-5 View Northwest Along the South Shore of Broad Cove Brook Showing Dilapidated Mining Equipment at the Site of the Former Silver Cliff Mine Mill.

3.3.2 The US Naval Air Station Argentia and Fort McAndrew

During the early years of World War II, the United States (US) and other countries were contemplating the possibility of a German invasion in North America. It was suspected at the time that if German forces successfully defeated or bypassed England in the war, the next move could involve the occupation of the British-ruled Island of Newfoundland, whose strategic position in the North Atlantic and relative proximity to Europe made it an ideal stopping-off point for aircraft and warships heading to and from Europe. Consequently, in September 1940, Britain and the US signed a document known as the "Destroyers for Bases Agreement" that would see Britain acquire several destroyers in exchange for 99-year leases of lands in Newfoundland, a large parcel of which included the entire Placentia Peninsula situated in northeastern Placentia Bay, as well as a narrow strip of coastal terrain located on the mainland directly adjacent to the peninsula. These locations were selected by American personnel for the site of the Argentia Naval Air Station and associated defences, as the peninsula was relatively flat and open and had a large and deep, ice-free harbour suitable to accommodate large military vessels.

In October of 1940, surveyors arrived at the Argentia Placentia, along with 1500 construction workers and engineers. To provide adequate space for construction of the base and its mainland defenses, approximately 750 people living in the community of Argentia were given notice to relocate and were provided with some degree of compensation. Those buried in the three local graveyards were exhumed and reinterred in a new cemetery constructed by US forces. Once abandoned, all the homes, out-buildings, and shoreline structures such as stages, wharves, and slipways, were either moved, burned, or levelled by bulldozers. Over a short period of time, three runways measuring roughly 5,500 feet, 5,300 feet, and 7,000 feet were constructed on the peninsula, along with 2,000 feet of wharfing, a floating drydock, hangars, numerous living quarters, and storage space for a massive quantity of fuel and other materials. The US Naval Air Station on the Argentia Placentia was officially opened in July of 1941 (Figure F-3.3.2-1).



Figure F-3.3.2-1 Northeast View of the US Naval Air Station on the Argentia Placentia Circa 1945.¹⁸ A Small Section of Fort McAndrew on the Mainland Can be Seen in the Foreground.

In March of 1942, the United States Army established a base on the mainland near the Naval Air Station on terrain formerly encompassed by the community of Marquise. Named Fort McAndrew, its principal purpose was to provide security to the Base through anti-aircraft batteries and other artillery, some of which was positioned on the high ground behind the community at the eastern end of the sector of the Project Area referred to as the Argentia Backlands.¹⁹

The military facilities on and near the Argentia Peninsula continued to play a role in defense of North America throughout the 1950s and 1960s, though the US Navy continued to operate several buildings in the area until 1994. Eventually, all the buildings and facilities were transferred to the Government of Canada and then to the Government of Newfoundland and Labrador, and many were demolished, and the ground and waterside areas were decommissioned. The site was since developed as an industrial area, with a portion of it currently in use for construction of the West White Rose Project concrete, offshore drilling platform.

¹⁸ Online image taken by the US Military in 1945. It is unknown where the image is archived.

¹⁹ The information presented in Section 3.3.1 above is not based on a review of original sources by SEM but rather is summarized from the online article *Argentia Naval Air Station and Fort McAndrew* available at: <https://www.hiddennewfoundland.ca/argentia-naval-station>

3.4 Archaeological Sites Registered for Placentia Bay

There are currently 100 archaeological sites recorded in the PAO site record database in the RAA, 28 of which are situated within the Town of Placentia and throughout the surrounding area. Those 28 sites located in Placentia are discussed in more detail in Section 3.5 below.

When presenting information related to site record data, it is important to note that because many archaeological sites are situated in settings where conditions for encampments and/or various other types of resource-harvesting are particularly favorable, it is not uncommon to find that an area occupied by one cultural group is later used for similar reasons by other individuals or groups, potentially of a different culture. Consequently, many archaeological sites recorded in Newfoundland and elsewhere, including those recorded for Placentia Bay, have more than a single “cultural component” represented (see Linnamae 1971; Mills). For example, a site originally occupied by First Nations Peoples during the Precontact Contact Period may have also been used decades or centuries later as an encampment by Pre-Inuit groups and eventually by Europeans as part of a fishing establishment, with no face-to-face contact between groups necessarily occurring. Therefore, for the purposes of the site record data for Placentia Bay summarized below, while there are a total of 100 archaeological sites registered with the PAO, several contain evidence of more than one cultural group and time-period displayed in the overall artifact assemblage. Thus, the data is summarized according to the number of sites in which a particular cultural group is represented. In so doing, this results in a total of 122 cultural components recorded at the 100 sites.

Of the overall 100 sites, there are six dating to the Precontact Period with Maritime Archaic First Nations peoples represented, eight with Pre-Inuit Dorset components (though no sites associated with Pre-Inuit Groswater peoples have been identified), one contains materials associated with First Nations Beaches Complex peoples, two have evidence associated with First Nations Little Passage peoples, and there are a total of a total of 16 sites where Precontact Period materials have been found, but because no diagnostic artifacts or other types of culturally-specific evidence was recorded, the Precontact Period cultural group(s) represented could not be determined.

Regarding the Historic Period archaeological sites recorded to date within Placentia Bay, not surprisingly 81 include materials of European origin such as fragments of ceramic, glass, clay smoking pipes components and possibly the remains of iron objects, thus it is reasonable to conclude that these sites were likely occupied by Europeans or people of European decent. Of the 81 sites, 12 are either shipwrecks or sites where collections of artifacts were gathered from the seabed within Argentia Harbour and Placentia Harbour. Note, however, that during the more recent part of the Historic Period, because Indigenous Peoples such as Beothuk and Mi'kmaq had, for the most part, dispensed with stone tool technology and took up using European made materials at a relatively early time, in some cases it is

difficult to establish conclusively from the material culture alone and without other supporting evidence (e.g., historical documentation), whether some sites of this period are in fact European or represent Indigenous occupations (or both).

Over and above the sites listed as European, there are four sites which included evidence of Beothuk occupation and two with materials and/or structural remains thought to represent Mi'kmaq peoples. Additionally, the site record data provided by the PAO listed two sites where cultural materials and/or other physical evidence was recorded, but it was of such a limited nature that the culture affiliated with the occupation could not be confirmed, thus the sites were listed in the category of “undetermined”.

As seen in Figure F-3.4-1 below, many of the archaeological sites listed above are situated along the coast in the southwest section of Placentia Bay toward Cape Rosey, while others, notably sites containing materials associated with Precontact and Historic-Period Indigenous cultures, are located on the islands at the north end of the bay, including Merasheen Island and Long Island. Not surprisingly, there is also a cluster of sites, both Indigenous and European, at the northern end of the bay, to the northwest of Swift Current and at and near the mouth of Piper's Hole River, which would clearly have been a favoured location for resource harvesting of maritime and freshwater species at various times of the year. While the number of sites recorded for Placentia Bay is by far dominated by sites with European components, with a total of 81 sites represented, and only 39 having components deriving from Indigenous occupations from both the Precontact and Historic Periods, all these numbers are undoubtedly low and do not necessarily accurately represent the true extent of land-use and occupancy that occurred over time.

Apart from Placentia, where archaeological research has been ongoing at differing degrees of intensity since the 1970s and where many sites have been discovered and investigated (as discussed in more detail below), it is likely that the seemingly low number of sites recorded in Placentia Bay as a whole may in part reflect the relatively limited amount of archaeological survey of coastal and near-coastal locations that has been completed throughout the region thus far. Other factors potentially contributing to the number may be related to disturbances and/or losses of cultural materials caused by the inundation of shorelines due to rising sea-levels (such as occurred at the Pre-Inuit Dorset site at Bordeaux Head - see: Erwin 2017), and to the construction, operation and decommissioning of the military facilities on the Argentia Peninsula and throughout the former community of Marquise, where the environmental setting and historical record suggest that both had been favored settlement and resources-harvesting locations. Unavoidably, other coastal developments undertaken in Placentia Bay may have also resulted in the loss of archaeological sites.

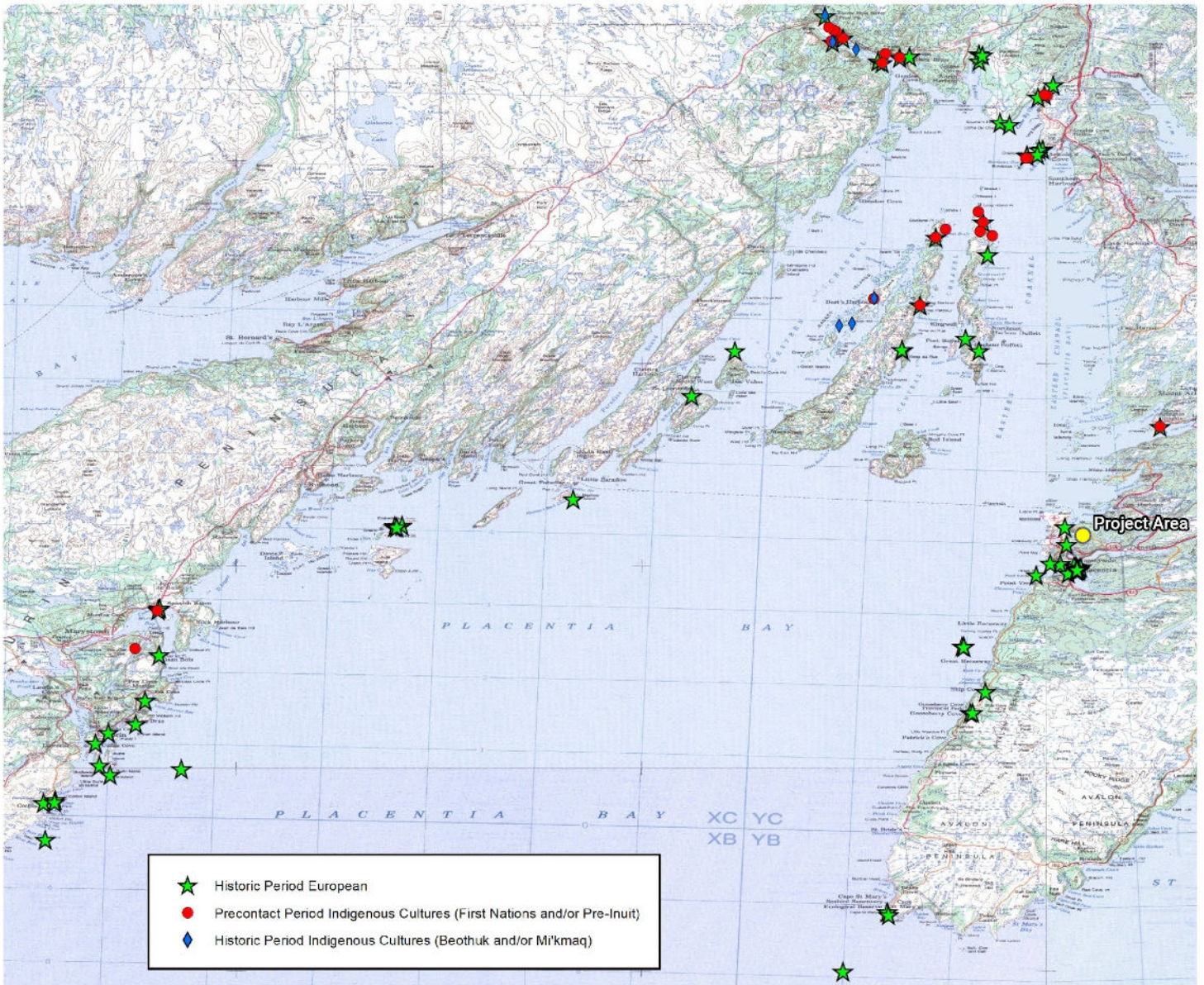


	FIGURE NUMBER: F - 3.4-1	COORDINATE SYSTEM: n/a	PREPARED BY: C. Bursey	DATE: 17/05/2024
	FIGURE TITLE: Registered Archaeological Sites in Placentia Bay	NOTES: Map provided by NL Provincial Archaeology Office (PAO)	REVIEWED BY: <i>[Signature]</i>	
	PROJECT TITLE: Argentia Renewables		APPROVED BY: <i>[Signature]</i> 	

3.5 Archaeological Sites Registered for Placentia and Surrounding Area

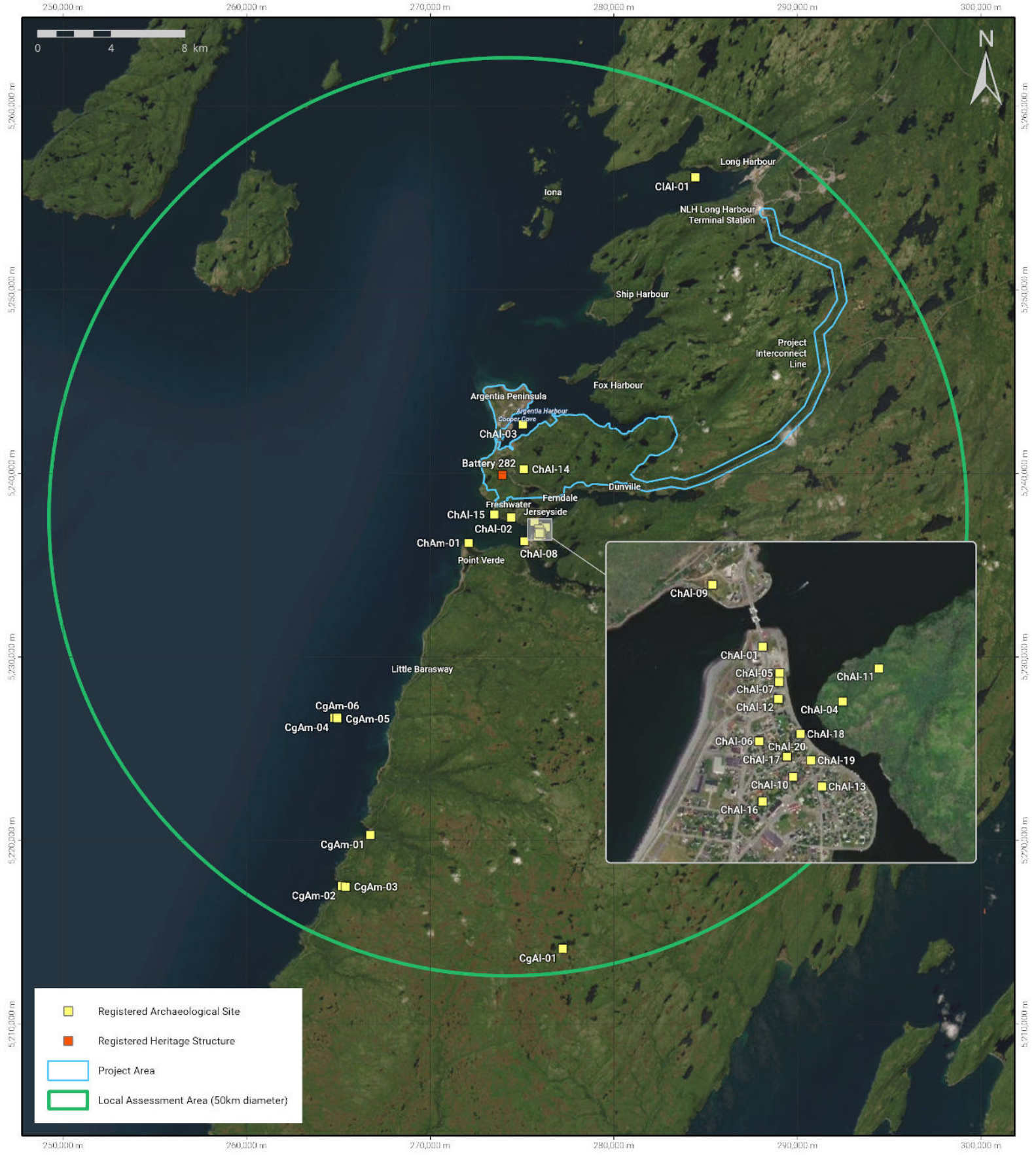
A review of the PAO archaeological site record inventory for the LAA indicates the presence of 28 sites (26 of which were included in the discussion of the sites registered for Placentia Bay). Of the 28 sites, seven are either nineteenth or twentieth century shipwrecks or random collections of artifacts retrieved from the bottom of Argentia and Placentia harbours that date to various time-periods, and one is a cemetery thought to contain nine graves of individuals lost on the mid-nineteenth century American vessel the *Free Trader*. One other site – CgAI-01 - is a pond located near the southern boundary of the LAA, where several searches have been conducted since the 1970s for remains associated with the aircraft L'Oiseau Blanc lost in 1927 during an attempted trans-Atlantic flight from Paris to New York (Figure F-3.5-1). Despite the several swimming and electronic investigations, which to date have encompassed a relatively large segment of the pond, no artifacts or mechanical parts definitively associated with an aircraft have been discovered (Skanes 2023).

The 19 terrestrial archaeological sites recorded in the LAA are shown on Figure F-3.5-1. Not surprisingly, the earliest are military facilities dating to the French period of occupation in the seventeenth century, but almost all have later archaeological components deriving from the subsequent English take-over of Placentia following the Treaty of Utrecht in 1713. A site of note in the listing of registered remains includes a structure situated on elevated ground on the east side of the arm that runs along the east side of Placentia. The site, referred to as Mount Pleasant Knoll – ChAI-11 - contained physical remains associated with what was thought to be a seventeenth century French dwelling, and the area where the site is situated likely saw considerable use by English settlers after the French withdrawal from the region. Other evidence recorded at the site includes materials confirming some eighteenth and nineteenth century usage (information taken from the PAO SRF).

Other sites recorded at Placentia include three cemeteries, one of which included several seventeenth century Basque burials that have been the subject of considerable research in recent years. All but one other site recorded for the LAA contain Historic Period material culture and further confirm the intensive European use and occupancy of Placentia and area, starting as early as the sixteenth century and continuing in varying degrees of intensity until current times. The single site that contained a Precontact Period Indigenous component is registered with the PAO as CiAI-01, which is situated to the north of the Project Area at the eastern end of Crawley's Island near Long Harbour (F-3.5-1). The single find included a Recent First Nations, Little Passage Complex (i.e., pre-Beothuk), stone arrow near the shoreline of a small basin referred to as The Pool (see: Penney 2006).

There is one archaeological site registered for the Project Area – ChAI-14. According to the PAO SRF, it is comprised of 13 separate, concrete structures, all of which appear to be associated with the facilities put in place in the 1940s for the defense of the Argentia Naval Air Station. The site is located on the high-

ground toward the western end of the Argentia Backlands slightly to the east of the two waterbodies referred to as Shag Ponds (Figure F-3.5-1).



- Registered Archaeological Site
- Registered Heritage Structure
- Project Area
- Local Assessment Area (50km diameter)



FIGURE NUMBER: F - 3.5.1 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Burse	DATE: 5/17/2024
FIGURE TITLE: Registered Archaeological Sites and Architectural Resources	NOTES: Registered Archaeological Site data provided by the NL Government's Provincial Archaeology Office (PAO); Registered Heritage Structure provided by Heritage NL.	REVIEWED BY: <i>[Signature]</i>	APPROVED BY: <i>[Signature]</i>
PROJECT TITLE: Argentia Renewables	The 'LAA' predates the current Regional Assessment Area (RAA) and covers a 50 km-diameter circle that centers on a point near the community of Placentia.		

sem

3.6 Registered Heritage Structure

Over and above the one archaeological site registered with the PAO for the Argentia Backlands (ChAI-14), there are at least three (and possibly more) other locations in that Project sector that have structural remains and/or armaments deriving from the mid-twentieth century US military presence in the area; however, only one complex of ruins is registered with Heritage NL as an architectural resource. The site, known as the 282 Coastal Defense Battery and listed on the mapping below as PA-19, is located on a hill overlooking Placentia Bay and is comprised of a principal underground structure built of concrete and covered with earth, and two large associated anti-aircraft and/or anti-submarine guns. Forming part of the defenses established at Fort McArthur to protect Argentia Harbour and the former Naval Air Station at Argentia, the designation encompasses a portion of the underground and aboveground fortification as well as the two original pieces of heavy artillery.²⁰ These specific ruins are also recognized by the Town of Placentia as a Municipal Heritage Site. The principal components of the site are shown in Figures F-3.6-1 and F-3.6-2 below.



Figure F-3.6-1 **Entrance to Underground Bunker at the 282 Coastal Defense Battery – a Designated Architectural Resource.**

²⁰ For a description of the 282 Coastal Defense Battery and the rationale for it being formally recognized as a Registered Heritage Structure, see: <https://heritagenl.ca/heritage-property/argentia-282-coastal-defence-battery-registered-heritage-structure/>



Figure F-3.6-2 Heavy Artillery at the 282 Coastal Defense Battery - a Designated Architectural Resource.

Two other undesignated yet related defense facilities situated within the Argentia Backlands are discussed in Section 4.3 below and the location of each is highlighted on the appropriate figures in that section and are indicated as PA-2 and PA-18.

4.0 Historic Resources / Archaeological Potential of the Project Area

4.1 Potential Rating Criteria

Given the longstanding and diverse culture / historic sequence of Placentia Bay, generally, and the portion in the northeast where the Project is located, over and above the WWII archaeological site registered with the PAO as ChAI-14 (see Section 3.5 and Figure F-3.5-1 above), there are other locations of potential historic resources significance within the Project Area. Included, for example, are at least two areas within the Argentia Backlands where similarly aged defense facilities are situated (one of which is referred to as the 281 Coastal Defense Battery and the other is known as the Command Bunker), as well as other places where there are structural remains that may have also served a contemporary military function. Additionally, there is a large parcel of cleared terrain adjacent to Broad Cove Brook where several large and small pieces of dilapidated mining equipment are extant that comprised part of the late-nineteenth and early-twentieth century mineral extraction and processing site referred to as Silver Cliff Mine (see Figures F-3.3-4 to F-3.3-6 above). Given the age and significance of these and potentially other materials associated with the mine, and those that served (or potentially served) a mid-twentieth century military function, it is reasonable to suggest that they too could be considered historic resources that may warrant registration with the PAO, Heritage NL and/or the Town of Placentia. Therefore, for the purposes of this HROA report, these other facilities and materials are considered significant historic properties and the terrain where they are situated is rated as having High potential and is delineated accordingly on the Project mapping presented below.

Other locations within the Project Area considered to have High potential for historic resources (notably archaeological materials) include all coastal shorelines with a beach suitable for landing and deploying small craft, either Precontact or Historic Period vessels, with terrain near the shore that is relatively level and well-drained and generally suitable for human settlement by Indigenous, European and/or European-derived peoples. Also considered High potential is similarly appropriate topography along river systems or streams, and terrain that is situated at the mouths of such watercourses where they empty into the sea. Inland locations considered to have High potential include the shorelines of ponds where the ground is amenable to settlement, particularly along narrow strips of land that form a potential pathway between ponds or along the shorelines of brooks or small rivers connecting waterbodies.

Of course, a key factor in any traditional type land-use involving habitation, either during the Precontact or Historic Periods (but including a twentieth century military use), is the availability of food resources, and while the marine shoreline of the Project Area and the adjacent offshore within Placentia Bay and potentially Northeast Arm were likely bountiful in this regard at certain times of year, resources of the interior portion of the Project Area have almost certainly always been relatively limited. If people did

reside in the interior or near-coastal sectors of the Project Area during winter in locations near freshwater where fish, small game, and wood may have been available (i.e., for winter-housing or for temporary encampments), they may have had to expand their range periodically to include locations further inland on the Avalon Peninsula where other food resources may have been more plentiful.

Areas considered to have Medium potential for historic / archaeological resources include locations like those described above, but with physical assets that are less pronounced and apparent. Low potential areas, none of which are mapped for this study, would include all other terrain within the Project Area that is not rated as High or Medium.

Regarding the various potential ratings defined for the Project, a rating of High would mean that there is a strong likelihood that archaeological materials and/or other types of historic resources (known or unknown) exist within the area delineated on mapping. A rating of Medium suggests that the potential for cultural materials is mid-range and is neither High nor Low. While the bulk of the landscape within the Project Area is considered to have Low potential, which is indicated by it not being delineated as either High or Medium, this is not meant to imply that the terrain has no potential whatsoever. It simply suggests that, while there is a possibility that traditional land-use of a type that would have left *in situ* physical evidence on or in the ground occurred, it is not likely. In general, Low potential terrain has topographic and/or hydrographic attributes (such as wet, steeply sloped and/or uneven ground) that is generally considered unsuitable for past human habitation. Additionally, Low potential locations include terrain where ground alterations have occurred to such an extent that any extant evidence of earlier occupations has almost certainly been extensively disturbed or destroyed, such as that which likely occurred on the Argentia Peninsula.

The following three sections of this report summarize the historic resources / archaeological potential of the three separate Project sectors and include tables listing the reference code for each individual Potential Area (identified as PA-1, PA-2 and so on), which Project sector each is located in, a brief description of the physical setting and a general statement regarding the rationale for selection, whether any Project interactions are anticipated, the elevation of the location above sea-level, and the potential rating assigned. Also presented below are figures showing where each Potential Area is located, along with an outline of its full physical distribution.

4.2 Argentia Peninsula

While the peninsula where the former community known as Petit Plaisance, Little Placentia, and eventually Argentia was situated almost certainly had been visited by Indigenous Peoples during the Precontact Period, any evidence of such land-use was probably located near the sea and, therefore, may have been impacted by European settlers in the Early Historic Period and during more recent times. Also, given the vast amount of ground disturbance that unquestionably occurred during the mid-late twentieth

century for construction, operation, and subsequent decommissioning of the Argentia Naval Air Station, and for more recent industrial uses, any physical evidence of Precontact and/or Historic-Period occupations by either Indigenous, Europeans or European-derived peoples would almost certainly have been disturbed or destroyed (Figure F-4.2-1). Thus, it is concluded that the archaeological potential of the sector of the Project Area referred to the Argentina Peninsula is Low and the likelihood of the current Project contributing to further disturbances of cultural resources is negligible.



	Registered Archaeological Site
	Preliminary Turbine Locations
	Project Interconnect Line
	Collector Lines
	Project Roads
Areas of Potential Archaeological Significance	
	High Potential
	Medium Potential
	Argentia Green Fuels Facility
	Project Area

	FIGURE NUMBER: F - 4.2 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 17/05/2024
	FIGURE TITLE: Current aerial image of the Argentia Peninsula showing existing infrastructure	NOTES: The location of proposed project infrastructure is considered preliminary and is subject to change.	REVIEWED BY: 	APPROVED BY:
	PROJECT TITLE: Argentia Renewables			

4.3 Argentia Backlands

Over and above the one archaeological site registered for the Backlands (ChAI-14 - listed here as PA-1 on Figure F-4.3-1), there are at least three other locations with armaments and/or structural remains that appear to derive from the mid-twentieth century US military presence in the area. One location, listed on Project mapping as PA-2 (see Figure F-4.3.1) is comprised of the concrete and steel bases for two large anti-aircraft / anti-submarine guns positioned on the high ground at the western end of the Argentia Backlands overlooking Argentia Harbour. These military ruins, though likely contemporary with the structures comprising ChAI-14, are not registered as an archaeological site with the PAO, nor as an architectural resource with Heritage NL, or as a Municipal Heritage Site with the Town of Placentia. Referred to as the 281 Coastal Defense Battery, the area where they structures are situated is rated as having High potential in a table below and the location is referenced as PA-2 on the associated mapping (Figure F-4.3-1).

In addition to PA-1 and PA-2, there are two other locations within the Argentia Backlands where structures known to be associated with the WWII defense of the Naval Air Station at Argentia are situated. One, listed as PA-18 in Table F-4.3-1 and shown on Figure F-4.3-1 below, is referred to as a Command Bunker, and though rated as having High potential in this HROA report, it is not registered or designated in any way as a historic resource with archaeological or architectural significance. The second location, known as 282 Coastal Defense Battery (listed as PA-19 in Table F-4.3-1 and shown on Figure F-4.3-1 below), is registered as an architectural resource with Heritage NL and as a Municipal Heritage Site with the Town of Placentia.

Within the Argentia Backlands sector of the Project Area, there are three (3) other areas suspected of having similar remains as those described above, and these are also rated as having High potential and are listed as PA-5, PA-6, and PA-16 in Table F-4.3.1 and are shown on Figure F-4.3-1. An additional location of High potential situated within the Argentia Backlands is the terrain along Broad Cove Brook, where physical infrastructure associated with the Silver Cliff Mine was established and operated intermittently from the 1880s until the late-1920s. This area, referred to as PA-17, is listed in Table F-4.3-1 below and is delineated on Figure F-4.3-1. Three other areas identified as having High potential within the Argentia Backlands component of the Project Area include sections of coastal shorelines and pond and river frontage, all of which are listed in Table F-4.3-1 below along with their potential rating and other relevant information, and each is shown on Figure F-4.3-1. There are eight locations within the Argentia Backlands listed as having Medium potential for historic / archaeological resources as they too are situated near waterbodies but at locations with less notable landscape features typically associated with past human settlement (see Table F-4.3-1 and Figure F-4.3.1).

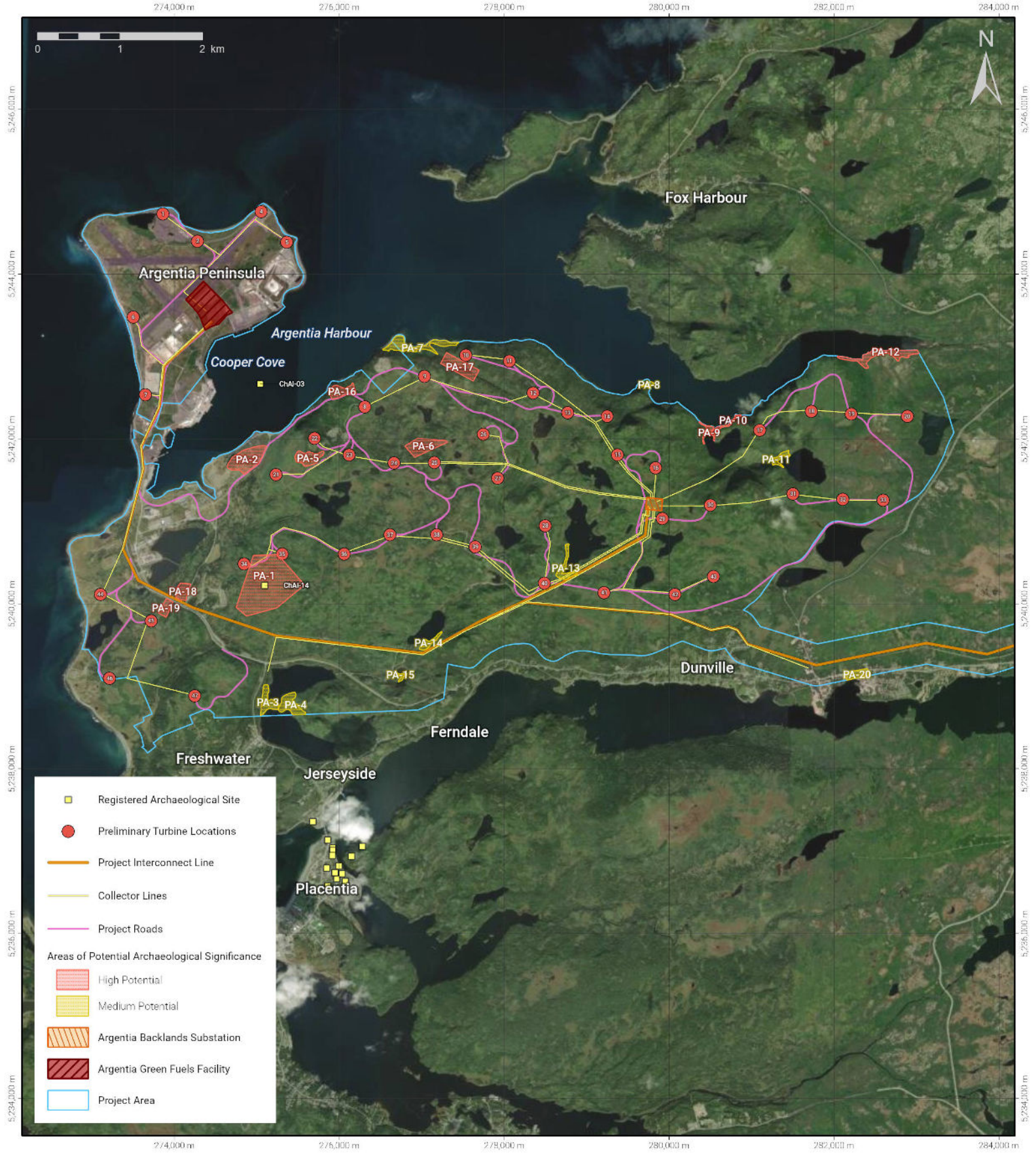


	FIGURE NUMBER: F - 4.3 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 14/06/2024
	FIGURE TITLE: Current aerial image of the Argentia Backlands showing Potential Areas PA-1 - PA-20	NOTES: The location of proposed project infrastructure is considered preliminary and is subject to change.	REVIEWED BY: 	APPROVED BY:
	PROJECT TITLE: Argentia Renewables			

Table F-4.3-1 Areas of Historic Resources Potential within the Argentina Backlands.

Reference Code	Area Description	Project Interaction	Metres above sea level	Potential Rating
PA-1	Registered archaeological site – ChAI-14 – 13 WWII military bunkers (PAO SRF)	Possibly Turbine 35	120	High
PA-2	WWII military ordnance – 281 Coastal Defense Battery.	No	40	High
PA-3	Pond frontage along waterway between Clarks and Larkins Ponds	No	40	Medium
PA-4	Pond frontage along waterway between Clarks Pond and Larkins Ponds	No	40	Medium
PA-5	Possible WWII military structures	No	110	High
PA-6	WWII Military bunkers (6)	No	110	High
PA-7	Coastal shoreline	No	0–10	Medium
PA-8	Coastal shoreline	No	0-10	Medium
PA-9	Pond frontage along waterway (Outside Shalloway Pond) and coastal shoreline	No	0-10	High
PA-10	Pond frontage along waterway (Outside Shalloway Pond) and coastal shoreline	No	0-10	High
PA-11	Pond frontage along waterway (Big Shalloway Pond)	No	60	Medium
PA-12	Coastal shoreline	No	0-10	High
PA-13	Pond frontage (Gull Pond)	No	120	Medium
PA-14	Pond frontage (Barrows Pond)	No	70	Medium
PA-15	Pond frontage (Barrows Ponds)	No	60	Medium
PA-16	Possible WWII military structure	No	40	High
PA-17	Late-19 – early-20 th century, above-ground mining infrastructure associated with Silver Cliff Mine	No	20	High
PA-18	WWII command bunker	No	45	High
PA-19	WWII military ordnance – 282 Coastal Defense Battery (architectural resource)	No	25	High

4.4 Project Interconnect Line

Only four areas considered to have historic resources / archaeological potential have been identified for the Project Interconnect Line sector of the Project Area. These include one on the shoreline of Northeast Arm (PA-20), one on the north shore of Northwest River (PA-21), and two areas of waterfrontage on interior waterbodies (PA-22 and PA-23). Each is listed in Table F-4.4-1 below along with their potential rating and other relevant information, and each is shown on Figure F-4.4-1.

Table F-4.4-1 Areas of Historic Resources / Archeological Potential Along the Project Interconnect Line.

Reference Code	Area Description	Project Interaction	masl	Potential Rating
PA-20	Coastal shoreline – Northeast Arm	No	0-10	Medium
PA-21	River frontage – Northeast River	No	10-60	Medium
PA-22	Pond frontage (Ship Harbour Big Pond and unnamed pond)	Possible (within 500m corridor)	150	Medium
PA-23	Pond frontage (Rattling Brook Big Pond and two unnamed waterbodies)	Possible (within 500m corridor)	110	Medium

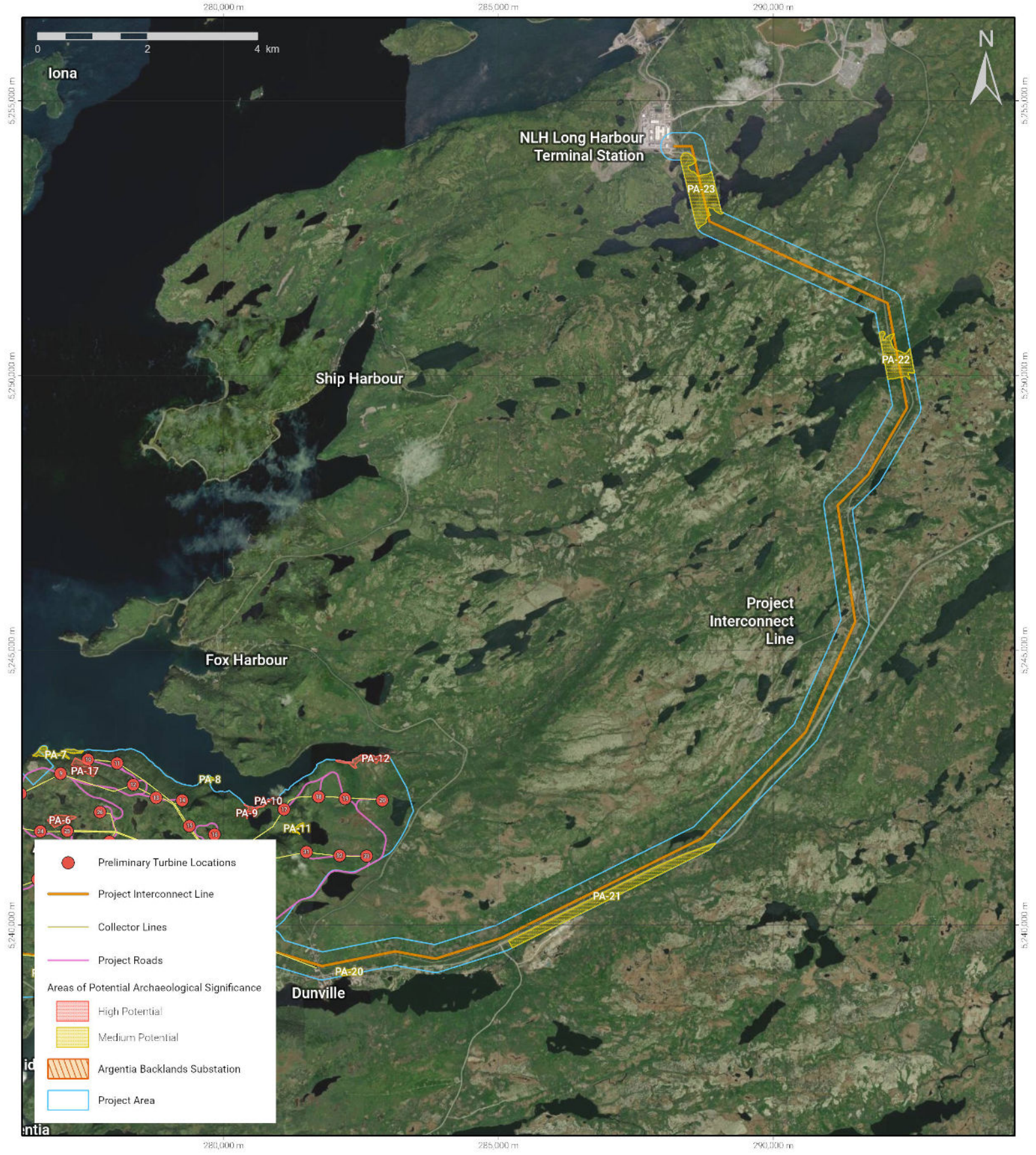


	FIGURE NUMBER: F - 4.4 - 1	COORDINATE SYSTEM: NAD 1983 CSRS UTM Zone 22N	PREPARED BY: C. Bursey	DATE: 17/05/2024
	FIGURE TITLE: Current aerial image of the Interconnect Line showing Potential Areas PA-20 - PA-23	NOTES: The location of proposed project infrastructure is considered preliminary and is subject to change.	REVIEWED BY: 	APPROVED BY:
	PROJECT TITLE: Argentia Renewables			

5.0 Conclusions and Recommendations

This HROA has researched the cultural / historical sequence of Newfoundland, with particular emphasis on Placentia Bay and the northeast portion of it where the Project Area is situated. The background and contextual data compiled from the information review indicates a human presence in that sector of the Island of Newfoundland extending back into the past at least 3,500 years or more and includes occupations by several different First Nations and Pre-Inuit Indigenous cultures during the Precontact, Early and later Historic Periods, as well as by Europeans and peoples of European decent starting sometime after 1,500 CE. In the late nineteenth century, the discovery of an ore deposit near the north shore of the Argentia Backlands resulted in the short-lived and intermittent operation of what was known as the Silver Cliff Mine. In more recent times, notably in the mid-twentieth century, there was a dramatic influx of people into the region from continental North America for military defense purposes, and activities related to various industrial developments continue to this day. Given the longstanding human usage of the region, as confirmed from the review of archaeological data, historical and current documentation and aerial imagery, there is theoretical potential that other sites and historic properties deriving from one or more of the groups mentioned above could be present within the Project Area.

The primary objective of the HROA was to prepare an initial statement on the historic resources / archaeological potential of the Project Area that could be used as a planning tool to help with decision making as it relates to the positioning of infrastructure throughout the landscape and, in so doing, help reduce the likelihood of any adverse Project interactions with the said resources. To this end, the background data was used to identify and plot on mapping the locations of the one known archaeological site and the one designated architectural resource situated within the Argentia Backlands, along with other WWII structures potentially worthy of registration with the PAO and/or Heritage NL. Also identified and rated for historic resources / archaeological was any terrain within the Project Area where the information review and professional judgement suggested other similar resources might occur.

As discussed, virtually all the terrain situated within the Project Area on the Argentia Peninsula is rated as having Low potential for historic resources and/or archaeological sites or materials due to the nature and extent of ground disturbances that occurred there during construction, operation and decommissioning of the US Naval Air Station in the 1940s CE and later, and use of the peninsula in relatively recent times for various industrial purposes. Though the Argentia Peninsula was undoubtedly occupied periodically by Indigenous Peoples during the Precontact and Historic Periods, and by peoples of European decent during the Early Historic Period and more-or-less continuously until the 1940s CE, the alterations of the ground, both on and below the surface, have likely destroyed, altered and/or dispersed any direct evidence of past human settlement worthy of registration with the PAO, Heritage NL or the Town of Placentia. While there are almost certainly foundations and other physical remains buried on the peninsula that derive from the WWII US military use and are contemporary with the structures comprising the archaeological site ChAI-14 and those associated with the 282 Coastal Defense Battery

(the architectural resource registered with Heritage NL), the significance of the material is such that no registration and protection under the **Historic Resources Act (1985)** is warranted or recommended.

Over and above the one archaeological site registered for the Project Area within the sector referred to as the Argentia Backlands – ChAI-14, which the PAO SRF indicates is comprised of 13 buildings associated with the WWII US Naval Air Station and Fort McAndrew - 18 other locations of potential significance were identified, one of which is the aforementioned 282 Coastal Defense Battery registered as an architectural resources of significance with Heritage NL that is rated as having High potential. Six other locations are also rated as having High potential, as they do or could contain structural and or artifactual objects associated with late-nineteenth to early-twentieth century mining activities or military remains dating to the same period and used for similar purposes as those located at ChAI-14. Four locations are also rated as having High potential, as they are situated in environmental settings that may have been used during the Precontact and/or Historic Periods for temporary settlement or other forms of land-use, and seven locations, with similar yet less pronounced and attractive landscape attributes, are rated as having Medium potential. All other terrain within the Argentia Backlands is rated as Low potential.

Although no archaeological sites are registered for the Project Interconnect Line, four locations have been identified as having Medium potential. One is a small section of coastal shoreline situated within Northeast Arm, one is a relatively long stretch of waterfrontage on Northwest River, and two locations are pond frontage on inland waterbodies. All other terrain within the Project Interconnect Line is rated as Low potential.

The principal recommendation of this HROA is the avoidance of: the one known archaeological site situated in roughly the central area of the Argentia Backlands (ChAI-14); the one registered architectural resources (the 282 Coastal Defense Battery) situated to the south of ChAI-14 overlooking Placentia Bay and the Argentia Naval Air Station; as well as all other locations within the Project Area rated as having elevated potential for historic resources, with particular emphasis placed on those rated as being of High potential. If avoidance of these locations is not possible, field assessment and recording in a HRIA may be required prior to commencement of any Project-related ground-disturbing activities. However, if the areas identified as having elevated potential can be avoided, with appropriate buffers established to ensure that no disturbances occur, a HRIA of these areas may not be required. To further reduce the likelihood of any adverse interactions with historic resources, including archaeological and/or other types of heritage sites or materials, once a Final Plan showing the physical layout of the Project is completed for the Argentia Backlands and the terrain comprising the Project Interconnect Line, it should be overlaid on the mapping that shows the areas of potential within these two Project sectors, just to confirm that no interactions are imminent.

An additional recommendation of this HROA is for the development of a detailed Contingency Plan that outlines the measures and procedures to follow and the personnel to be contacted at the PAO if any

suspected historic resources or archaeological materials are encountered on the surface or are unearthed during any phase of the Project. It is also recommended that the Contingency Plan be provided to and discussed with all personnel working on the Project, particularly those involved in ground disturbing activities.

As mentioned earlier, fossils are protected under the **Historic Resources Act (1985)** and are inventoried by the PAO. However, no palaeontological resources are registered for the Project Area and the potential of any being present is Low due to the nature of the geology within that area of Placentia Bay (personal communication: Dr. R. Taylor and G. Squires).

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