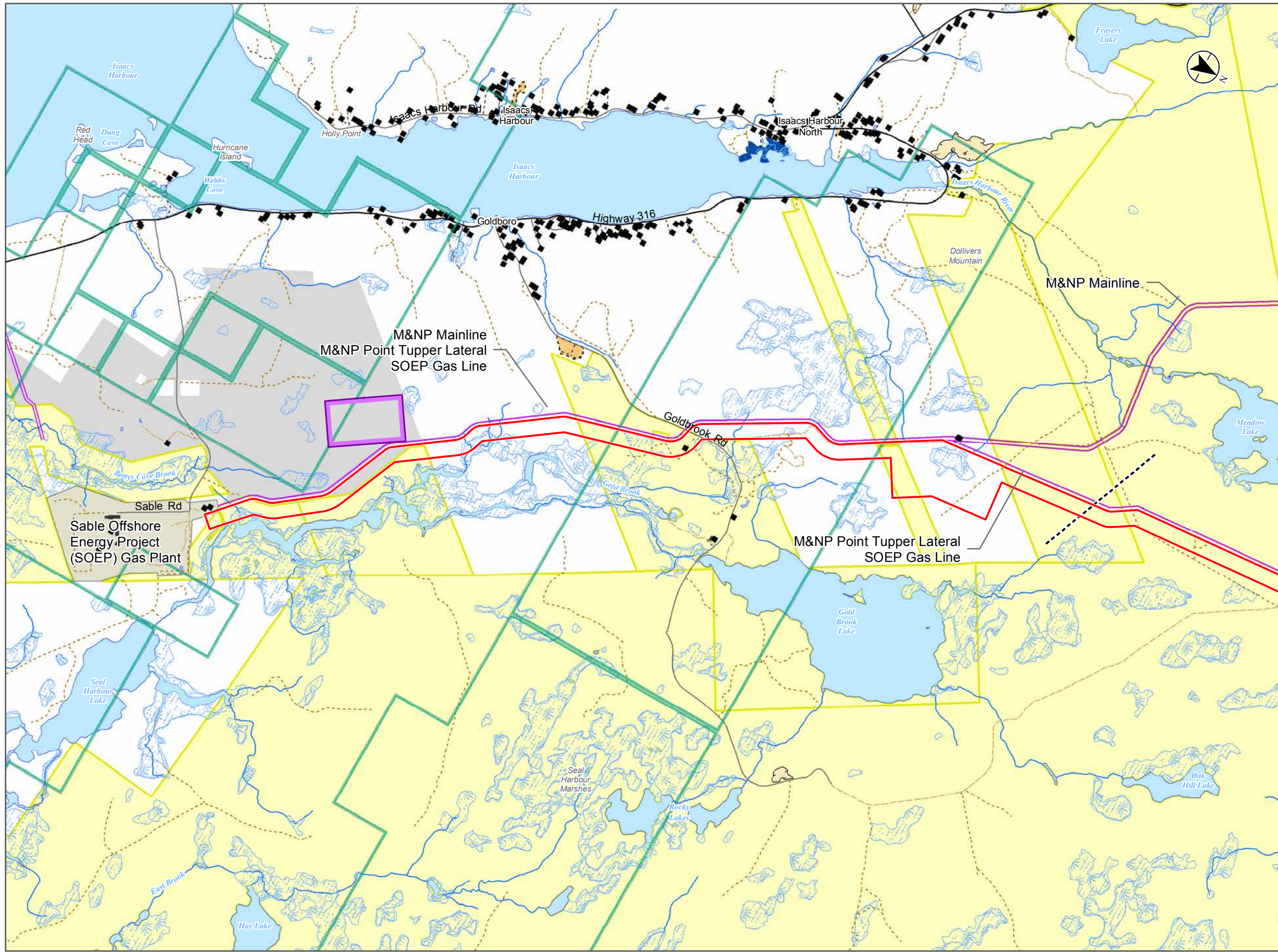


March 2016

APPENDIX G LAND AND RESOURCE USE MAPBOOK



March 2016



Land and Resource Use

Study Features

- Building/Structure
- Parks and Protected Areas
 - ▨ Designated
 - ▨ Pending Designation
- Crown Land
- ▨ Existing Pipeline Right of Way
- Industrial
- ▨ Exploration License
- Cemetery
- Oil/Petroleum Refinery
- Pit or Quarry

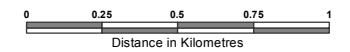
Project Components

- ▨ Assessment Corridor
- ▨ Compressor Station

Map Features

- Collector/Arterial Road
- Local Road
- - - Private/Restricted Road
- - - Seasonal Road
- - - Track/Trail
- Watercourse
- Waterbody
- ▨ Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.

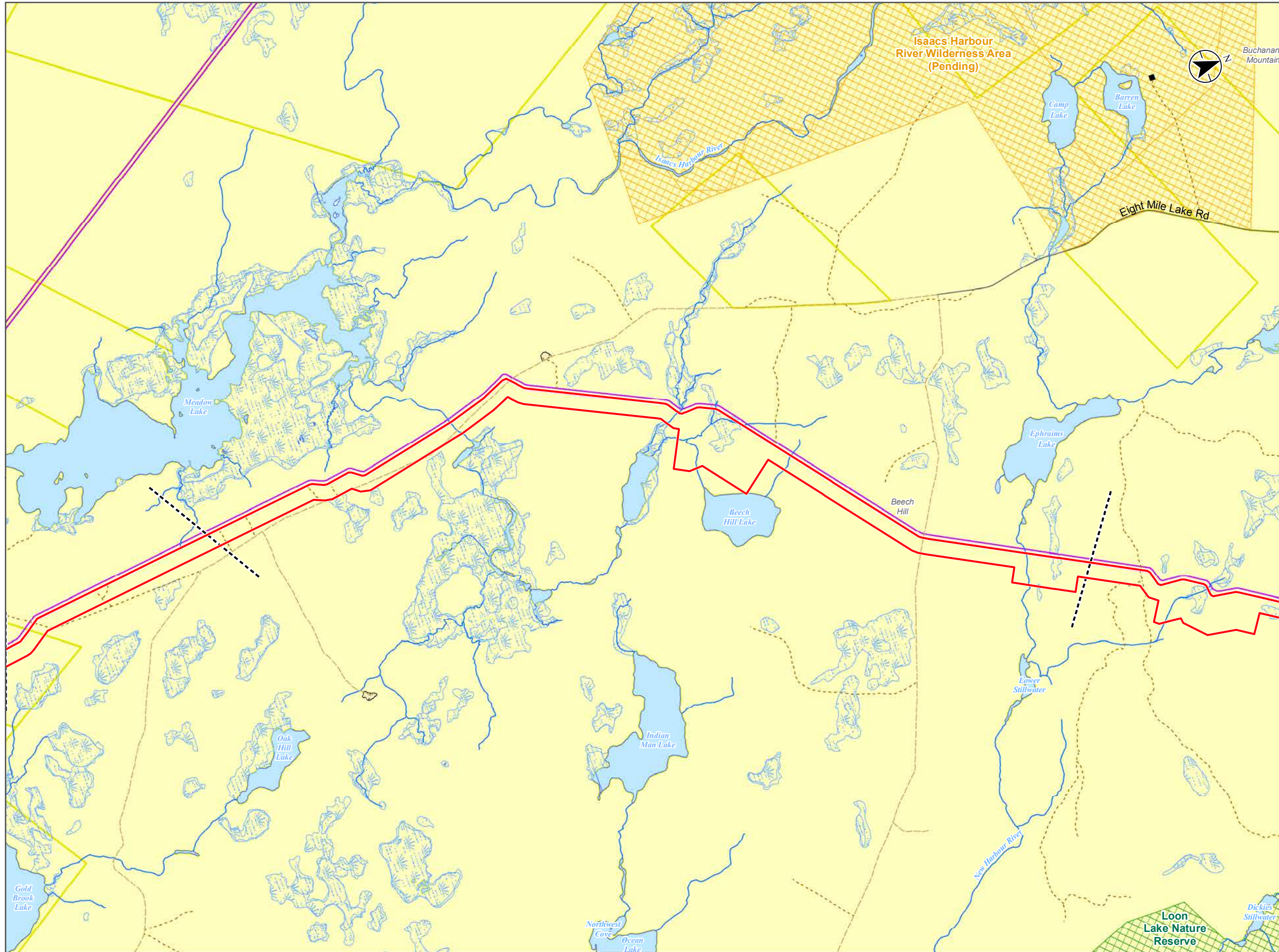


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BEAR PAW PIPELINE PROJECT



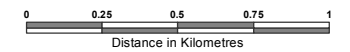


Land and Resource Use

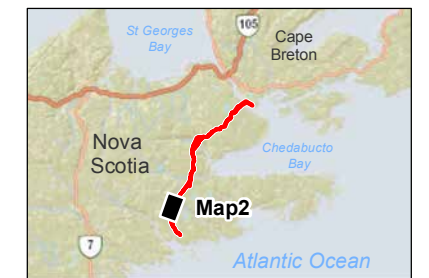
Study Features

- Building/Structure
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- ▨ Existing Pipeline Right of Way
- Pit or Quarry
- Project Components**
- ▨ Assessment Corridor
- Map Features**
- Local Road
- - - Seasonal Road
- - - Track/Trail
- Watercourse
- Waterbody
- ▨ Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.

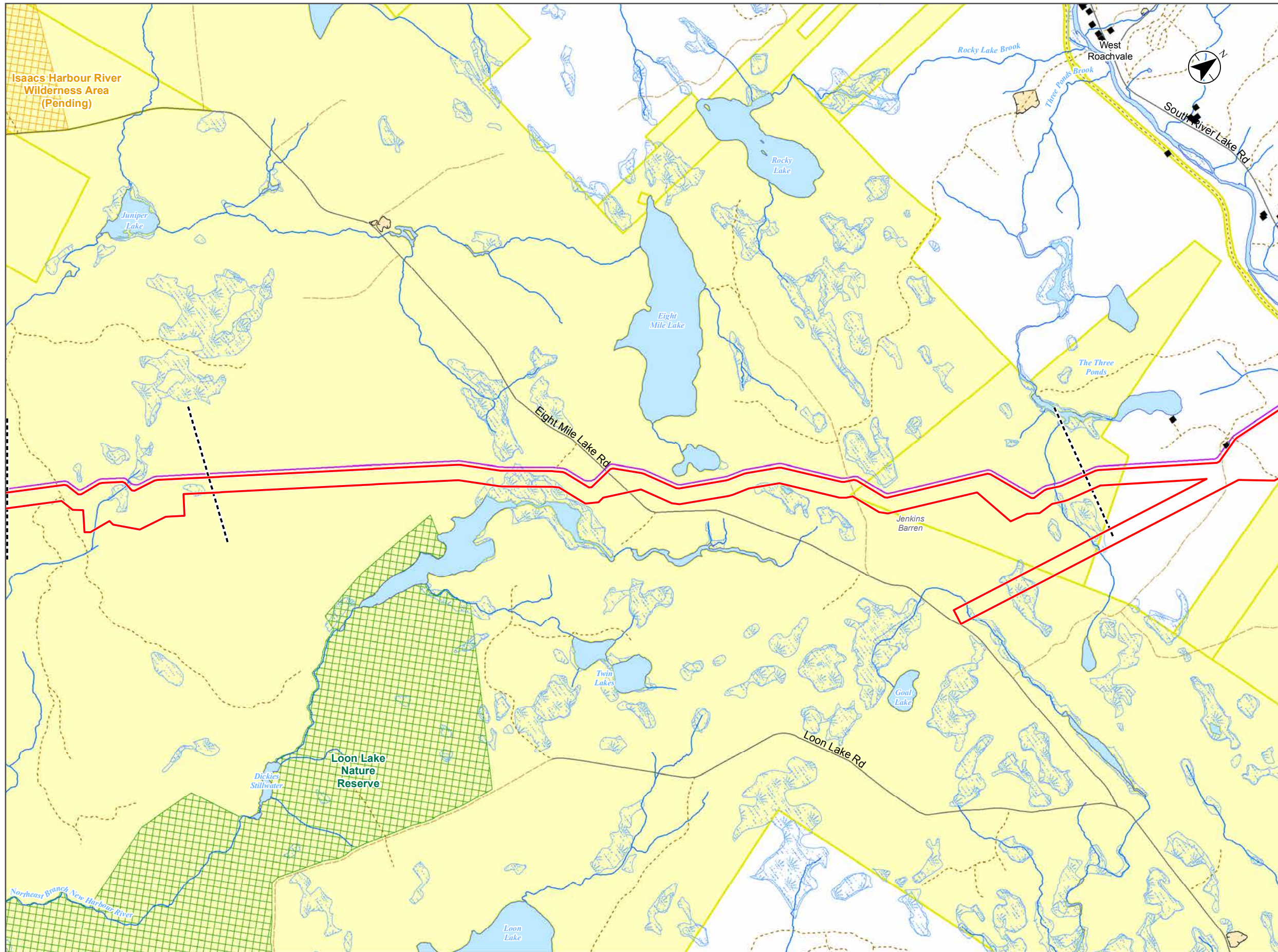


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BEAR PAW PIPELINE PROJECT





Land and Resource Use

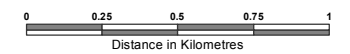
Study Features

- Building/Structure
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- Existing Pipeline Right of Way
- Electric Generating Station
- Pit or Quarry
- Project Components**
- ▭ Assessment Corridor

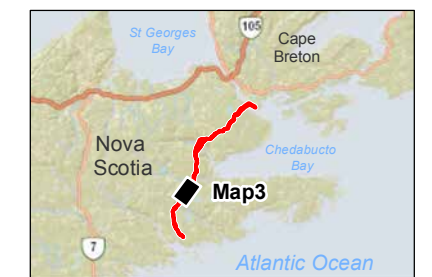
Map Features

- Local Road
- - - Private/Restricted Road
- · - Seasonal Road
- · - Track/Trail
- Watercourse
- Waterbody
- ▨ Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.



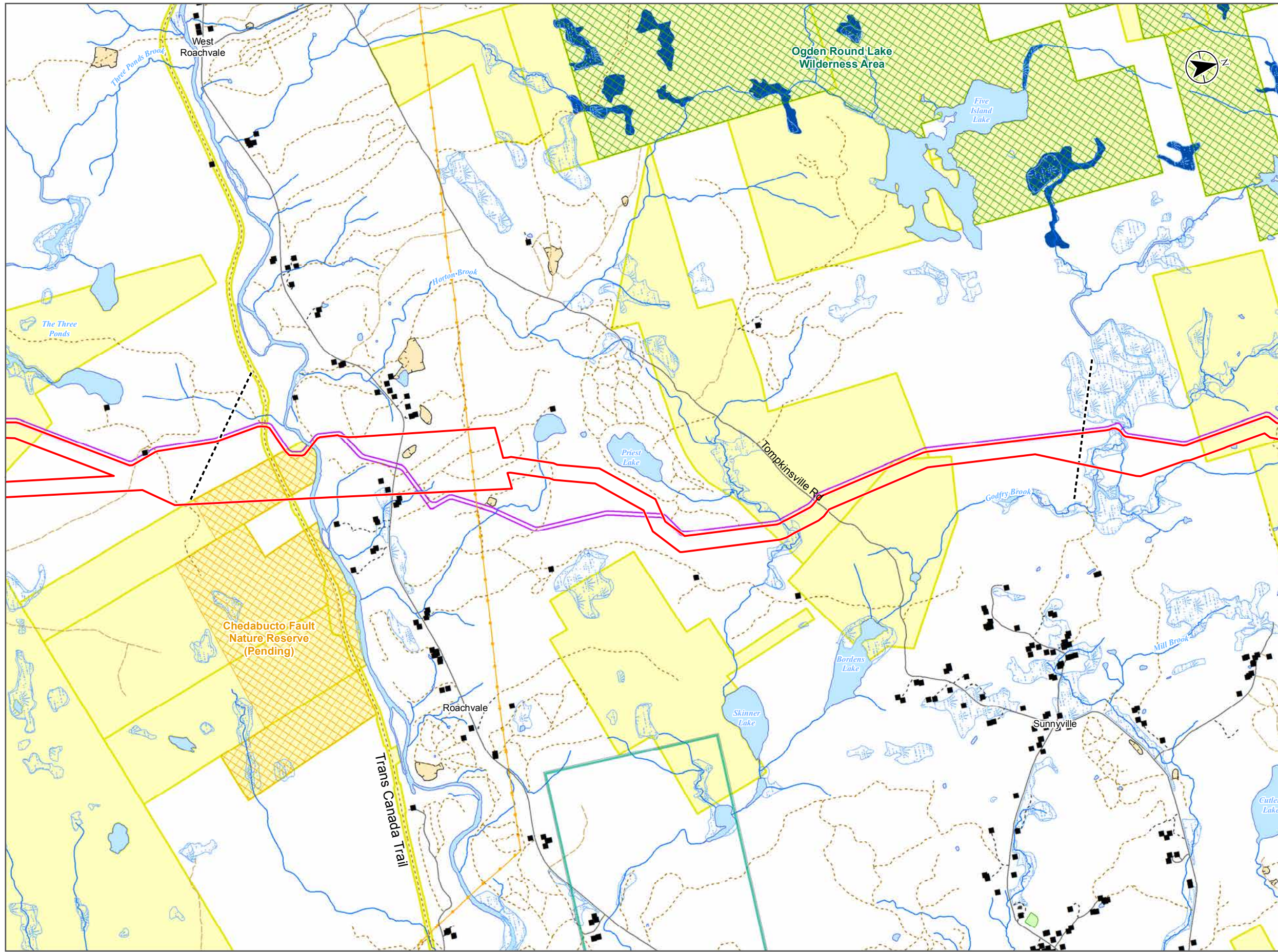
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BEAR PAW PIPELINE PROJECT





Land and Resource Use

Study Features

- Building/Structure
- Transmission Line
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- ▭ Existing Pipeline Right of Way
- ▭ Exploration License
- Electric Generating Station
- Pit or Quarry
- Sports Field

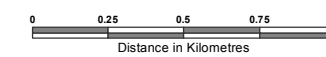
Project Components

- ▭ Assessment Corridor

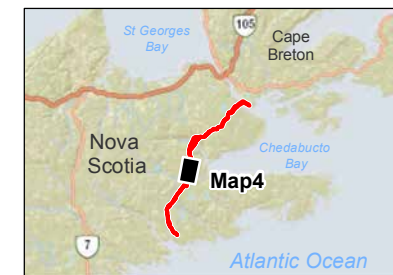
Map Features

- Local Road
- - - Private/Restricted Road
- - - Seasonal Road
- - - Track/Trail
- Watercourse
- Waterbody
- ▨ Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.

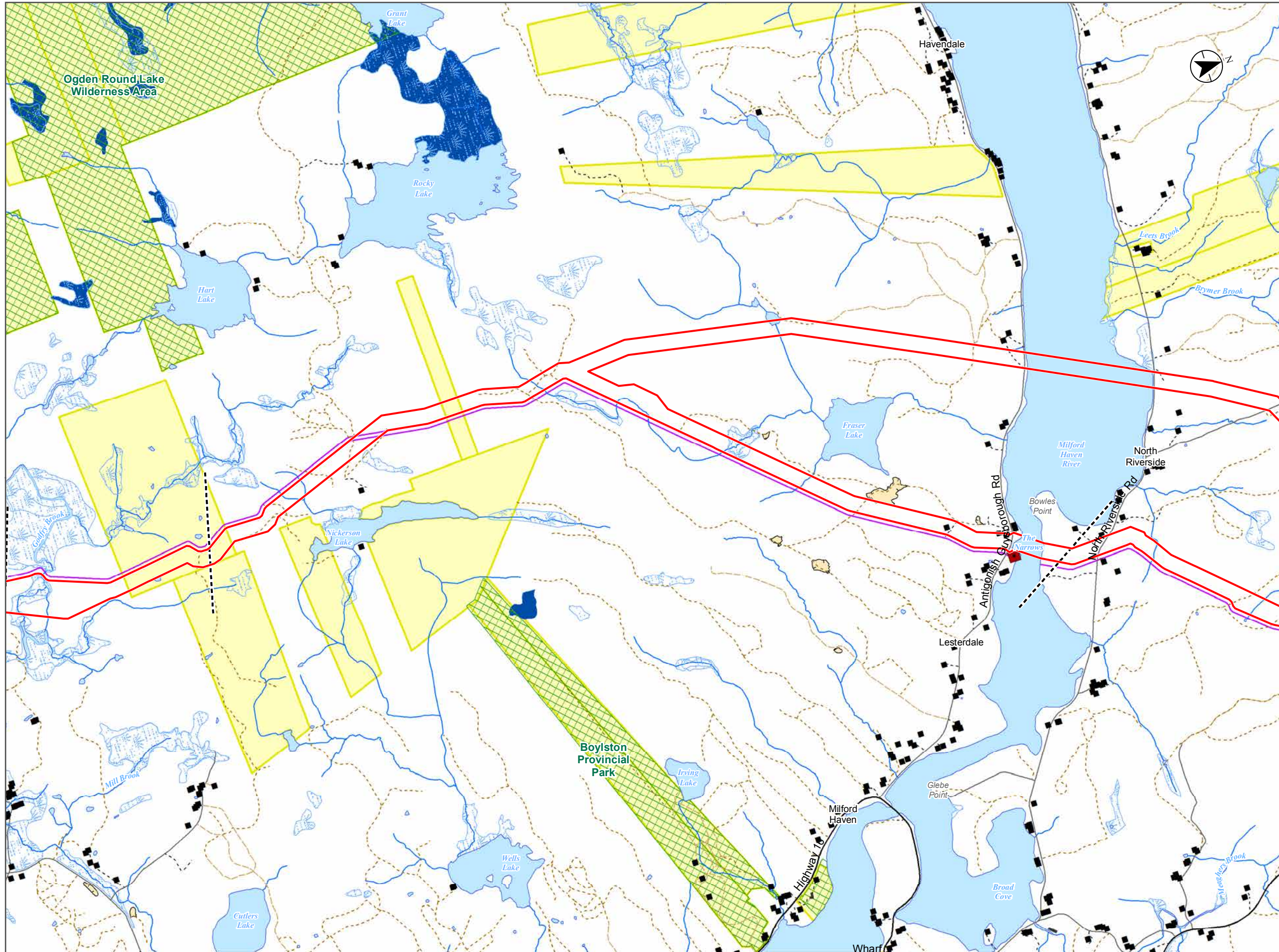


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BEAR PAW PIPELINE PROJECT





Land and Resource Use

Study Features

- Building/Structure
- Pumping Station

Parks and Protected Areas

- ▨ Designated
- ▨ Pending Designation

- Crown Land
- Operational Non-Designated Parks and Reserve
- Existing Pipeline Right of Way
- Pit or Quarry

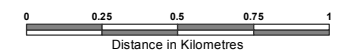
Project Components

- Assessment Corridor

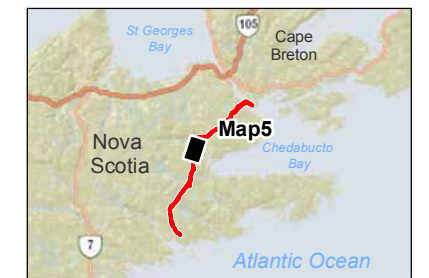
Map Features

- Collector/Arterial Road
- Local Road
- - - Private/Restricted Road
- - - Seasonal Road
- - - Track/Trail
- Watercourse
- Waterbody
- Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.



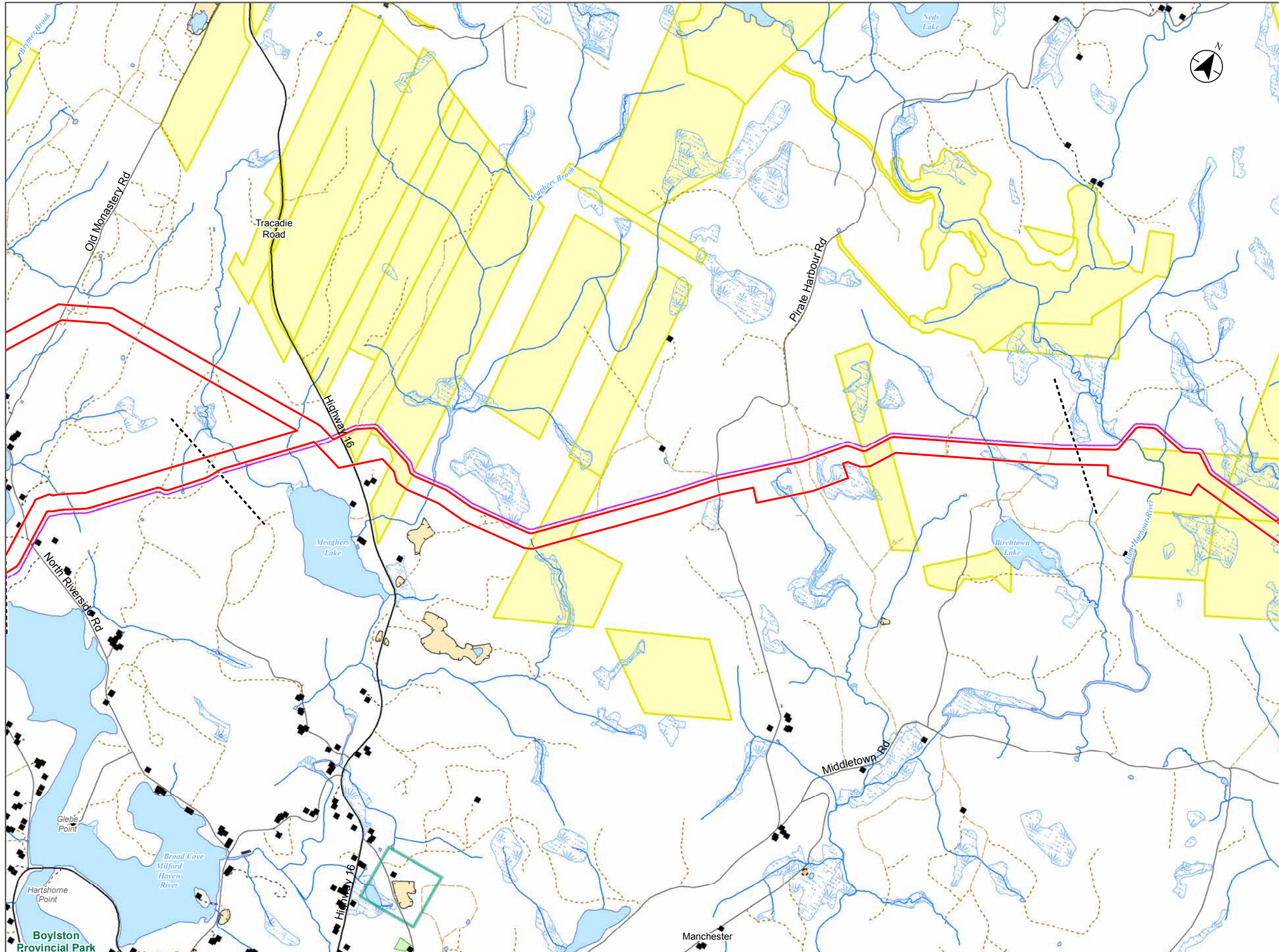
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BEAR PAW PIPELINE PROJECT





Land and Resource Use

Study Features

- Building/Structure
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- Existing Pipeline Right of Way
- Exploration License
- Cemetery
- Pit or Quarry
- Sports Field

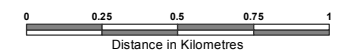
Project Components

- Assessment Corridor

Map Features

- Collector/Arterial Road
- Local Road
- - - Private/Restricted Road
- - - Seasonal Road
- - - Track/Trail
- Watercourse
- Waterbody
- Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.



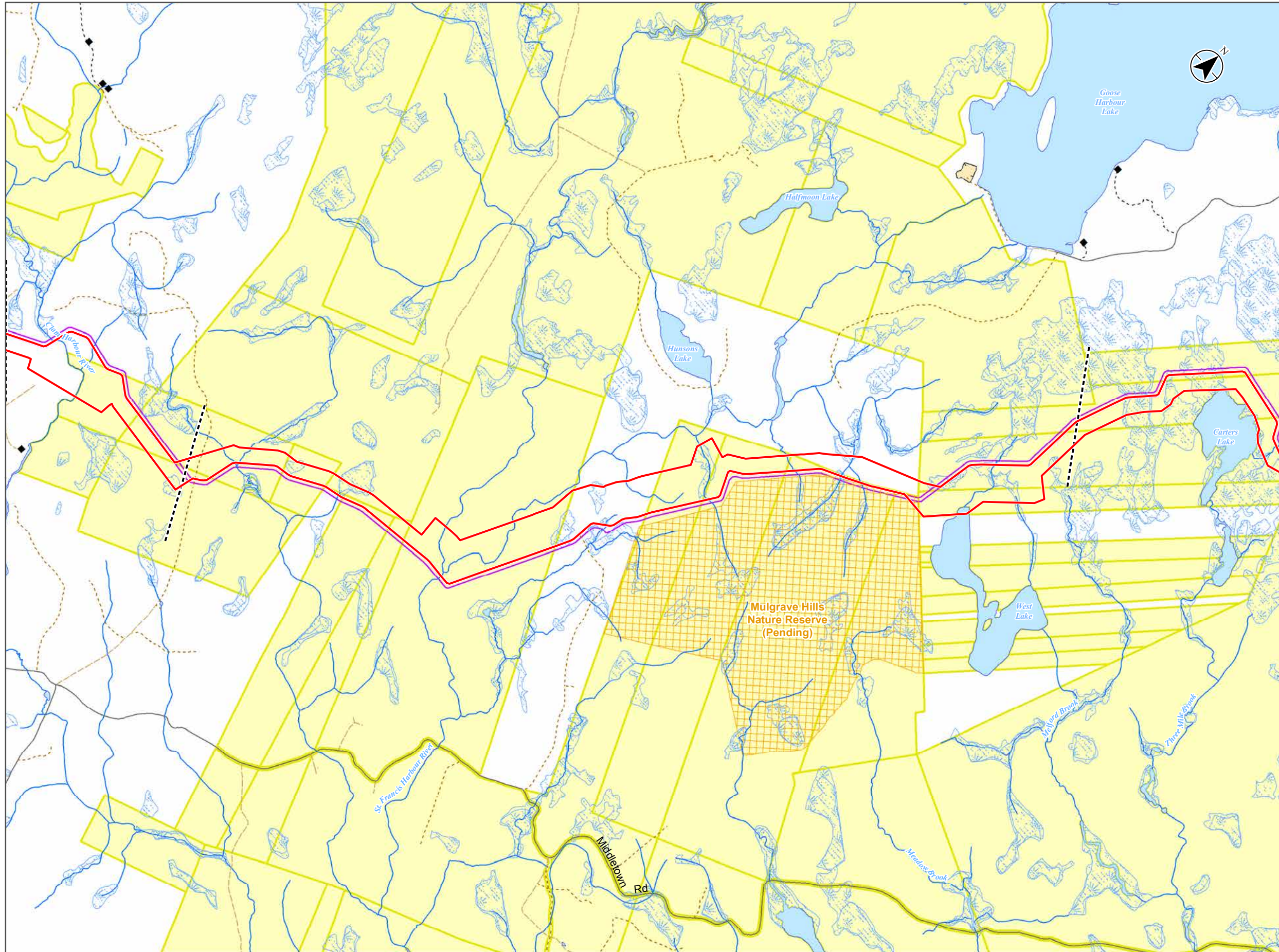
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Disclaimer: This map is for illustrative purposes to support this Stantec project; questions can be directed to the issuing agency.

BEAR PAW PIPELINE PROJECT





Land and Resource Use

Study Features

- Building/Structure
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- Existing Pipeline Right of Way
- Pit or Quarry

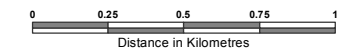
Project Components

- Assessment Corridor

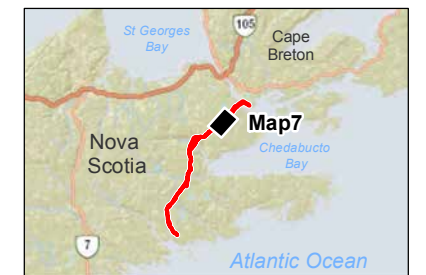
Map Features

- Local Road
- - - Private/Restricted Road
- · - Seasonal Road
- · - Track/Trail
- Watercourse
- Waterbody
- ▨ Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.

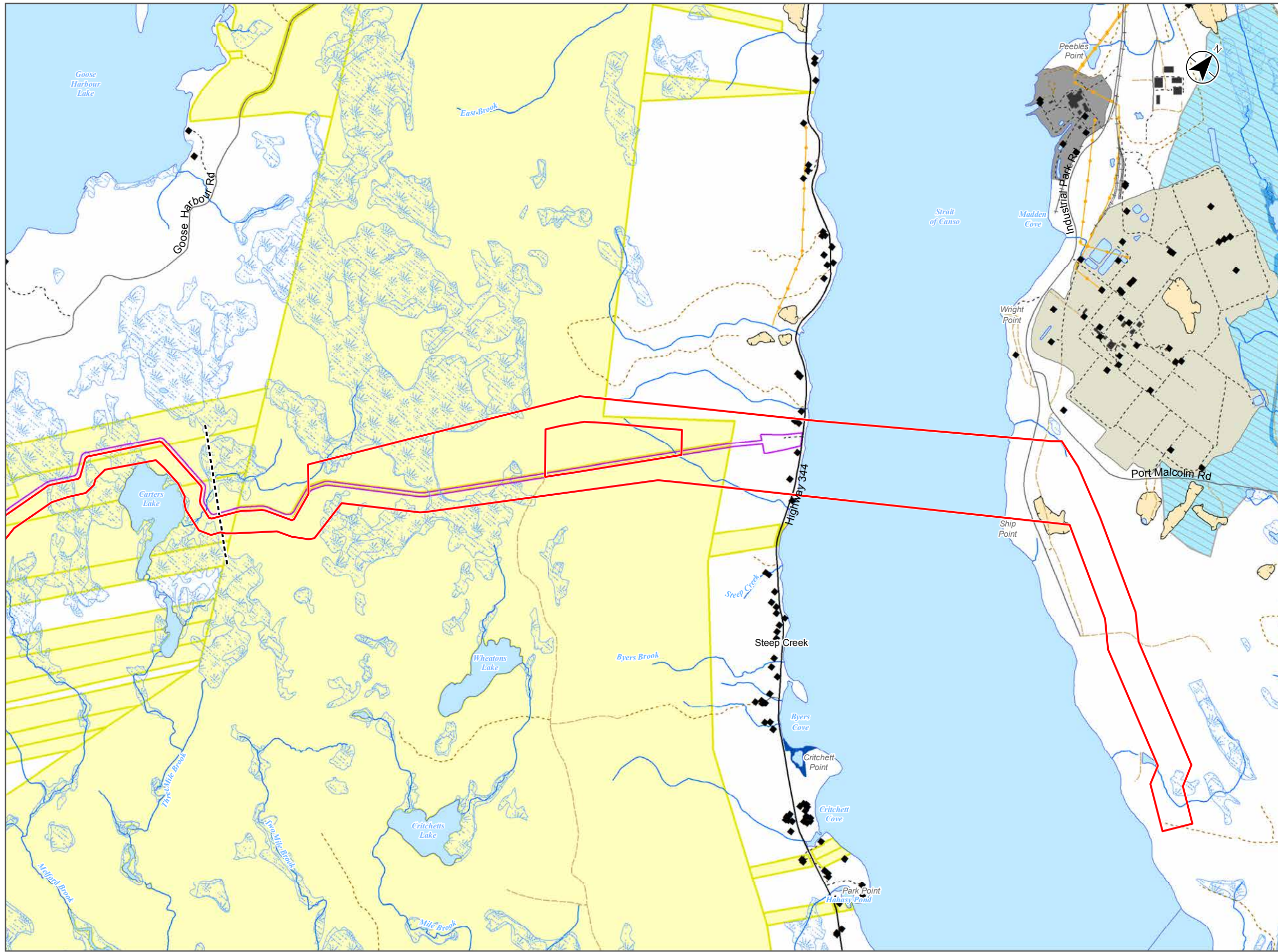


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BEAR PAW PIPELINE PROJECT





Land and Resource Use

Study Features

- Building/Structure
- Transmission Line
- Parks and Protected Areas**
- ▨ Designated
- ▨ Pending Designation
- Crown Land
- Provincially Protected Water Supply Areas
- Natural Watershed Municipal Surface Water Supply Areas
- Existing Pipeline Right of Way
- Electric Generating Station
- Oil/Petroleum Refinery
- Pit or Quarry

Project Components

- ▭ Assessment Corridor

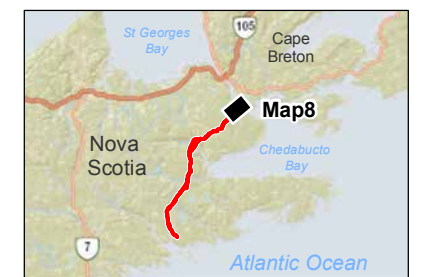
Map Features

- Collector/Arterial Road
- Local Road
- Private/Restricted Road
- Railway
- Seasonal Road
- Track/Trail
- Watercourse
- Waterbody
- Wetland
- Provincial Wetlands of Special Significance
- Building/Structure Area
- Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia.



ST NS 121413598-055 NAD 1983 CSRS UTM Zone 20N



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BEAR PAW PIPELINE PROJECT



March 2016

APPENDIX H DRAFT ARCHAEOLOGICAL IMPACT ASSESSMENT (NIVEN 2015)



March 2016

**INITIAL ARCHAEOLOGICAL IMPACT ASSESSMENT –
BEAR PAW LNG PIPELINE
(HRP A2015NS099)**

Laird Niven

Stantec Consulting Inc. | 102-40 Highfield Park Drive, Dartmouth, NS, B3A 0A3

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Introduction	1
Project Description	3
Environmental Setting.....	3
Corridor Selection Process	5
Project Components and Activities	6
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High Potential Areas.....	7
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INTRODUCTION

Bear Paw Corporation Inc. (Bear Paw Pipeline) plans to construct, operate and maintain a natural gas transmission pipeline to move gas from the Goldboro area to the location of a proposed liquefied natural gas (LNG) export facility at Bear Head, in Point Tupper (Figure 1). The project is located in an area that has been previously studied for archaeological potential with several archaeological resource impact assessments occurring in the area beginning in 1996 with varying complexities and scope. The Local Assessment Area (LAA) follows, where possible, two existing pipeline routes, which has undergone archaeological assessments, which are summarized below.

The 2015 archaeological assessment for the Bear Paw focused on areas within the LAA that are outside the scope of previous assessments and those areas that should be assessed. Three areas were therefore identified as having elevated potential for containing archaeological resources: Steep Creek, Salmon River, and a site near Eight Mile Lake Road. Fields surveys were conducted at these sites where they were located on Crown land and are discussed below.

Overall, the LAA has been well studied for archaeological potential, and 2015 surveys did not identify areas with high potential. Further study is recommended at Salmon River and monitoring should occur during construction activities.

PROJECT OVERVIEW

Bear Paw Pipeline proposes to construct a natural gas pipeline (Bear Paw). Bear Paw would interconnect the M&NP mainline, offshore gas and other supplies near Goldboro, Nova Scotia, to Bear Head which lies within the Point Tupper Industrial Park, near the town of Port Hawkesbury, Nova Scotia (Figure 1). One hundred percent of the shares of both Bear Paw Pipeline and Bear Head LNG are ultimately owned by LNGL. None of LNGL, Bear Paw Pipeline or Bear Head LNG has any common ownership or corporate affiliation with M&NP.

Bear Paw consists of the following components:

- a 42" pipeline extending approximately 62.5 km from a point along the existing M&NP main transmission line near Goldboro, Nova Scotia to Bear Head, near Port Hawkesbury, Nova Scotia;
- compression, metering and associated facilities; and
- temporary ancillary facilities and access roads.

Bear Paw will be operated as a standalone pipeline serving the needs of Bear Head and will not be subject to the control or direction of M&NP. Bear Paw Pipeline employees will be responsible for the operation, maintenance and monitoring of Bear Paw under the direction of Bear Paw Pipeline Management. In short, Bear Paw will be built as a lateral pipeline to serve its sole customer which is a corporate affiliate.

For planning and environmental assessment purposes, an assessment corridor has been selected, within which the pipeline will be located (Figure 1). The assessment corridor is approximately 100 m for most of the length of the pipeline; however in some areas the corridor is wider to accommodate areas where additional design options may be required (e.g., areas of challenging topography, watercourse crossings). The right-of-way (RoW) width required for construction will be approximately 35 m, not including additional workspace areas at crossings or for timber storage and processing.

There are two existing pipelines that run from Goldboro to Port Hawkesbury, namely the Sable Offshore Energy Project (SOEP) NPS 8 (or 8") Natural Gas Liquids (NGL) Pipeline that connects the gas plant at Goldboro to the fractionation plant at Point Tupper, and the M&NP NPS 8 Natural Gas (NG) Pipeline. These buried pipelines were designed and constructed at the same time, positioned within approximately 30 cm of each other, and share a common trench, crossing, and cathodic protection designs. Approximately 60 km of the assessment corridor follows the existing RoW for these pipelines.

Environmental Setting

Approximately 54% of the assessment corridor is privately owned and 46% is Provincial Crown land. The location of Bear Paw is predominately rural, containing few developed areas. Small clusters of residential dwellings are concentrated around the population centres of Goldboro, Sunnyville, Guysborough, Mulgrave, Point Tupper, and Port Hawkesbury. There are five Mi'kmaq communities located in the vicinity of Bear Paw: Paq̄tnkek, Waycobah, Wagmatcook, Potlotek and Millbrook. Collectively, these Mi'kmaq communities have a population of approximately 3,545.

Traditional land use in the area by the Mi'kmaq includes hunting, fishing, and harvesting resources for various purposes, including sustenance, medical, ceremonial and/or conservation (MGS 2015). The area is a source of plants, fish, and mammals to support the traditional way of life, however, species found in the area are likely commonly available in other parts of Nova Scotia.

- Bear Paw passes through four watersheds (Country Harbour River, New Harbour/Salmon River, Clam Harbour/St. Francis River and River Inhabitants), and approximately 69 watercourses. Bear Paw crosses the marine environment at two locations, at Milford Haven River, an estuarine environment, and the Strait of Canso.

There are approximately 240 ha of deer wintering area within the Assessment Corridor. Approximately 1 ha of this is listed as migratory bird habitat where the corridor crosses the Milford Haven River.

The majority of wetlands throughout the surrounding landscape are comprised of swamp. Coniferous treed swamps are particularly abundant but those having a mixedwood overstory are also common, as are those dominated by tall shrubs. Peatlands (i.e., bogs and fens) are prominent features within portions of the area, such as near Carters Lake and although of much lesser abundance, occurrences of marsh and shallow-water wetland classes are also present.



Figure 2 Steep Creek, detail from Sayer and Bennett, 1775

Corridor Selection Process

A preliminary preferred corridor will parallel the M&NP NPS 8 NG pipeline and SOEP NPS 8 NGL pipeline to the extent feasible, and will be identified within the assessment corridor. This will reduce the area of new disturbance, and avoid potential environmental constraints as much as possible. Because Bear Paw will require a pipe that is larger in diameter than those in the existing corridor, it is anticipated that the preferred corridor will have to deviate from the existing RoW in some places for constructability reasons. Areas where it may be difficult to follow the existing RoW include:

- sharp bends;
- steep and/or rocky terrain;
- water crossings;
- wetlands;
- other sensitive habitat; and

- near structures/buildings.

Identification of a final pipeline RoW within the preferred corridor will follow later in the EA approval process, based on detailed site-specific constraint mapping, field investigations, and information received from landowners, the public, other interested parties, and government agencies.

Project Components and Activities

The Project will consist of the construction and operation of approximately 62.5 km of new pipeline; the pipe will have an Outside Diameter (OD) of 1067mm (42"). There will be a need for one or more compressor stations, valve sites, and meter stations. The exact requirements and location of these will be determined early in conceptual design and included in the EA.

The width required for construction will be approximately 35 m wide, with additional temporary work areas required at watercourse crossings and construction staging areas. Marshalling yards, storage areas and temporary access roads will also be required. It is anticipated that existing roads can also be used for access during the operational phase.

BACKGROUND RESEARCH – PREVIOUS ARCHAEOLOGY

Since 1996 the assessment corridor has been subjected to a number of archaeological resource impact assessments of varying complexities and scope. These are presented below chronologically and by Heritage Research Permit number and with brief summaries of the work that was done.

A1996NS025

In 1996 archaeologists with Washburn Gillis identified a broad corridor between Goldboro and Point Tupper, NS that varied in width from approximately 15 km to 22 km. Mapping and databases were reviewed to determine if high level heritage constraints were present in the corridor. Various sources of information were combined in order to select a preferred 1 km side corridor. Once the preferred corridor was established, a predictive model was applied in order to identify areas of high potential for heritage resources. The predictive modeling involved a mapping exercise that used information gathered from existing databases and historic research in which 20 High Potential Areas (HPA) were identified.

A1997NS025 (Washburn Gillis SOEP)

In 1997 a detailed archaeological assessment was done on the 25 m wide easement. The entire length of the easement was assessed and a testing protocol for HPAs was implemented in compliance with the Nova Scotia Museum.

A1997NS48 (Washburn Gillis SOEP)

This project involved a jackstay search of the Milford Haven River bottom by two scuba divers. The divers used the jackstay to orient themselves for a search pattern as they used steel rods for sub-bottom probing.

A1998NS013 (Washburn Gillis SOEP)

The 1998 field season involved the investigation of alignment changes and the implementation of certain mitigation recommended in 1997.

A1999NS02 (Washburn Gillis SOEP)

The 1999 field season involved the investigation of Temporary Work Rooms (TWRs), Emergency Response Locations (ERLs), and flagging of heritage resources features within the easement.

A1999NS16 (Washburn Gillis SOEP)

In 1999 additional investigations were completed on alignment changes and the first 7 km of the NGL pipeline.

A2005NS93 (Jacques Whitford NGL)

This report concluded that previous archaeology has identified all of the heritage concerns within the assessment area but that the route of the proposed pipeline project heightened the probability that archaeological features on two sites, Salmon River Farmstead (BiCj-07) and the Steep Creek Site (BjCi-02), would be adversely impacted. It was recommended that further archaeological testing in the form of formal test units be conducted on both sites to determine their significance. It was also recommended that these sites be monitored during the stripping and grubbing stage of the project. This includes the so-called Roachvale Road site, which is to the north of Bi-Cj-07, and is most likely associated with it. Finally, it was recommended that the area of the Tracadie Road Stone Feature (BiCj-08) be monitored during stripping and grubbing due to potential historic concerns shown on the Geological Survey of Canada maps.

High Potential Areas

A total of 20 high potential areas (HPAs) were identified through predictive modeling based on the 1 km wide corridor. In 1996 some of the HPAs were subject to a non-intrusive, visual assessment within the 1 km NGL pipeline corridor. In 1997 the HPAs were subjected to subsurface testing at 25 m intervals. In 1998, HPAs that still maintained elevated potential for heritage resources were subjected to subsurface testing at 5 m intervals.

Resource Inventory

Fifteen heritage resource sites were recorded within the NGL 1 km wide corridor during the 3 years of fieldwork. Nine sites were located within the easement and were impacted by pipeline construction. Of the six sites located outside the easement, one is considered significant. At Birchtown, a site was recorded consisting of several stone-lined cellars relating to a 19th century Black Loyalist settlement in the area. Based on established site significance criteria, the heritage

resource sites located within the easement were considered common and only required monitoring during construction activities. Construction monitoring was also recommended for areas where uncertainty still existed.

Background Research – Historical

There is very little in the way of historical background for the three survey areas considered for this project.

Steep Creek

A definitive reference to Cape Breton in 1594 seems to be the earliest acknowledgment of the Strait of Canso's existence.¹ A 1775 map shows the Steep Creek location, but has very little inland detail (Figure 2). The original land grant for the Steep Creek project area appears to have been 20 acres granted to a Douce Belhashe. Judging by the quote below from the grant would have been in the first quarter of the nineteenth century.

“STEEP CREEK, Guysborough County¹

“This rural area is located on the west side of the Strait of Canso on the eastern shore of Nova Scotia. Its name is descriptive, probably because a small stream in the area flows down a sharp incline to the strait. Edward McGuire received a grant of land here in 1817. By that time, he had already purchased the neighbouring lot to the south. Another grantee was Richard Carter in 1822. Gregory Duggan was schoolmaster here in 1831. A schoolhouse was built in 1867. A postal way office was established in 1855.”

“Steep Creek was the location of one of the ferries across the Strait of Canso in the early 19th century. Fishing and limited farming are the basic industries.”²

The 1876 A.F. Church map provides more detail and there are three possible buildings within the PDA: J.E. Carter; School House; and, J.H. Carr (Figure 3). The 2000 Jacques Whitford report ruled out the school as they tended not to have need for a cellar, which was used to store food. That being said, the 1886 Geological Survey of Canada map, which is much more detailed but focused on geology, shows only the school in or near the PDA.

The Eight Mile Lake area does not appear to ever have been inhabited.

Roachvale/Salmon River

“This rural area is located on the Salmon River west of the head of Chedabucto Bay on the eastern shore of Nova Scotia. About 1876 the inhabitants agreed to call the place “Rochvale” in honor of Rev. Peter De la Roche, the first rector of Christ Church, Guysborough. The Post Office Department misspelled the name “Roachvale.” James Imlay came to this part of the province in 1787 and in 1788

¹ Hart, 1975: 122

² <https://novascotia.ca/archives/places/page.asp?ID=644>

evaluated was a HDD Pipe String Layout area that ran from Eight Mile Lake Road north to KP22. The southern half of this area was on Crown Land, the northern half was not, and was therefore inaccessible. The survey was conducted using a handheld GPS unit with the salient waypoint preloaded. GPS tracking was also turned on so there would be a record of the areas the survey covered.

Steep Creek

The main focus of the Steep Creek survey was the HDD Pipe String Layout area that ran from roughly KP57 to KP54, where it intersects with the existing RoW (Figure 7). The eastern section of this area, which runs down to the Strait of Canso, was on private property and could not be evaluated. This section contains the Steep Creek Site (BjCi-02) a nineteenth century historic foundation. The survey began at KP57 and the assessment corridor was accessed through the existing RoW, up a very steep grade. KP57 is located on relatively level ground within a former clear-cut and the terrain had some undulating areas and some rocky out crops (Figure 8; Plate 1). The ground cover was a combination of very dense clumps of young spruce/fir, thick, woody underbrush, and, piles of old branches, which made following a GPS track extremely challenging. The visibility was generally very good, ranging from roughly 20 m to 50 m. The section between KP56 and KP55 had areas of more mature, mixed forest, but also more wet areas (Figure 9; Plate 2)). The survey was forced to skirt a relatively large wet area at roughly the 500m mark and encountered a very large wet area approximately 250 m east of KP55 (Figure 10; Plate 3). The survey was ended at this point. The conclusion at the end of this survey was that the area to the south of KP57 should be considered as having low potential for containing archaeological resources.

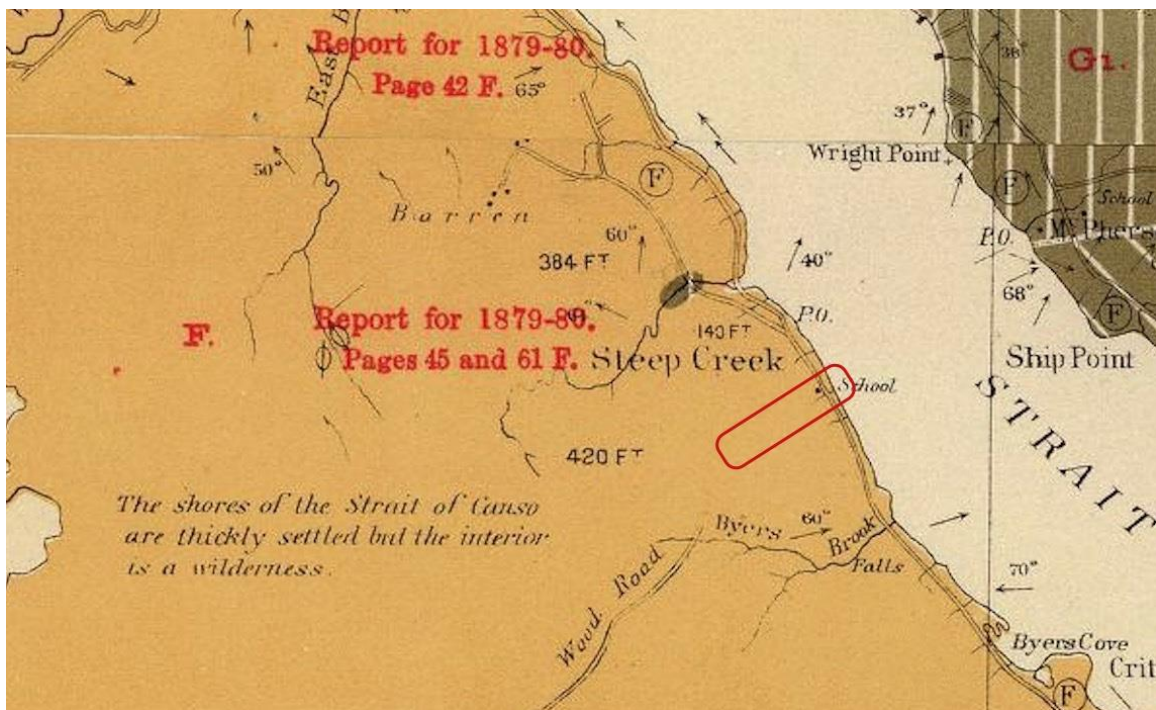


Figure 4 Steep Creek, detail from GSC map, 1886

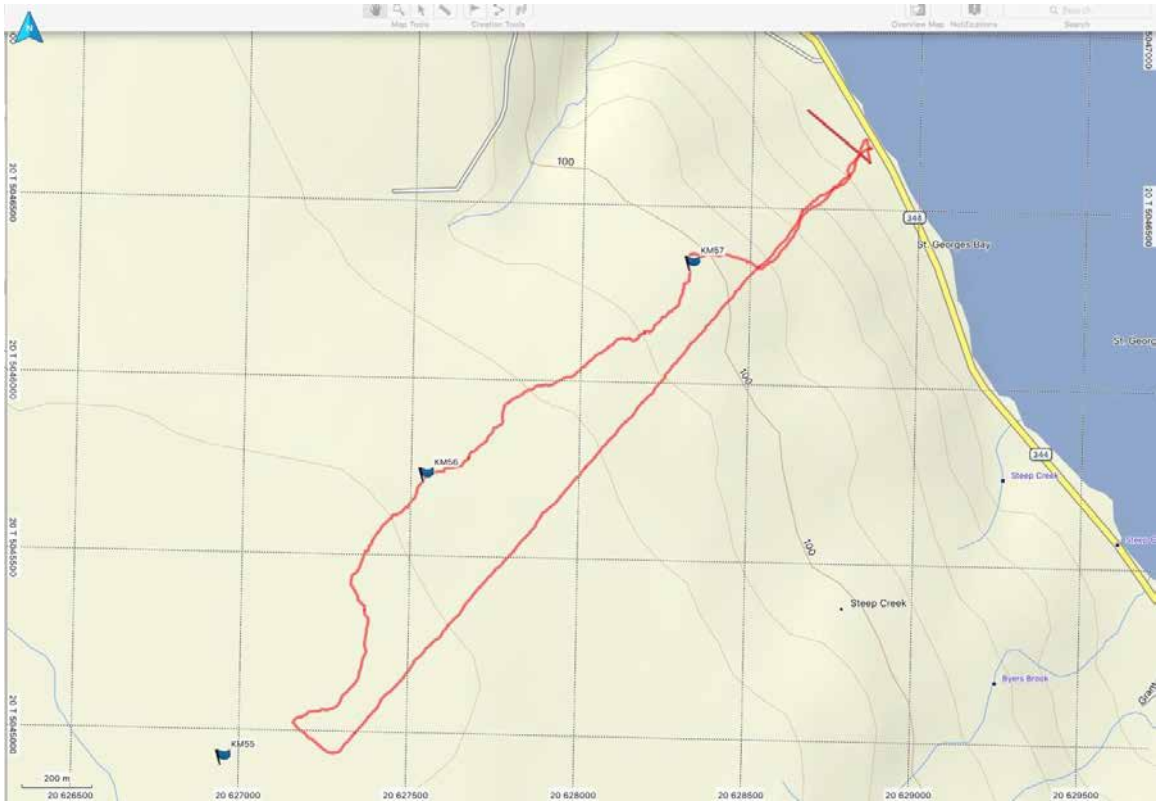


Figure 7 Steep Creek Survey Overview Map

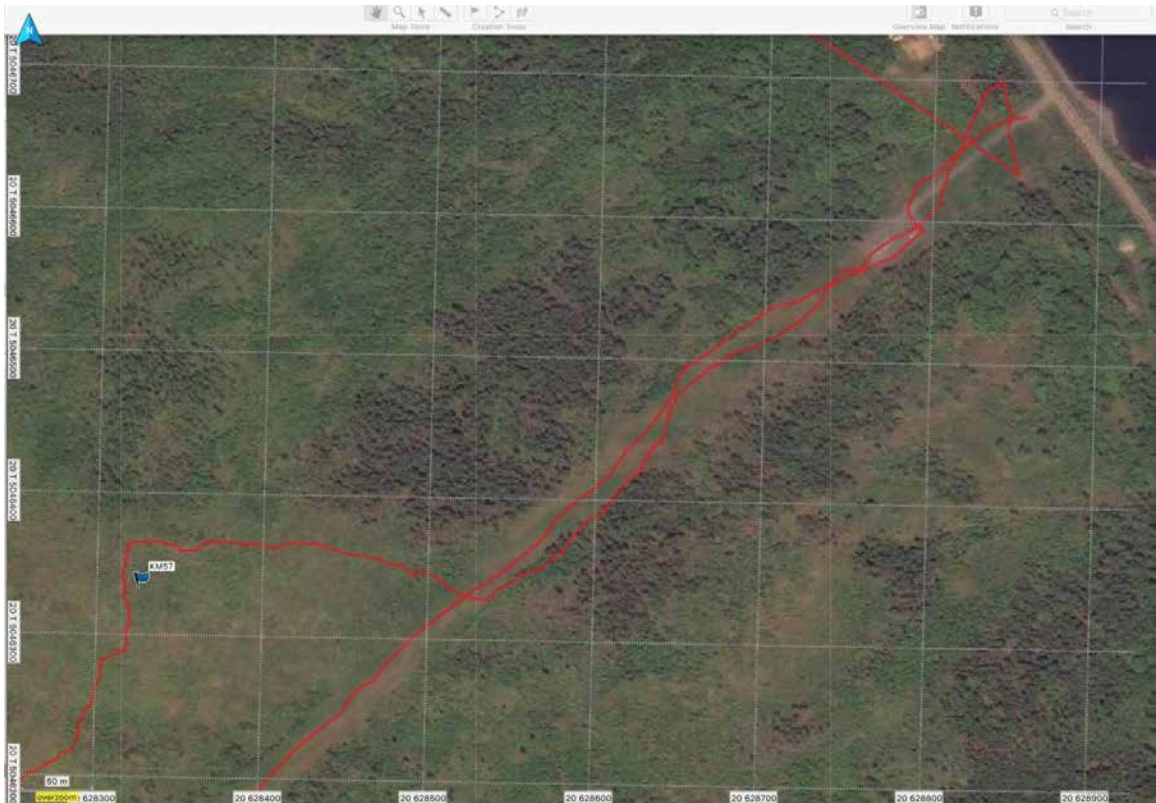


Figure 8 Steep Creek Survey to KM57



Figure 9 Steep Creek Survey to KM56

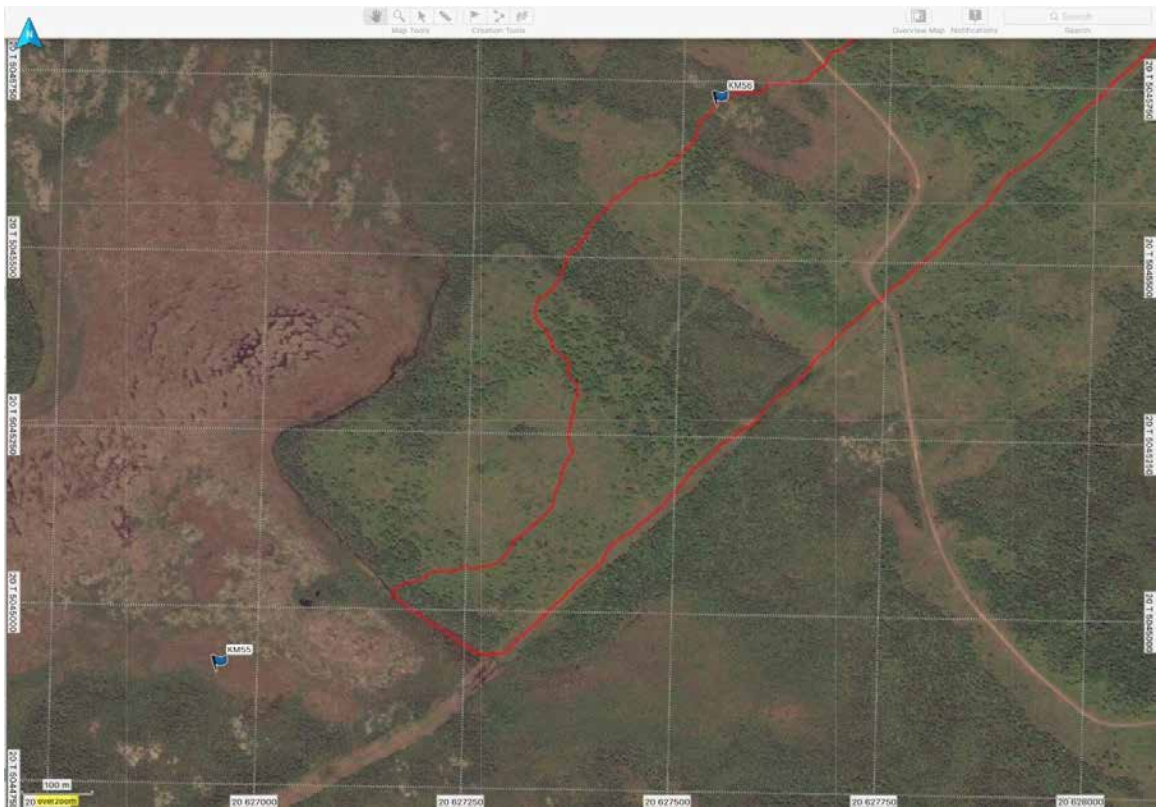


Figure 10 Steep Creek Survey to KM55



Plate1: Steep Creek, area of KM57, looking SE.



Plate 2: Steep Creek, area of KM 56, looking W.



Plate 3: Steep Creek, wetland near KM 55, looking S.

Eight Mile Lake Road

This survey was a one kilometre section of an HDD Pipe String Layout that runs from Eight Mile Lake Road north toward KP22 (Figure 11). The survey began in a relatively open and dry area of moderately undulating terrain and a relatively mature, mixed forest. The survey proceeded north where the terrain sloped down to a very small watercourse and an area of wetter ground with mossy groundcover. The visibility was roughly 20 m to 40 m. The terrain began to rise somewhat to a dirt road but quickly sloped down to a large wet area to the north, approximately 250 m southwest of the waypoint indicating the edge of the Crown Land property (Plate 4). The survey was terminated at this point.

Salmon River

The area to be evaluated at Salmon River was a small section of the assessment corridor that runs from the Guysborough Trail north to the area of KP23, on the south bank. This was a very difficult section to access and the only route within Crown Land was the Guysborough Trail from the Jenkins Blanchard Road to the east (Figure 12). The south side of the trail was a deep ditch that led up to a steep slope that covered the whole section of Crown Land on that side. The north side was an area of undulating terrain, a relatively mature mixed forest with many deadfalls, and moss-covered ground (Plate 5). Visibility was roughly 20 m to 30 m. The survey reached the high bank of the Salmon River that overlooked the low, swampy lower banks of the river (Figure 13; Plate 6). The survey then returned through a different section of forest to the trail. While the overall area evaluated should be considered to have low archaeological potential, it is recommended that both banks of the Salmon River be subjected to a shovel testing program of 5m intervals in the future.

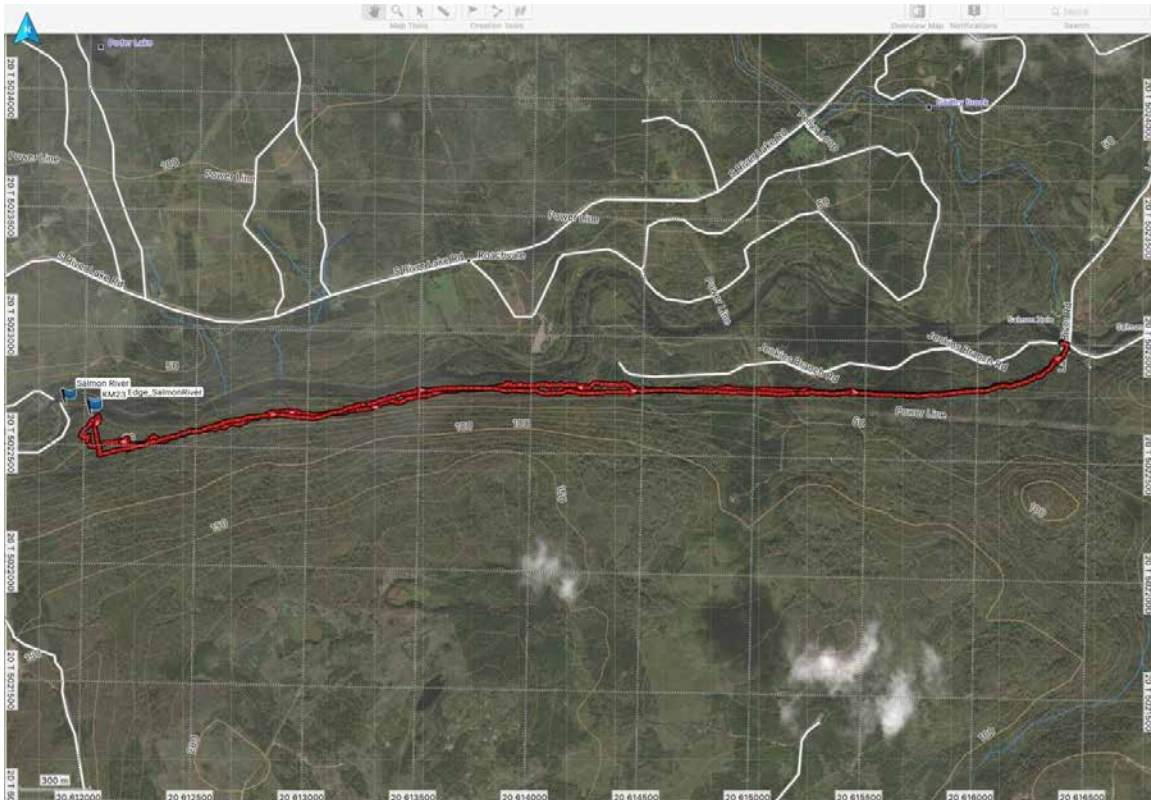


Figure 12 Salmon River Survey Overview



Figure 13 Salmon River Survey Detail



Plate 5: Salmon River, forest, looking south.



Plate 6: Salmon River, looking north to the river.

SUMMARY AND CONCLUSIONS

The Steep Creek Crown Land survey area does not appear to have ever been inhabited. There are no major watercourses running through the site and, although it is quite close to the Strait of Canso, access to or from that watercourse is down or up a steep slope. It is recommended that the 2015 survey area be deemed as having low potential for containing First Nation's or historic heritage resources.

The Eight Mile Lake Road survey area was relatively small and was in a location that had never been inhabited. There are no major watercourses within the survey area and the land is for the most part, very damp. It is recommended that the 2015 survey area be deemed as having low potential for containing First Nation's or historic heritage resources.

The Salmon River survey area was also relatively small. The background research found no evidence of settlement on the south side of the river, although the north bank has been inhabited since the nineteenth century. The south section of the survey area consisted of a steep slope and was not surveyed. The northern section to the river had the most potential of the three sites, particularly for First Nation's resources. While the topography was undulating and relatively damp, the Salmon River is certainly a major watercourse that would allow the Mi'kmaq access to the interior of the province from Chedabucto Bay. It is recommended that the Salmon River area be considered as having high potential for containing First Nation's heritage resources and

that it be reevaluated in terms of subsurface testing when permission to access private lands is granted.

REFERENCES

AMEC Environment and Infrastructure. Mi'kmaq Ecological Knowledge Study, Goldboro LNG Project. AMEC, Dartmouth: 2013.

Church, Ambrose F. Topographical Township Map of Guysborough County. A.F. Church & Company, Bedford: 1876.

Fletcher, Hugh. Province of Nova Scotia (Island of Cape Breton), composite sheet Nos. 17 – 24. Geological and Natural Survey of Canada, Ottawa: 1884.

Fletcher, Hugh and E.R. Faribault. Province of Nova Scotia (Guysborough County), No. 27. Geological Survey of Canada, Ottawa: 1886.

Hart, Harriet C. History of Guysborough County. Orig. published in 1877. Mika Publishing Co., Belleville: 1975.

Jacques Whitford. Archaeological Impact Assessment of a Proposed Natural Gas Pipeline from Bear Head, Richmond county to Goldboro, Guysborough County. Jacques Whitford, Dartmouth: 2000.

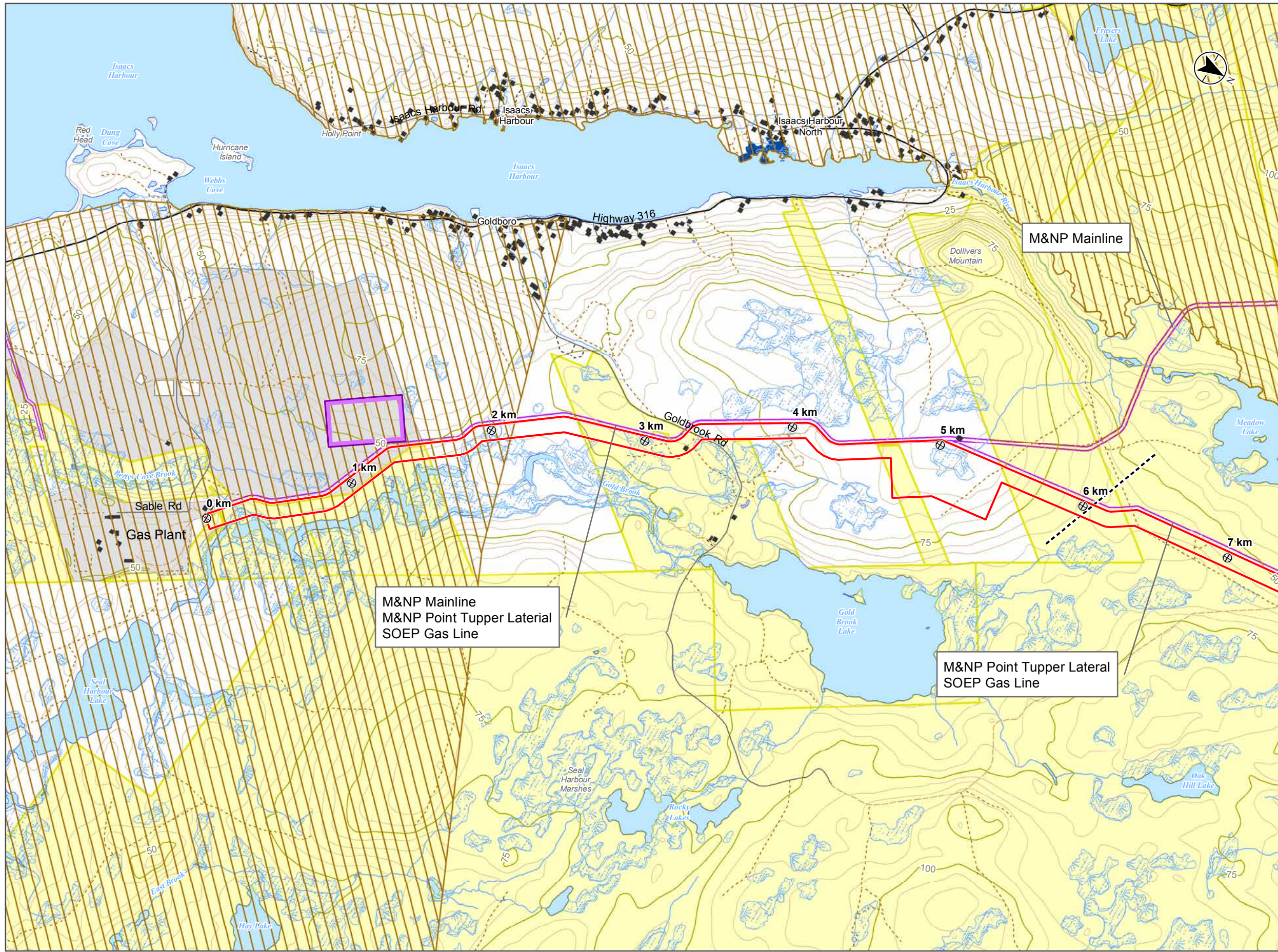
Mainland Mi'kmaq Developments Inc. Draft Mi'kmaq Ecological Knowledge Study, Goldboro LNG Project. Mainland Mi'kmaq Developments Inc., Truro: 2015

Sayer, Robert and J. Bennett. A Draught of the Gut of Canso, Between Nova Scotia and Cape Breton Island, Surveyed by the King's Ships in 1761. Sayer and Bennett, London: 1775.

Washburn & Gillis Associates Ltd. Sable Offshore Energy Project Natural Gas Liquids Pipeline Archaeological Assessment 1996, 1997, 1998 and 1999, Final Report. Washburn & Gillis Associates Ltd., Fredericton: 1999.

Appendix 1

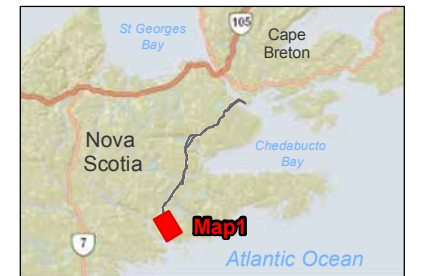
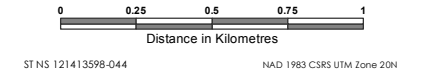
Assessment Corridor Maps



Environmental Constraints within the Vicinity of the Assessment Corridor

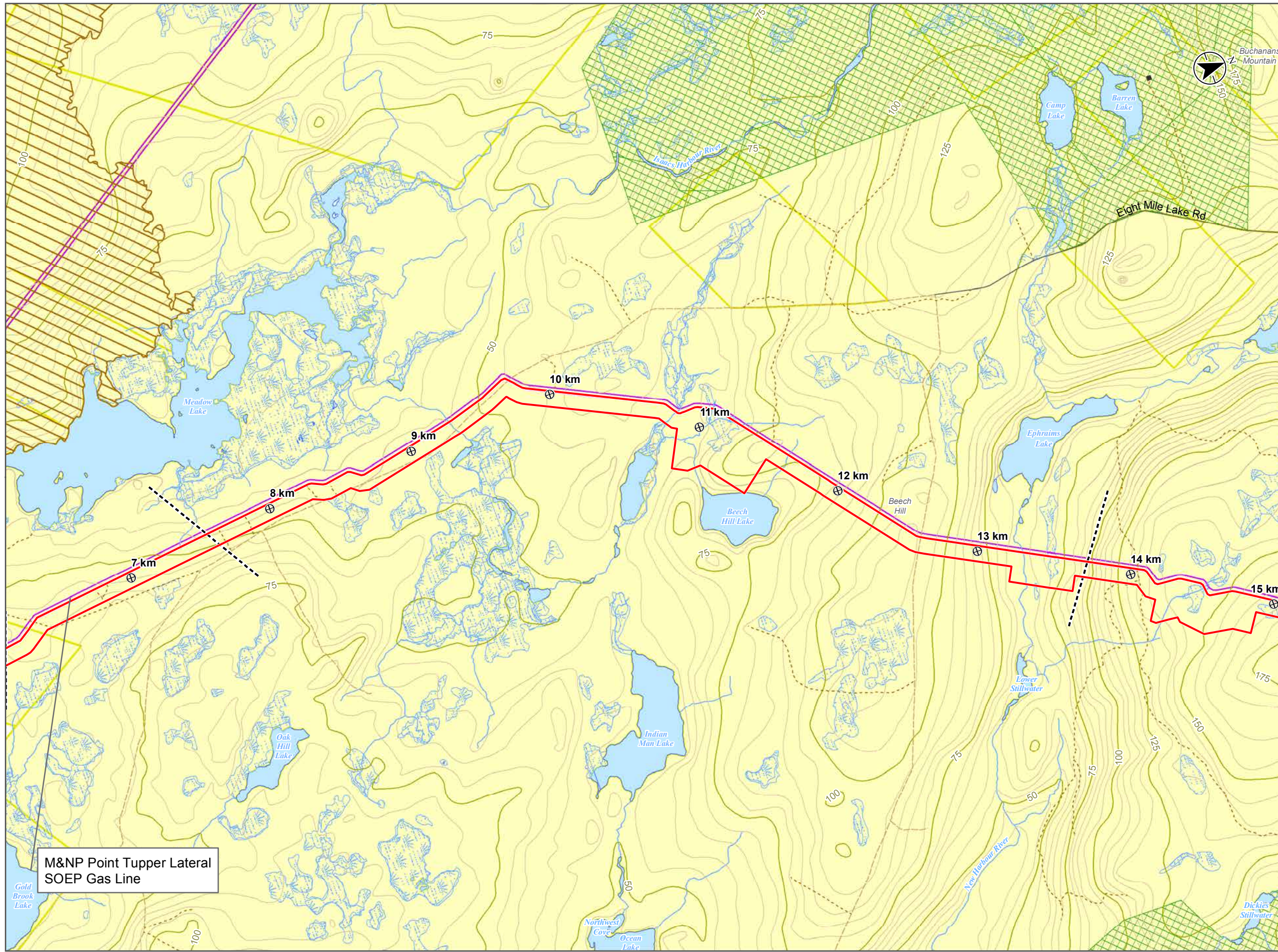
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- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Potential Head Compressor Site
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - Wetland
 - Provincial Wetlands of Special Significance
 - Deer Wintering Areas
- Map Features**
- Building/Structure
 - Collector/Arterial Road
 - Local Road
 - Private/Restricted Road
 - Seasonal Road
 - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - Industrial
 - Crown Land
 - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia. Environmental Constraints data provided by the Government of Nova Scotia.



Disclaimer: This map is for illustrative purposes to support this Stantec project; questions can be directed to the issuing agency.



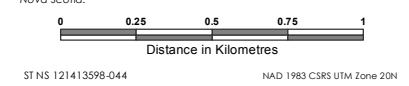


M&NP Point Tupper Lateral
SOEP Gas Line

Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - ▨ Wetland
 - ▨ 12% Lands
 - ▨ Deer Wintering Areas
- Map Features**
- Building/Structure
 - Local Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - ▭ Crown Land
 - - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia. Environmental Constraints data provided by the Government of Nova Scotia.

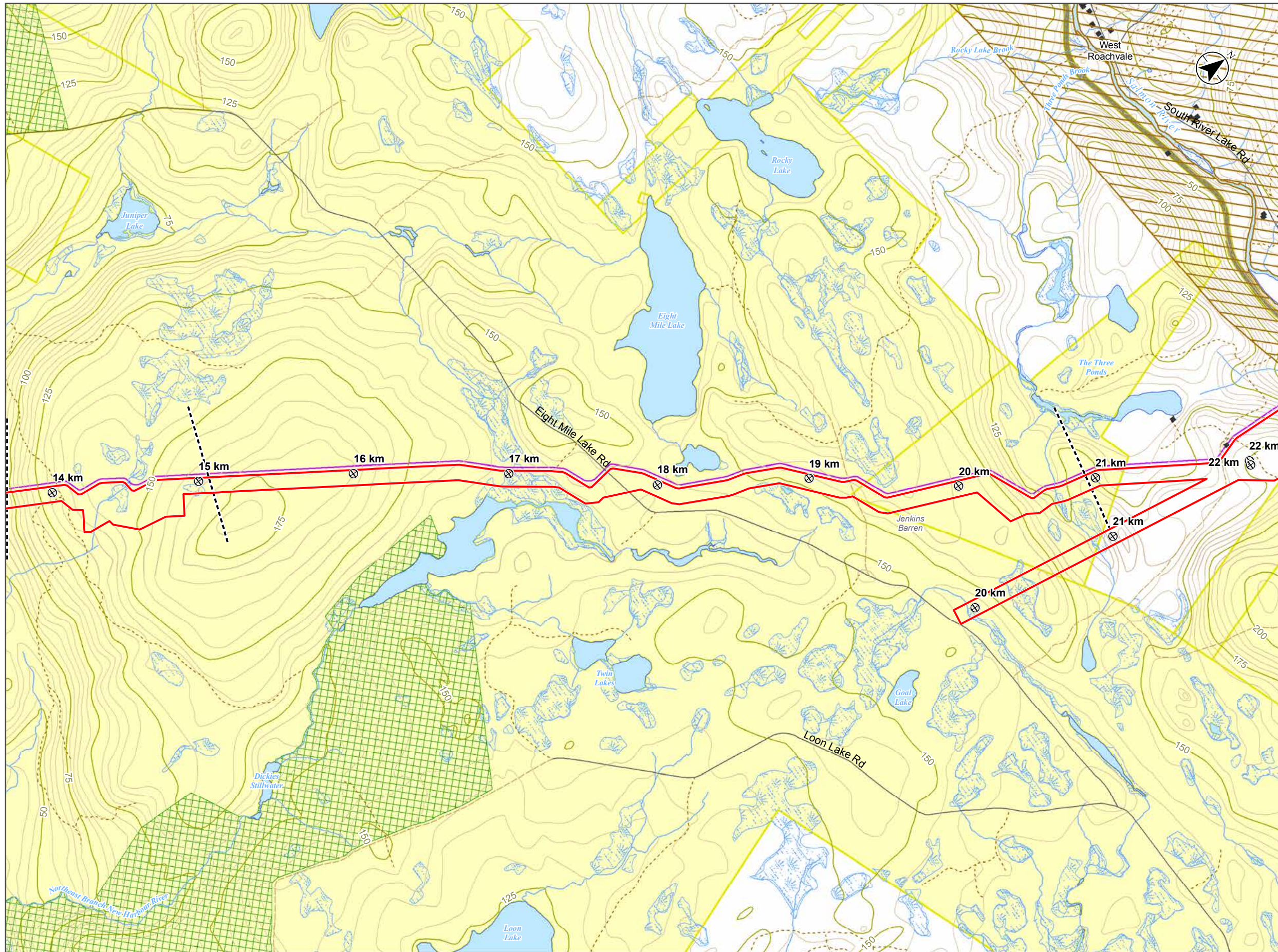


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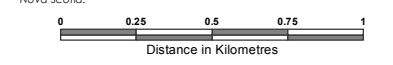




Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - Wetland
 - Non-Designated Rail Corridors
 - 12% Lands
 - Deer Wintering Areas
- Map Features**
- Building/Structure
 - Local Road
 - - - Private/Restricted Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - Crown Land
 - - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia. Environmental Constraints data provided by the Government of Nova Scotia.

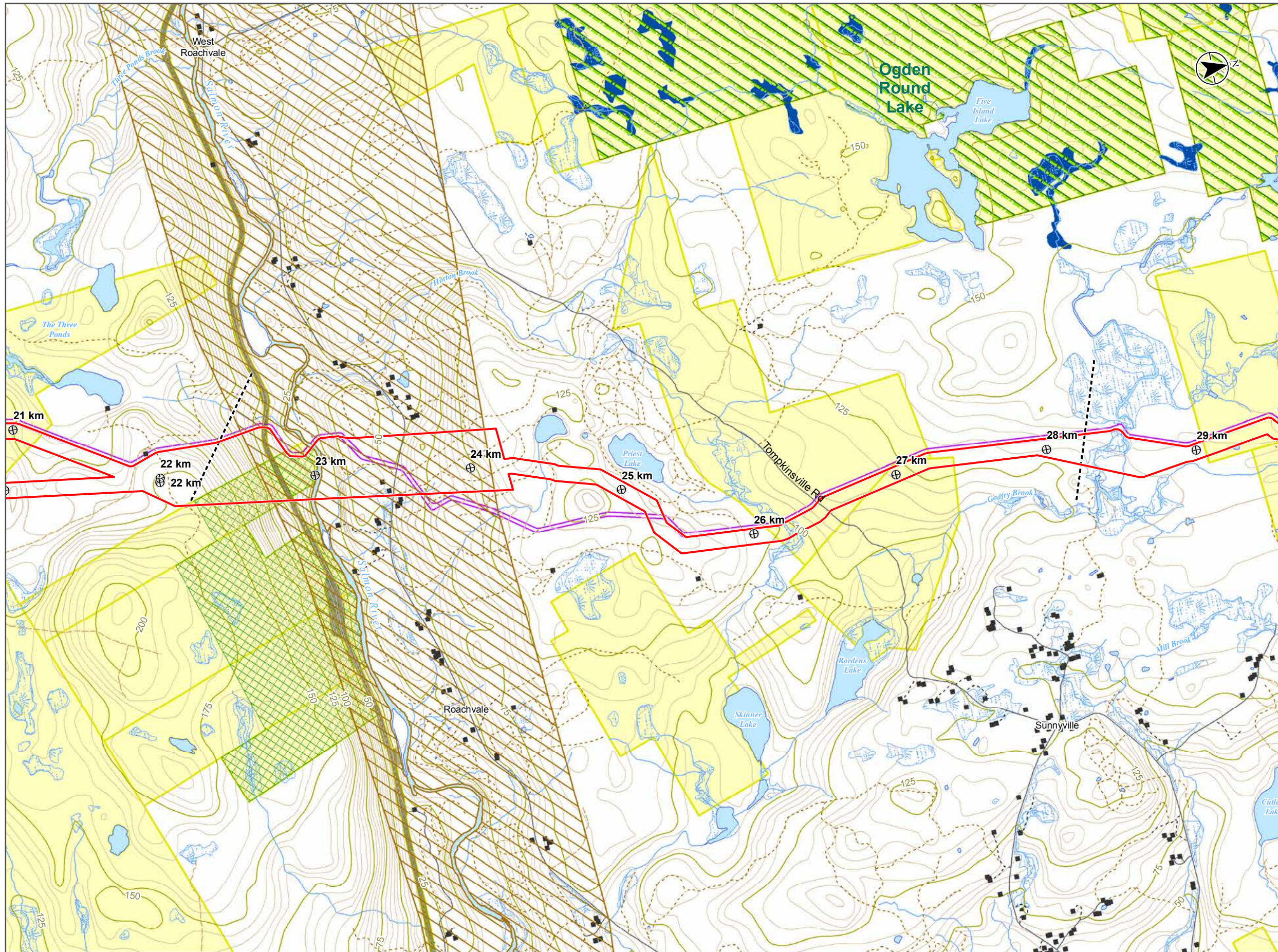


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BEAR PAW PIPELINE PROJECT

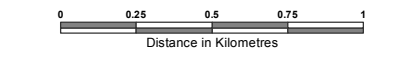




Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - ▨ Wetland
 - Provincial Wetlands of Special Significance
 - ▨ Provincial Wilderness Areas
 - Non-Designated Rail Corridors
 - ▨ 12% Lands
 - ▨ Deer Wintering Areas
- Map Features**
- Building/Structure
 - Local Road
 - - - Private/Restricted Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - Crown Land
 - - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia; Environmental Constraints data provided by the Government of Nova Scotia.

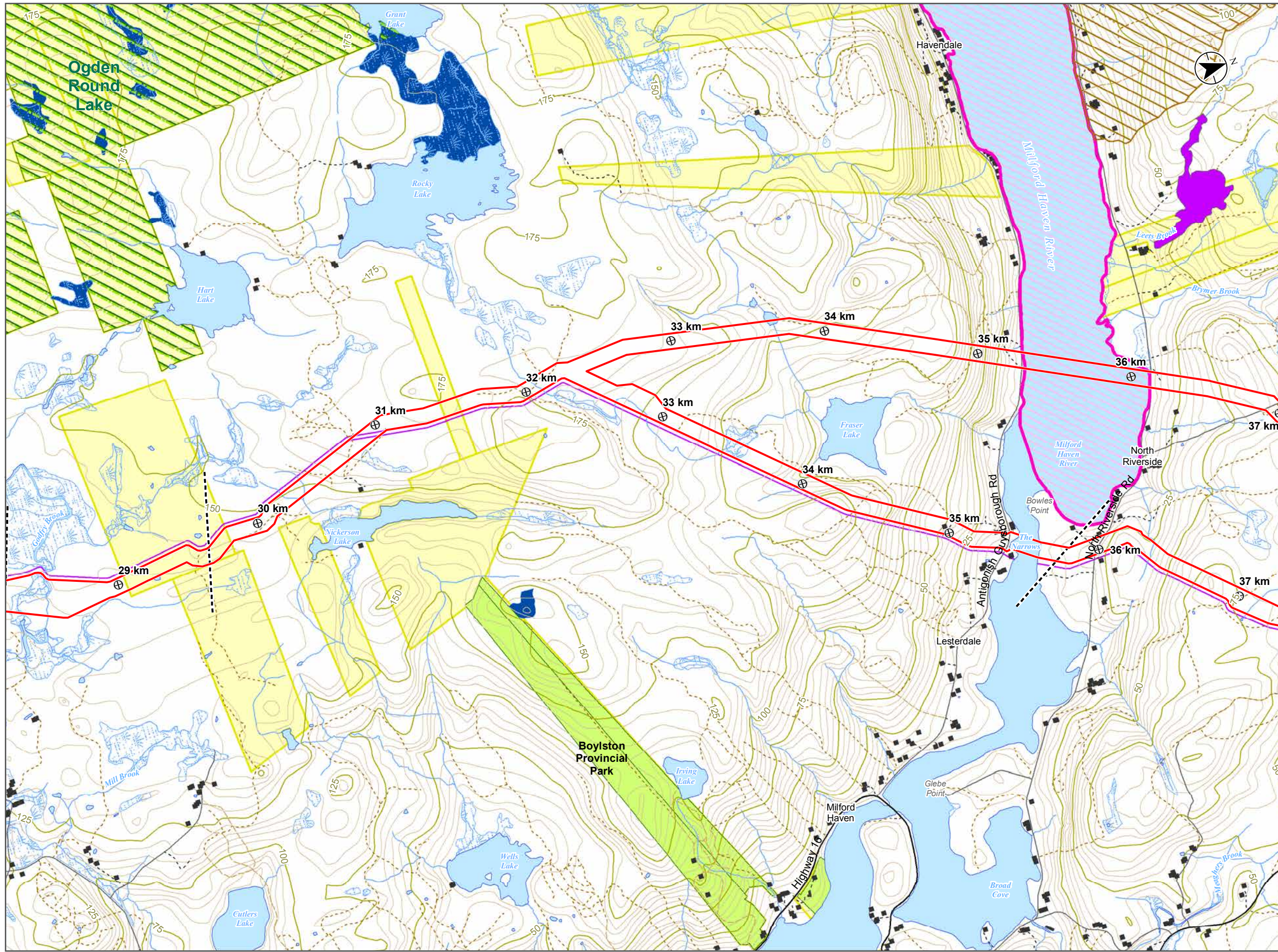


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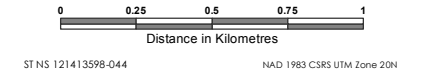
BEAR PAW PIPELINE PROJECT



Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - ▨ Wetland
 - Provincial Wetlands of Special Significance
 - Designated Provincial Parks and Park Reserves
 - ▨ Provincial Wilderness Areas
 - ▨ Deer Wintering Areas
 - ▨ Migratory Bird Habitat
 - Other Significant Wildlife Habitat
- Map Features**
- Building/Structure
 - Collector/Arterial Road
 - Local Road
 - - - Private/Restricted Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - ▨ Crown Land
 - - - Map Sheet Match Line

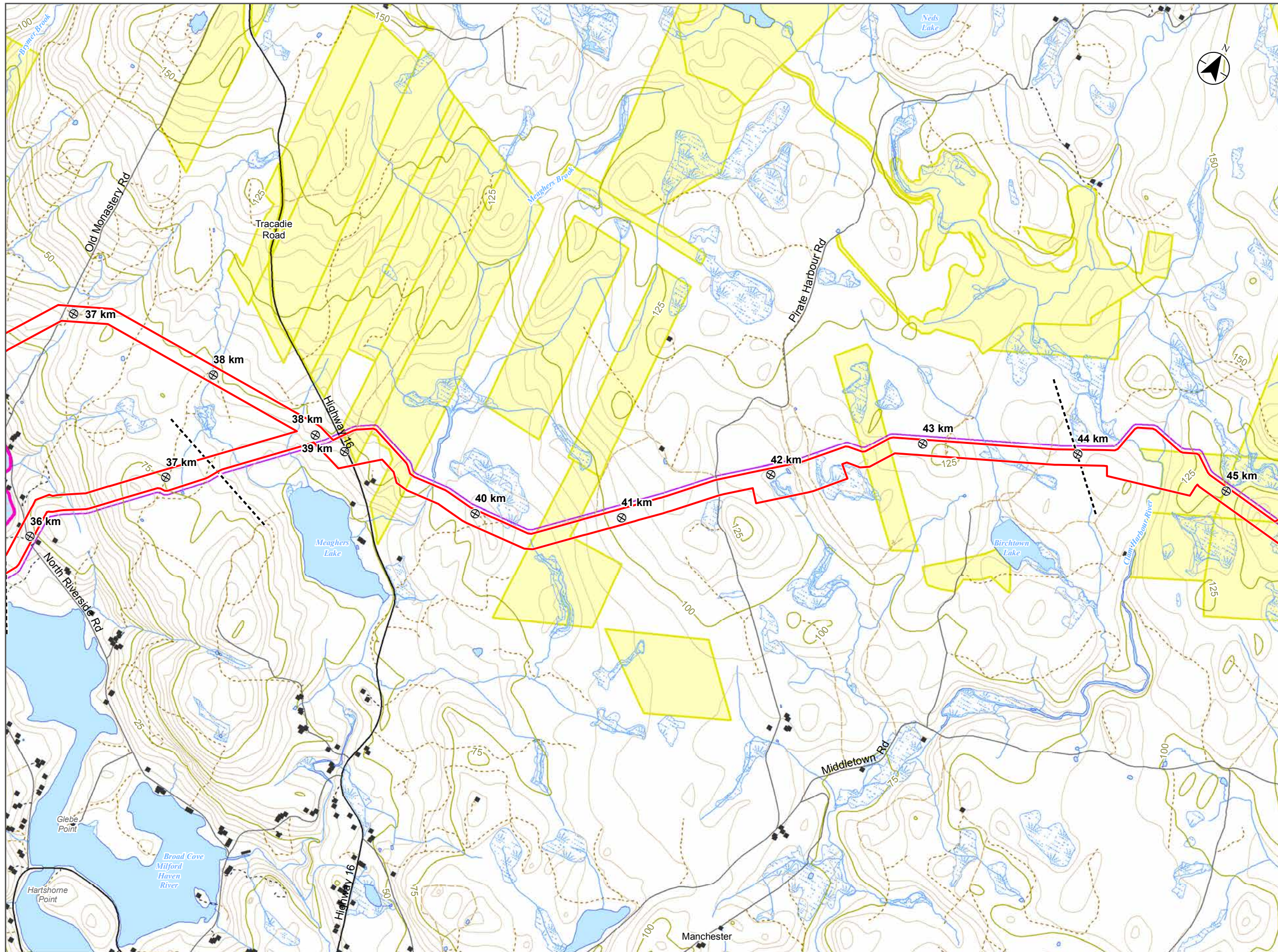
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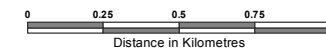
Disclaimer: This map is for illustrative purposes to support this Stantec project; questions can be directed to the issuing agency.
BEAR PAW PIPELINE PROJECT



Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - ▨ Wetland
 - Designated Provincial Parks and Park Reserves
 - ▨ Migratory Bird Habitat
- Map Features**
- Building/Structure
 - Collector/Arterial Road
 - Local Road
 - - - Private/Restricted Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - Crown Land
 - - - Map Sheet Match Line

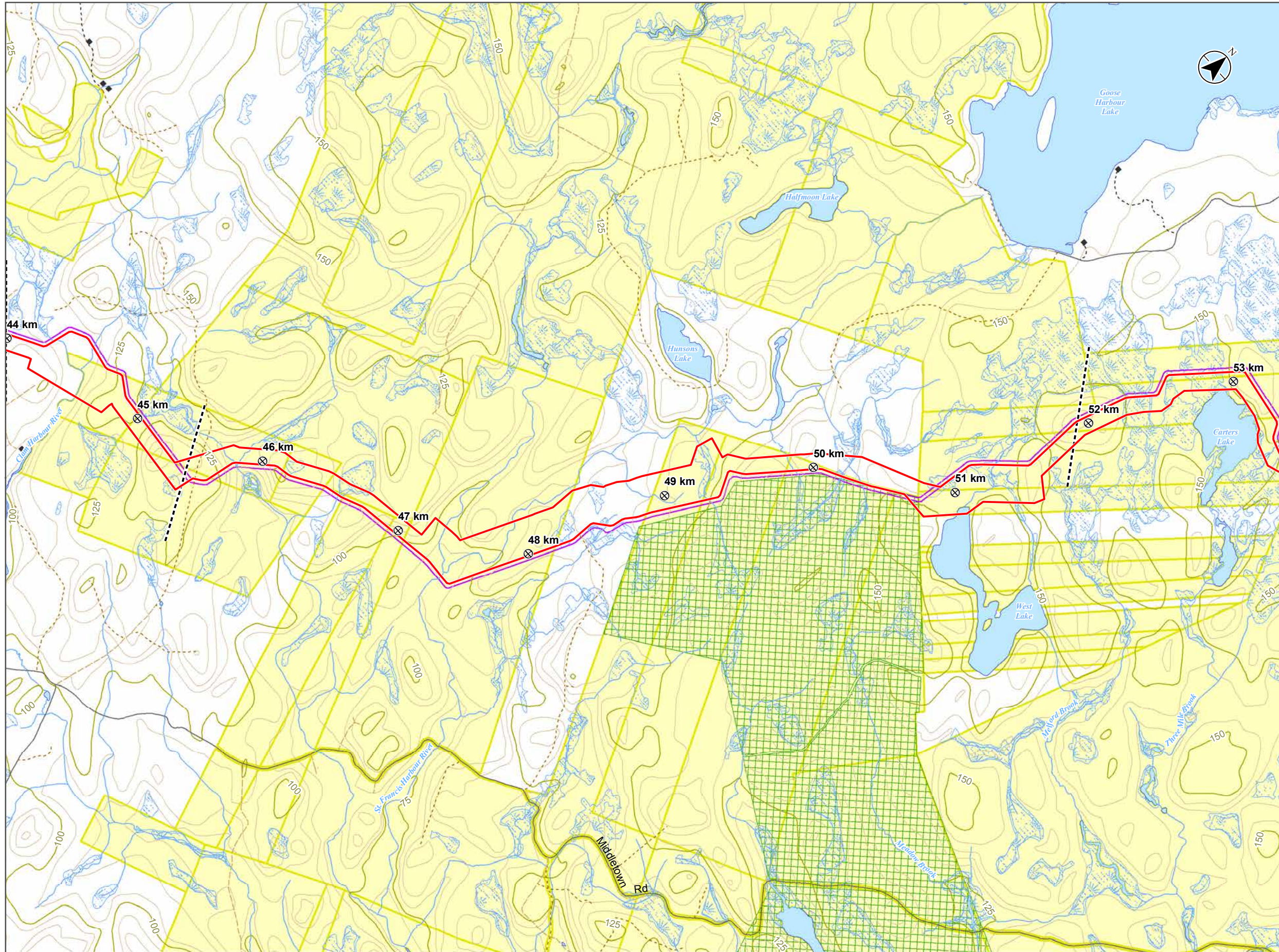
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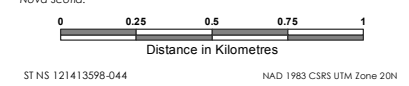
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Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
- Environmental Constraints**
- Watercourse
 - Waterbody
 - ▨ Wetland
 - ▨ 12% Lands
- Map Features**
- Building/Structure
 - Local Road
 - - - Private/Restricted Road
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - Crown Land
 - - - Map Sheet Match Line

Sources: Base data provided by the Government of Canada and Nova Scotia. Environmental Constraints data provided by the Government of Nova Scotia.

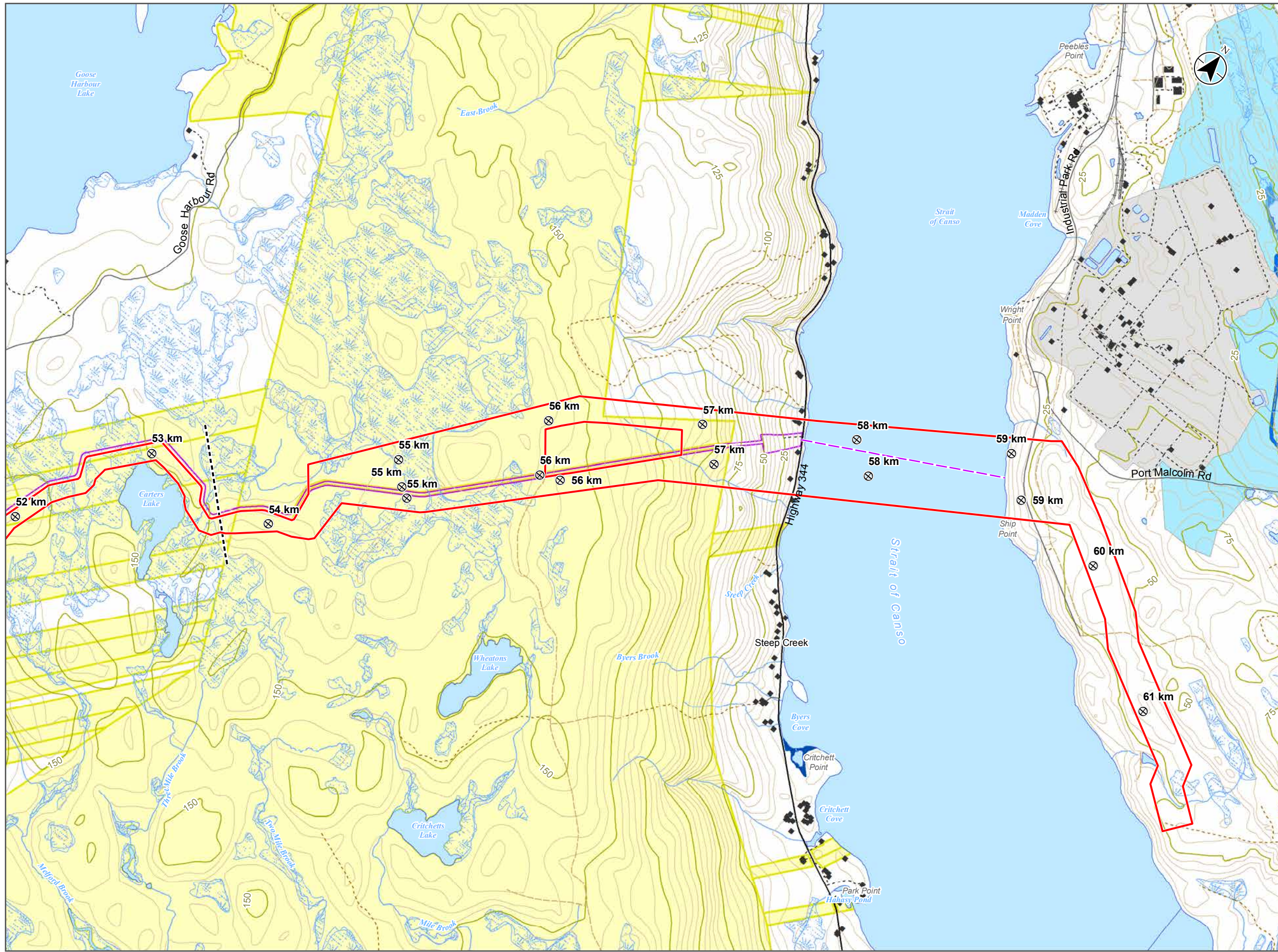


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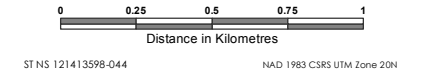




Environmental Constraints within the Vicinity of the Assessment Corridor

- Project Components**
- ⊕ Kilometre Post (Approximate Distance from Origin)
 - ▭ Assessment Corridor
 - ▭ Existing Pipeline Right of Way
 - - - Approximate Existing Pipeline Crossing
- Environmental Constraints**
- Watercourse
 - ▭ Waterbody
 - ▭ Wetland
 - ▭ Provincial Wetlands of Special Significance
 - ▭ Provincially Protected Water Supply Areas
 - ▭ Natural Watershed Municipal Surface Water Supply Areas
- Map Features**
- Building/Structure
 - Collector/Arterial Road
 - Local Road
 - - - Private/Restricted Road
 - Railway
 - - - Seasonal Road
 - - - Track/Trail
 - Contour (5m)
 - Index Contour (25m)
 - ▭ Crown Land
 - - - Map Sheet Match Line

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