

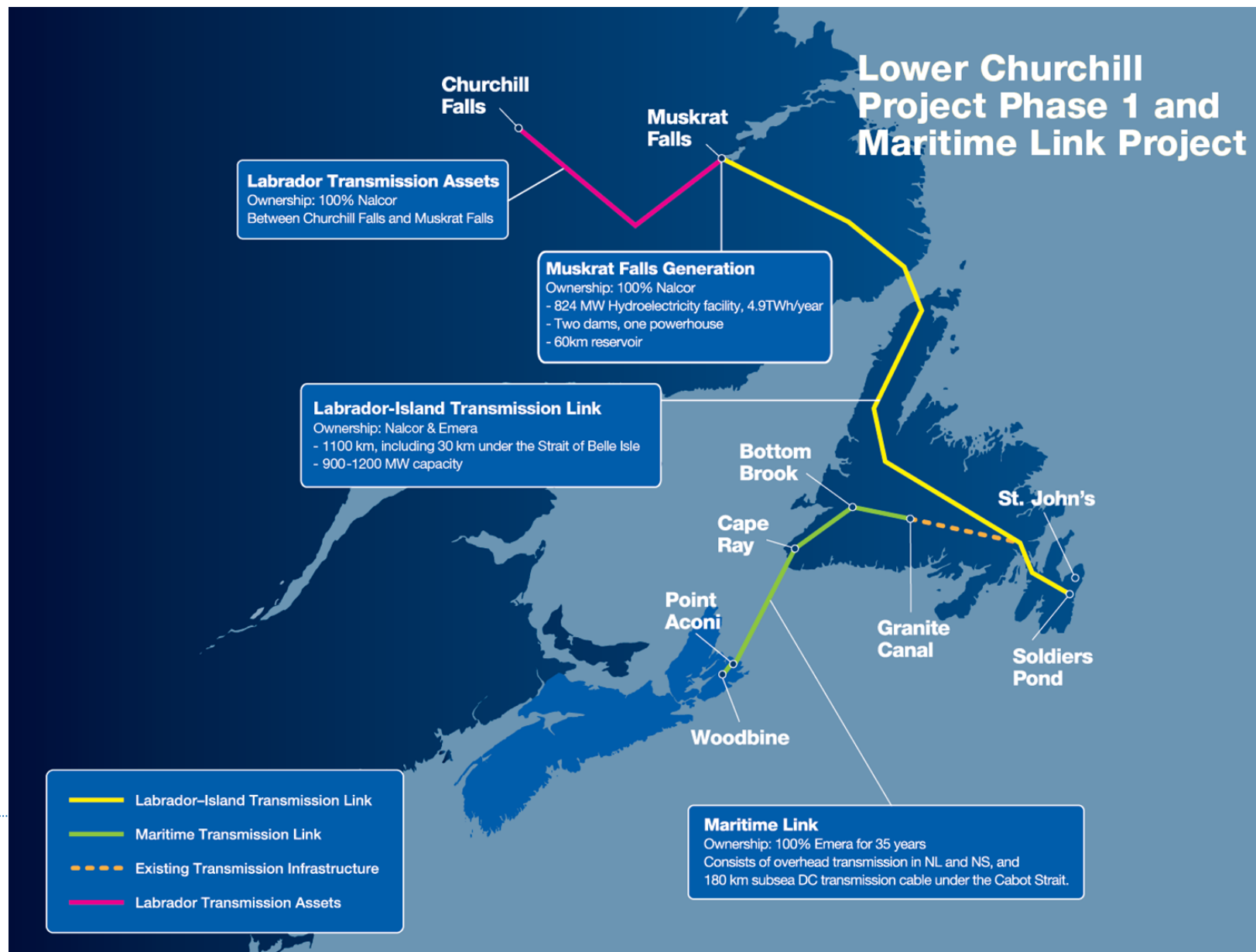


May 2022

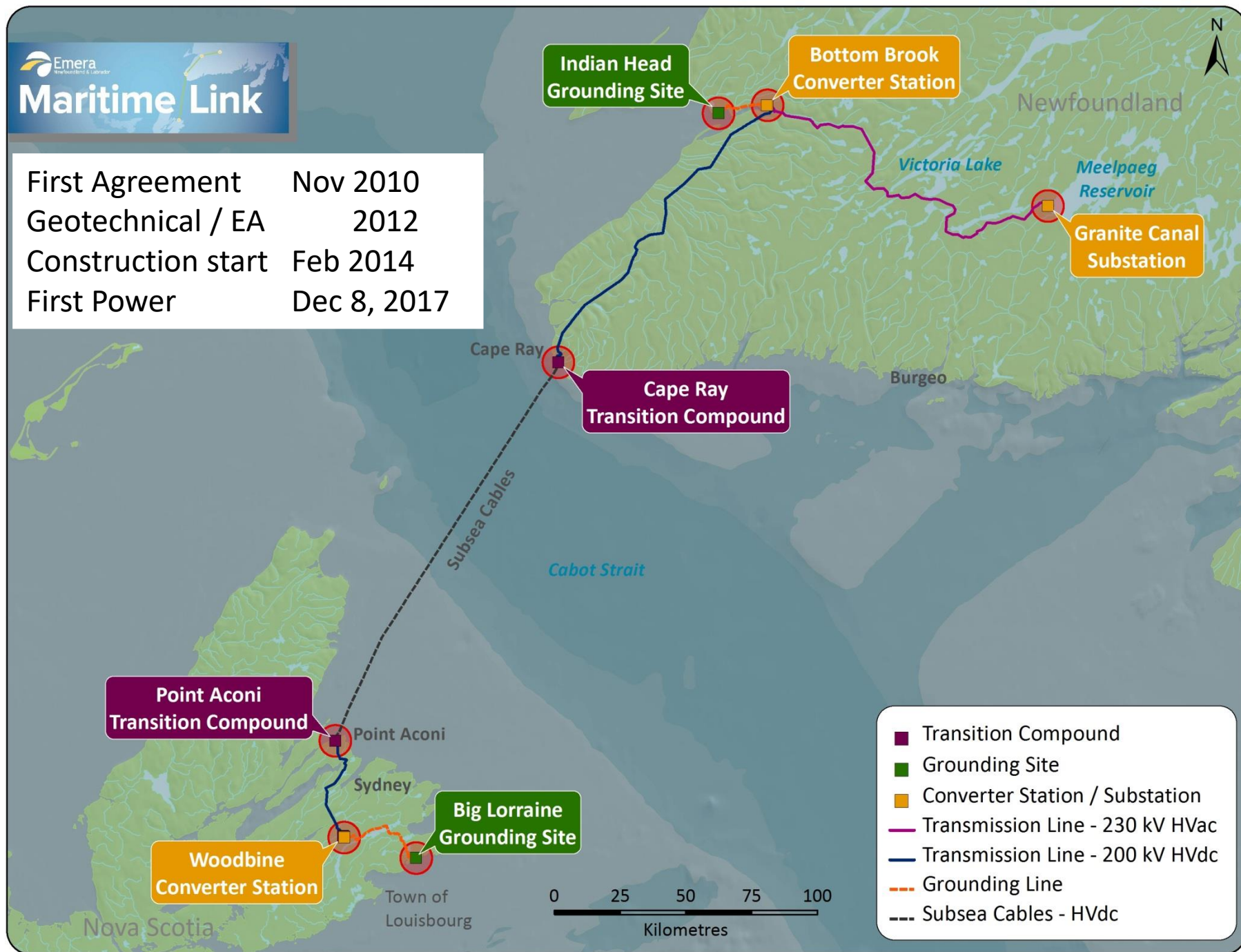
Maritime Link Vegetation Management NL

energy everywhere.™

Lower Churchill Project Overview



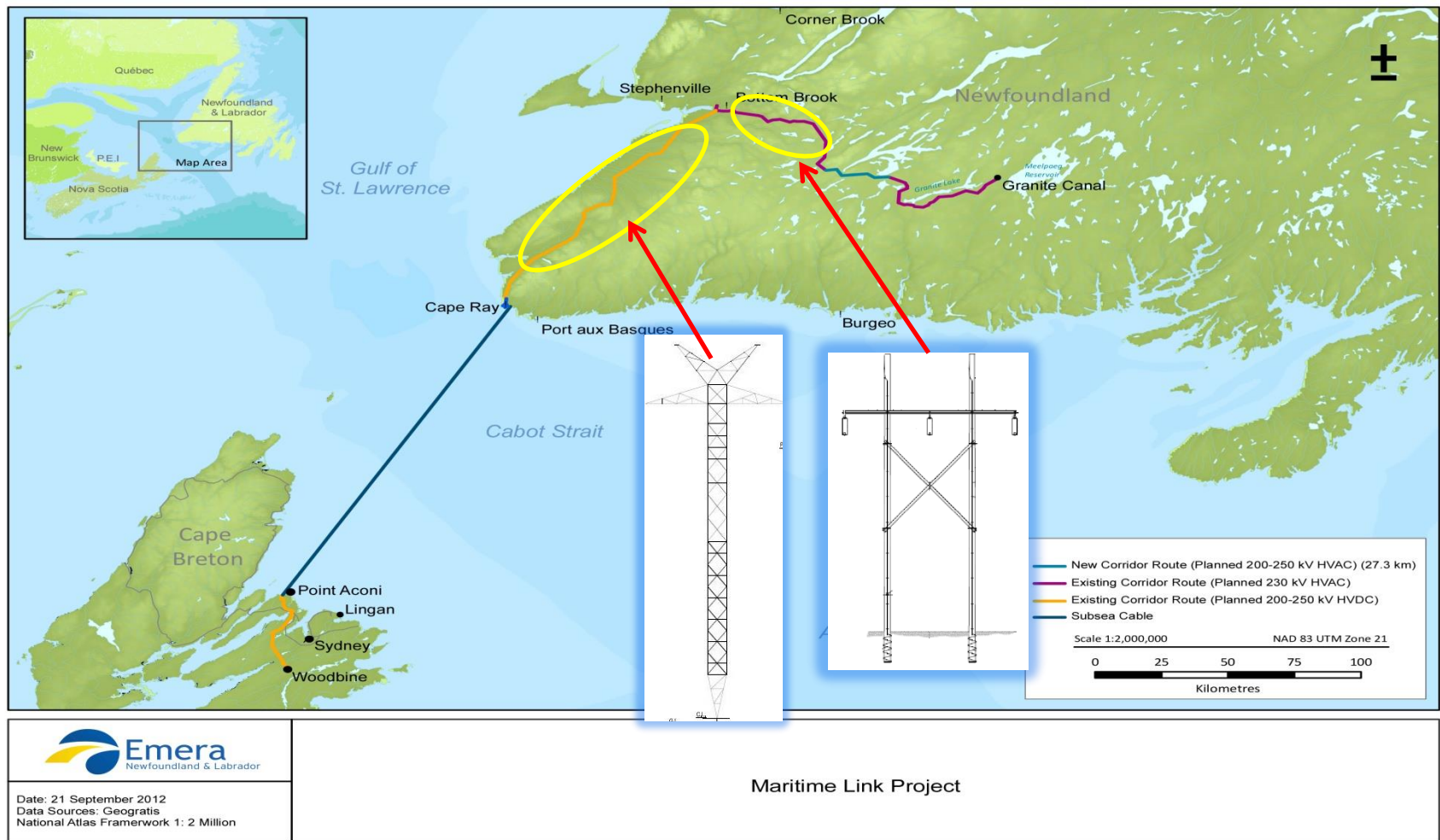
First Agreement	Nov 2010
Geotechnical / EA	2012
Construction start	Feb 2014
First Power	Dec 8, 2017



Vegetation Management Program – Emera NL

- 2019
 - Focused on HVDC line along Trans Canada Highway from Bottom Brook to Cape Ray (142 Km line).
 - Mechanical Spray program on flat areas where tracked equipment could operate effectively.
 - Completed about 250 Ha or 1/3 of Right of Way area
- 2020
 - Focused on HVAC line along Burgeo highway. Area from Victoria River to Bottom Brook Station.
 - Completed over 200 Ha in this section. Combination of mechanical sprayers and back pack sprayers.
- 2021
 - Focused on Granite Canal to Victoria River area and some sections along the Burgeo highway.
 - Completed a total of 247 (184/63) Ha in these sections using a combination of mechanical sprayers and back pack sprayers.
- 2022
 - Key area is targeted higher slope sections of HVDC line along TCH from Bottom Brook to Cape Ray where mechanical spraying could not be performed in 2019 – Approximately 200 Ha. Back pack spraying will be performed in these sections.
 - Secondary potential area will cover targeted sections of HVAC line along Burgeo highway from Bottom Brook to Victoria River. Approximately 50 Ha of spraying may be performed using back pack sprayers where access trails were upgraded in 2021.

2022 Vegetation Management Program treatment areas

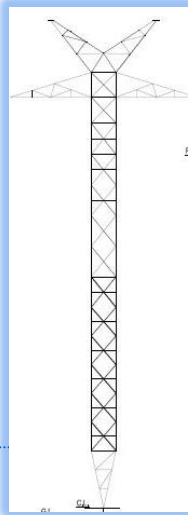
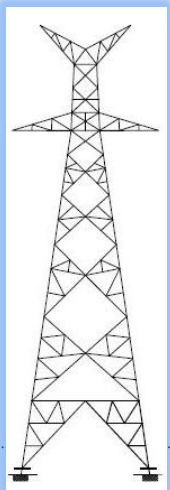


200kV HVDC Line – Bottom Brook to Cape Ray

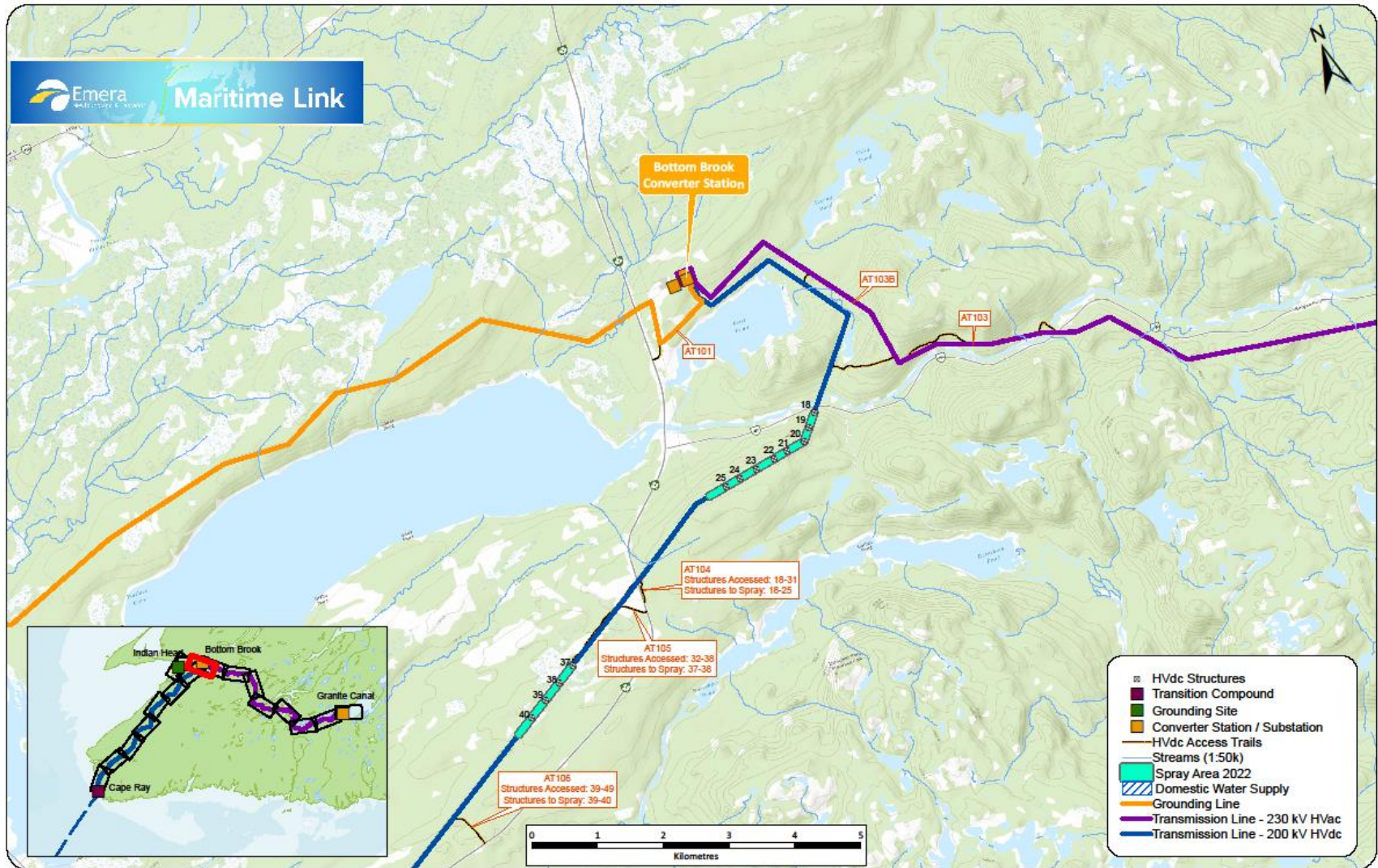
~142km line length

200 kV HVDC transmission line

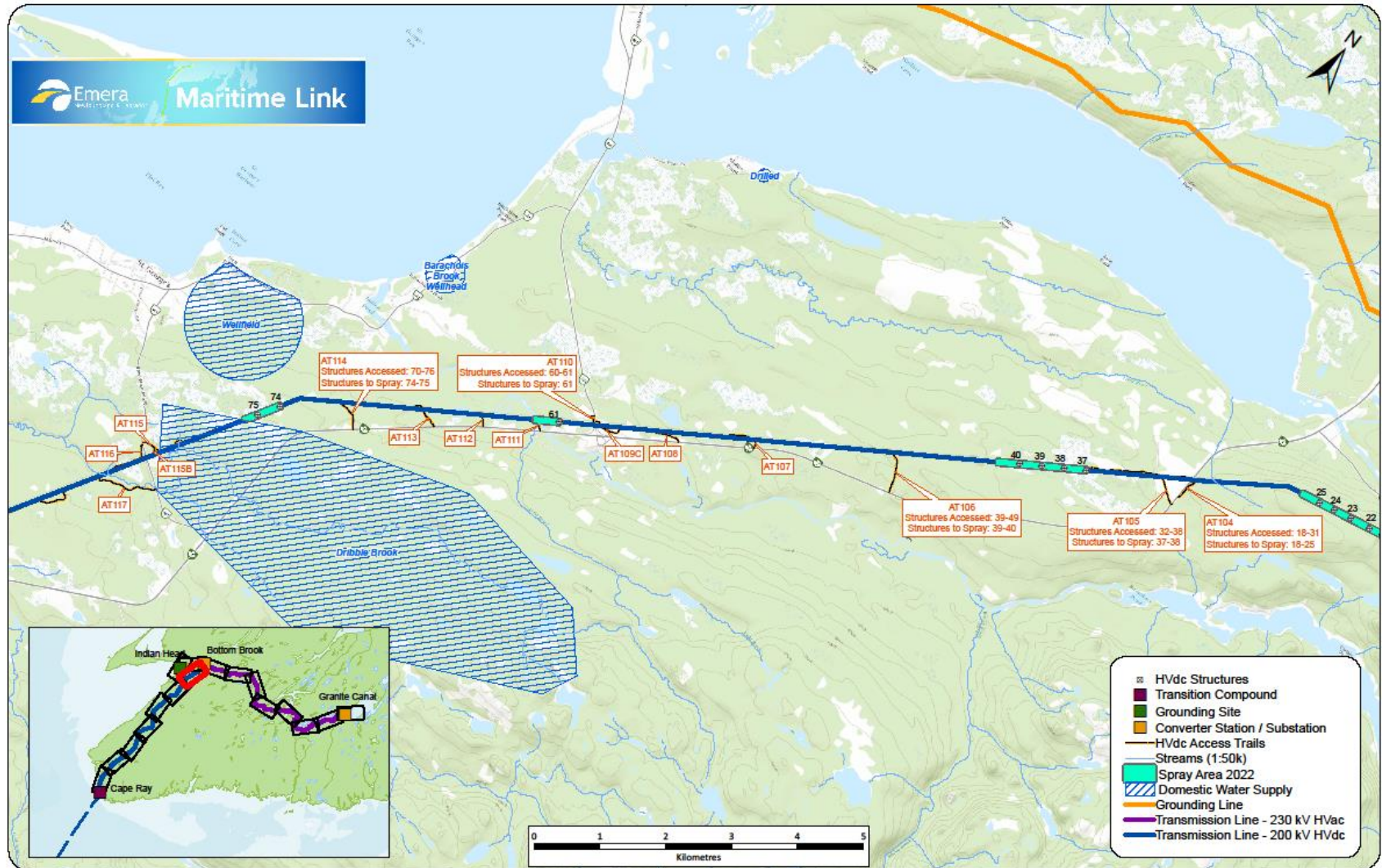
- Structures:
 - Steel Lattice guyed tangents
 - Self supporting Heavy angles and Dead-ends
- ACSR 2156 Bluebird Conductor (single conductor 2 pole)
- Total structures: **481**
- Tree clearing: **780 Ha (50 M wide Right of Way)**
 - Beside existing TL214 and 215 NLH line along TCH



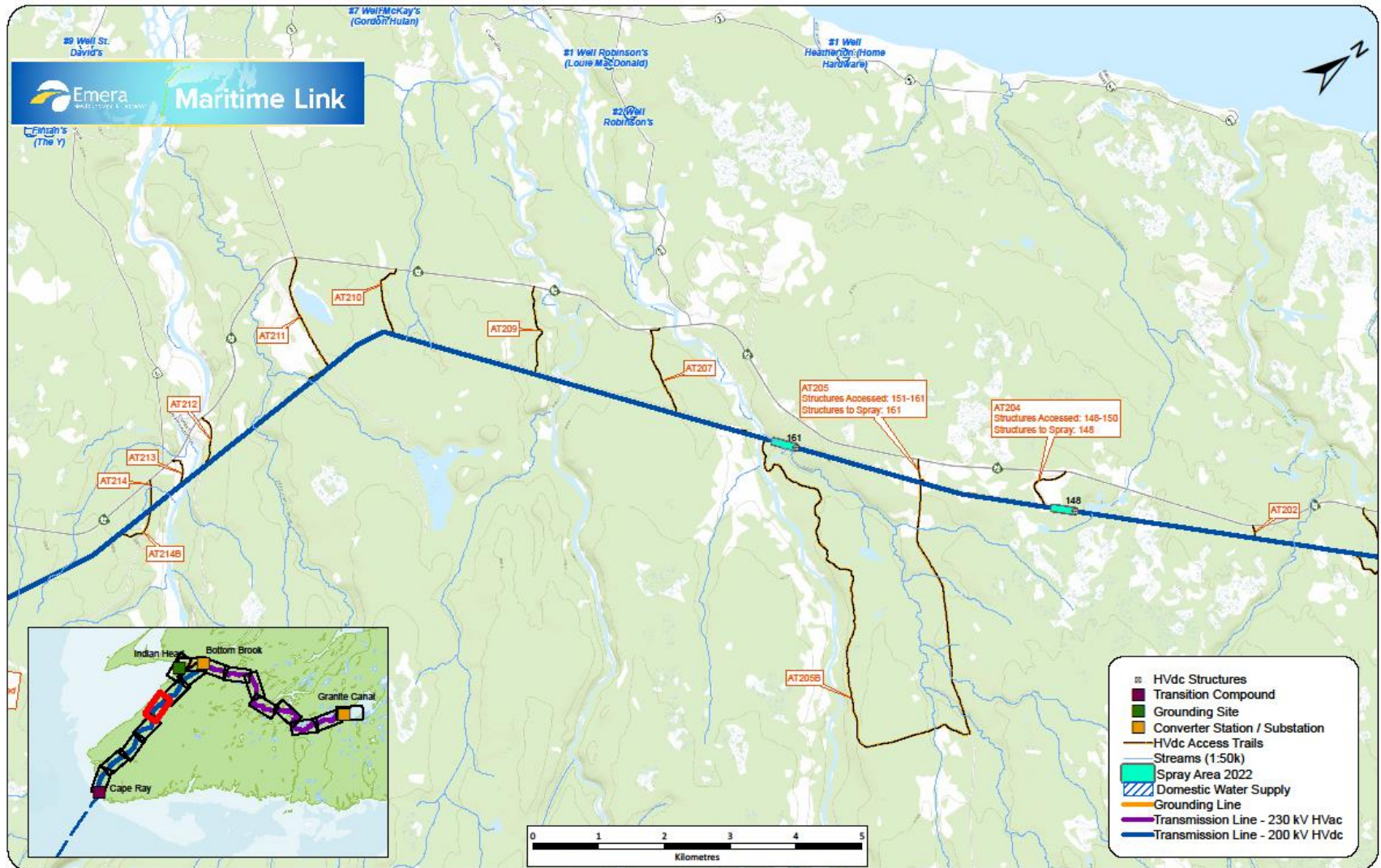
Map start – Bottom Brook - HVDC



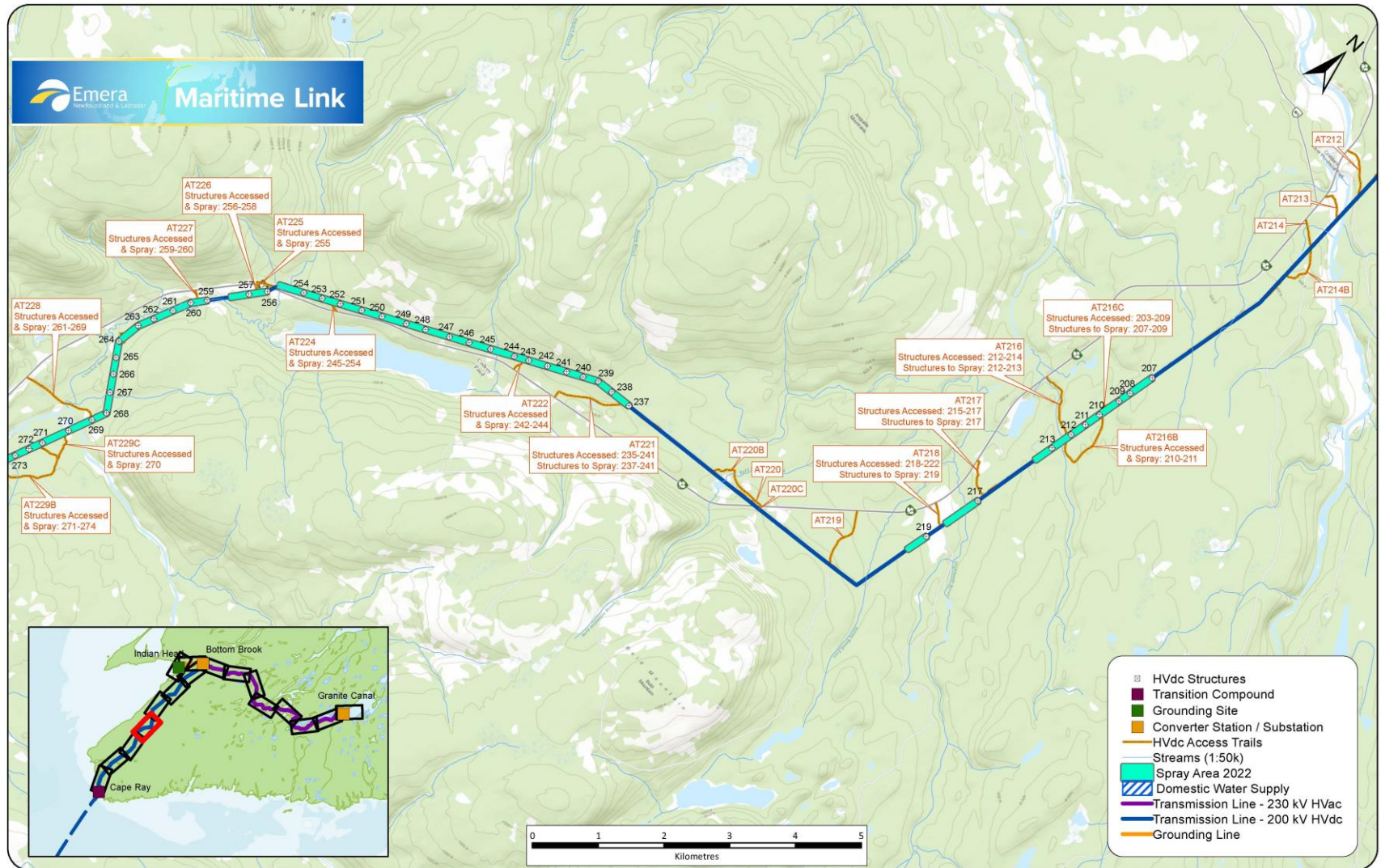
Map 2 - HVDC

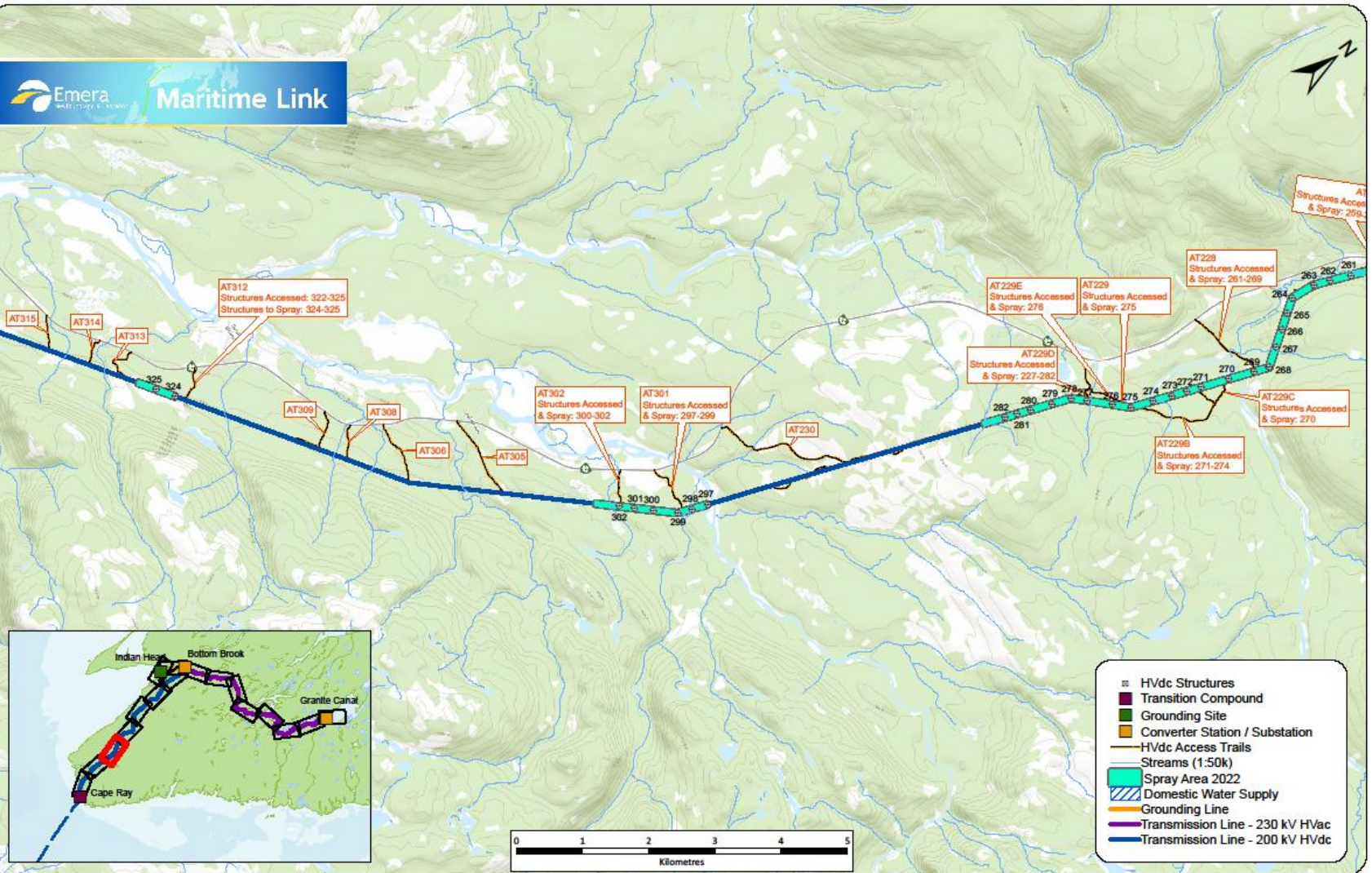


Map 3 - HVDC

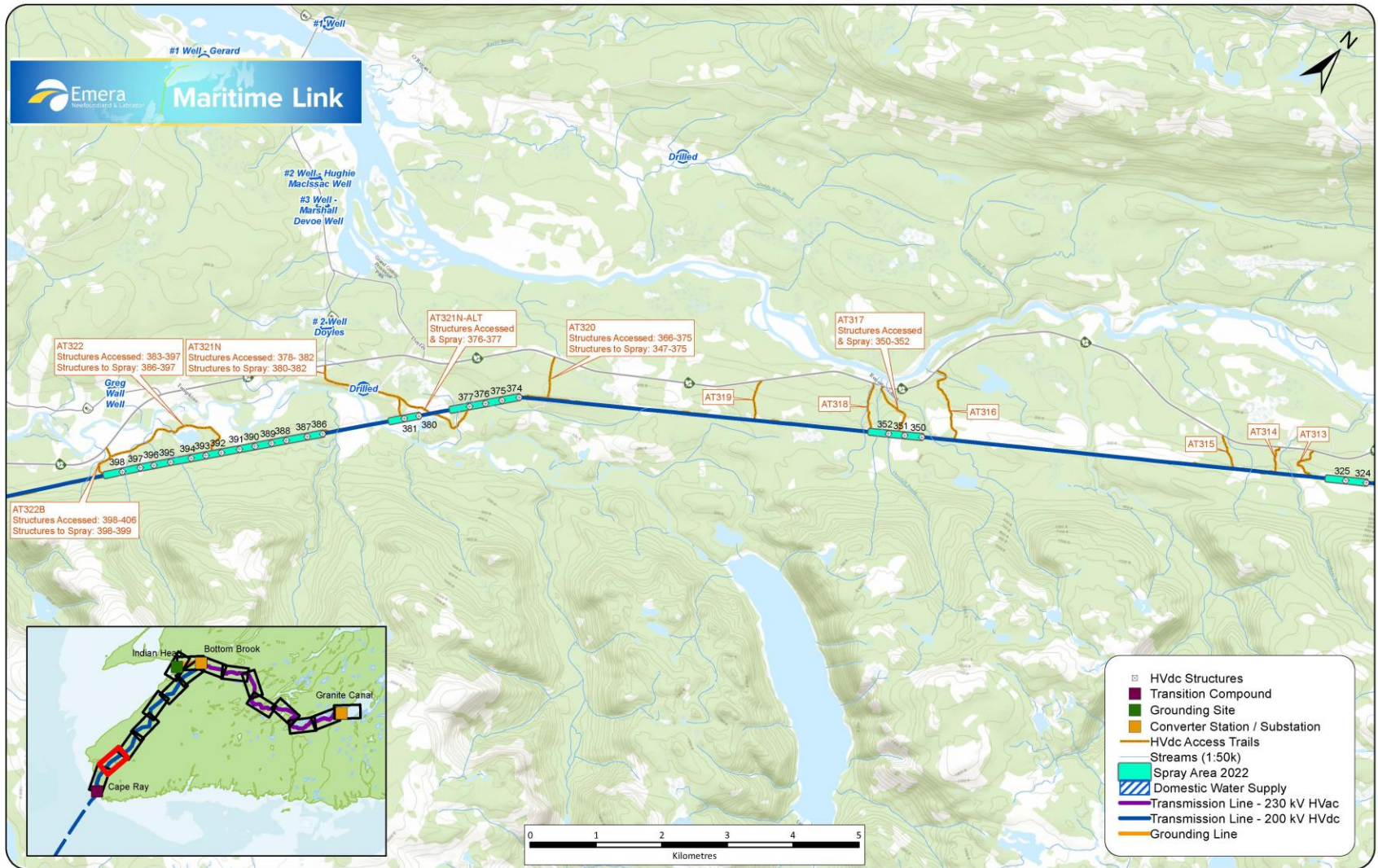


Map 4 - HVDC

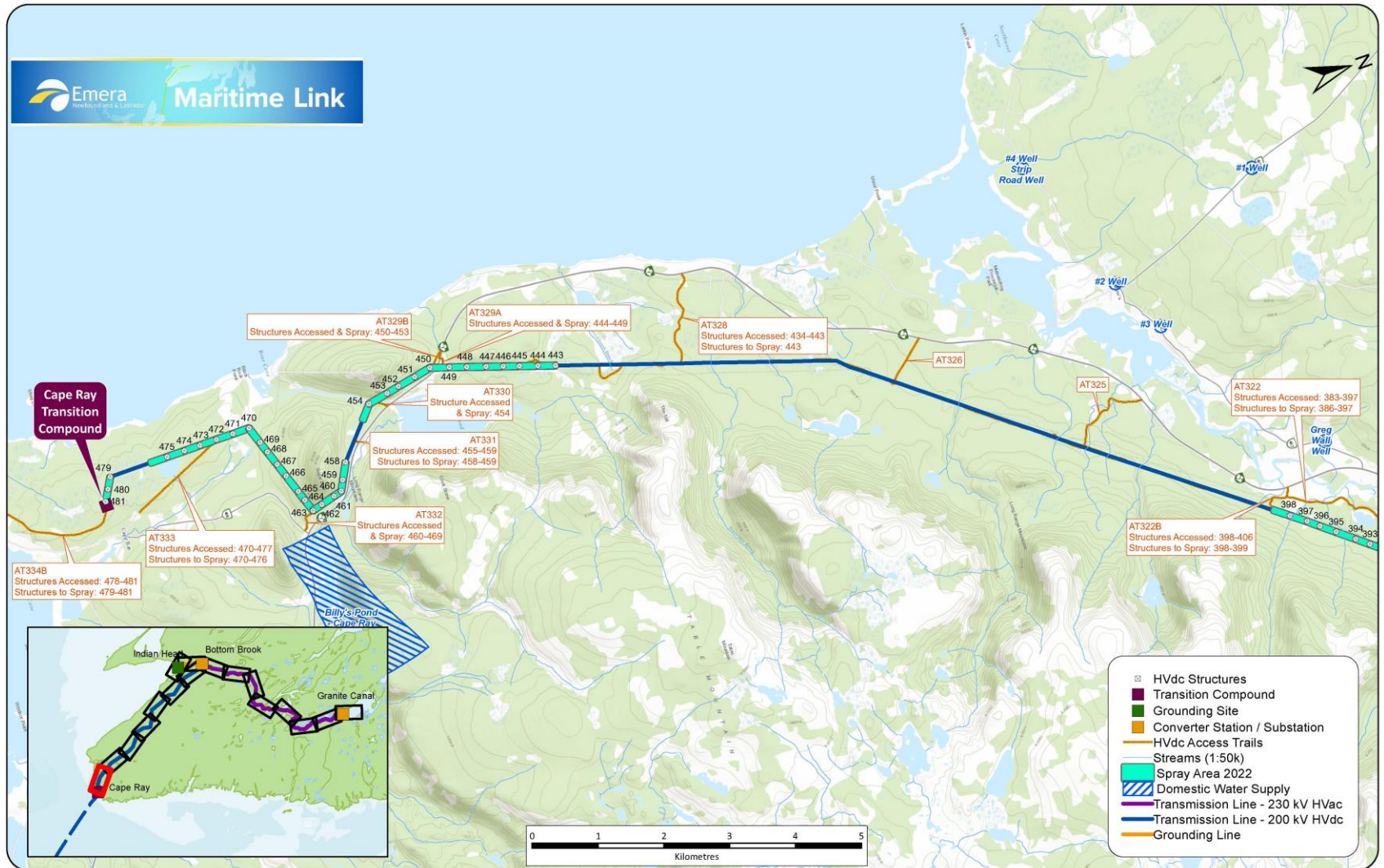




Map 6 - HVDC



Map 7 - HVDC

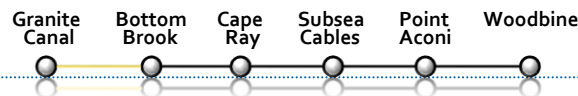


230kV Line – TL 269 Bottom Brook to Granite Canal

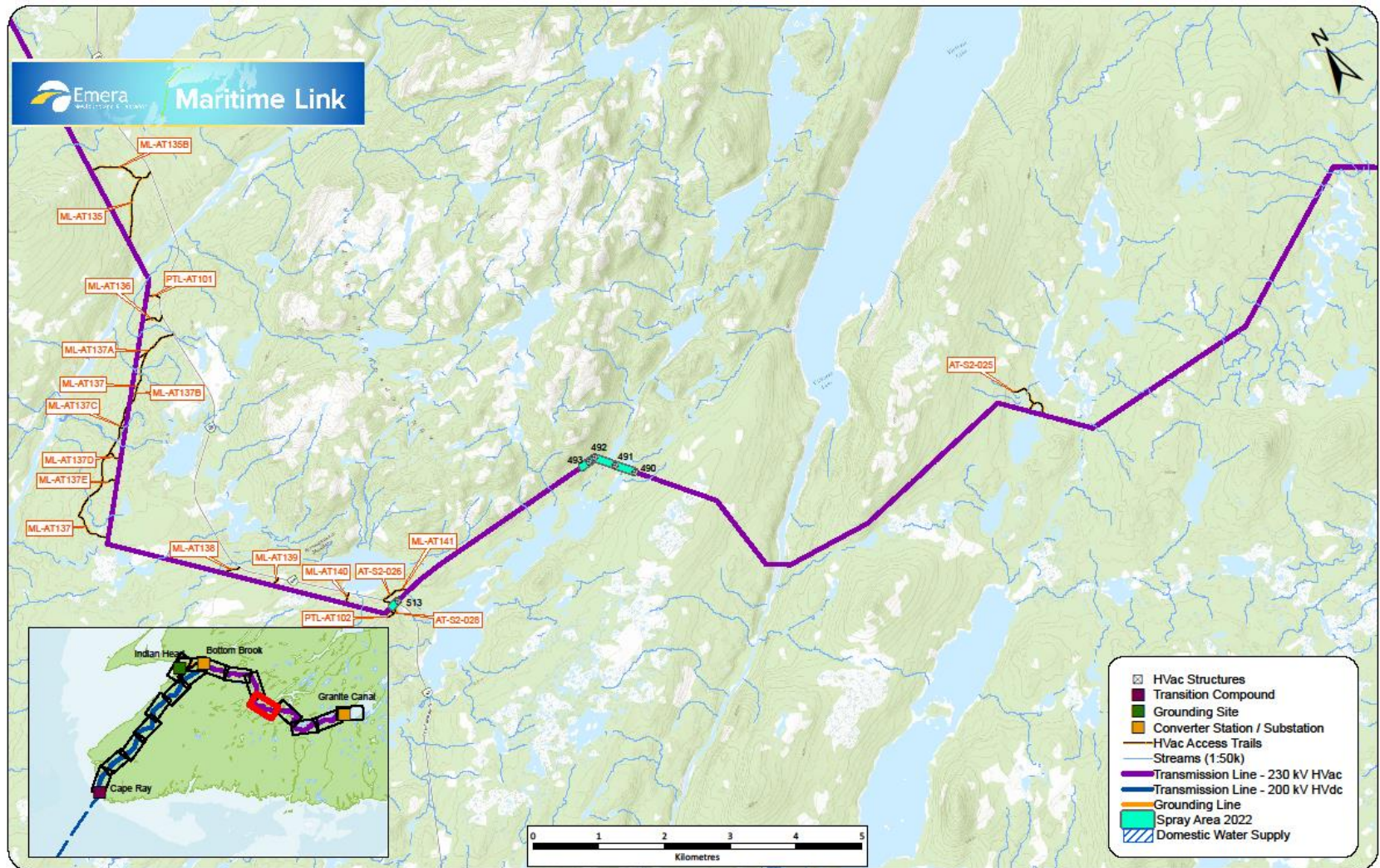
~160km line length

A 230 kV transmission line between Granite Canal and Bottom Brook

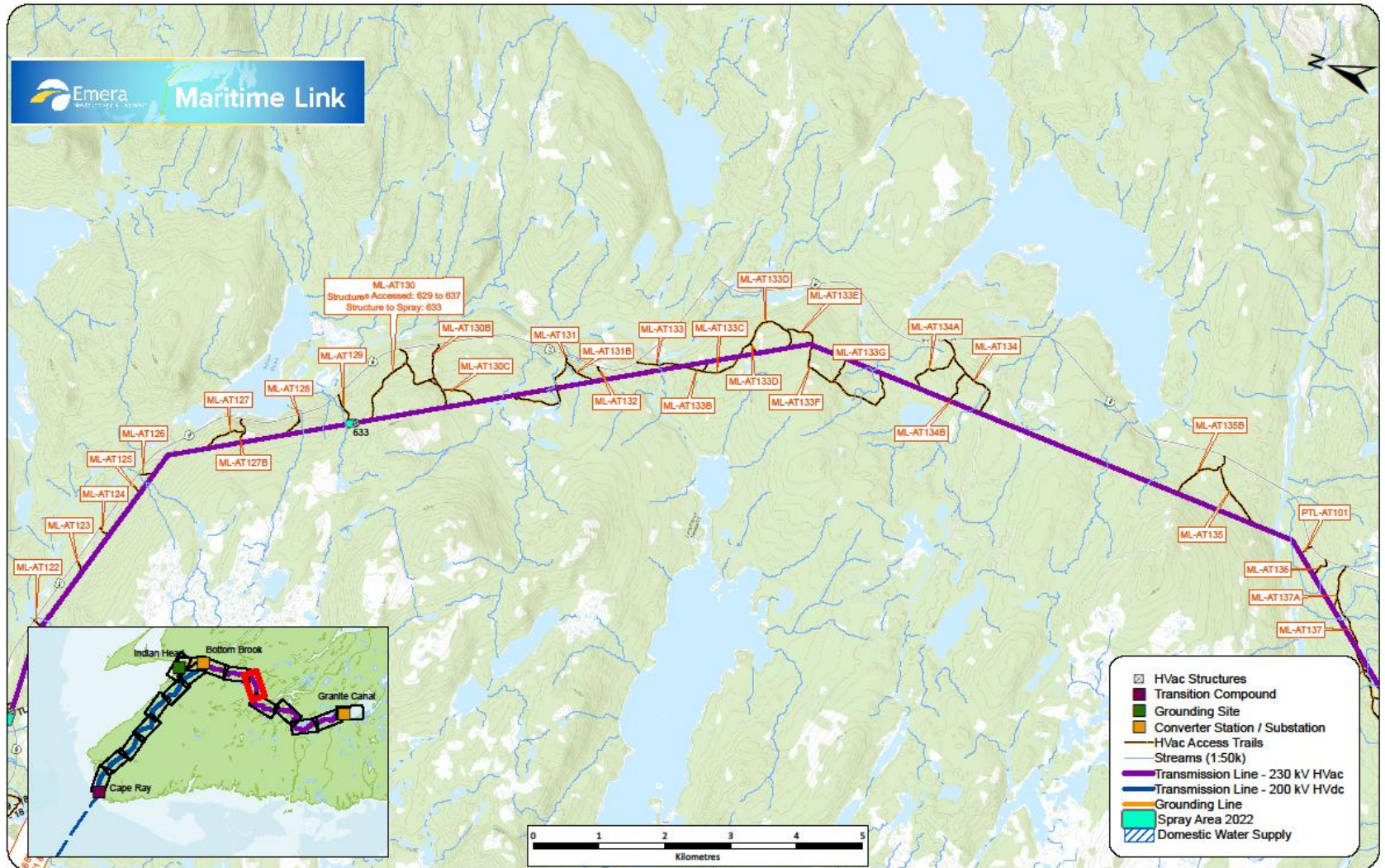
- Structures:
 - H-Frame Wood Pole Tangents
 - 3-Pole Guyed Heavy Angle and Dead-ends
 - Double-circuit Lattice Towers
- ACSR 795 Drake Conductor (single conductor 3 phase)
- Total structures: **873**
 - ~ 88% H-Frames, ~2% Running Angles, ~10 %Dead-ends
- Tree clearing: **800 Ha (50 M wide Right of Way)**
 - Beside existing TL250 NLH line along Burgeo HW



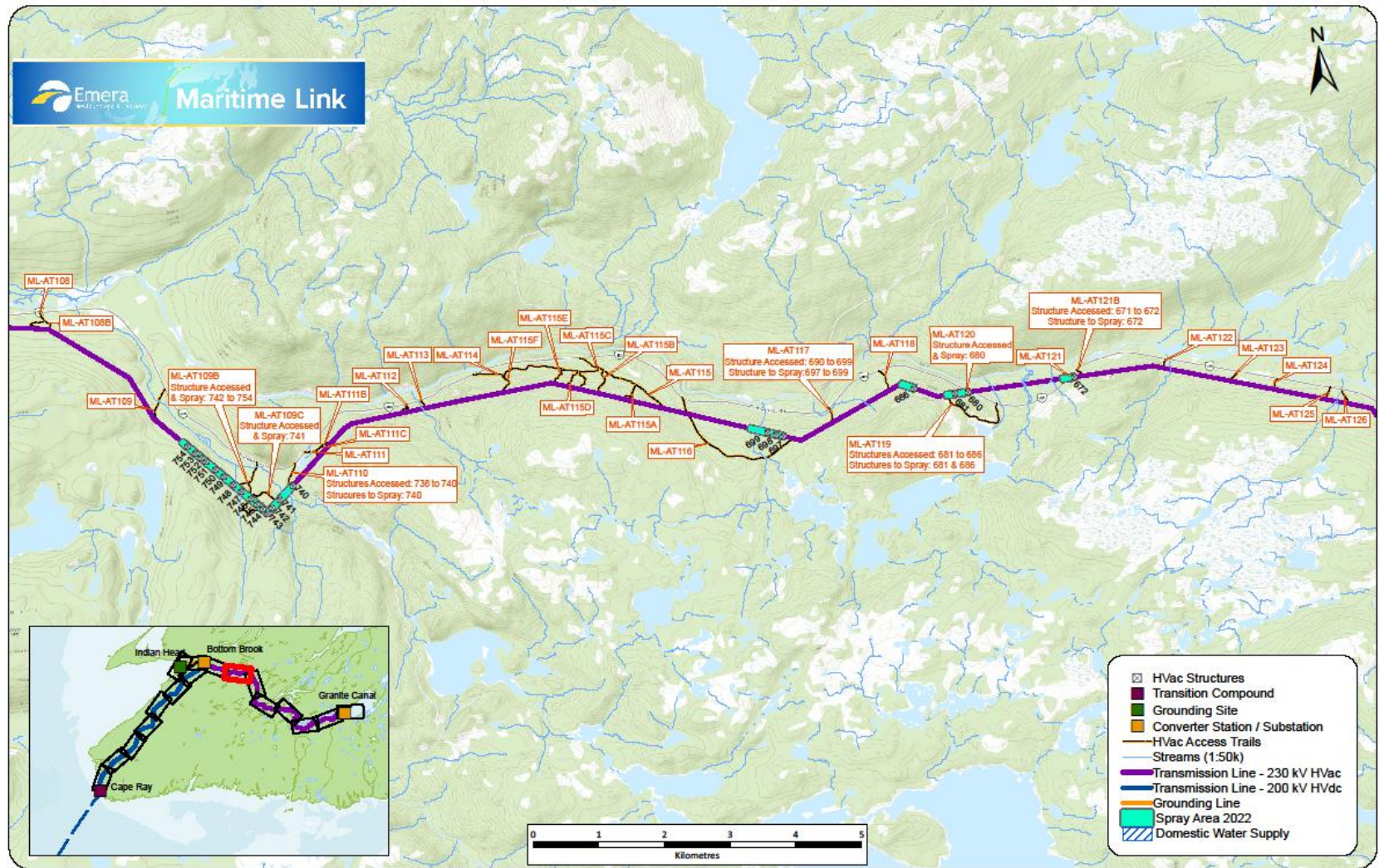
Map start Victoria River - HVAC



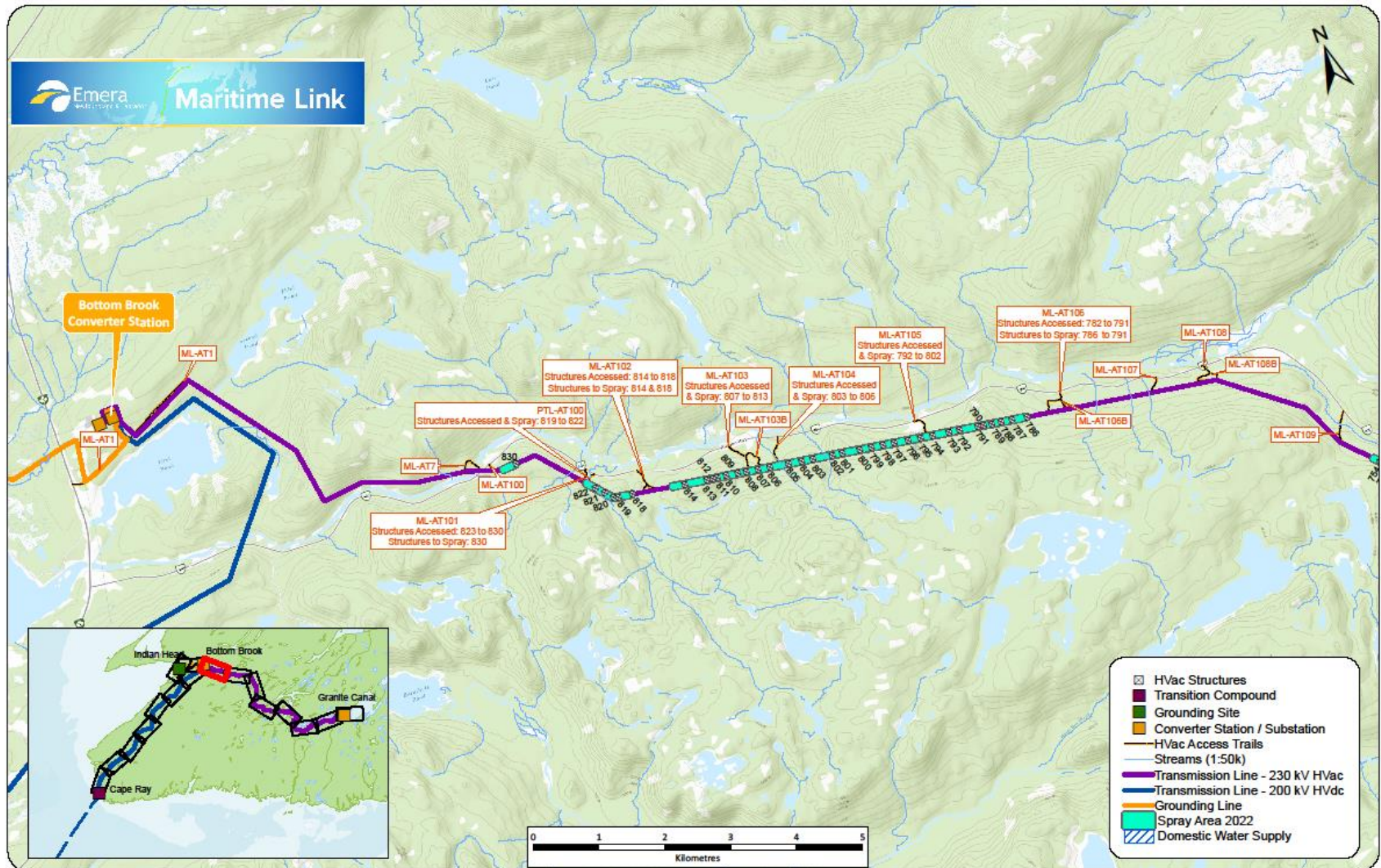
Map 2 - HVAC



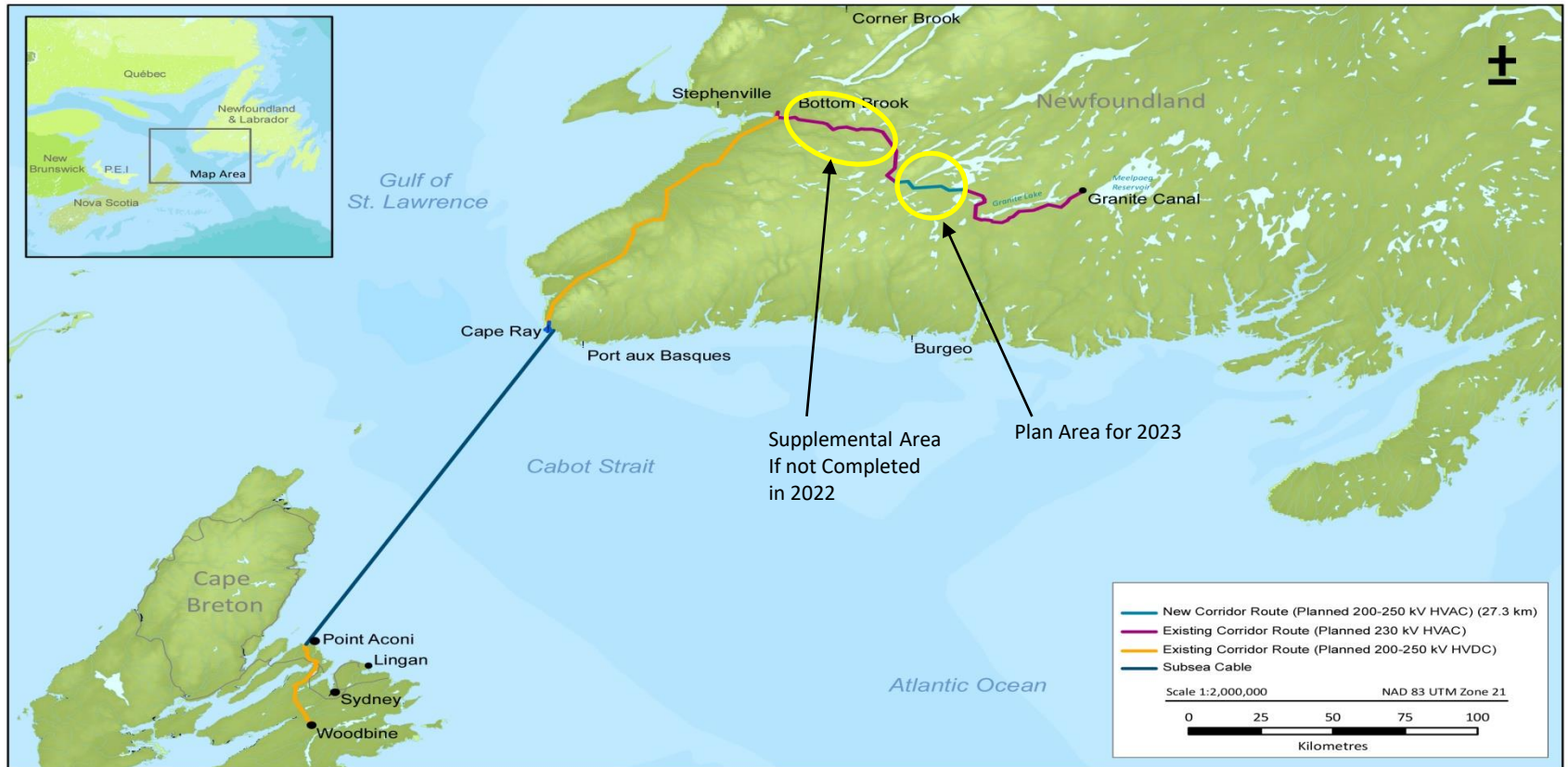
Map 3 - HVAC



Map 4 – Bottom Brook



HVAC Victoria Lake to Victoria River – 2023 Program



Date: 21 September 2012
Data Sources: Geogratis
National Atlas Framework 1: 2 Million

Maritime Link Project

ENL_035

Treatments Considered – Manual (Back Pack)

Garlon-Clearview-Hasten Tank Mix

- Clearview is granular with liquid Garlon XRT and liquid Hasten (Spray Adjuvant). The Clearview is applied at 60g/ha, Garlon is applied at 3.2L/ha, and Hasten is applied at 0.2L/ha. The Garlon and Clearview do the work and the Hasten allows for better penetration/absorption of the herbicide into the plant. There are other options for adjuvants such as gateway or xiameter fluid (more expensive and used at higher rate).
- Pros – works well on all species, applied at low rates, more selective and only applied on target vegetation (not a broadcast spray), no use of diesel/gas powered machines for application
- Cons – Clearview is expensive, treatment is labor intensive

Questions/comments??

