Appendix 1: Revised Project Area Description and Environmental Effects Assessment

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1.0 Introduction

The Project design has been refined to relocate a portion of the access road to the Wind Farm, resulting in a new 3.85 km of roadway outside the original Project Area. The transmission line remains in its original position from the original Project Registration (Registration Number 2363) Document (hereafter referred to as the Registration). This modification of the access road location was undertaken in consultation with the Newfoundland and Labrador Department of Transportation and Infrastructure (NL DTI) to accommodate site constraints with the prior access location and meet the provincial guidelines (i.e., avoidance of the weigh scale area, addition of acceleration and deceleration lanes) and a dedicated left-turning lane while maintaining sightlines. With this relocation of the segment of road, a section of access road from the registration document (2.50 km in length) will be removed from the Project infrastructure. Both the previously proposed access road segment and the new segment are depicted in Figure 1. This does not represent a substantive change to the overall Project Area or the activities associated with Construction or Operation and Maintenance (O&M) phases of the Project.

The newly proposed road segment intersects similar topography and habitat types as those previously characterized within the Project Area and Local Assessment Area, including comparable vegetation communities, terrain conditions, and hydrological features (e.g., stream crossings). No new valued components (VCs), Key Indicators (KIs), species at risk (SAR), potential for SAR, or SAR habitats were identified that were not already assessed as part of the original Registration. A field survey was conducted in March 2026, to collect baseline data on the revised road segment to confirm the desktop habitat suitability assessments and assess/confirm the similarity/difference to the previous access road segment. This informed the conclusions in the following sections.

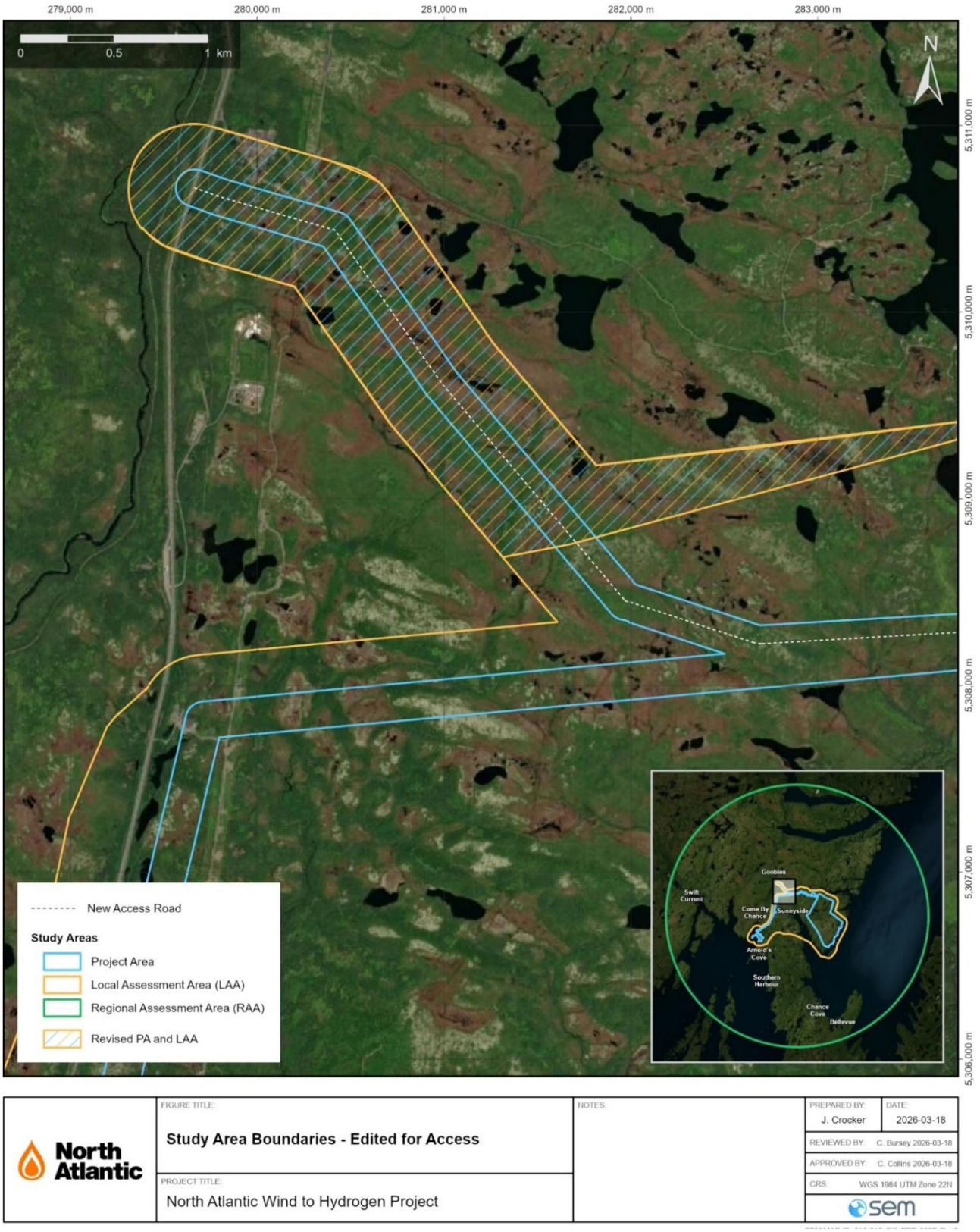


Figure 1 Map depicting the revised PA and LAA to accommodate the relocation of a segment of access road.

2.0 Potential Environmental Effects Pertaining to the Revised Road Segment

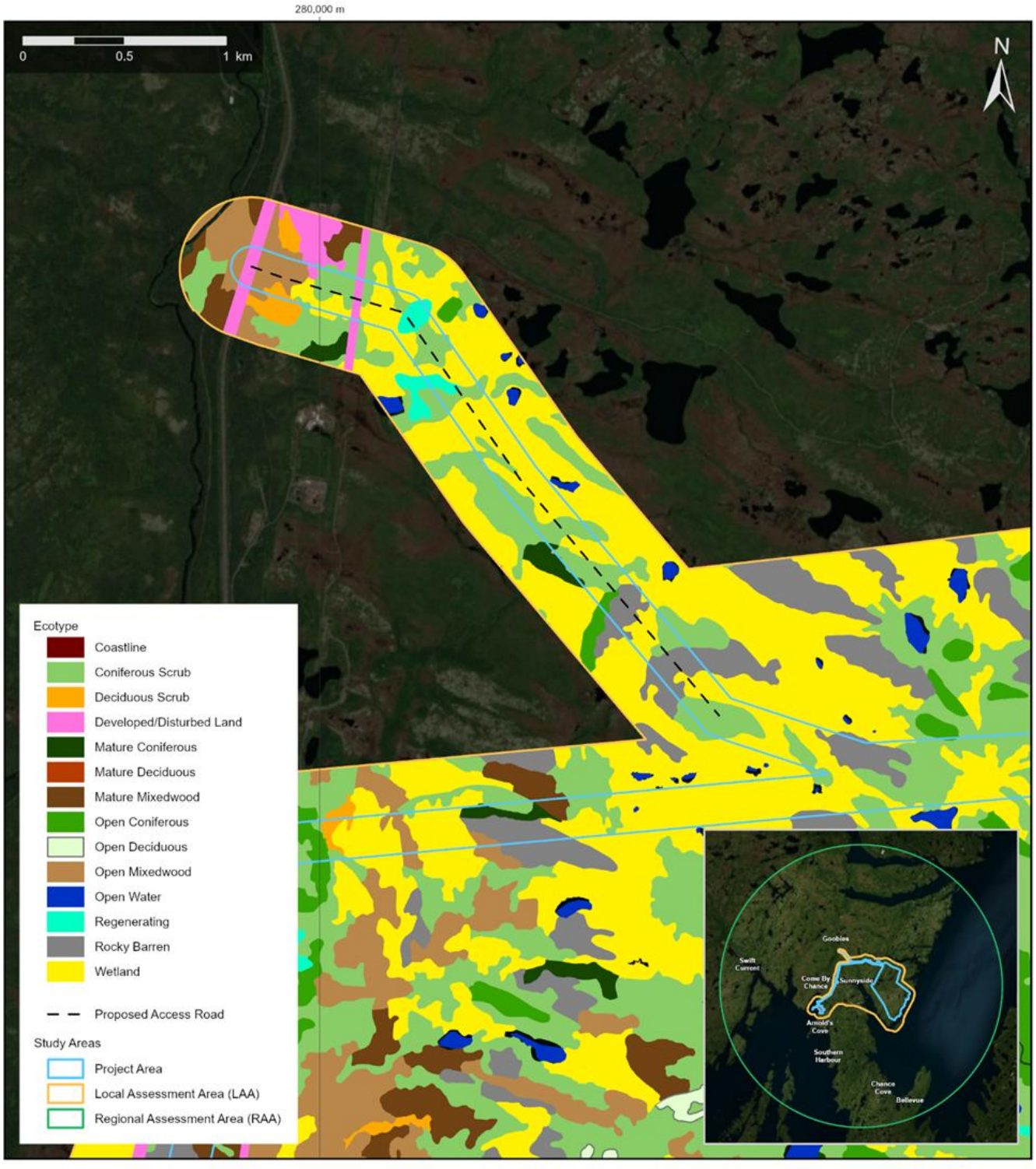
Potential effects associated with the Construction, O&M, and Decommissioning phases for the additional road segment would be of the same Nature, Frequency, Duration, Reversibility, and Context as the effects for the original Project Area that was assessed in the Registration. Interactions associated with the new proposed road segment would remain as they were for the original segment, including vegetation clearing (and associated habitat alteration and/or fragmentation), surface water interactions, and disturbance to wildlife from machinery, vehicles, and human presence. The disturbance would be limited to road construction during the construction phase and vehicle travel during operations. Effects are expected to be limited in spatial extent due to the narrow, linear footprint of the access road and represent a minor incremental increase relative to the disturbance previously assessed.

Mitigation measures outlined in the Registration would remain the same for all roads constructed for the Project, including erosion and sediment control and best management practices for watercourse crossings. All the mitigations for the other roads will be applicable to the new segment and are expected to be equally effective.

The inclusion of this additional 3.85 km road segment as well as the removal of the 2.50 km of the original access road does not alter the conclusions of the environmental effects assessment. Effects are expected to be limited in spatial extent due to the narrow, linear footprint of the access road and represent a minor incremental increase relative to the disturbance previously assessed. Residual effects remain not significant, and the overall environmental risk profile of the Project remains unchanged. The following sections outline the interactions of the new segment with the various relevant Key Indicators (KIs) to inform an effects assessment on the new road segment. Collectively, these sections validate that the new segment does not alter the conclusions of the original effects assessment from the Registration.

2.1 Ecological Land Classification

The updated ecological land classification (ELC) mapping for the revised road segment indicates that the segment traverses a suite of ecotypes consistent with those previously identified within the Project Area and Local Assessment Area, as well as the previous access road section (2.50 km) now removed. These include a variety of forest types, Rocky Barren, and Wetland (Figure 2), which were analogous to the ecotypes of the previous road segment from the Registration. There is also a section of previously disturbed land adjacent to the Trans-Canada Highway forming part of this new segment. There were no large contiguous patches of mature forest present along the new segment (which can be relevant to SAR like American Marten), nor any significantly large open areas (relevant to SAR like Short-eared Owl [*Asio flammeus*]).



North Atlantic	FIGURE TITLE: Local Assessment Area Extension Land Classification	NOTES:	PREPARED BY: J. Crocker	DATE: 2026-03-12
			REVIEWED BY:	
			APPROVED BY:	
	PROJECT TITLE: North Atlantic Wind to Hydrogen Project		CRS: WGS 1984 UTM Zone 22N	
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Figure 2 Local Assessment Area Extension Land Classification

No new ecotypes were identified along the new segment that would represent a departure from the environmental conditions assessed in the Registration. The distribution, composition, and ecological function of the ecotypes are representative of the broader landscape in the PA, LAA and RA and have already been considered in the main effects assessment for the Project.

Given the relatively small spatial extent of the additional 3.85 km segment and the linear nature of the disturbance, these effects represent a minor incremental change (a net increase of 1.35 km over the original road segment from the Registration). The affected ecotypes are common, widely distributed, and equivalent to the original access road segment. Therefore, their loss does not materially alter the availability or function of these habitats at the PA, LAA, or RAA scale.

2.2 Rare Plants

Rare plants, where present, are typically associated with localized microhabitats that provide suitable conditions such as specific substrate composition, drainage characteristics, and exposure regimes. Based on the ELC (Figure 2) and habitat characteristics along the revised access road segment, there is some potential for the occurrence of rare plant species associated with specific habitat types, including Rocky Barren and Wetland. These specialized habitat types are consistent with those previously identified and assessed within the broader Project Area. These habitats are not unique within the regional context and are well represented throughout the surrounding landscape.

Potential effects of the new segment on rare plants include the same as those assessed for the Project Area in the Registration as well as the removed road segment (e.g., clearing and grubbing could cause direct loss, microhabitats could be altered, dust deposition and soil compaction are possible, and the potential exists for the introduction of non-native species). These effects would be limited to the footprint of the road and adjacent areas and represent a minor change relative to the disturbance previously assessed for the Project.

Similarly, the proposed mitigation measures for the new segment would be analogous to those from the Project related to road construction, including minimizing the extent of clearing, avoiding unnecessary disturbance, and implementing appropriate erosion and sediment control. Where warranted, targeted pre-construction surveys may be conducted to confirm the presence or absence of rare plant species in higher suitability habitats.

Given the limited spatial extent of the additional disturbance and the availability of similar habitat in the surrounding landscape, residual effects on rare plants are expected to be low in magnitude, localized, and not significant. The revised segment does not alter the conclusions of the original environmental assessment with respect to rare plant species.

2.3 Wetlands

The updated ELC (Figure 2) indicates that the revised access road segment will intersect with wetland features, consistent with those previously identified across the Project Area. Effects of the new road segment remain the same as the original layout, and include direct loss of wetland, changes to local surface water flow/drainage, soil compaction, and edge effects that could change the plant species assemblages.

The extent of wetland interaction along the revised segment is limited and comparable to what was previously assessed for the access road network. The wetlands present (fens and fen-bog complexes) are not considered rare or regionally unique, and similar habitats are abundant in the surrounding PA, LAA, and RAA.

Mitigation measures, including appropriate road design that avoids wetlands wherever possible, minimizing encroachment, and maintaining natural surface water flows, will reduce the potential for adverse effects. Where wetlands must be altered, best management practices will be implemented to maintain hydrological connectivity and function, and a Section 48 permit will be sought (Permit for Alterations to a Body of Water).

Residual effects are expected to be localized and low in magnitude. The inclusion of this additional road segment does not materially change the overall assessment of wetland effects, and conclusions remain consistent with those presented in the Registration.

2.4 Fauna (Mammals)

The habitats intersected by the revised access road segment provide suitable conditions for a range of common mammal species typical of the region. These would include species that utilize forested areas, wetlands, and barrens for foraging, movement, and shelter (e.g., Red Fox (*Vulpes vulpes*), River Otter (*Lontra canadensis*), Moose (*Alces alces*), Canada Lynx (*Lynx canadensis*), Coyote (*Canis latrans*), Red Squirrel (*Tamiasciurus hudsonicus*), Short-tailed Weasel (*Mustela erminea*), Beaver (*Castor canadensis*), Snowshoe Hare (*Lepus americanus*), Masked Shrew (*Sorex cinereus*), Meadow Vole (*Microtus pennsylvanicus*), Deer Mouse (*Peromyscus maniculatus*), and Muskrat (*Ondatra zibethicus*). There are no significant patches of contiguous mature coniferous forest along the new segment that would provide habitat for American Marten (*Martes americana*, Newfoundland population).

Potential effects of the new road segment on mammals will be similar to those identified in the Registration for the Project Area, including habitat loss or fragmentation, noise and human activity, vehicle interactions, and avoidance triggered by these activities. These effects are consistent with those

previously assessed for the Project and are not expected to differ in nature or magnitude for the revised road segment. The linear disturbance associated with the road represents a minor addition to the overall Project footprint and is unlikely to significantly affect movement patterns or population viability at a local or regional scale.

Mitigation measures such as controlling construction activity by maintaining awareness of wildlife presence and limiting unnecessary disturbance will reduce potential interactions. Given the availability of similar habitat in adjacent areas, mammals are expected to adapt and continue to utilize the surrounding landscape.

Residual effects are expected to be low, localized, and not significant. The revised segment does not introduce new pathways for interaction or elevate risk beyond what has already been assessed.

2.5 Avifauna

The revised access road segment intersects habitats that support a variety of bird species, including those associated with different types of coniferous and deciduous shrub and forest, wetlands, and barrens. These habitats provide opportunities for nesting, foraging, and migration stopover for a variety of species, consistent with conditions previously assessed within the Project Area. The open habitats like the drier wetlands and the barrens would have potential for Short-eared Owl. As per the original assessment, any raptor nest sites shall be reported to the Wildlife Division at wildlifereferrals@gov.nl.ca and no vegetation clearing will occur within;

a) 800 metres (m) of a Bald Eagle (*Haliaeetus leucocephalus*) or Osprey (*Pandion haliaetus*) nest between March 15 and July 31; 200 m during the remainder of the year.

b) 800 m of a Short-eared Owl (ground) nest between May 15 to August 15.

c) 200 m of any other raptor nests between March 15 and July 31.

North Atlantic is aware that several species are currently being assessed for designation and listing under the Newfoundland and Labrador **Endangered Species Act** (NLESA) and the federal **Species at Risk Act**. If species that are designated and listed under this legislation are found within the Project Area, North Atlantic may be required to develop mitigations, in consultation with the Newfoundland and Labrador Department of Forestry Agriculture and Lands - Wildlife Division and must obtain a Section 18 Permit of the NL ESA for any Species at Risk surveys that could potentially disturb the species.

The new road segment will have the same interactions with birds as those assessed for the Project Area, including the potential loss of nesting or foraging habitat, disturbance from noise from equipment, vehicles, and human presence, edge effects that may alter habitat suitability for some species, and avoidance behaviors may be triggered by the disturbances.

These effects are well understood and were previously assessed in the context of the broader Project. The additional road segment does not introduce new habitat types or increase the scale of disturbance in a manner that would alter the previous conclusions.

Mitigation measures, including consideration of timing windows for vegetation clearing (where feasible) and minimizing disturbance, will reduce potential impacts on breeding birds. Nest surveys will be undertaken if clearing must be conducted during breeding season. Buffers will be implemented for any nests found according to federal and/or provincial guidelines.

Residual effects on avifauna are expected to be low in magnitude and not significant. The revised segment does not change the overall assessment or conclusions presented in the Registration.

2.6 Bats

Bats are most active during the warmer months and rely on a combination of roosting habitat, foraging areas with sufficient insect availability, and suitable commuting corridors. The habitats intersected by the revised access road segment, including the various forest types and wetlands, may provide suitable foraging, roosting, and transitory habitat for bat species known to occur in the region (e.g., Little Brown Myotis [*Myotis lucifugus*], Northern Myotis [*Myotis septentrionalis*], and some records of the migratory bat species). Forested areas may contain potential roosting features in the form of mature trees with cavities, loose bark, or crevices, although the density of such features is not expected to exceed that previously identified within the Project Area. A field survey was conducted in March 2026, to provide an assessment of the potential bat habitat along the new segment. Foraging habitat existed along the segment in the form of wetlands, but minimal potential was found for roosting habitats. The habitats along the revised segment are consistent with those previously assessed and do not represent unique or high-quality bat habitat. Potential interactions with the Project remain the same as the previous assessment (e.g., loss or fragmentation of habitat, disturbance from machinery/vehicles/humans).

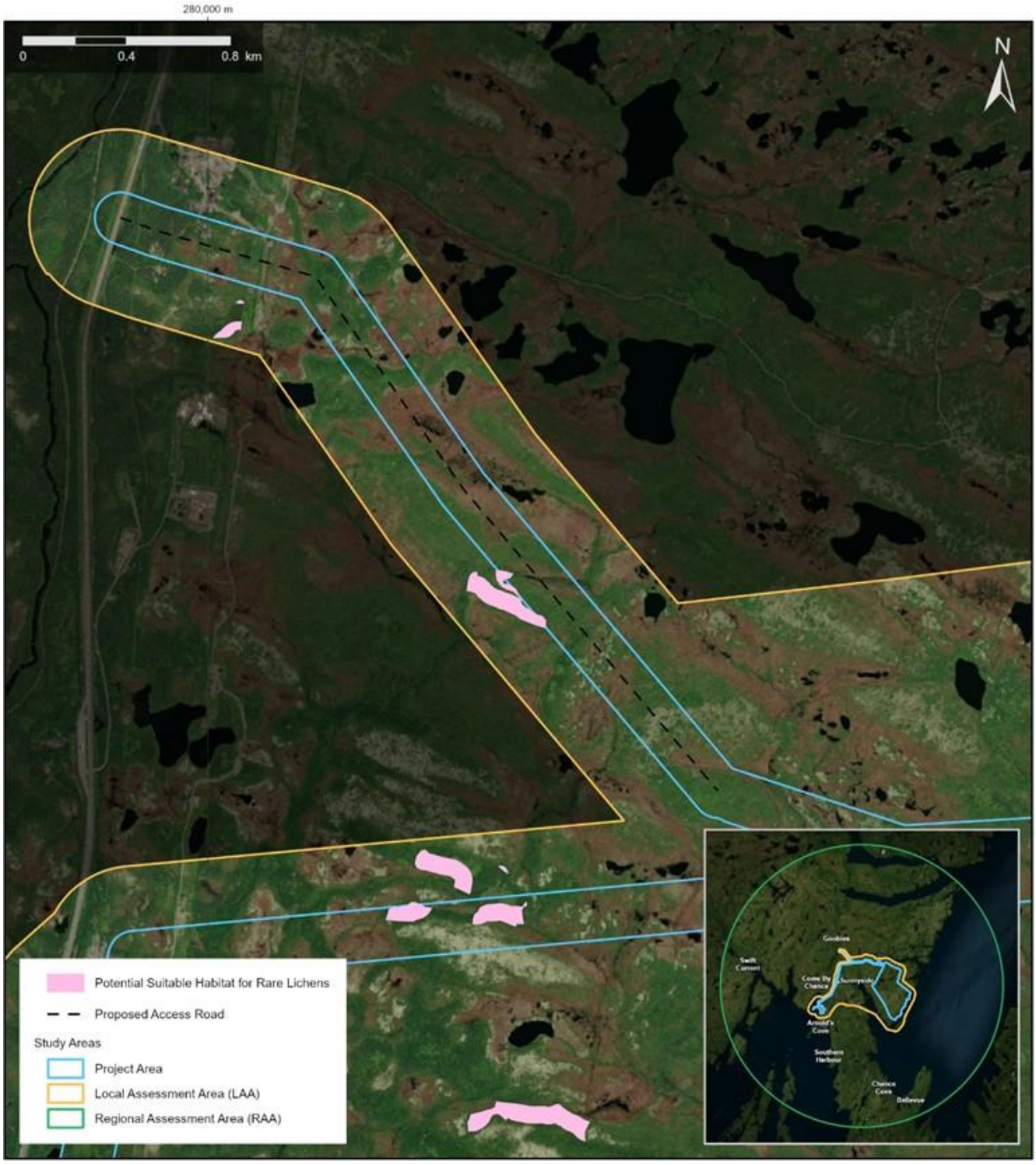
Effects are expected to be limited in spatial extent due to the narrow, linear footprint of the access road and represent a minor incremental increase relative to the disturbance previously assessed. The most significant effect for bats are related to the Wind Farm and the turbines than to the linear features like roads (This can be found in the Registration). However, like the breeding bird season, minimizing road construction disturbance during the peak bat season will be implemented where possible.

Given the availability of similar habitat in the surrounding landscape, bats are expected to continue to utilize adjacent areas with minimal disruption. The revised segment does not introduce new interaction pathways or increase potential effects beyond those previously assessed. Residual effects on bats are expected to be low in magnitude, localized, and not significant. The conclusions of the original environmental assessment remain unchanged.

2.7 Rare Lichens

The ELC indicated that two areas along the proposed new segment could support rare lichen communities (Figure 3), including Boreal Felt Lichen (*Erioderma pedicellatum*) and Graceful Felt Lichen (*Erioderma mollissimum*). Therefore, a field survey for rare lichens was undertaken along the proposed new road segment in March 2026. While there was some potential for the occurrence of rare lichens noted during the field survey, no rare lichens were identified along the revised segment, and the area does not host known concentrations of rare lichens. The potential effects on rare lichens (had any been located) could include direct loss of rare lichen thalli during clearing for the road, alteration of microhabitat conditions (which may induce desiccation), or changes to air quality (to which lichens may be especially sensitive). These effects would be limited to the footprint and immediate vicinity of the road and are consistent with those already assessed. Standard mitigation measures previously committed to (e.g., minimizing the cleared width, limiting unnecessary disturbance, and implementing erosion and sediment control) will reduce the extent of disturbance to any adjacent lichen communities. Natural regeneration of lichens is slow; however, given the abundance of similar habitat in the surrounding landscape, the ecological function of lichen communities at the regional scale is not expected to be affected.

Overall, the magnitude and extent of effects on lichen communities from the revised road segment are consistent with those previously assessed, and residual effects are expected to remain low and not significant.



North Atlantic	FIGURE TITLE: **Local Assessment Area Extension Lichen Habitat Suitability**	NOTES: *'Potential Suitable Habitat'* includes Mature Coniferous Forest, Mature Deciduous Forest, and Mixedwood Forest ecotypes that are within a 100m radius of Wetland or Open Water ecotypes.	PREPARED BY: J. Crocker; DATE: 2026-03-13
	PROJECT TITLE: North Atlantic Wind to Hydrogen Project		REVIEWED BY:
			APPROVED BY:
			CRS: WGS 1984 UTM Zone 22N
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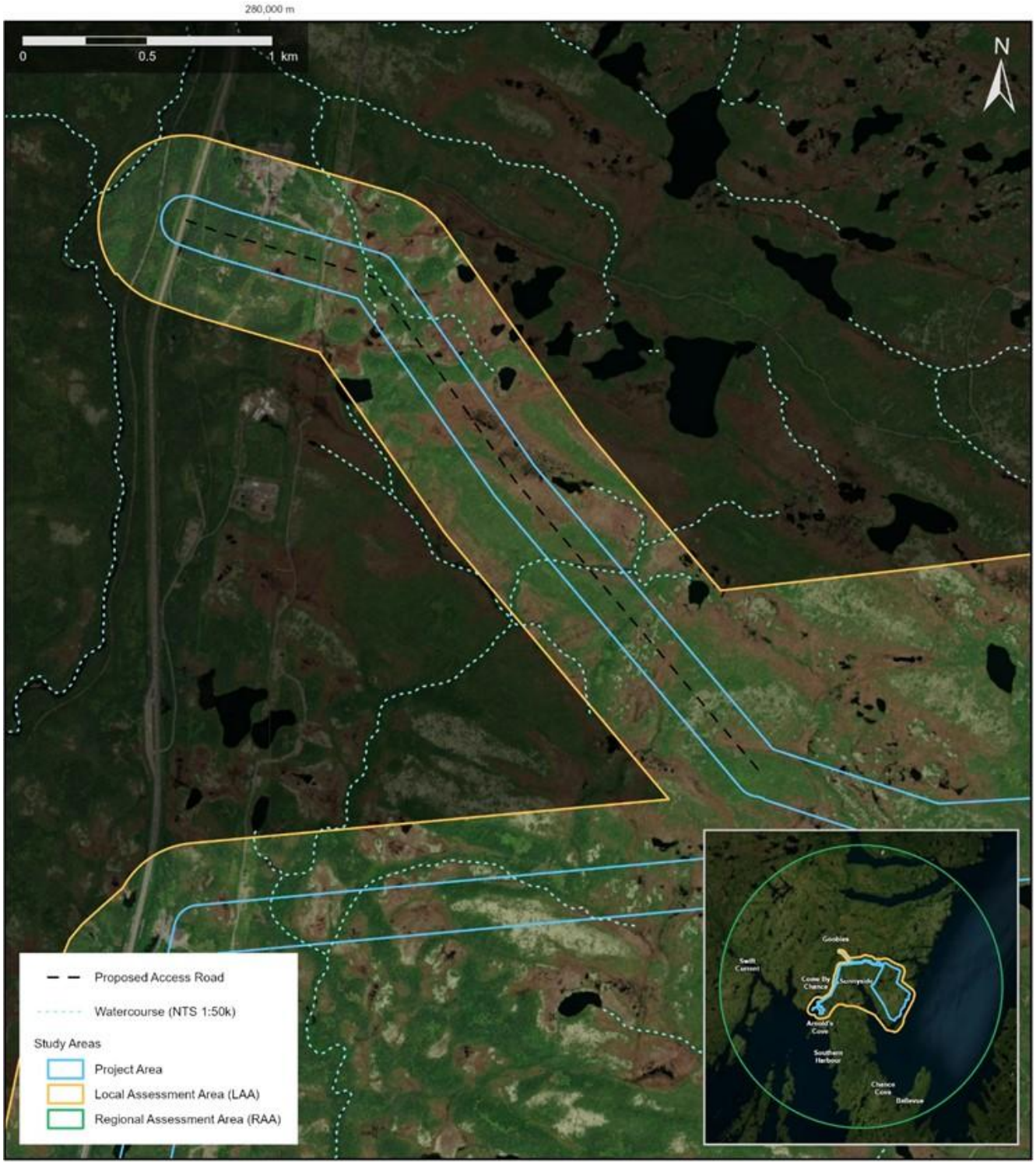
Figure 3 Local Assessment Area Extension Lichen Habitat Suitability

2.8 Fish and Fish Habitat

The revised access road segment contains two (2) watercourse crossings, as identified in Figure 4, below. These crossings are comparable in size, flow regime, and ecological function to those previously assessed within the Project Area, and along the former proposed access road segment (which contained three crossings). A field survey of the stream crossings was conducted in March 2026 to assess the stream's potential for fish and to obtain information on the general habitat characteristics. The two streams are generally small to moderate in size and may provide seasonal or permanent fish habitat depending on flow conditions, connectivity, and physical characteristics. Once the final road design and location are confirmed, a Permit to Alter will be requested. A fish and fish habitat assessment required for Fisheries Act Authorization will also be completed prior to construction.

Potential effects associated with the Construction and O&M of the new road segment could include those identified in the Registration (e.g., substrate disturbance, sedimentation and turbidity, changes to flow regimes or channel morphology, temporary barriers to fish passage). These potential effects are well understood and were comprehensively assessed in the Registration. The same mitigations will be applied to the crossings as others, including appropriately sized culverts to maintain natural channel dimensions and flow, avoidance of construction during sensitive life stages of fish, erosion and sediment control measures (e.g., silt fencing, sediment traps), and proper embedment and segment of culverts.

With these measures in place, residual effects on fish and fish habitat are expected to be temporary, localized, and reversible. The additional crossings do not introduce new types of interactions or risks beyond those already assessed. As such, the overall conclusions regarding non-significant residual effects on fish and fish habitat remain unchanged.



North Atlantic	FIGURE TITLE: Local Assessment Area Extension Stream Crossings	NOTES:	PREPARED BY: J. Crocker; DATE: 2026-03-13
	PROJECT TITLE: North Atlantic Wind to Hydrogen Project		REVIEWED BY:
			APPROVED BY:
			CRS: WGS 1984 UTM Zone 22N
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Figure 4 Local Assessment Area Extension Stream Crossings

2.9 Species at Risk Insects

The construction of the new road segment may have interactions with SAR insects. Potential effects would include those previously identified (e.g., habitat loss, disturbance to nests, reduction in floral resources, etc.). Based on the ELC and habitat characteristics assessed along the revised access road segment, there is potential for the occurrence of Yellow-banded Bumble Bee (*Bombus terricola*), Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*), Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*), and Transverse Lady Beetle (*Coccinella transversoguttata*). Habitats along the revised segment, including shrub-dominated areas, open habitats, and edge environments, may provide suitable foraging and habitat conditions for these species. However, these habitats are common within the regional landscape and are consistent with those previously assessed within the Project Area. No high-quality habitat features (e.g., meadows with dense concentrations of flowering plants) were identified along the segment that would increase the likelihood of occurrence beyond what was previously evaluated.

Effects on insects in general are expected to be limited in spatial extent and duration, given the narrow, linear footprint of the revised access road and the relatively small incremental increase in disturbance. Suitable habitats are widely available in the surrounding landscape, providing opportunities for continued use outside of the revised segment.

Mitigation measures, including minimizing vegetation clearing and land disturbance, and allowing for natural revegetation of disturbed areas, will help maintain habitat availability. While temporary reductions in floral resources may occur, early successional vegetation along road edges may provide some localized foraging opportunities post-construction.

Based on current information, no critical habitat, confirmed occurrences, or concentrations of these species have been identified along the revised segment. The addition of this road segment does not introduce new interaction pathways or increase the level of risk beyond what was previously assessed.

Residual effects on SAR insects are expected to be low in magnitude, localized, and not significant. The revised segment does not alter the conclusions of the original environmental assessment, and the Project is not anticipated to adversely affect the survival or recovery of these species.

3.0 Overall Conclusion

Across all KIs, the environmental conditions associated with the revised 3.85 km access road segment are consistent with those previously assessed (Table 1). The nature, magnitude, and extent of potential effects remain unchanged, and established mitigation measures are applicable and effective.

Table 1 Summary of Potential Environmental Effects

Component	Originally Assessed Access Road	Revised Access Road Segment (3.85 km)	Change in Effects Assessment
Ecological Land Classification (ELC)	Wetlands, Coniferous Scrub, Rocky Barren	Same main ecotypes present along revised segment	No new ecotypes identified; consistent with original assessment
Rare Plants	Common regional vegetation communities	Same vegetation types and composition	Minor incremental loss; no change to conclusions
Wetlands	Bogs and fens along the segment	Bogs and fens along the segment	Minor incremental interaction; no change to conclusions
Fauna (Mammals)	Common terrestrial mammals	Same habitat availability and use; therefore same mammals expected	Minor disturbance; no change to conclusions
Avifauna	Breeding and foraging habitat present. Short-eared Owl potential habitat present.	Comparable habitat along revised route	Minor habitat loss; no change to conclusions

Component	Originally Assessed Access Road	Revised Access Road Segment (3.85 km)	Change in Effects Assessment
Bats	Potential roosting and foraging habitat in wetland, forested, and edge environments	Similar habitat conditions along revised segment	Minor disturbance and habitat loss; no change to conclusions
Rare Lichens	Potential in some scattered locations	Potential in two areas; both surveyed (no rare lichens found)	No increased likelihood; no change to conclusions
Fish and Fish Habitat	3 Fish-bearing streams	2 Fish Bearing Streams Similar watercourses and habitat potential. Potential for fish-bearing streams is still high.	Standard mitigation applicable; no change to conclusions
SAR Insects	Potential in edge habitats, wetlands, disturbed areas.	Same habitat availability	No increased likelihood; no change to conclusions

Therefore, the addition of this segment does not alter the conclusions of the original environmental effects assessment, and residual effects remain not significant.