

Appendix C

Draft List of Evaluation Criteria and Indicators for the Alternative Route Evaluation





The draft list of evaluation criteria and indicators provided below will be used for the alternative route evaluation to select a preferred route for further analysis in the environmental assessment. This list is preliminary, and engagement sessions will be held to request further feedback on this list from Indigenous communities, government officials and agencies, and interested persons and organizations, prior to selecting a preferred route. Acronyms and abbreviations are defined at the end of this table.

Draft List of Evaluation Criteria and Indicators for Alternative Route Evaluation				
Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
Natural Environment	Physiography, Geology, Surficial Geology and Soils	Area (ha) of productive soils (e.g., agricultural) vs unproductive soils (e.g., developed areas) within the alternative route 150 m wide corridor ⁽¹⁾	Minimize adverse effects to productive soils and incompatibilities with existing agricultural operations	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • Canada Land Inventory • MAFRA • Local municipalities • Local commerce organizations/ businesses
	Provincial Parks, Conservation Reserves and Areas of Natural and Scientific Interest	Area (ha) of Areas of Natural and Scientific Interest (Earth and Life Science) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Provincially and federally designated features	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • MNRF
		Area (ha) of NGO nature reserves within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of forest reserves within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		Area (ha) of wilderness areas within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of provincial wildlife areas within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of national wildlife areas within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of conservation reserves within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of provincial parks within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of critical Landform/Vegetation Associations within the alternative route 150 m wide corridor	<ul style="list-style-type: none"> • Protection of critical landform/vegetation within designated areas 	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • MNRF

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
	Surface Water	Number of lakes and ponds within the alternative route 150 m wide corridor	<ul style="list-style-type: none"> • Could form part of provincially designated features • May provide habitat for aquatic species or potable/non-potable water sources 	<ul style="list-style-type: none"> • Desktop review including technical and background reports • Environment Canada’s Water Survey of Canada • GIS and LIO database and mapping • MNRF • Local municipalities and conservation authority • Aerial reconnaissance • Field work (as applicable)
		Area (ha) of lakes and ponds within the alternative route 150 m wide corridor		
		Number of watercourses within the alternative route 150 m wide corridor		
		Area (ha) of watercourses within the alternative route 150 m wide corridor		
	Groundwater	Number of water wells within the alternative route 150 m wide corridor and a buffer 100 m on either side	Some communities use groundwater and water wells as a source of potable and non-potable water	<ul style="list-style-type: none"> • Desktop review including technical and background reports • Environment Canada’s Water Survey of Canada • GIS and LIO database and mapping • MECP water well records • Local municipalities
		Area (ha) of high potential aquifer deposits within the alternative route 150 m wide corridor	Protection of potential aquifers	
		Area (ha) of moderate potential aquifer deposits within the alternative route 150 m wide corridor		
	Vegetation and Wetlands	Area (ha) of recently logged lands (last 10 years) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Previously disturbed areas, such as logged lands, could potentially be more suitable for the Project	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • MNRF • Local municipalities • Sustainable license holders

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
				<ul style="list-style-type: none"> • Forest management plans and inventory mapping • Aerial reconnaissance
		Area (ha) of mapped vegetation related SWH within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Minimize adverse effects to vegetation SWH	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • MNRF • Local municipalities • Sustainable license holders • Forest management plans and inventory mapping • Aerial reconnaissance • Field work (as applicable)
		Number of S1-S3 Conservation Concern Species Occurrence and Observations (vegetation species) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Minimize adverse effects to sensitive vegetation features	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • NHIC • MNRF • Local municipalities • Sustainable license holders • Forest management plans and inventory mapping • Aerial reconnaissance
		Area (ha) of S1-S3 Conservation Concern Species Occurrence and Observations (vegetation species) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of critical Landform/Vegetation Associations within the	Protection of critical landform/vegetation	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		alternative route 150 m wide corridor, plus a 500 m buffer on either side		<ul style="list-style-type: none"> • MNRF • GapTool data • iNaturalist data
		Area (ha) of underrepresented Landform/Vegetation Associations within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Protection of underrepresented landform/vegetation	
		Area (ha) of Provincially Significant Wetlands within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	<ul style="list-style-type: none"> • Minimize adverse effects to wetlands • Provincially and municipally designated features 	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • MNRF • Local municipalities and conservation authority • Aerial reconnaissance
	Area (ha) of other wetlands within the alternative route 150 m wide corridor, plus a 500 m buffer on either side			
	Little Brown Myotis and Northern Myotis	Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side	Provincially and federally protected species	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • NHIC • MNRF • MECP • Environment Canada's Species at Risk databases • Aerial reconnaissance • Field work (as applicable)
		Area (ha) of candidate or known hibernacula habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
Area (ha) of candidate maternity roost habitat within				

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		the alternative route 150 m wide corridor, plus a 1 km buffer on either side		<ul style="list-style-type: none"> Data sources from Ontario's data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> Significant Ecological Area (contains regionally rare plant records that may indicate candidate SWH) Data sources from NHIC: <ul style="list-style-type: none"> Species Observation, locally derived (contains regionally rare plant records that may indicate candidate SWH) iNaturalist data
		Eastern whip-poor-will		
		Area (ha) of candidate or known breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
		Barn swallow		
		Area (ha) of candidate or known breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
		Bank swallow		
		Area (ha) of candidate or known breeding habitat within		

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
		Bobolink		
		Area (ha) of candidate breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
	Chimney swift	Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
		Area (ha) of candidate or known breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
	American white pelican	Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side		
		Area (ha) of candidate breeding habitat within the		

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)	
	Least Bittern	alternative route 150 m wide corridor, plus a 1 km buffer on either side			
		Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side			
	American Badger	Area (ha) of known breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side			
		Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side			
	Gray Fox	Area (ha) of candidate breeding habitat within the alternative route 150 m wide corridor, plus a 1 km buffer on either side			
		Number of known occurrence records within the alternative route 150 m wide corridor, plus a 1 km buffer on either side			
					Area (ha) of candidate denning habitat within the alternative



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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		route 150 m wide corridor, plus a 1 km buffer on either side		
	Lake sturgeon (Great Lakes - Upper St. Lawrence population)	Number of waterbodies with documented lake sturgeon (Great Lakes - Upper St. Lawrence population) presence within 1 km of the alternative route- 150 m wide corridor		
		Area (ha) of lake sturgeon (Great Lakes - Upper St. Lawrence population) habitat within the alternative route 150 m wide corridor		
	Lake sturgeon (Saskatchewan - Nelson River population)	Number of waterbodies with documented lake sturgeon (Saskatchewan - Nelson River population) presence within 1 km of the alternative route 150 m wide corridor		
		Area (ha) of lake sturgeon (Saskatchewan - Nelson River population) habitat within the alternative route 150 m wide corridor		
	American eel	Number of waterbodies with documented American eel presence within 1 km of the alternative route 150 m wide corridor		

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		Area (ha) of American eel habitat within the alternative route 150 m wide corridor		
	Wildlife and Wildlife Habitat	Number of S1-S3 Conservation Concern Species Occurrence and Observations (wildlife species) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Minimize adverse effects to wildlife	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS and LIO database and mapping • NHIC • MNRF • Aerial reconnaissance • Data sources from Ontario’s data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> • Significant Ecological Area (contains regionally rare plant records that may indicate candidate SWH) • Data sources from NHIC: <ul style="list-style-type: none"> • Species Observation, locally derived (contains regionally rare plant records that may indicate candidate SWH) • iNaturalist data • Field work (as applicable)
		Area (ha) of S1-S3 Conservation Concern Species habitat (wildlife species) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		
		Area (ha) of mapped wildlife related SWH within the alternative route 150 m wide corridor, plus a 500 m buffer on either side	Minimize adverse effects to wildlife habitat	
	Area (ha) of S1-S3 Conservation Concern Species			

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		habitat (wildlife species) within the alternative route 150 m wide corridor, plus a 500 m buffer on either side		<ul style="list-style-type: none"> Abandoned mine survey (for bat hibernacula) Field work (as applicable) Data sources from Ontario's data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> Significant Ecological Area (contains regionally rare plant records that may indicate candidate SWH) Data sources from NHIC: <ul style="list-style-type: none"> Species Observation, locally derived (contains regionally rare plant records that may indicate candidate SWH) iNaturalist data
		Length of alternative route (km) paralleling existing permanent infrastructure to minimize habitat fragmentation	<ul style="list-style-type: none"> Minimize adverse effects to wildlife habitat Feedback from Indigenous communities, agencies and stakeholders indicated a preference to parallel existing infrastructure to limit adverse effects on wildlife and wildlife habitat 	<ul style="list-style-type: none"> n/a
	Fish and Fish Habitat	Area (ha) of fish habitat, excluding SAR habitat, within the alternative route 150 m wide corridor	Minimize adverse effects to fish and/or habitat	<ul style="list-style-type: none"> Desktop review including technical and background reports GIS and LIO database and mapping NHIC

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		Number of waterbodies within the alternative route 150 m wide corridor with sensitive habitats, including: <ul style="list-style-type: none"> • known lake trout; • fish sanctuaries; • known brook trout; • nursery areas; • spawning areas; and • other significant aquatic habitat. 		<ul style="list-style-type: none"> • MNRF • DFO mapping • Forest management plans and inventory mapping • Local municipalities • Aerial reconnaissance • Field work (as applicable)
Socio-Economic Environment	Land Use	Number of provincial parks within the alternative route 150 m wide corridor	Identification and protection of existing park values and activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports including Crown Land Use Policy Atlas • Park management plans • GIS and LIO database and mapping • MNRF • Ontario Parks • iNaturalist
		Number of conservation reserves within the alternative route 150 m wide corridor	Identification and protection of existing reserve values and activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports, including Crown Land Use Policy Atlas • Reserve management statements • GIS and LIO database and mapping • MNRF • Ontario Parks • iNaturalist
		Number of enhanced management areas within the	Identification and protection of existing values and activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports including Crown Land Use Policy Atlas

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		alternative route 150 m wide corridor		<ul style="list-style-type: none"> • Applicable elements of park/reserve management plans and/or statements • GIS and LIO database and mapping • MNRF • Ontario Parks • iNaturalist
		Area (ha) of mining claims within the alternative route 150 m wide corridor	Protect and maintain access for significant exploration activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS database and mapping • Local commerce organizations • ENDM • MNRF
		Number of active mines within the alternative route 150 m wide corridor	Protect and maintain access to significant mining activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS database and mapping • Local commerce organizations • ENDM • MNRF • Mining companies
		Number of inactive (abandoned) mines within the alternative route 150 m wide corridor	Abandoned mines could pose human health and/or constructability issues	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS database and mapping • ENDM • MNRF
		Number of aggregate pits and quarries within the alternative route 150 m wide corridor	Protect and maintain access to significant aggregate activities	<ul style="list-style-type: none"> • Desktop review including technical and background reports • GIS database and mapping • ENDM • MNRF

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
				<ul style="list-style-type: none"> Local municipalities Data sources from Ontario's data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> Aggregate Site Authorized – Inactive Ministry of Transportation Aggregate Sites
		Area (ha) of high potential for aggregate resources within the alternative route 150 m wide corridor	Protect and maintain access to significant aggregate resources	<ul style="list-style-type: none"> Desktop review including technical and background reports GIS database and mapping ENDM MNRF Local municipalities Data sources from Ontario's data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> Aggregate Site Authorized – Inactive Ministry of Transportation Aggregate Sites
		Area (ha) of lands designated for recreational, residential, institutional or commercial purposes within the alternative route 150 m wide corridor	Minimize adverse effects and incompatibilities with existing land use and businesses	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local businesses
		Area of reasonably foreseeable planned developments (ha) within the alternative route	Identification of potential land use conflicts with planned developments	<ul style="list-style-type: none"> Local municipalities Local commerce organizations

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		150 m wide corridor (development applications)		
		Area (ha) of lands associated with a specific land use/tenure (e.g., land use permits, leases, easements, etc.) within the alternative route 150 m wide corridor	Minimize land use/tenure conflicts	<ul style="list-style-type: none"> Local municipalities MNRF OGDE data sources: <ul style="list-style-type: none"> Crown Dispositions (land use permits, leases, easements, etc.) Patent Land External (provides a visual between private lands and Crown lands)
		Number of potential dwelling displacements, including permanent and seasonal, crossed by/within the alternative route 150 m wide corridor	Dwellings are not generally permitted directly within a transmission line ROW	Local municipalities
		Number of dwellings within 1 km of the alternative route 150 m wide corridor	Dwellings located in proximity to the line can experience effects that can be minimized (e.g., air and noise effects)	Local municipalities
	Infrastructure and Community Services	Number of active waste management facilities within the alternative route 150 m wide corridor	Minimize adverse effects to facilities and related activities or to the Project	<ul style="list-style-type: none"> Ministry of Health MECP Official plans Local municipalities
		Number of inactive (closed) waste management facilities within the alternative route 150 m wide corridor	Minimize adverse effects to facilities and related activities or to the Project	<ul style="list-style-type: none"> Ministry of Health MECP Official plans Local municipalities

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		Number of healthcare facilities within 500 m of the alternative route 150 m wide corridor (e.g., hospitals, clinics, etc.)	Minimize adverse effects/disturbances to facilities and related activities	<ul style="list-style-type: none"> Ministry of Health Local municipalities
		Number of educational facilities within 500 m of the alternative route 150 m wide corridor (e.g., schools, colleges, universities, etc.)	Minimize adverse effects/disturbances to facilities and related activities	<ul style="list-style-type: none"> Ministry of Health Local municipalities Local school boards
		Number of community-based recreational facilities within 500 m of the alternative route 150 m wide corridor (e.g., community centres, libraries, etc.)	Minimize adverse effects/disturbances to facilities and related activities	Local municipalities
	Recreation and Tourism	Number of outpost camps within 1 km of the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to tourism related businesses and activities	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations
		Area (ha) of area of AOC with an associated tourism and recreation prescription in the Forest Management Plan within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to recreational AOC and related activities	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations Forest Management Plans, including AOCs and associated prescriptions
		Number of cabins and cottages within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to recreational cabins and cottages, and related activities/land uses	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		Area (ha) of tourism AOCs within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to recreational tourism AOCs and related activities	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations
		Number of recreational trails and access points within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to recreational trails and related activities, including access points for recreational activities (e.g., trail heads, fishing access points, etc.)	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations GIS and LIO database and mapping Data sources from Ontario's data catalogue (https://geohub.lio.gov.on.ca/): <ul style="list-style-type: none"> Ontario Trail Network (recreation features) Trail segments (recreation features) Fishing access points (recreation features)
		Number of other recreational features, including canoe routes, backcountry campsites, shore launch sites, boat launches within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to other recreational features	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations LIO database
		Number of campgrounds within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to campgrounds and/or users	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations
		Number of golf courses within the alternative route 150 m wide corridor	Minimize adverse effects/disturbances to golf courses and users	<ul style="list-style-type: none"> Local municipalities Local commerce organizations Local business and/or organizations
	Visual Landscape (Aesthetics)	Number of mapped/known public scenic viewpoints within	Minimize effects to existing scenic views	<ul style="list-style-type: none"> Local municipalities Heritage advisory organizations

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
		1 km of the alternative route 150 m wide corridor that have a line of sight toward the towers		
		Area (ha) of visual aesthetics Areas of Concern (AOCs) within the alternative route 150 m wide corridor	Minimize effects to existing visual aesthetic AOCs	<ul style="list-style-type: none"> Local municipalities Heritage advisory organizations
	Archaeology	Number of registered archaeological sites within the alternative route 150 m wide corridor	Identification and protection of significant archaeological resources	<ul style="list-style-type: none"> Desktop study Archaeological assessments Local municipalities Provincial and federal databases ENDM Historical mapping IK
		Area (ha) of alternative route 150 m wide corridor with archaeological potential	Identification and protection of significant archaeology resources	<ul style="list-style-type: none"> Desktop study Archaeological assessments Local municipalities Provincial and federal databases ENDM Historical mapping IK
Built Heritage Resources and Cultural Heritage Landscapes	Number of built heritage resources and cultural heritage landscapes identified within 500 m of alternative route 150 m wide corridor	Identification and protection of significant cultural resources	<ul style="list-style-type: none"> Desktop study Archaeological/ heritage assessments Local municipalities Provincial and federal heritage databases IK Historical mapping 	

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
				<ul style="list-style-type: none"> Heritage advisory organizations Windshield survey (as necessary and based on available data)
Indigenous Communities	Indigenous Community Rights/Interests and Use of Land and Resources for Traditional Purposes ⁽²⁾	<ul style="list-style-type: none"> Number and area (ha) of animal harvesting sites within the alternative route 150 m wide corridor Number and area (ha) of plant harvesting sites within the alternative route 150 m wide corridor Number and area (ha) of waterbody features used to harvest fish within the alternative route 150 m wide corridor Number and area (ha) of habitation sites (cabins/camps/village/trading posts) within the alternative route 150 m wide corridor Number of trap line crossings within the alternative route 150 m wide corridor Number and area (ha) of travel routes (trail/canoe/walking) within the alternative route 150 m wide corridor 	<ul style="list-style-type: none"> Minimize adverse effects to known traditional land uses Criteria and indicators may be adjusted based on ongoing engagement with communities 	<ul style="list-style-type: none"> Indigenous communities IK studies that are shared with Hydro One



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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
	Cultural and Spiritual Areas and Sites ⁽²⁾	Number and area (ha) of culturally sensitive sites and areas within the alternative route 150 m wide corridor, including: <ul style="list-style-type: none"> • Ceremonial sites • Graves • Sacred sites • Gathering areas • Spiritual sites • Points of interest • Worship areas 	<ul style="list-style-type: none"> • Minimize use of lands identified as having cultural and/or spiritual sites • Criteria and indicators may be adjusted based on ongoing engagement with communities 	<ul style="list-style-type: none"> • Indigenous communities • IK studies that are shared with Hydro One • Archaeology/ heritage studies
	Landscapes of Importance	<ul style="list-style-type: none"> • Number and significance of Place Names within the alternative route 150 m wide corridor • Number of Orientation Points within the alternative route 150 m wide corridor 	<ul style="list-style-type: none"> • Minimize use of lands identified as having specific purpose to Indigenous landscapes • Criteria and indicators may be adjusted based on ongoing engagement with communities 	<ul style="list-style-type: none"> • Indigenous communities • IK studies that is shared with Hydro One • Archaeology/heritage studies
	Other Applicable Criteria/ Indicators Identified by Communities	n/a	Placeholder to include other specific criteria identified by Indigenous communities	n/a
Technical	Project Size	Total length (km) of alternative route	Shorter routes tend to have fewer environmental effects and lower overall cost	<ul style="list-style-type: none"> • Hydro One • Applicable safety standards and requirements

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
	Existing Community Infrastructure	Number of rail lines within the alternative route 150 m wide corridor	Reducing the amount of rail line crossed may reduce potential for damage to facilities and overall Project costs	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Number of roads within the alternative route 150 m wide corridor	Reducing the amount of roads crossed may reduce potential for damage to facilities and overall Project costs	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Number of pipelines within the alternative route 150 m wide corridor	Reducing the amount of existing pipeline crossed may reduce potential for damage to facilities and overall Project costs	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Number of airports within the alternative route 150 m wide corridor	Distancing towers from local airports can minimize potential for future disruptions	<ul style="list-style-type: none"> Transport Canada Hydro One Applicable safety standards and requirements
	Constructability	Number of transmission line corners required	Minimize the number of transmission line corners which require more land, increase overall cost and complexity	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Number of transmission line crossovers required	Minimize the number of transmission line crossovers which can reduce system security, require more land and increase costs	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Area (ha) of hazard/unstable land within by the alternative route 150 m wide corridor	Avoid areas with hazard/unstable slopes for tower locations	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
		Terrain condition/ quality (poor, moderate, good)	Use favourable terrain (and sub-terrain) for tower locations	<ul style="list-style-type: none"> Hydro One

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Factor	Criteria	Indicator(s)	Rationale for Selection	Possible Data Source(s)
				<ul style="list-style-type: none"> Applicable safety standards and requirements
		Distance to existing access roads available (low, medium, high)	Maximize use of existing access roads, as possible	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements
	Existing ROWs	Distance (km) of alternative route 150 m wide corridor located parallel to existing ROWs	Routes located within, or parallel to, existing ROWs generally have fewer adverse effects compared to new corridors	n/a
	Economic	Estimated Project Cost	Hydro One has a duty to reduce costs to ratepayers	<ul style="list-style-type: none"> Hydro One
		Estimated Yearly Operation Cost	Hydro One has a duty to reduce costs to ratepayers	<ul style="list-style-type: none"> Hydro One
	Safety and Compatibility with Electricity Grid	Hydro One/IESO	Some routes may offer better safety and compatibility with the existing electrical grid in Ontario than others	<ul style="list-style-type: none"> Hydro One Applicable safety standards and requirements

¹This Terms of Reference identifies alternative routes for the transmission line which are representative “centre lines”. A 150 m wide buffer will be applied to these routes to create alternative route corridors for comparison. After a preferred route corridor is selected, detailed routing of the preliminary preferred route right-of-way will be completed.

²The indicators for the Indigenous Community Rights/Interests and Use of Land and Resources for Traditional Purposes and Cultural and Spiritual Areas and Sites criteria are reliant on the availability of IK information. If this information is not available at the time of the alternative route evaluation, different route evaluation criteria will be discussed with Indigenous communities.

Notes:

- This is a draft/preliminary list subject to refinement/change based on ongoing consultation and new information that may be received during the EA.
- Listed data sources may apply to more than one criteria and/or factor.



- Only those criteria/indicators for which suitable data is available will be used as part of the evaluation.

Acronyms and Abbreviations

AOC – Area of Concern

DFO – Fisheries and Oceans Canada

EA – Environmental Assessment

ENDM – Ministry of Energy, Northern Development and Mines

GIS – Geographic Information Systems

Ha – hectares

IESO – Independent Electrical System Operator

IK – Indigenous Knowledge

km – kilometre

LIO – Land Information Ontario

m – metre

MAFRA – Ministry of Agriculture, Food and Rural Affairs

MECP – Ministry of Environment, Conservation and Parks

MMAH – Ministry of Municipal Affairs and Housing

MNRF – Ministry of Natural Resources and Forestry

n/a – Not applicable

NGO – Non-Government Organization

NHIC – Natural Heritage Information Centre

OGDE – Ontario Geospatial Data Exchange

ROW – Right-of-Way

SWH – Significant Wildlife Habitat

