

# Rhodena Wind Farm

Ecodistricts

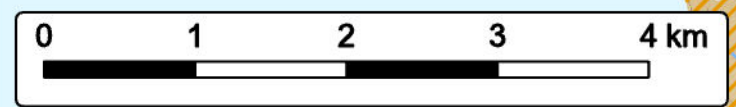


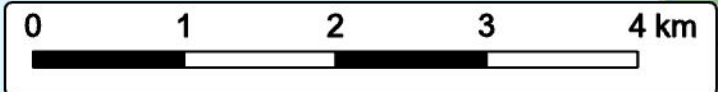
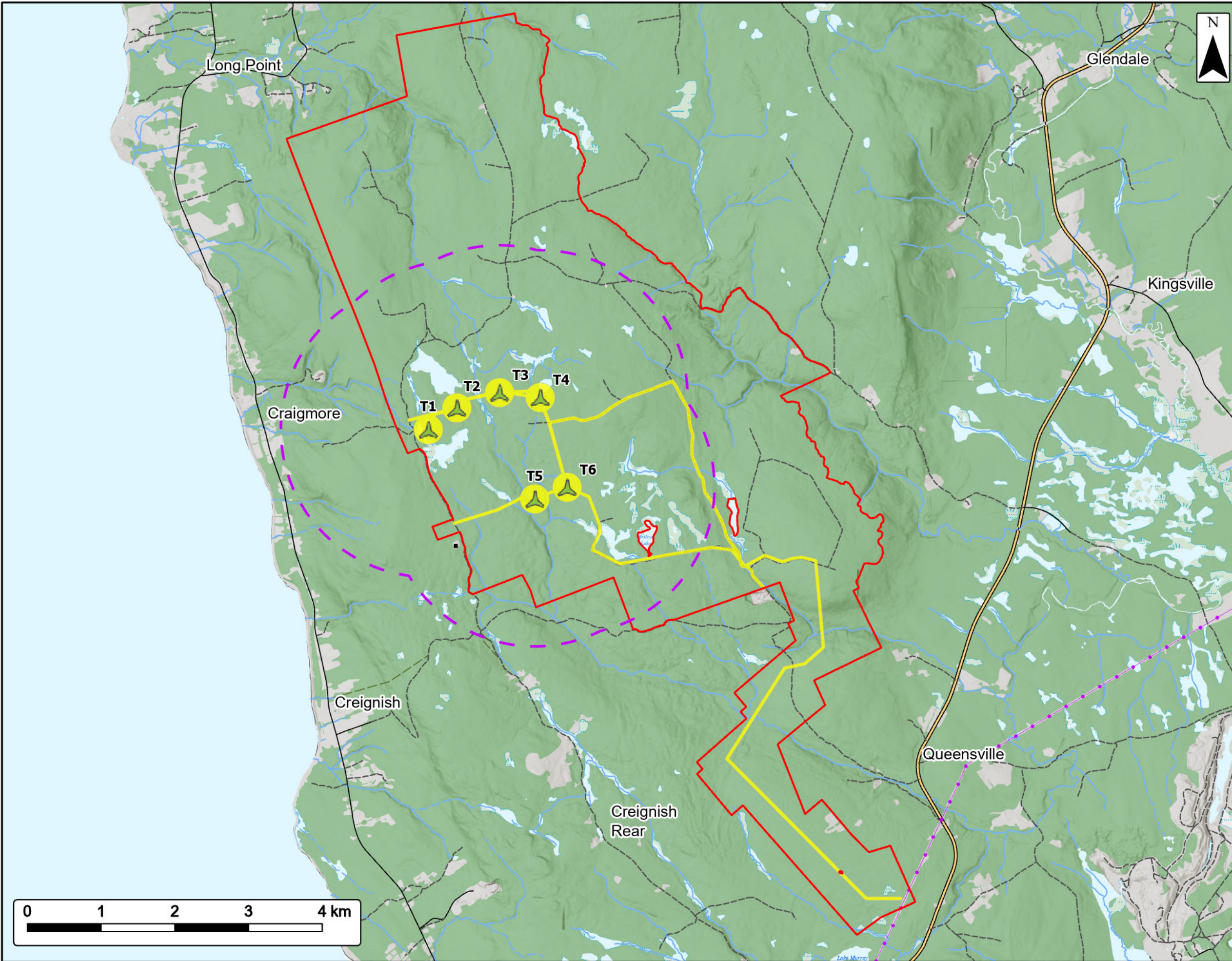
- Study Area
- Assessment Area
- Ecodistricts**
- 310 Cape Breton Hills
- 510 Bras d'Or Lowlands
- 520 St. George's Bay
- Ecoregions**
- Nova Scotia Uplands
- Northumberland/Bras D'Or
- Utilities (line)**
- Existing Transmission Lines
- Transportation**
- Trans-Canada Highway
- Road
- Unpaved Road
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNVI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.1</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		





# Rhodena Wind Farm

Receptors



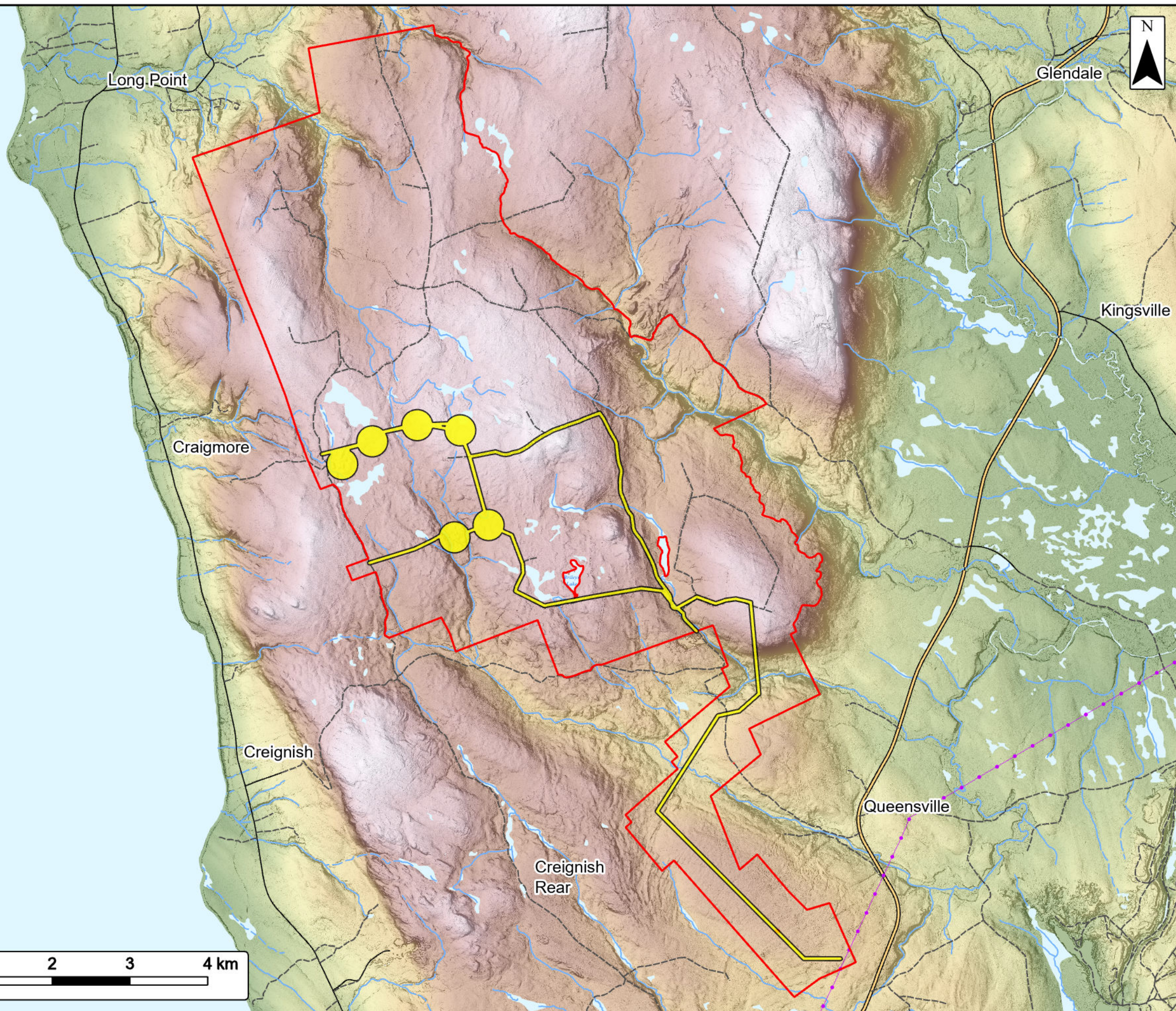
- Study Area
- Assessment Area
- 2 km Turbine Buffer
- Receptors within 2km of Turbines
- Proposed Turbine Location
- Utilities (line)**
- Existing Transmission Lines
- Transportation**
- Trans-Canada Highway
- Road
- Unpaved Road
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers
- Mapped Wet Areas



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.2</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		





**Rhodena Wind Farm**  
Geomorphology



**Study Area** 

**Assessment Area** 

**Elevation (m)**

305 

0

**Utilities (line)**

Existing Transmission Lines 

**Transportation**

Trans-Canada Highway 

Road 

Unpaved Road 

**Water Features**

Mapped Stream 

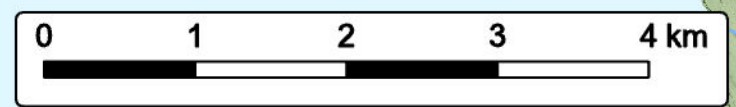
Mapped Indefinite Stream 

Mapped Lakes and Rivers 



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.3</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		

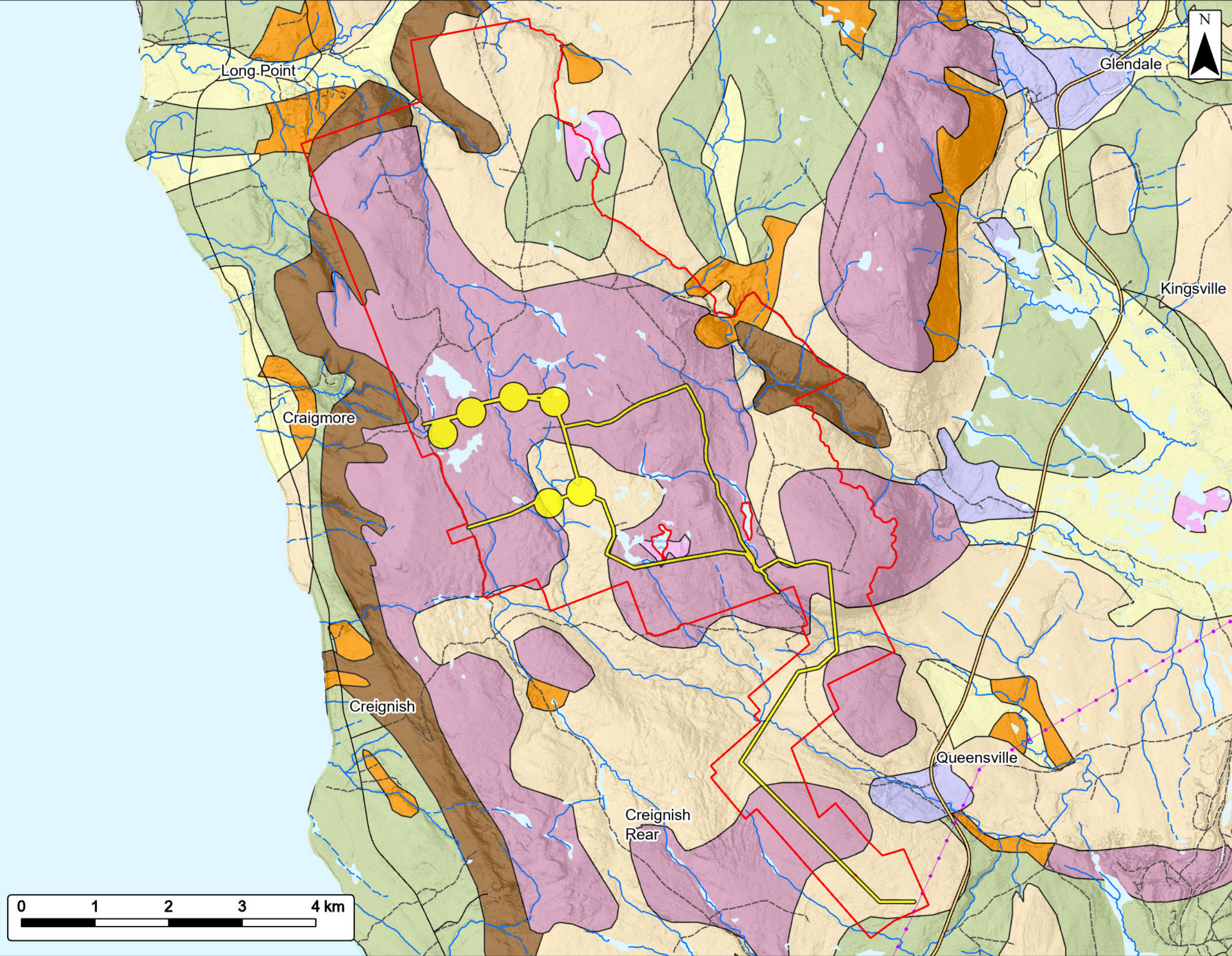


# Rhodena Wind Farm

Surficial Geology



Study Area		<b>Surficial Geology By Unit</b>	
Assessment Area		Alluvial Deposits	
<b>Utilities (line)</b>		Bedrock	
Existing Transmission Lines		Colluvial Deposits	
<b>Transportation</b>		Glaciolacustrine Deposits	
Trans-Canada Highway		Kame Fields and Esker Systems	
Road		Marine Deposits	
Unpaved Road		Organic Deposits	
<b>Water Features</b>		Silty Drumlin	
Mapped Stream		Silty Till Plain	
Mapped Indefinite Stream		Stony Till Plain	
Mapped Lakes and Rivers			



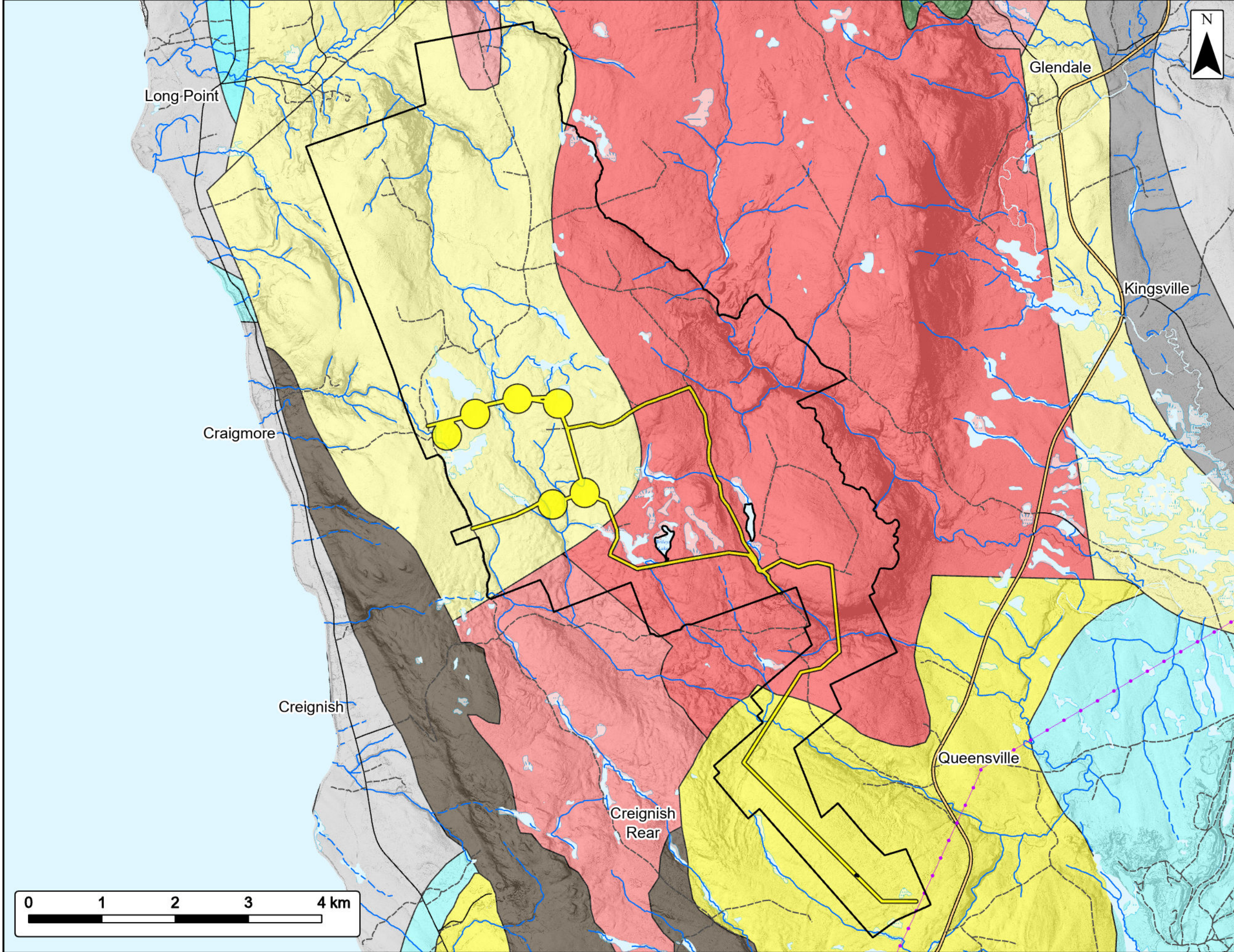
Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.4</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		



# Rhodena Wind Farm

Bedrock Geology



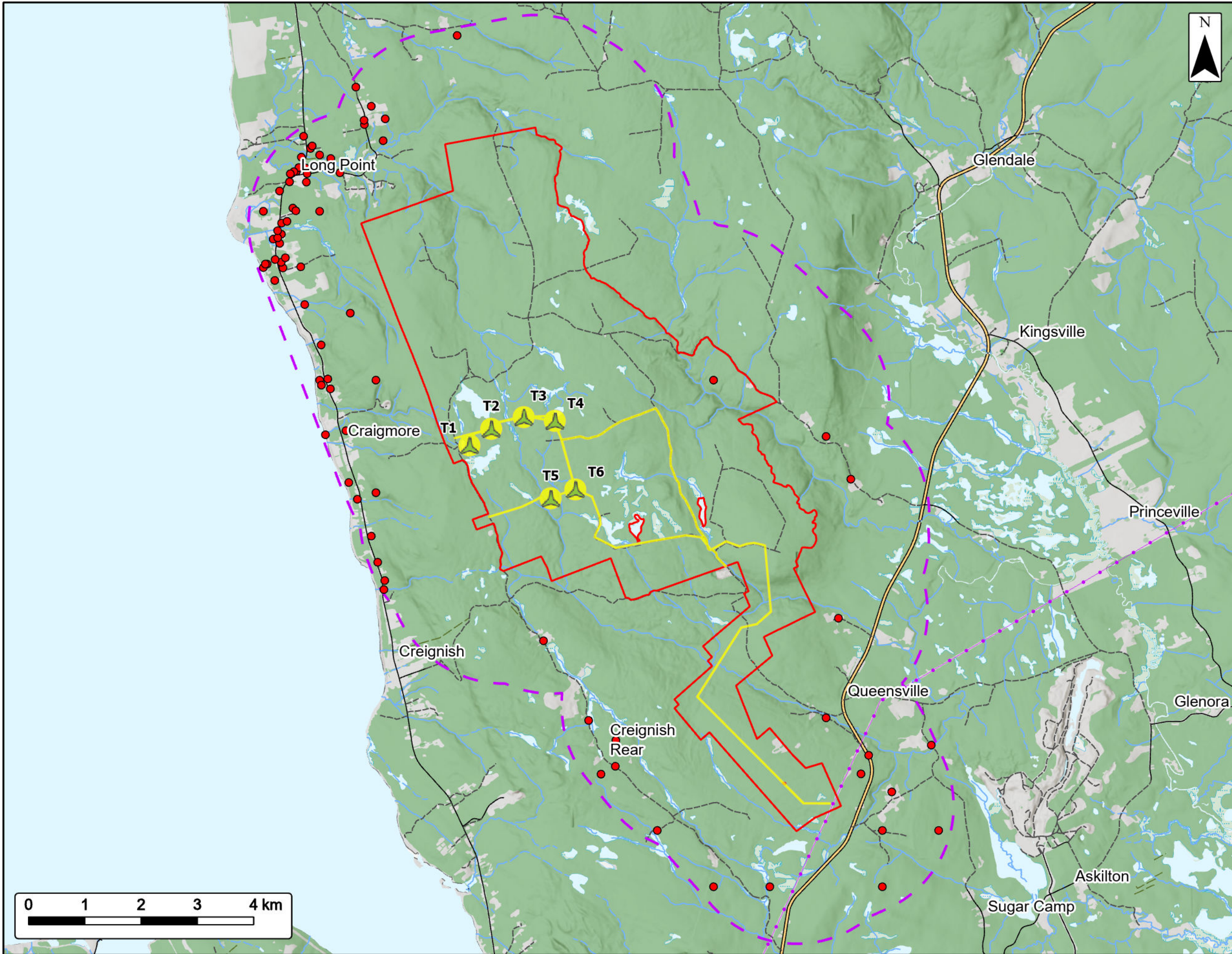
Study Area		Bedrock Geology By Formation	
Assessment Area		Pomquet and Point Edward Formations	
Utilities (line)		Hastings, Cape Dauphin and MacKeigan Road Formations	
Existing Transmission Lines		Windsor Group: Northern Mainland	
Transportation		Windsor Group: Cape Breton Island	
Trans-Canada Highway		Hood Island, Woodbine Road and Uist Formations	
Road		Horton Group: Cape Breton Island	
Unpaved Road		Ainslie and Strathlorne Formations	
Water Features		Judique Formation	
Mapped Stream		Creignish Formation	
Mapped Indefinite Stream		Fisset Brook Formation	
Mapped Lakes and Rivers		George River Metamorphic Suite: metaconglomerate, quartzite	
Mapped Wet Areas		Devonian - Carboniferous diorite	
		Neoproterozoic granite	
		Neoproterozoic granodiorite	
		Neoproterozoic diorite: Cape Breton Island	



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Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.5</b>
Drawn By:	K. Wallace		
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# Rhodena Wind Farm

Groundwater Wells



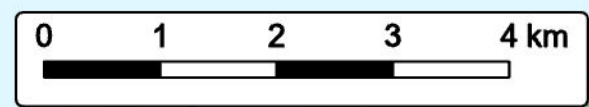
Study Area	
Assessment Area	
2 km Assessment Area Buffer	
Proposed Turbine Location	
<b>Groundwater Well *</b>	
Drilled	
<b>Utilities (line)</b>	
Existing Transmission Lines	
<b>Transportation</b>	
Trans-Canada Highway	
Road	
Unpaved Road	
<b>Water Features</b>	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	
Mapped Wet Areas	

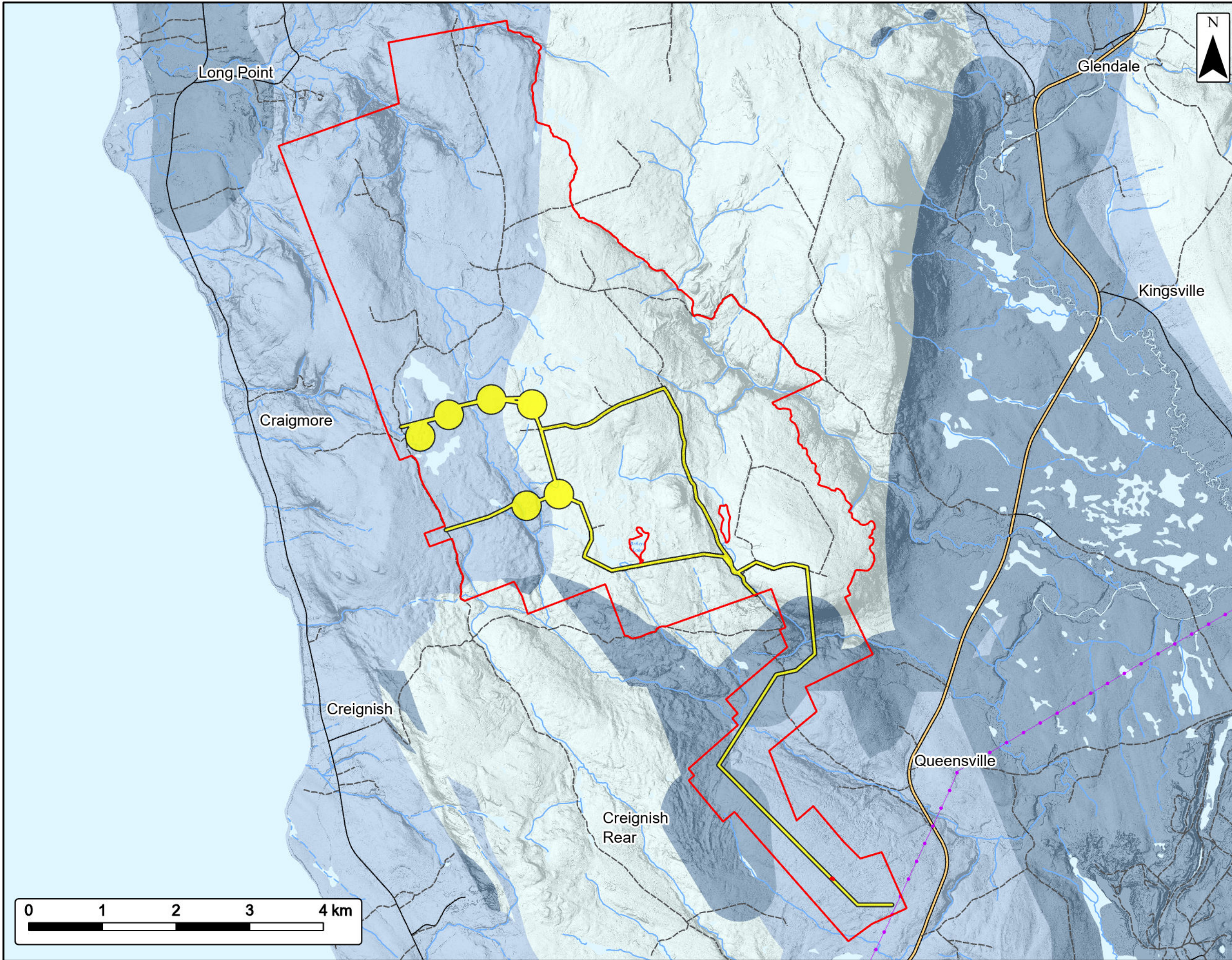
\* Wells were only included if their location accuracy was below 1000m



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNVI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:65,000	Drawing #:	<b>7.6</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		





**Rhodena Wind Farm**  
Karst Risk

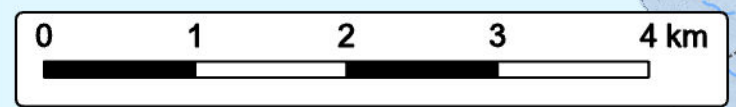


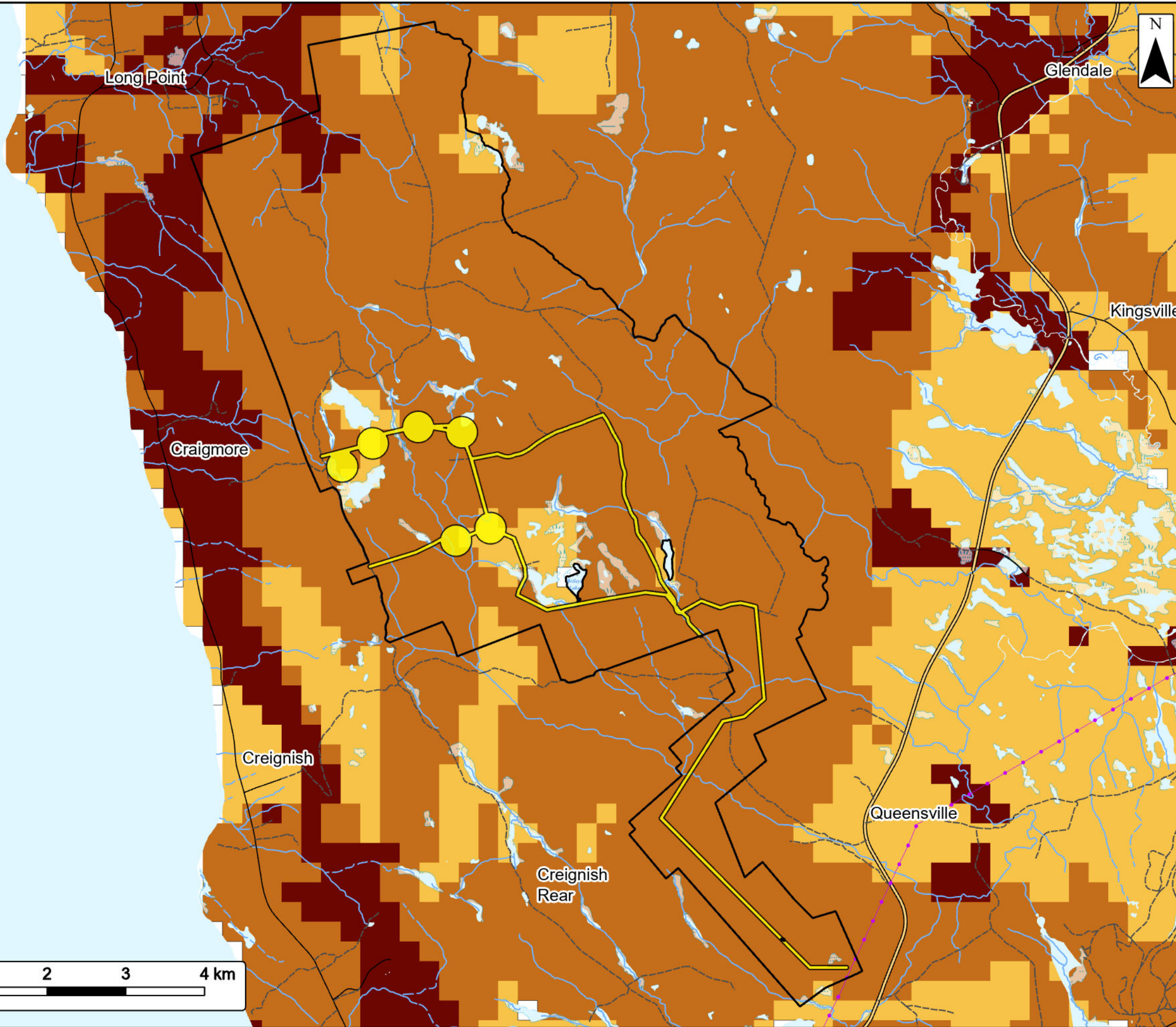
Study Area	
Assessment Area	
<b>Karst Risk</b>	
High Risk	
Medium Risk	
Low Risk	
<b>Utilities (line)</b>	
Existing Transmission Lines	
<b>Transportation</b>	
Trans-Canada Highway	
Road	
Unpaved Road	
<b>Water Features</b>	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.7</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		





**Rhodena Wind Farm**

*Radon Potential*



Study Area	
Assessment Area	
<b>Radon Potential</b>	
High (171-275)	
Medium (121-170)	
Low (11-120)	
Water Feature/No Data (0-10)	
<b>Utilities (line)</b>	
Existing Transmission Lines	
<b>Transportation</b>	
Trans-Canada Highway	
Road	
Unpaved Road	
<b>Water Features</b>	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	
Mapped Wet Areas	

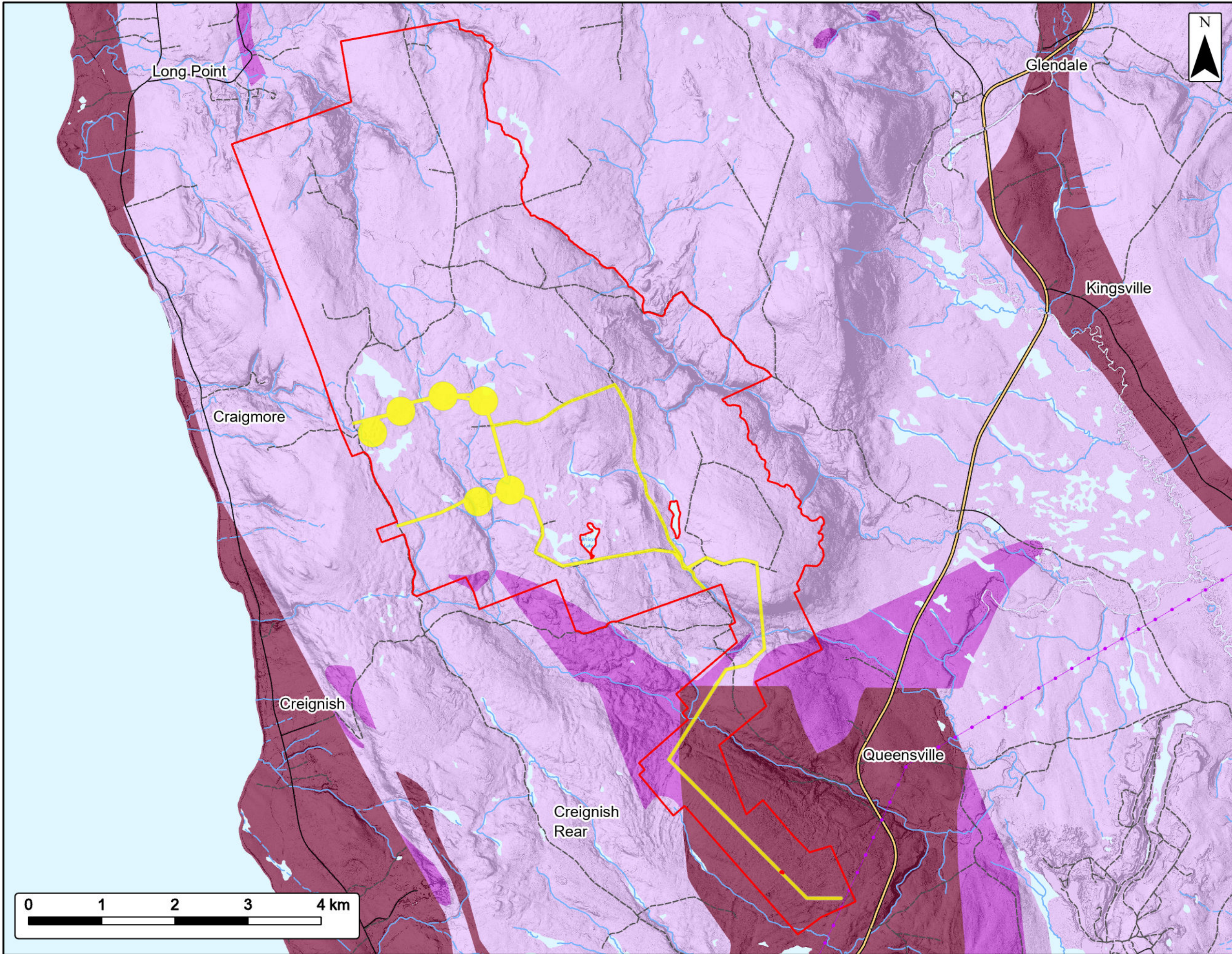


Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.8</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		










**Rhodena Wind Farm**  
Arsenic Risk





Study Area 

Assessment Area 


**Arsenic Risk**

High Risk 


Medium Risk 


Low Risk 


**Utilities (line)**

Existing Transmission Lines 


**Transportation**


Trans-Canada Highway 


Road 

Unpaved Road 

**Water Features**

Mapped Stream 

Mapped Indefinite Stream 

Mapped Lakes and Rivers 



Coordinate System: NAD83 UTM Zone 20N Sources: ESRI Basemaps, GeoNOVA, SNGIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	Oct 2024	Project #:	24-9952
Scale:	1:50,000	Drawing #:	<b>7.9</b>
Drawn By:	K. Wallace		
Checked By:	H. Mosher		

