



Bear Lake Wind Power Project

Geomorphology




Study Area 


Assessment Area 

Elevation (Metres ASL)


264.96
210
188
165
142
119
96
73
50
28
-3.95


Transportation


Road 

Unpaved Road 

Water Features

Mapped Stream 

Mapped Indefinite Stream 

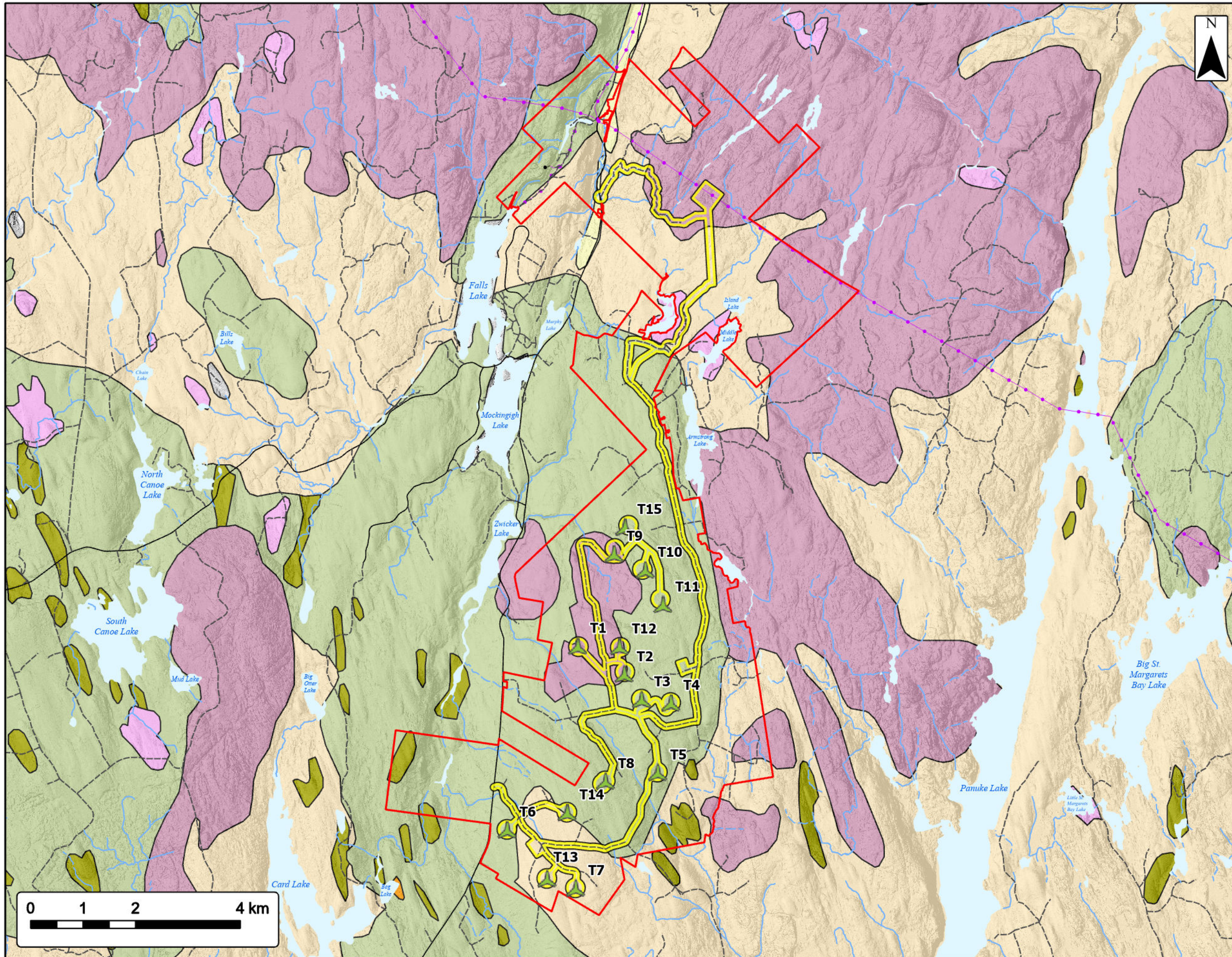
Mapped Lakes and Rivers 



Coordinate System: NAD83 UTM Zone 20N Sources: Esri Basemaps, GeoNOVA, SNSIS, NRCAN, NSNRR, ACCDC, IBA Canada

Date:	Oct 2023	Project #:	23-9128
Scale:	1:70,000	Drawing #:	7.3
Drawn By:	K. Wallace		
Checked By:	M. Savelle		





Bear Lake Wind Power Project

Surficial Geology

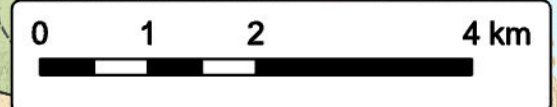


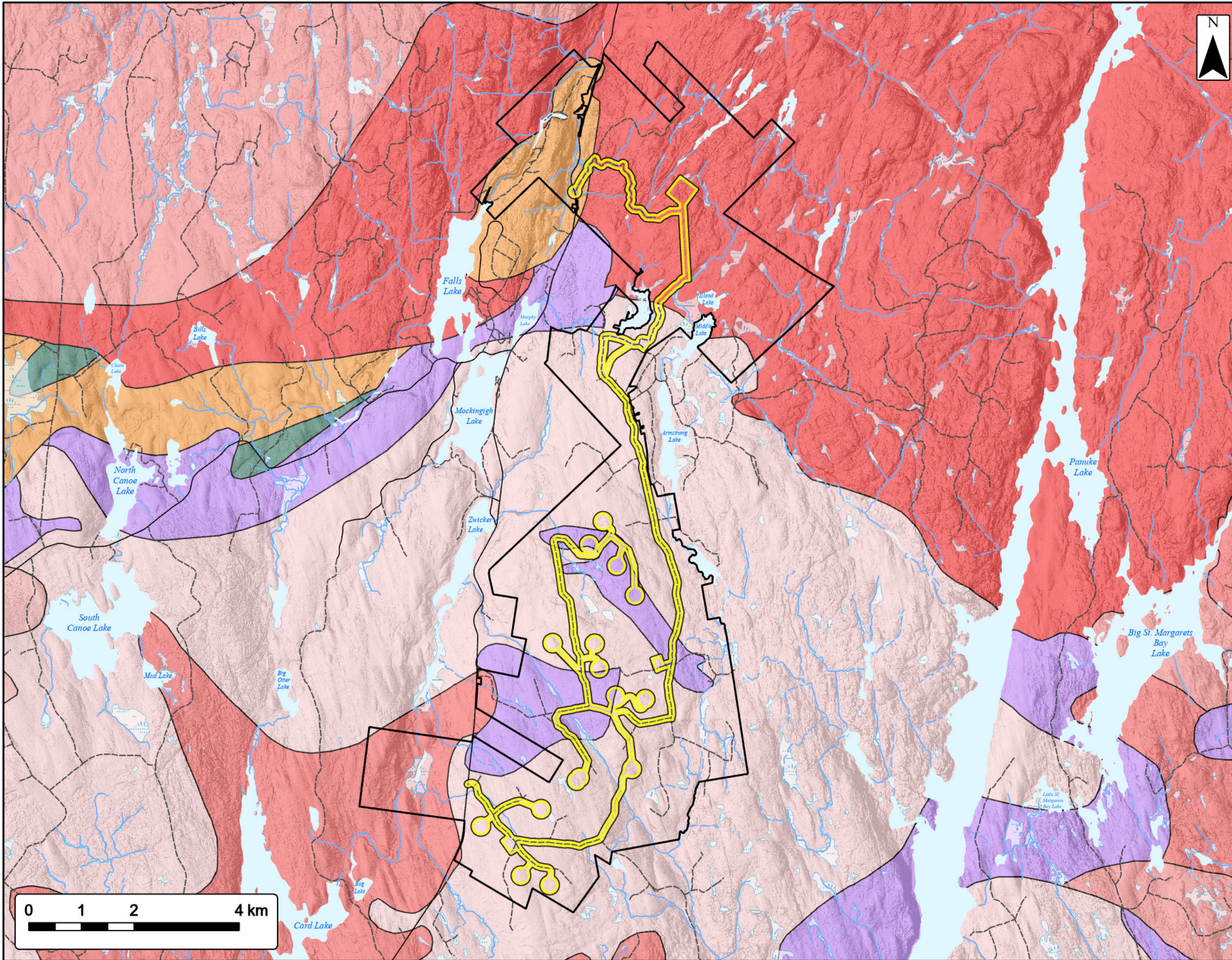
- Study Area
- Assessment Area
- Proposed Turbine Location
- Surficial Geology By Unit**
- Alluvial Deposits
- Bedrock
- Kame Fields and Esker Systems
- Organic Deposits
- Silty Drumlin
- Silty Till Plain
- Stony Till Plain
- Transportation**
- Road
- Unpaved Road
- Utilities (line)**
- Existing Pipeline
- Existing Transmission Lines
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers



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Bear Lake Wind Power Project

Bedrock Geology



Study Area

Assessment Area

Bedrock Geology By Formation

- Halifax Formation
- Goldenville Formation
- Middle - Late Devonian Granodiorite
- Middle - Late Devonian Biotite Monzogranite
- Middle - Late Devonian muscovite biotite monzogranite
- Middle - Late Devonian leucomonzogranite
- Middle - Late Devonian fine grained leucomonzogranite
- Middle - Late Devonian muscovite leucomonzogranite

Transportation

- Road
- Unpaved Road

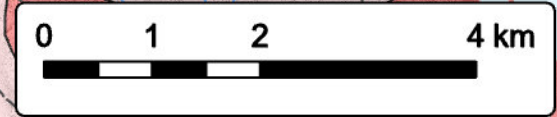
Water Features

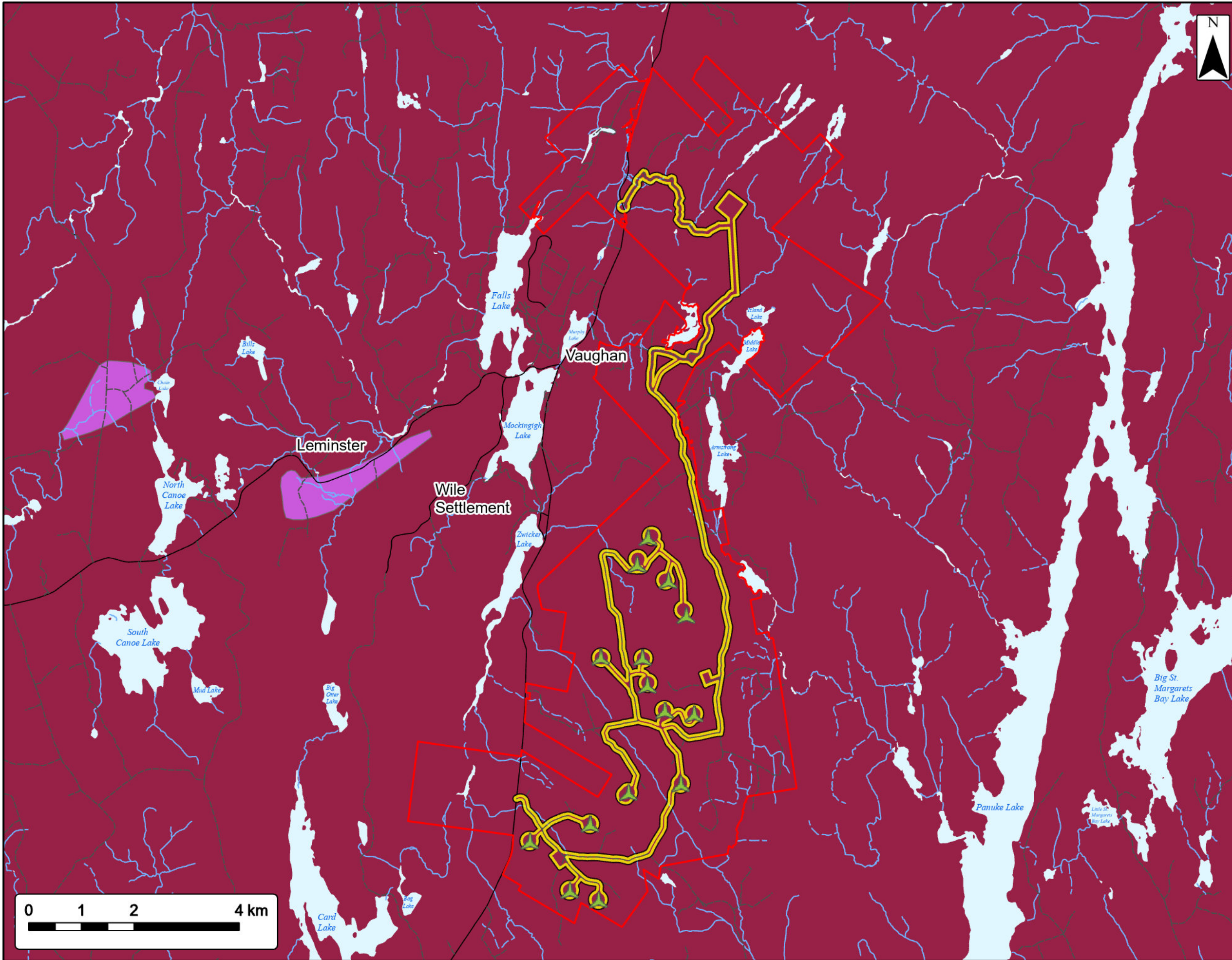
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers
- Mapped Wet Area



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Bear Lake Wind Power Project

Arsenic Risk

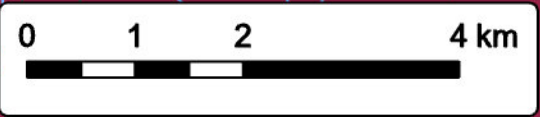


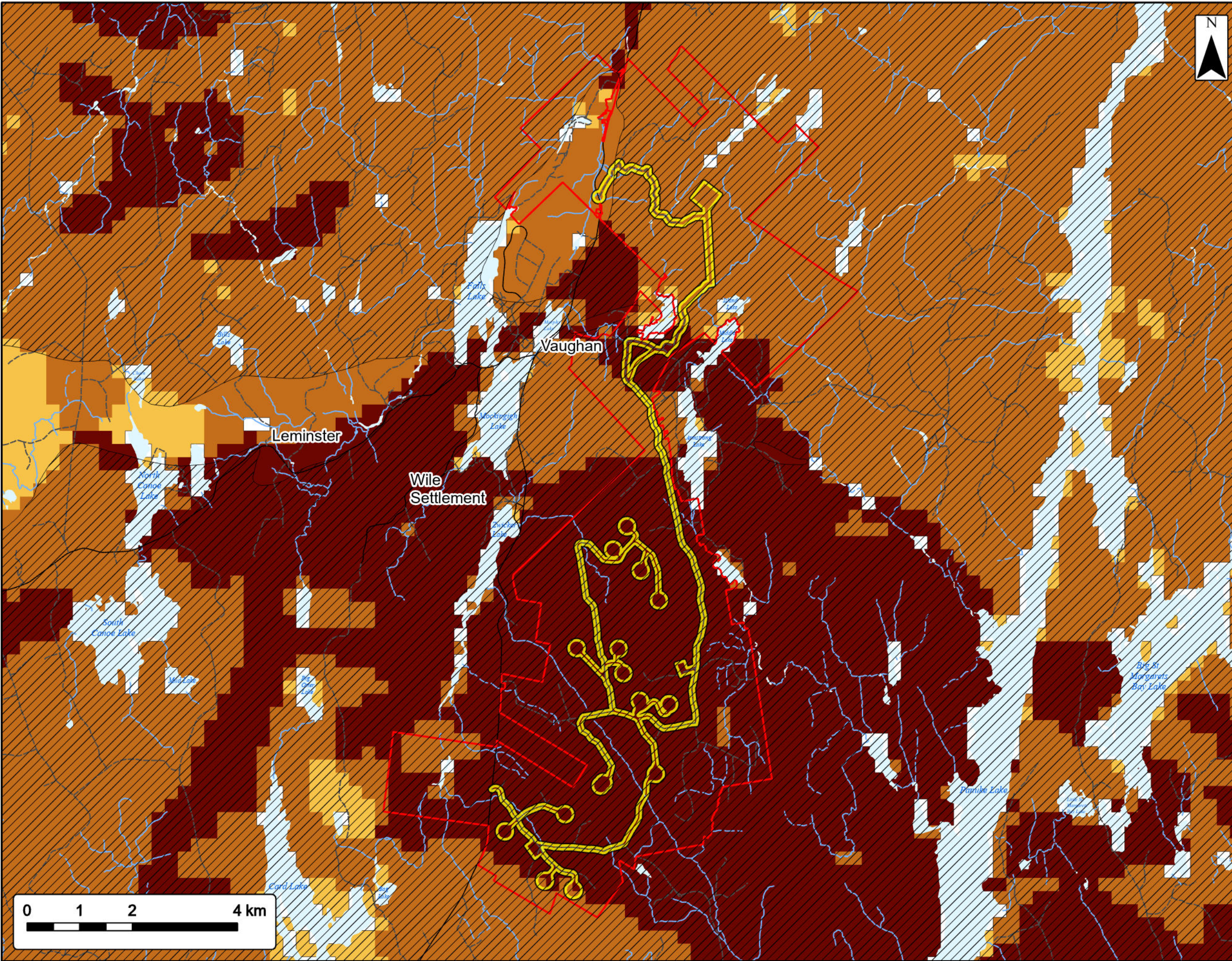
- Study Area
- Assessment Area
- Proposed Turbine Location
- Arsenic Risk in Bedrock Water Wells**
- High Risk
- Medium Risk
- Transportation**
- Road
- Unpaved Road
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers



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Bear Lake Wind Power Project

Radon and Uranium Potential



Study Area

Assessment Area

Relative Risk of Uranium in Bedrock Wells

High Risk

Radon Potential

High (171-275)

Medium (121-170)

Low (11-120)

Water Feature/No Data (0-10)

Transportation

Road

Unpaved Road

Water Features

Mapped Stream

Mapped Indefinite Stream

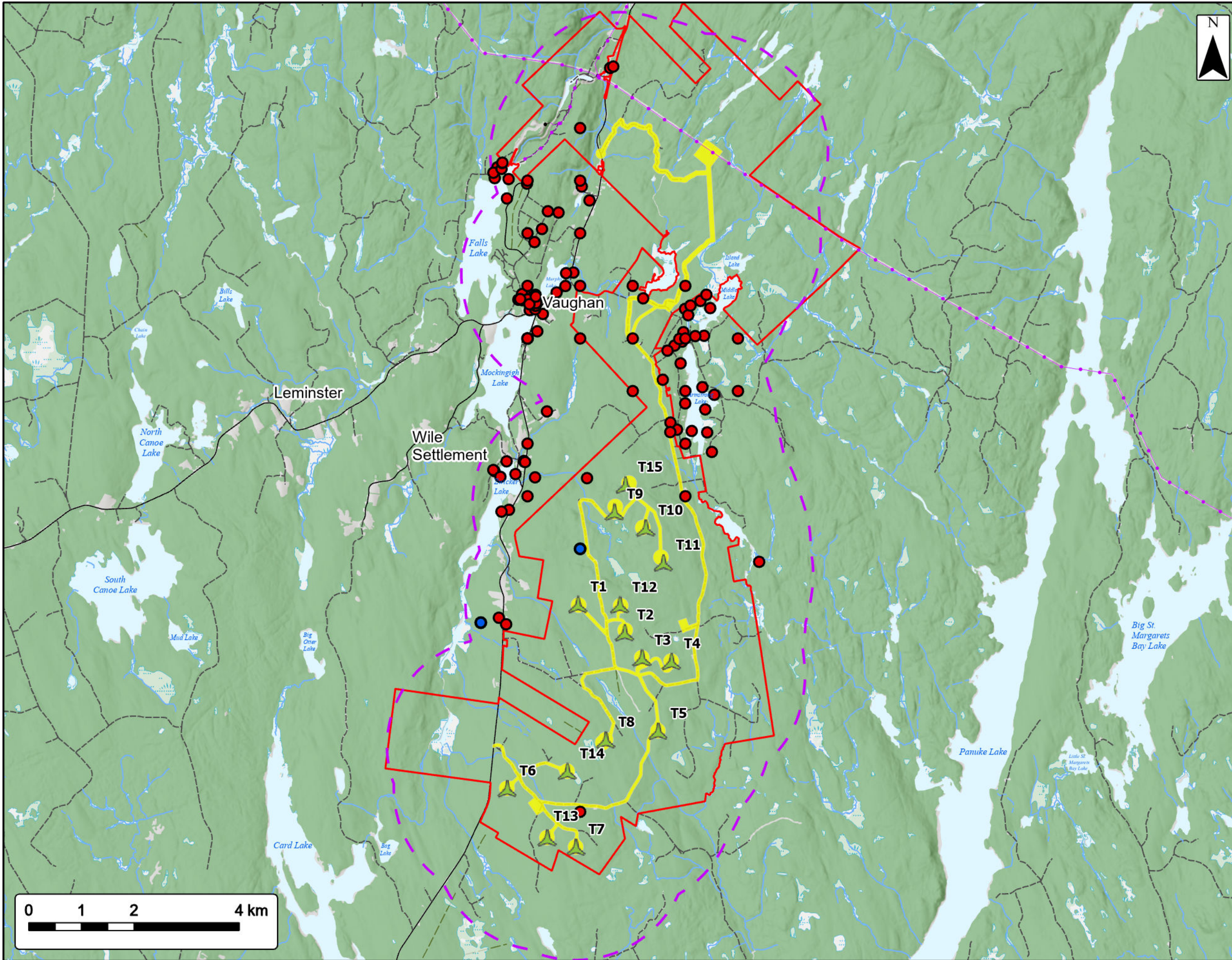
Mapped Lakes and Rivers



Coordinate System: NAD83 UTM Zone 20N
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Bear Lake Wind Power Project

Groundwater Wells



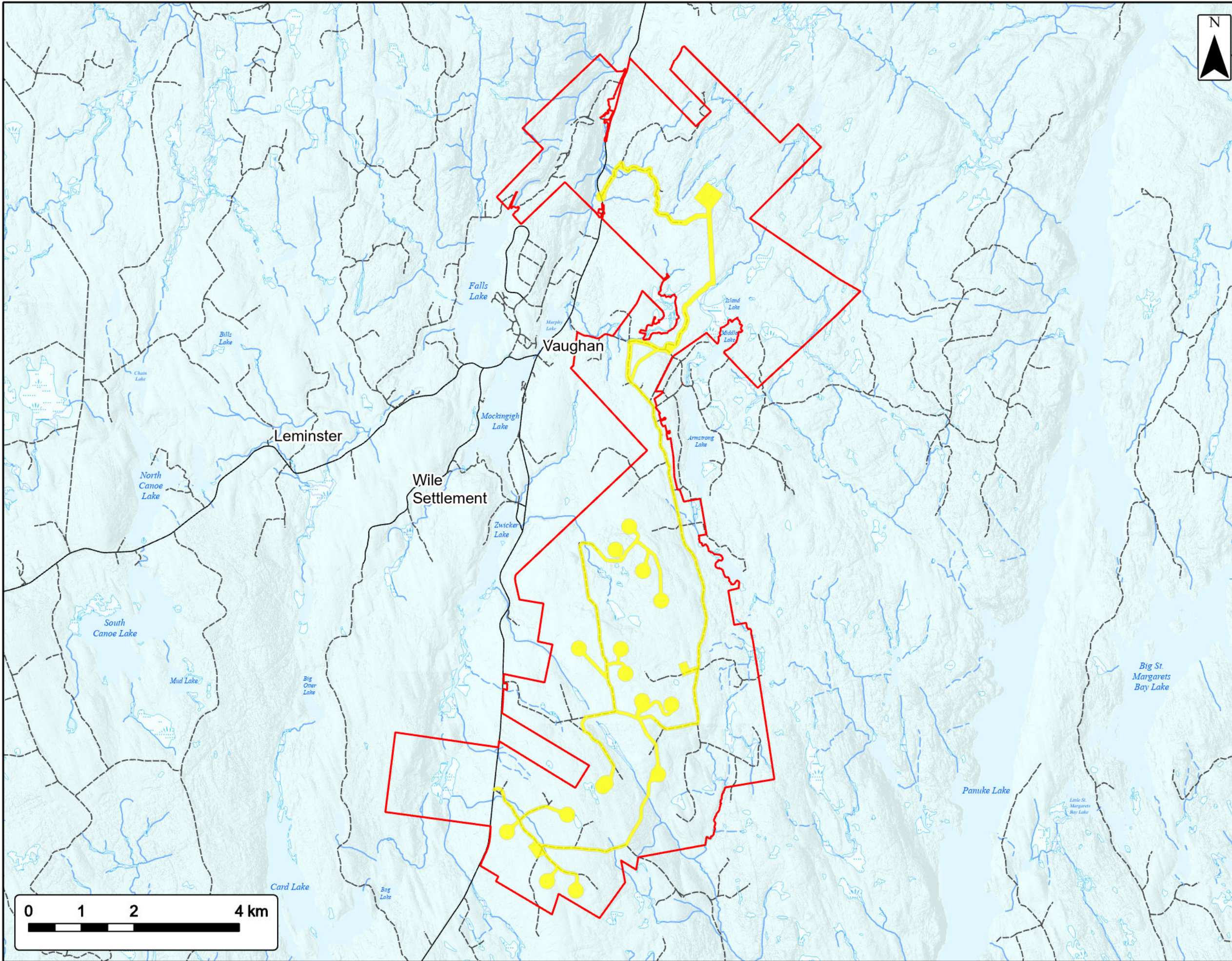
- Study Area
- Assessment Area
- 2 km Assessment Area Buffer
- Proposed Turbine Location
- Groundwater Well**
- Drilled
- Dug
- Utilities (line)**
- Existing Pipeline
- Existing Transmission Lines
- Transportation**
- Road
- Unpaved Road
- Water Features**
- Mapped Stream
- Mapped Indefinite Stream
- Mapped Lakes and Rivers
- Mapped Wet Area



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Scale:	1:70,000	Drawing #:	7.8
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Bear Lake Wind Power Project

Karst Risk



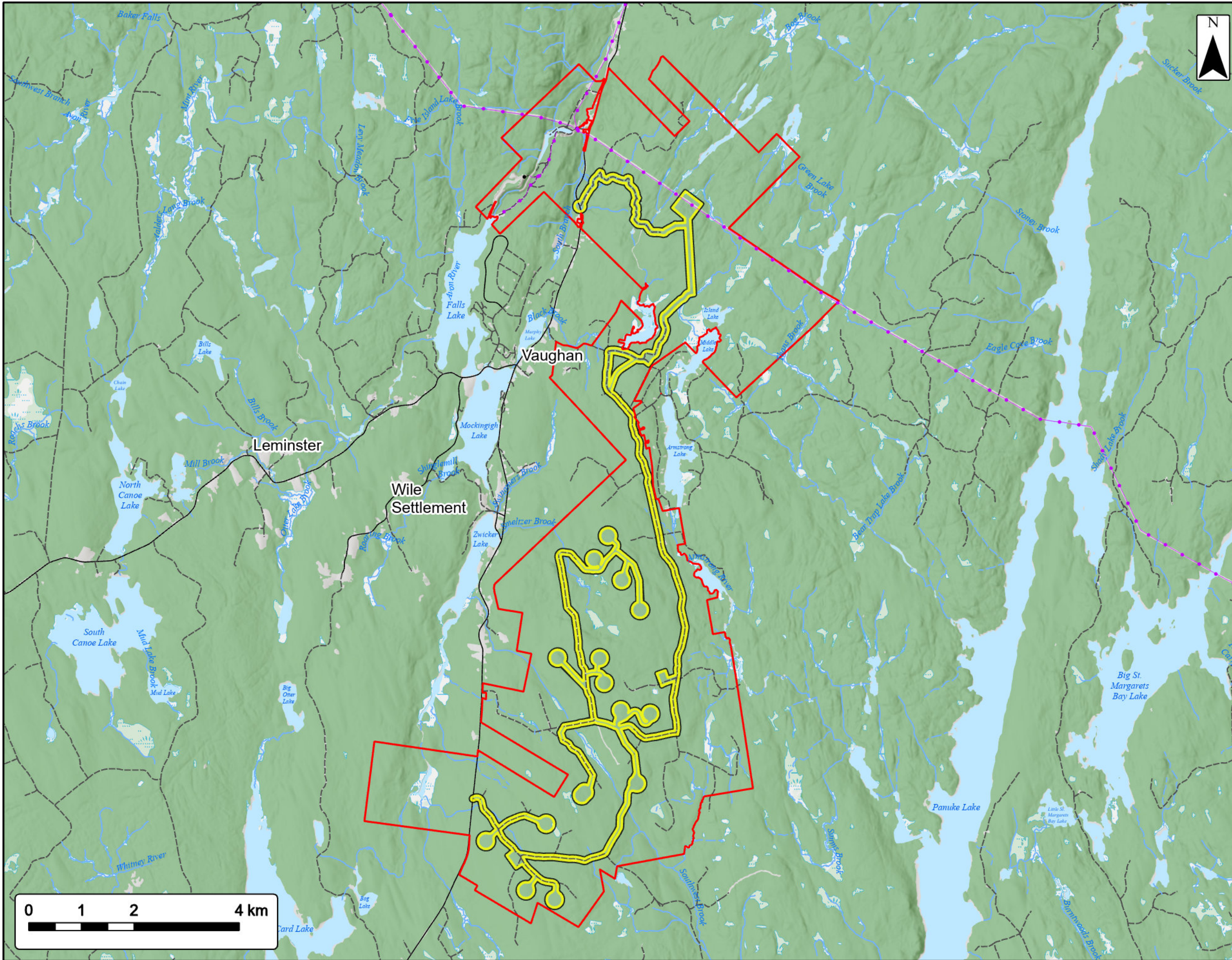
Study Area	
Assessment Area	
Karst Risk	
Low Risk	
Transportation	
Road	
Unpaved Road	
Water Features	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	
Mapped Wet Area	



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Bear Lake Wind Power Project

Desktop Identified Freshwater Features



Study Area	
Assessment Area	
Utilities (line)	
Existing Pipeline	
Existing Transmission Lines	
Transportation	
Road	
Unpaved Road	
Water Features	
Mapped Stream	
Mapped Indefinite Stream	
Mapped Lakes and Rivers	
Mapped Wet Area	



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