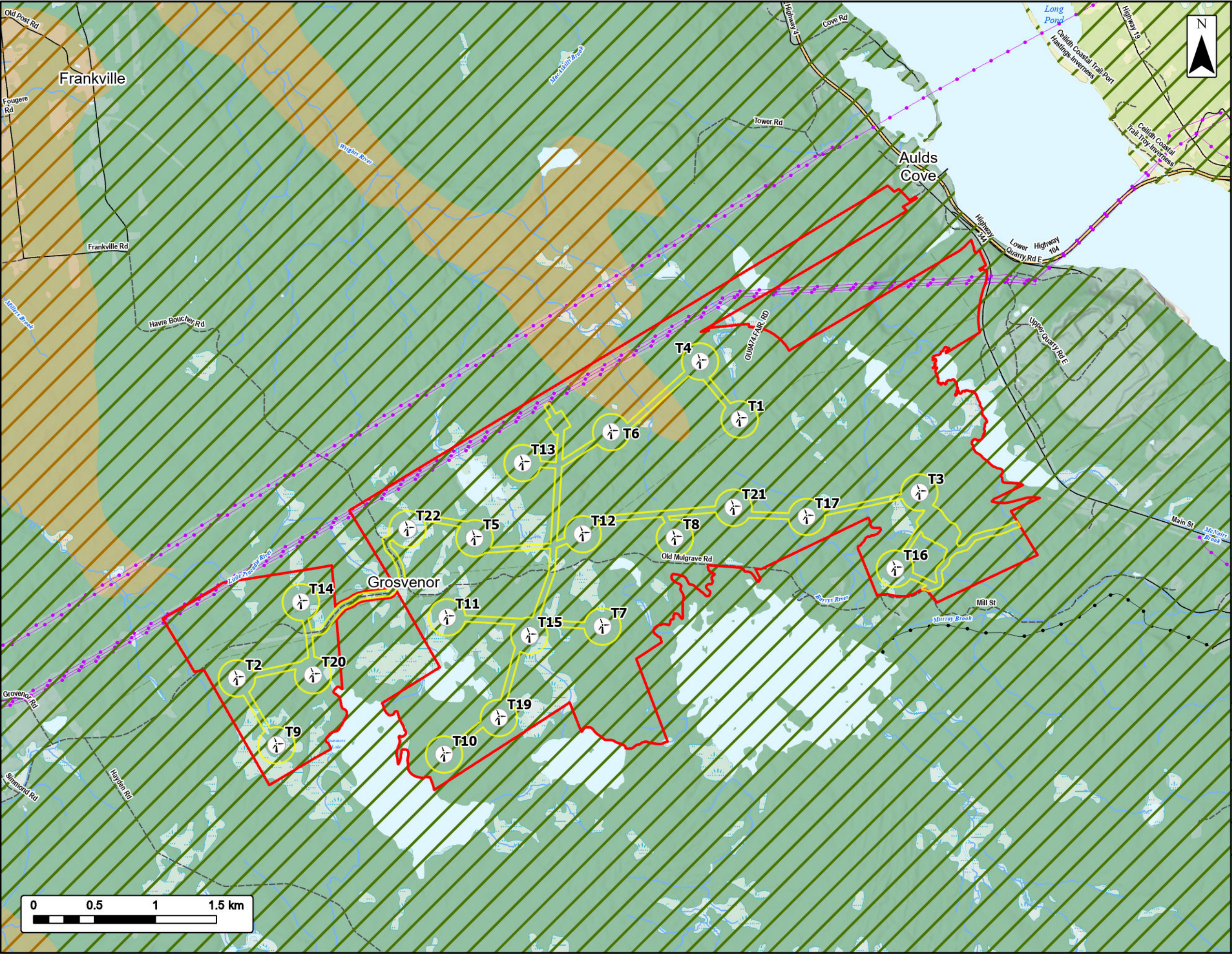




Aulds Cove Wind Project

Ecodistricts and Ecoregions



Study Area

Assessment Area

Proposed Turbine Location

Ecodistricts

310 Cape Breton Hills

360 Mulgrave Plateau

520 St. George's Bay

Ecoregions

Nova Scotia Uplands

Northumberland/Bras D'Or

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

Unpaved Road

Water Features

Mapped Watercourse

Mapped Lakes and Rivers

Mapped Wet Areas



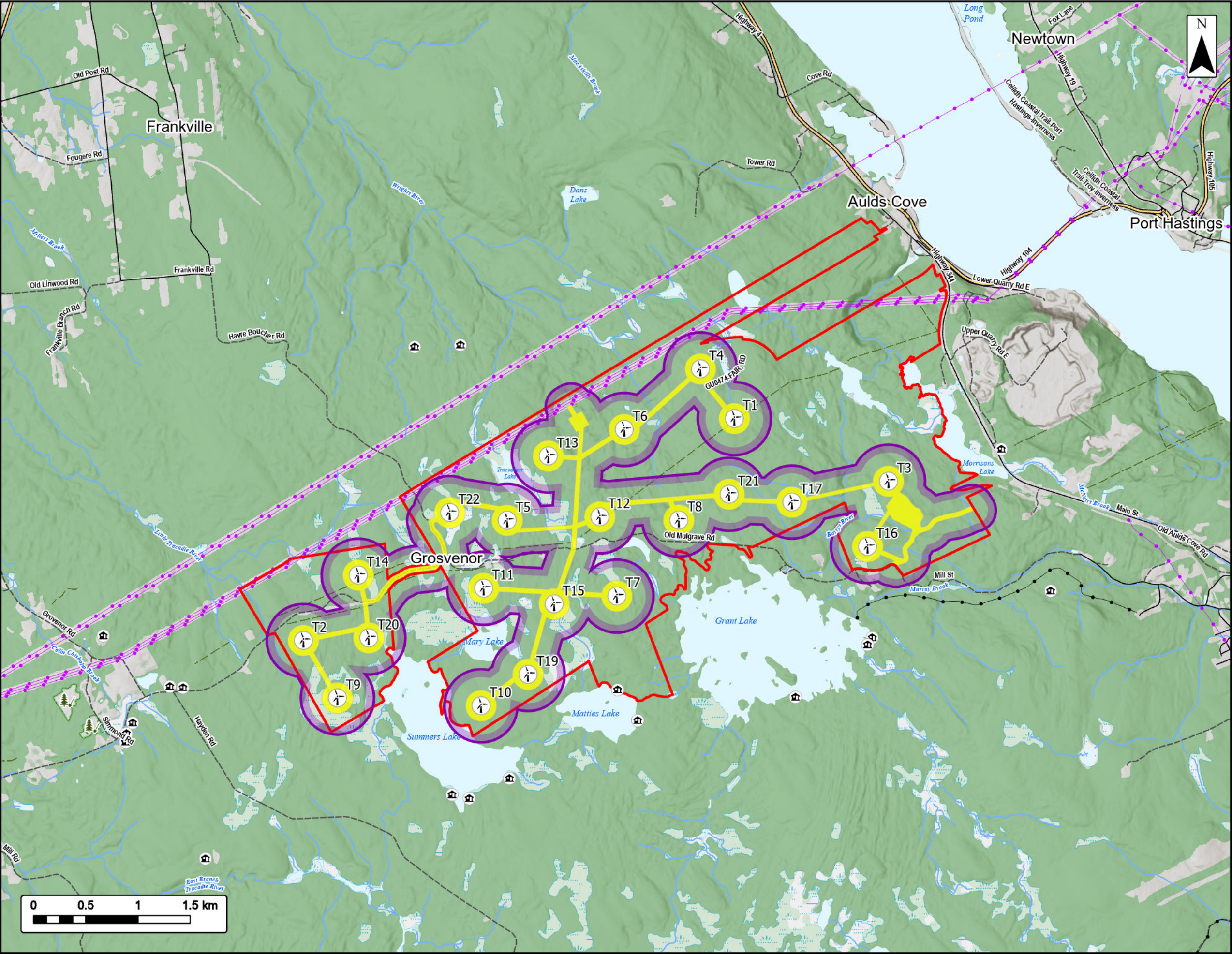
0 50 100 200 km

Coordinate System: NAD 1983 CSRS UTM Zone 20N
Sources: Esri, NASA, NGA, USGS, Service Nova Scotia, GeoNOVA, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin

Date:	2025-12-08	Project #:	24-10440
Scale:	1:30,000	Drawing #:	7.1
Drawn By:	K. Wallace		
Checked By:	D. Foster		



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Aulds Cove Wind Project

Atmospheric LAA

Study Area

Assessment Area

Proposed Turbine Location

Non-participating Receptor

Atmospheric LAA

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

Unpaved Road

Water Features

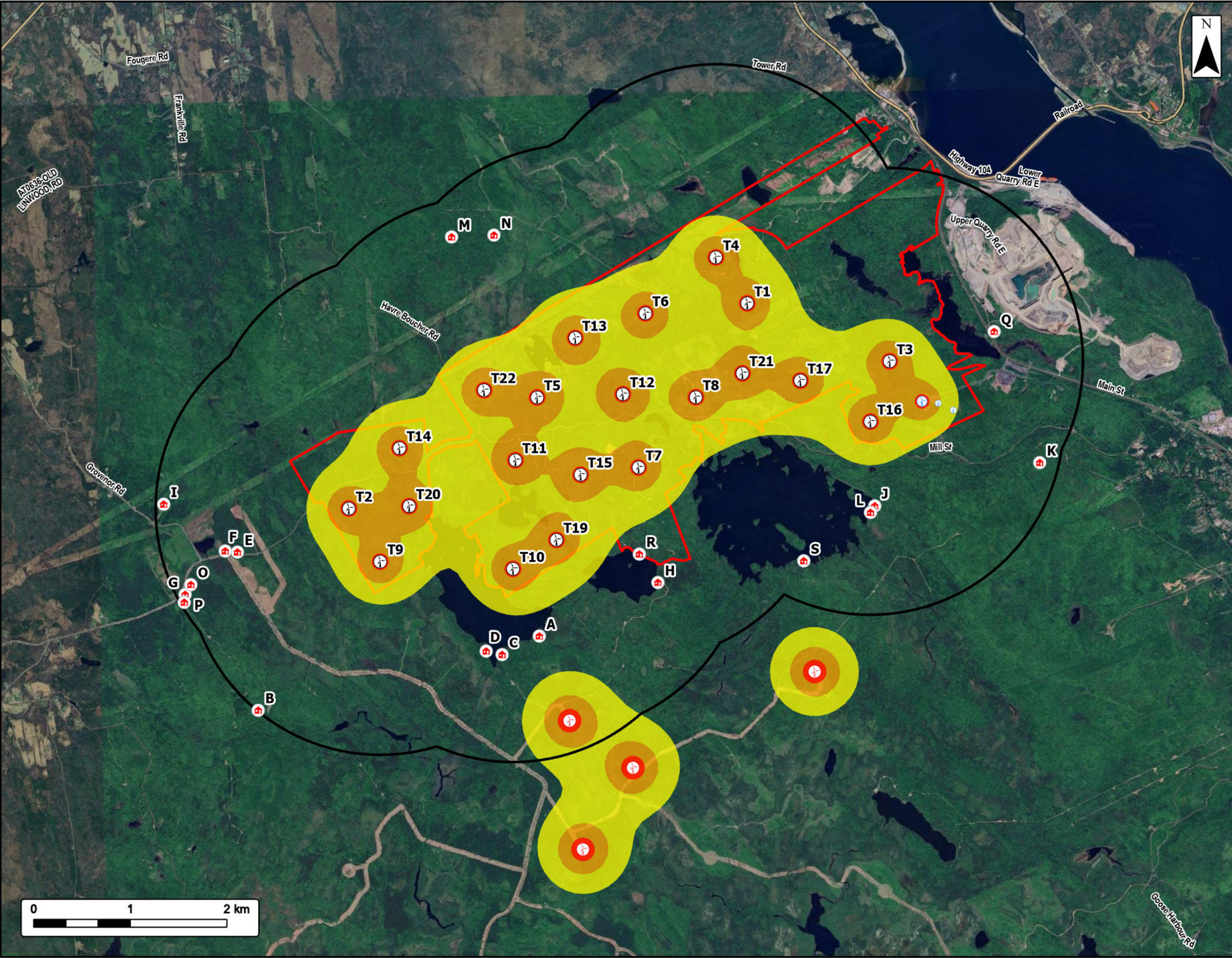
Mapped Watercourse

Mapped Lakes and Rivers

Mapped Wet Areas

Coordinate System: NAD 1983 CSRS UTM Zone 20N
Sources: Esri, NASA, NGA, USGS, Service Nova Scotia, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2025-12-08	Project #:	24-10440
Scale:	1:35,000	Drawing #:	7.2
Drawn By:	K. Wallace		
Checked By:	D. Foster		



Aulds Cove Wind Project

Noise Model



Study Area

Noise LAA

Proposed Turbine Location

Celtic Current Wind Turbine Location

Goose Harbour Lake Wind Farm Turbine Location

Non-Participating Receptor

Predicted Noise Level (dBA)

40-44

45-49

50+

Transportation

Trans-Canada Highway

Road

Unpaved Road

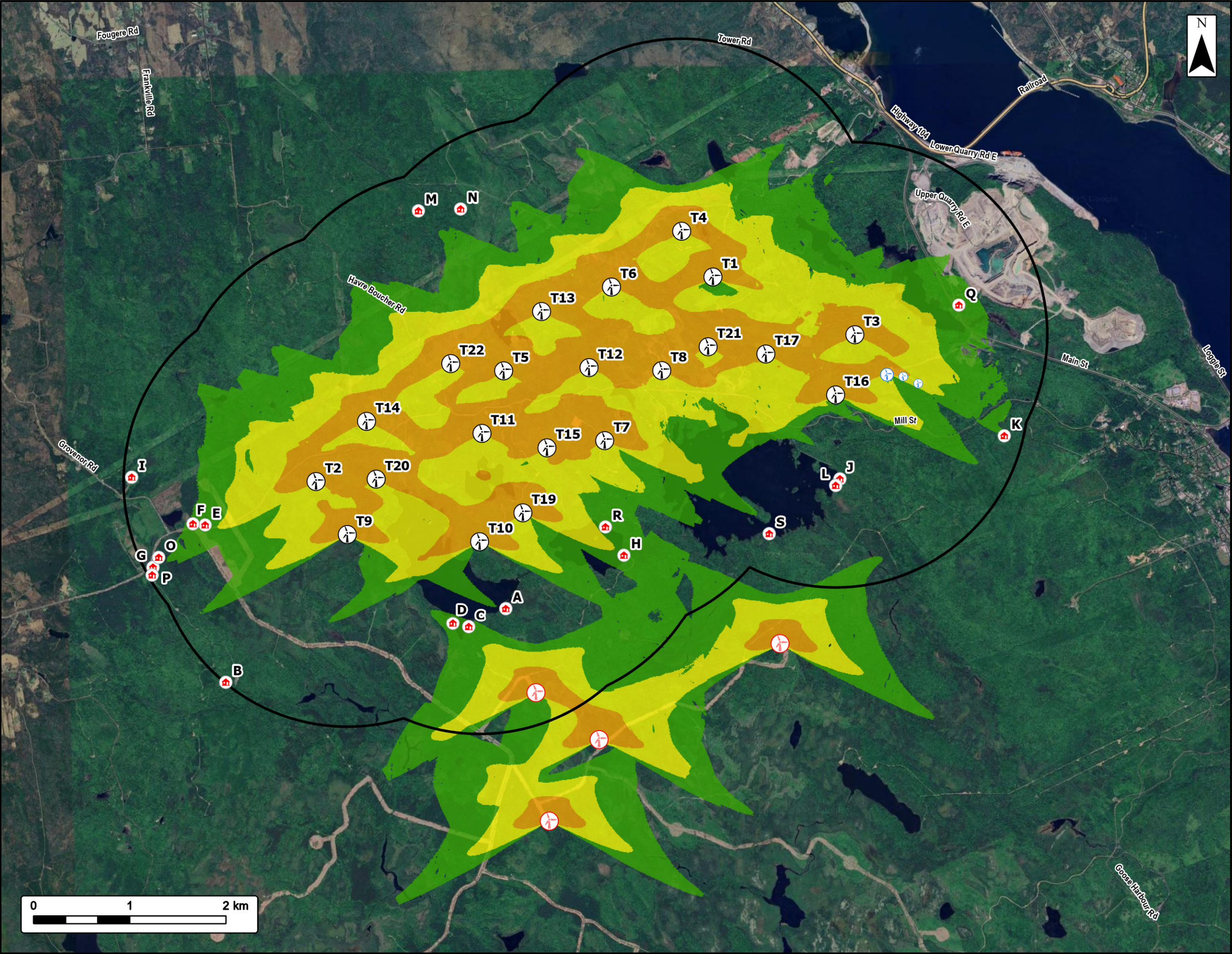
Note: An ambient noise value of **35 dBA** was included at each receptor. Noise was modelled using using **WindPRO v4.0** software using the **ISO 9613-2 General noise model**.



Coordinate System: NAD 1983 UTM Zone 20N
Sources: © OpenStreetMap (and) contributors, CC-BY-SA, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWII, HERE, Garmin, USGS

Date:	2025-12-10	Project #:	24-10440
Scale:	1:38,000	Drawing #:	7.3
Drawn By:	E. Johnson		
Checked By:	D. Foster		





Aulds Cove Wind Project

Shadow Flicker Hours per Year - Assessment
Scenario B

Shadow Flicker LAA

Proposed Turbine Location

Celtic Current Wind Turbine Location

Goose Harbour Lake Wind Farm Turbine Location

Non-Participating Receptor

Predicted Shadow Flicker Hours / Year

10-29

30-99

100+

Transportation

Trans-Canada Highway

Road

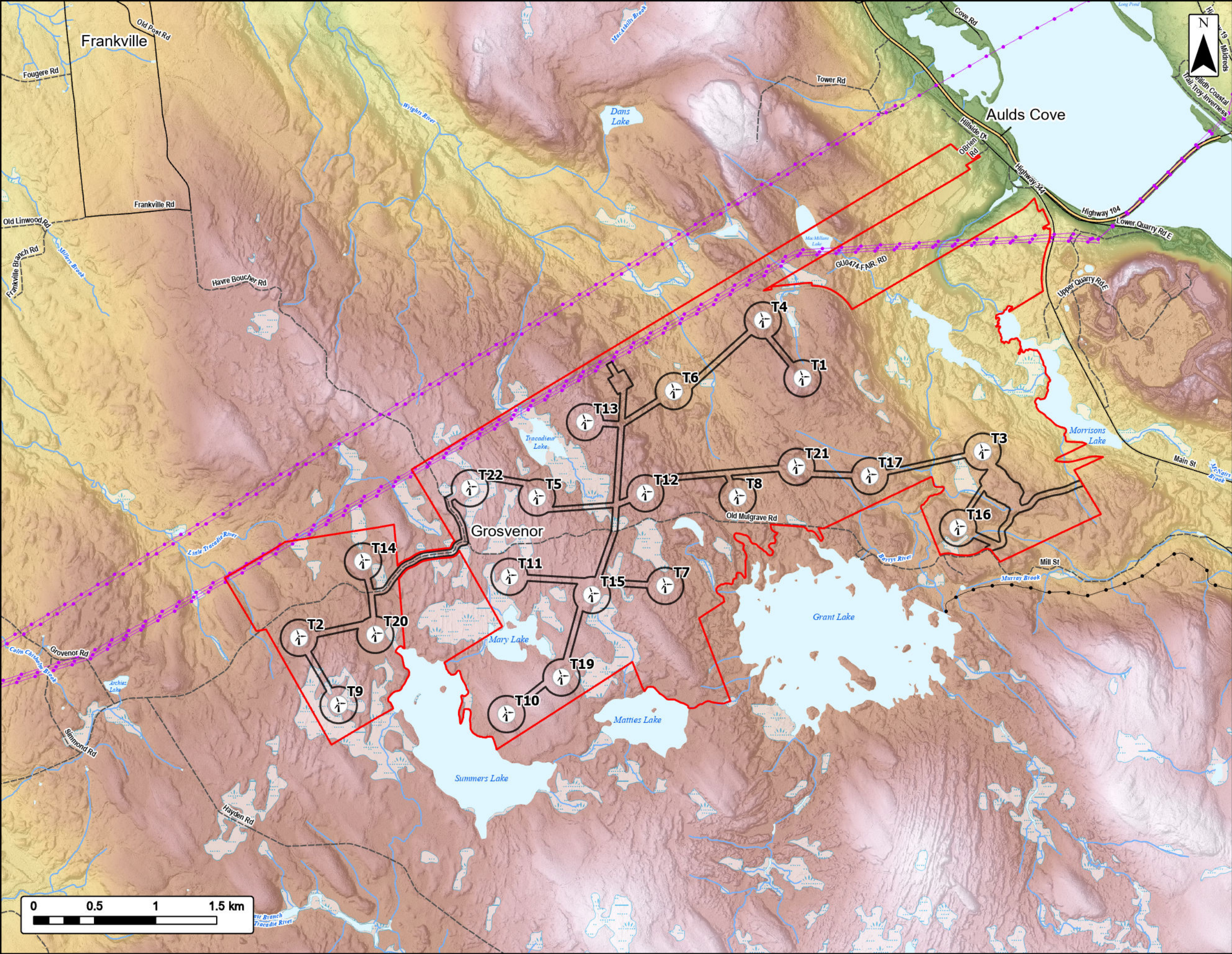
Unpaved Road

Note: Shadow flicker was modelled using using **WindPRO v4.0** software. Assessment Scenario B incorporates historical sunlight data from the nearest Environment Canada weather station to simulate more realistic but still conservative estimates of shadow flicker at each receptor.

Coordinate System: NAD 1983 UTM Zone 20N

Sources: © OpenStreetMap (and) contributors, CC-BY-SA, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2025-12-08	Project #:	24-10440
Scale:	1:38,000	Drawing #:	7.4
Drawn By:	E. Johnson		
Checked By:	D. Foster		



Aulds Cove Wind Project

Geomorphology



Renewable Energy Development Inc.

Study Area

Assessment Area

Proposed Turbine Location

Elevation (m)
193.6

-1.5

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

Unpaved Road

Water Features

Mapped Watercourse

Mapped Lakes and Rivers

Mapped Wet Areas

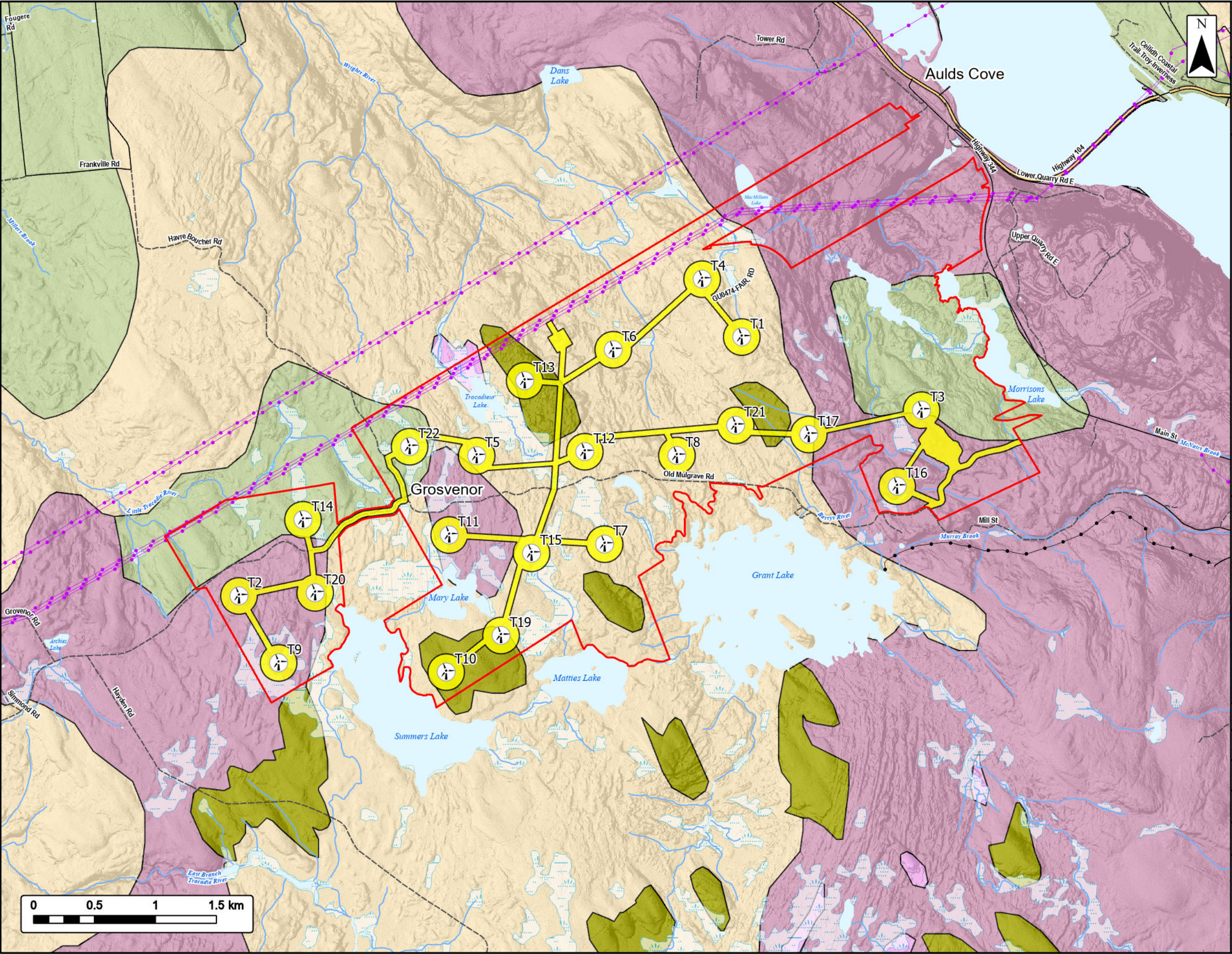


0 50 100 200 km

Coordinate System: NAD 1983 CSRS UTM Zone 20N
Sources: Service Nova Scotia, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2025-12-08	Project #:	24-10440
Scale:	1:30,000	Drawing #:	7.5
Drawn By:	K. Wallace		
Checked By:	D. Foster		





Aulds Cove Wind Project

Surficial Geology



Renewable Energy Development Inc.

Study Area

Assessment Area

Proposed Turbine Location

Surficial Geology By Unit

Bedrock

Organic Deposits

Silty Drumlin

Silty Till Plain

Stony Till Plain

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

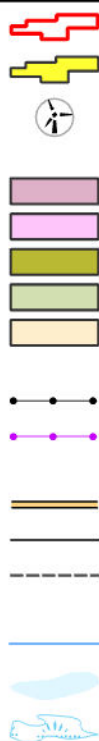
Unpaved Road

Water Features

Mapped Watercourse

Mapped Lakes and Rivers

Mapped Wet Areas



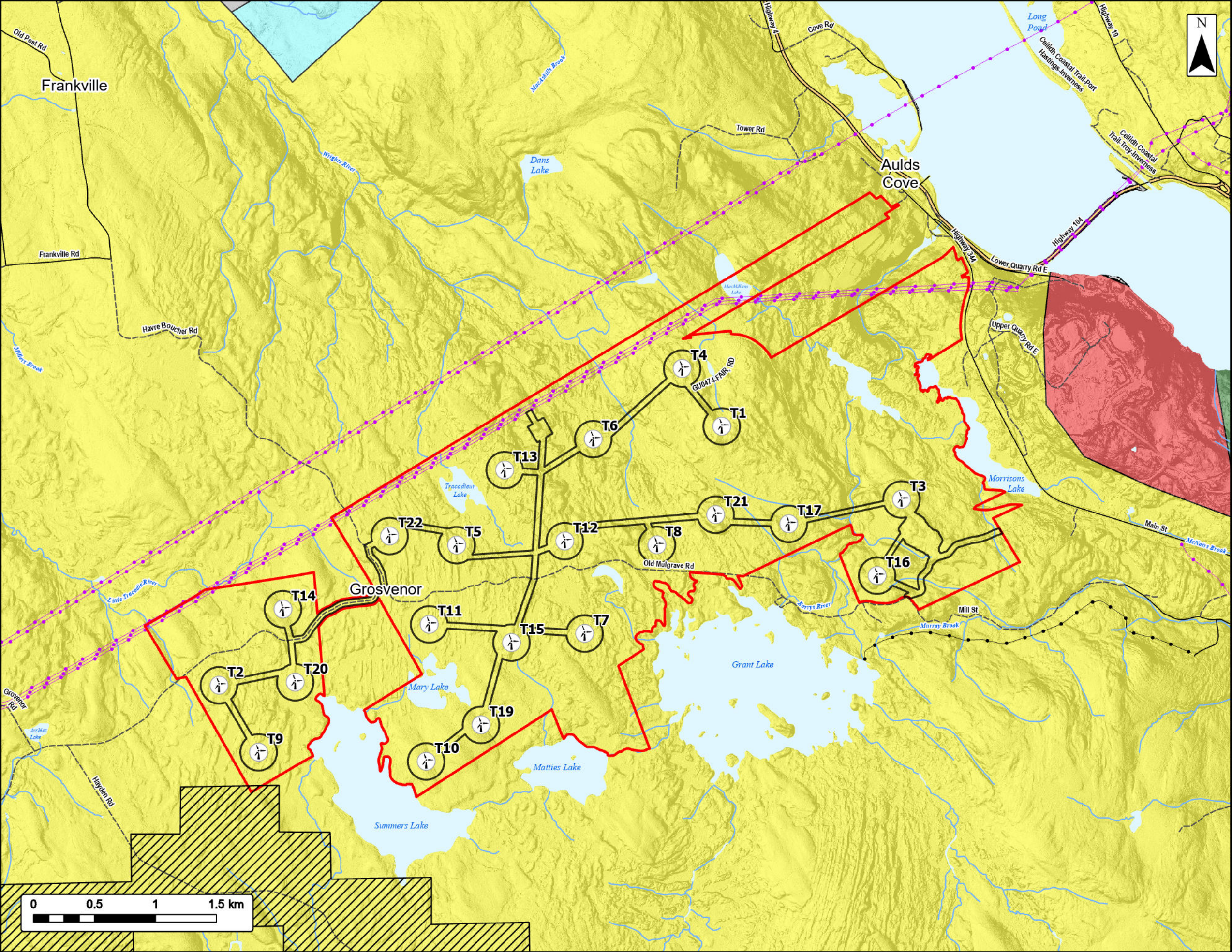


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Coordinate System: NAD 1983 CSRS UTM Zone 20N
Sources: Service Nova Scotia, GeoNOVA, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2025-12-08	Project #:	24-10440
Scale:	1:30,000	Drawing #:	7.6
Drawn By:	K. Wallace		
Checked By:	D. Foster		





Aulds Cove Wind Project

Bedrock Geology



Renewable Energy Development Inc.

Study Area

Assessment Area

Proposed Turbine Location

Active Exploration License (EL: 56959)

Bedrock Geology By Formation

Mabou Group

Windsor Group: Northern Mainland

Windsor Group: Cape Breton Island

Horton Group

George River Metamorphic Suite: undivided

Proterozoic - Devonian granite

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

Unpaved Road

Water Features

Mapped Watercourse

Mapped Lakes and Rivers





0 50 100 200 km

Coordinate System: NAD 1983 CSRS UTM Zone 20N

Sources: Service Nova Scotia, GeoNOVA, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

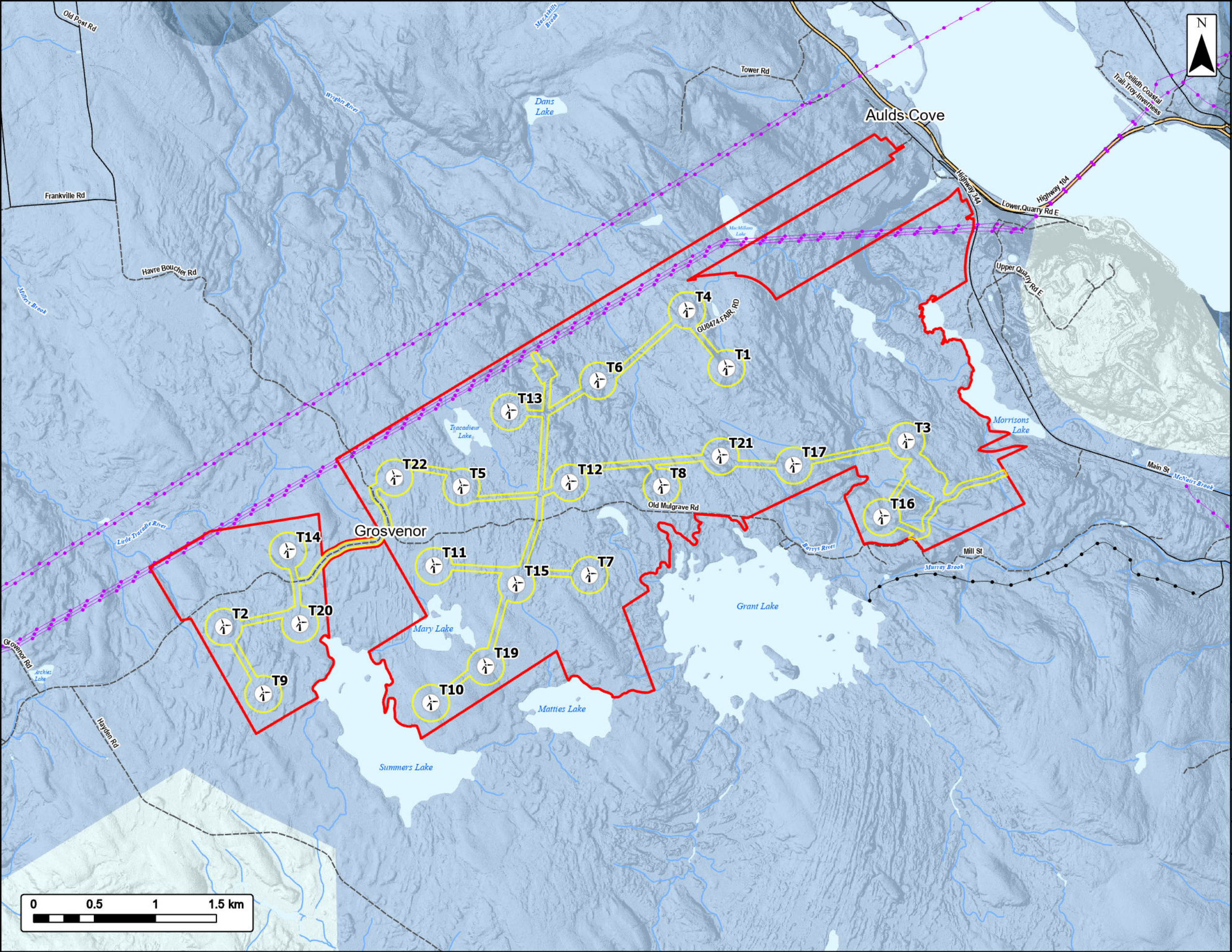
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Scale:	1:30,000	Drawing #:	7.7
Drawn By:	K. Wallace		
Checked By:	D. Foster		



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CONSULTING



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Aulds Cove Wind Project

Karst Risk

Study Area

Assessment Area

Proposed Turbine Location

Karst Risk

High Risk

Medium Risk

Low Risk

Utilities (line)

Existing Pipeline

Existing Transmission Lines

Transportation

Trans-Canada Highway

Road

Unpaved Road

Water Features

Mapped Watercourse

Mapped Lakes and Rivers

Coordinate System: NAD 1983 CSRS UTM Zone 20N
Sources: Service Nova Scotia, GeoNOVA, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2025-12-08	Project #:	24-10440
Scale:	1:30,000	Drawing #:	7.8
Drawn By:	K. Wallace		
Checked By:	D. Foster		