



## INFORMATION REQUEST –T(3)-05 MIGRATORY BIRDS AND SPECIES AT RISK

**Source:** Environment and Climate Change Canada

### Summary of Comment

Subsection 10.2.7 of the EIS Guidelines requires the EIS to identify and assess potential effects of the Project on common nighthawk and mitigation measures to address the effects. Follow-up monitoring is also required, pursuant to subsection 13.1.2 of the guidelines, to verify the prediction of effects and evaluate the effectiveness of the mitigation.

Figures T(2)-09-1 and T(2)-09-2 illustrate a partial length of the access road, with some segments of undefined habitat areas. It is unclear which habitat types are within the undefined areas and along the full length of the transmission line corridor and access road.

The measures identified in the response to T(2)-09 are presented as reactions to bird collisions and mortalities rather than mitigation to prevent or otherwise avoid harm to birds. The *Migratory Birds Convention Act, 1994* and the federal *Species at Risk Act* prohibit harming individuals of the scheduled bird species. It is unclear which mitigation measures will be implemented to prevent or otherwise avoid bird collisions and mortalities. A description of the proposed monitoring for bird collisions and mortalities along the transmission line corridor and access road is also needed.

### Reference to EIS

EIS Guidelines 10.2.7, 13.1.2

EIS Report Subsection 2.5.6; Tables 2-3, 8-8

### Previous IR

T(2)-09, T-55, A-6

### Information Request (IR) #1

Revise Figures T(2)-09-1 and T(2)-09-2 to define all habitat types, including the white coloured areas appearing in the figures, and to identify the areas with high collision risks along the full length of the transmission line corridor and access road.

### Response

Figures T(2)-09-1 and T(2)-09-2 have been updated to define all habitat types and areas of high collision risk along the full length of the transmission line corridor and access road. A revised set of figures is attached.

### Attachments

Figures T(3)-05-1 to T(3)-05-7



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INFORMATION REQUEST RESPONSES**

## **IR #2**

Provide a science-based rationale to justify using the standardized classification system to define habitats along the entire length of the transmission line corridor and access road. Include the methodology used to characterize high, medium and low collision risk areas.

### **Response**

For the purposes of the EIS/EA report, plant communities within the Mine Study Area (MSA) and along the road and transmission line were assessed and delineated based on two classification systems, which were used at the request of the Atikokan District MNRF. The Field Guide to the Wetland Ecosystem Classification for Northwestern Ontario (Harris et al. 1996) was used to assess wetlands, and the Terrestrial and Wetland Ecosites of Northwestern Ontario (Racey et al. 1996) was used to assess upland ecosites. The Ontario Wetland Evaluation System (MNRF 2014) was also used to supplement the wetland evaluations and to aid in the determination of wetland significance.

The preferred habitat characteristics of common nighthawk include open areas such as gravel beaches, woodland clearings, rocky outcrops, burned-over woodlands, flat gravel roofs, bogs and alvars (Brigham et al. 2011; Sandilands 2007). Some of the ecosites described using the above two classification systems correspond to these habitat preferences, such as the upland ecosite ES7 – rock barren. However, forested ecosites are primarily defined based on plant type and soil and are not differentiated based on the percentage of canopy cover. Based on the upland classification system used for the EIS/EA report, there was no distinction made between areas of sparse and dense forest. In addition, open cutover areas were often associated with seismic exploration lines and were not large enough to classify as a separate ecosite unit. As such, the cutover areas were grouped in and classified with the dominant surrounding ecosite, which was often forest.

Because dense forest is not suitable habitat for common nighthawk, a classification system that differentiated forested ecosites based on canopy cover, or degree of openness, was required to complete the mapping exercise for IR T(2)-09 for common nighthawk collision risk areas.

The classification system used for the mapping exercise in IR T(2)-09 and IR T(3)-05 was the Ministry of Natural Resources and Forestry's (MNRF) Provincial Land Cover Data Base, 2<sup>nd</sup> Edition (2000), which is based on 27 broad land cover types, including non-vegetated surfaces such as bedrock outcrops (MNRF 2016). One of the land cover types included in this classification system is sparse forest, which represents forest communities with a canopy cover between 10% and 25% and would be considered suitable habitat for common nighthawk.

The assessment of common nighthawk collision risk along the transmission corridor and access road was based on an evaluation of existing habitat presence or absence at the coarse landscape level. Areas where there was an absence of suitable habitat were considered to be at low risk for collisions. Areas that had groupings of land cover types that would provide suitable habitat were considered at high risk for collisions.

### **Attachments**

None

## **IR #3**

Describe all mitigation measures to be implemented to prevent or otherwise avoid bird collisions. Re-assess and report on the residual effects, including the magnitude, geographic extent, duration, frequency, and reversibility of the effects, and the significance of the residual effects.



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INFORMATION REQUEST RESPONSES**

## Response

Mitigation measures identified previously in the response to T(2)-09 related to preventing bird collisions with vehicles will be implemented on all site roads and the main access road prior to commencement of the project and throughout project operations. Mitigation measures will include the following:

- Providing awareness training to all staff, visitors, and contractors;
- Implementing and enforcing speed limits on the Site;
- Requiring wildlife to have the right-of-way; and
- Communicating sightings of nighthawks, especially on or near roads.

Proactive mitigation measures to prevent or avoid bird collisions during the operations phase of the Project, along the entire length of the transmission corridor, will be installed immediately following construction of the transmission line and will be developed in consultation with Environment and Climate Change Canada (ECCC). Mitigation measures may include the following:

- Installing reflective spinners on the transmission line; and
- Installing cone-shaped pole caps and cross arm perch preventers.

Based on the implementation of mitigation measures as described above, the assessment of residual effects previously described in the Terrestrial Ecology TSD report remains valid, and the overall significance of a residual effect (i.e., bird injury or mortality due to collision) on common nighthawk is considered to be low.

## Attachments

None

## IR #4

Describe how the proposed monitoring measures will verify predicted effects on migratory birds along the full length of the transmission line corridor and access road.

## Response

Methods for any monitoring surveys for migratory birds requested by ECCC will be developed in consultation with ECCC prior to commencement of the construction phase.

## Attachments

None



**CANADIAN MALARTIC CORPORATION  
HAMMOND REEF GOLD PROJECT EIS/EA  
INFORMATION REQUEST RESPONSES**

## References

- Harris, A.G., S.C. McMurray, P.W.C Uhlig, J.K. Jeglum, R.F. Foster, and G.D. Racey 1996. *Field guide to the wetland ecosystem classification for northwestern Ontario*. Ont. Min. Natur. Resour, Northwest Sci. & Technol. Thunder Bay, Ont. Field Guide FG-01. 74 pp. + Append.
- Ministry of Natural Resources and Forestry (MNRF). 2014. Ontario Wetland Evaluation System Northern Manual, 1<sup>st</sup> Edition, Version 1.3. Queen's Printer for Ontario.
- Ministry of Natural Resources and Forestry (MNRF). 2016. Provincial Land Cover Data Base, 2<sup>nd</sup> Edition (2000). URL: <https://www.ontario.ca/data/provincial-land-cover>.
- Racey, G.D, Harris, A.G, Jeglum, J.K, Foster, R.F. and Wickware, G.M. 1996. *Terrestrial and wetland ecosites of northwestern Ontario*. Ont. Min. Natur. Resour. Northwest Sci. & Technol. Filed Guide FG-02. 94 pp. + Append.

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## GRT Review Findings and Comments on above Responses

(Provided in letter to proponent dated August 16, 2016)

The response clarifies potential effects on common nighthawk; however with respect to the proposed mitigation measure to communicate sightings, the proponent is expected to include field identification skills as part of its commitment to provide awareness training to all staff, visitors and contractors.

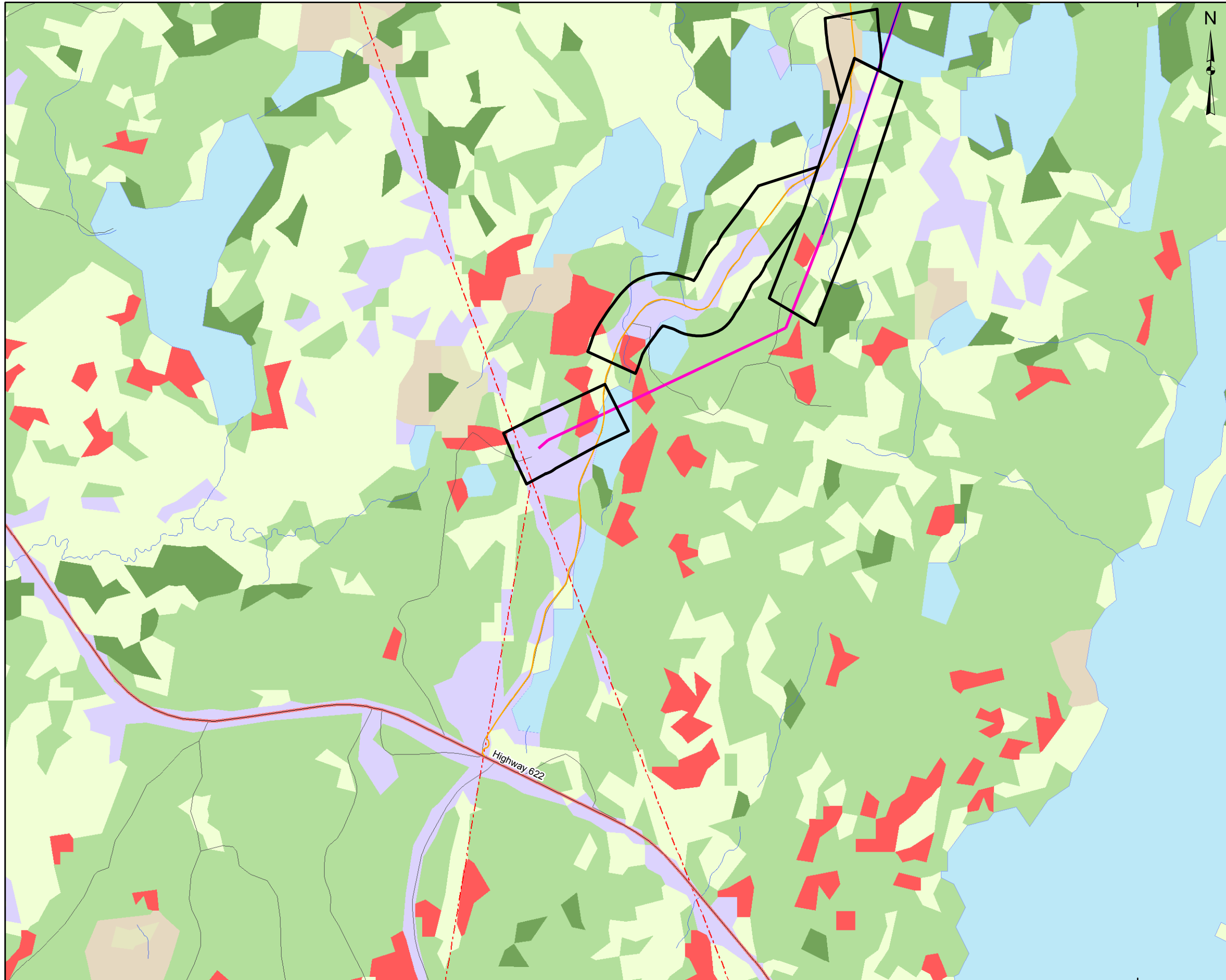
### Required Clarification

Clarification of this commitment, by incorporating field identification skills in awareness training, should be included in the updated commitments registry, i.e. response to T(2)-16.

### **CMC Response**

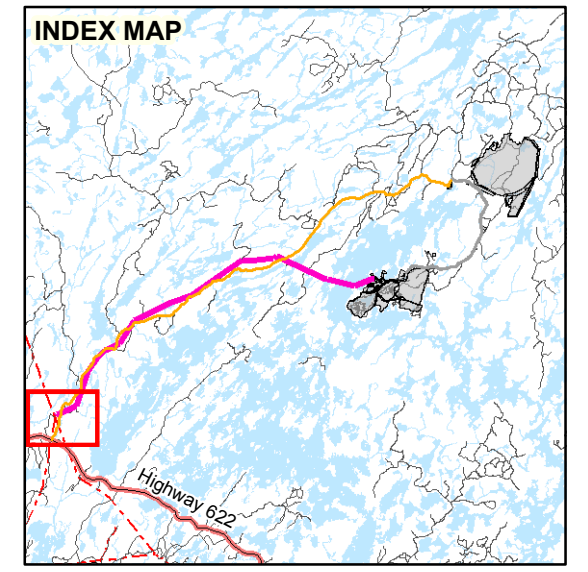
CMC will include field identification skills as part of the awareness training that is provided to all staff, visitors and contractors. This commitment will be included in the updated commitments registry.

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**LEGEND**

- Provincial Highway
  - Road
  - - - Power Transmission Line
  - River/Stream
  - Mine Site Road
  - Access Road (Hardtack / Sawbill)
  - Project Transmission Line
  - Lake
  - Potential Area of Increased Bird Collision Rates
- Landcover**
- Forest - Depletion Cuts
  - Forest - Sparse
  - Forest - dense deciduous
  - Forest - dense mixed
  - Forest - dense coniferous
  - Fen - open
  - Fen - treed
  - Bog - open
  - Bog - treed
  - Other - Unknown



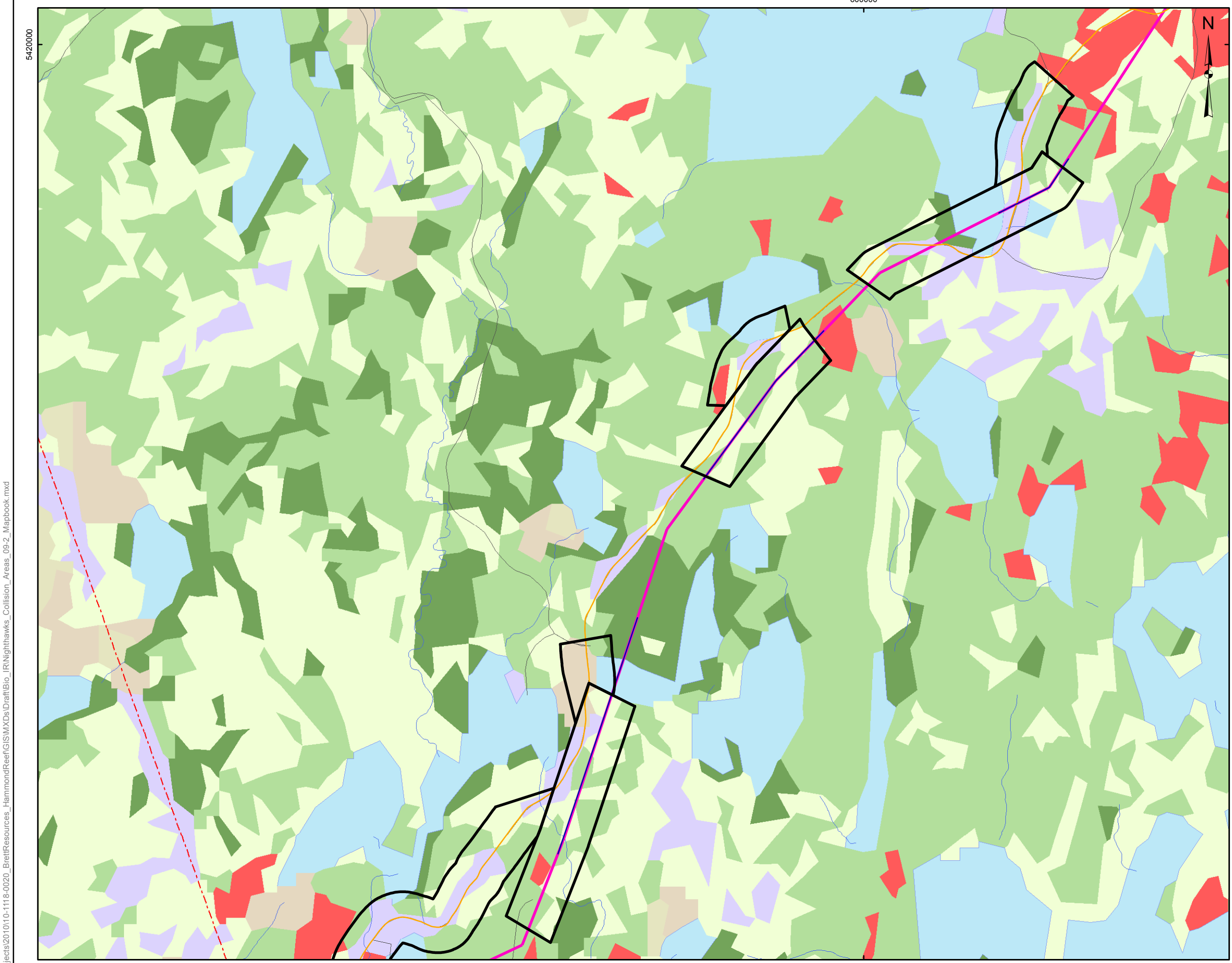
**REFERENCE**

Base Data - Provided by OSISKO Hammond Reef Gold Project Ltd.  
 Base Data - MNR NRVIS, obtained 2004  
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<b>PROJECT</b>		HAMMOND REEF GOLD PROJECT ATIKOKAN, ONTARIO, CANADA	
<b>TITLE</b>		AREAS OF POTENTIAL INCREASED COLLISION RATES OF COMMON NIGHTHAWKS WITH THE TRANSMISSION LINE	
 Golder Associates Mississauga, Ontario	PROJECT NO. 1408383	SCALE AS SHOWN	VERSION 1
	DESIGN CGE 14 Nov. 2008	<b>FIGURE:</b> <b>T(3)-05-1</b>	
	GIS SO 31 Mar. 2016		
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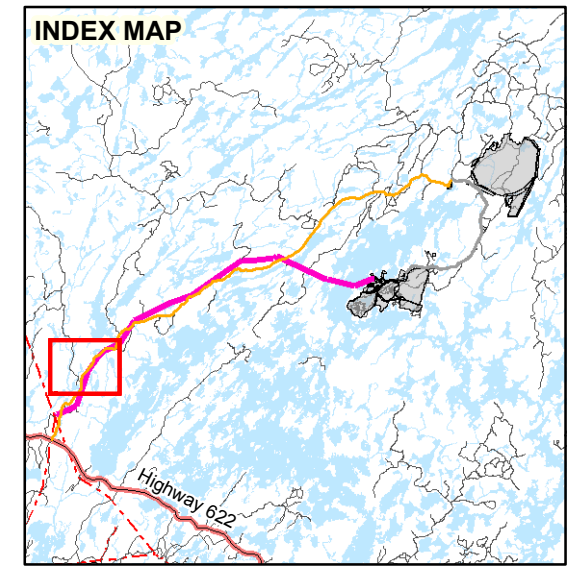


**LEGEND**

- Road
- - - Power Transmission Line
- River/Stream
- Mine Site Road
- Access Road (Hardtack / Sawbill)
- Project Transmission Line
- Lake
- ▭ Potential Area of Increased Bird Collision Rates

**Landcover**

- Forest - Depletion Cuts
- Forest - Sparse
- Forest - dense deciduous
- Forest - dense mixed
- Forest - dense coniferous
- Fen - open
- Fen - treed
- Bog - open
- Bog - treed
- Other - Unknown



**REFERENCE**

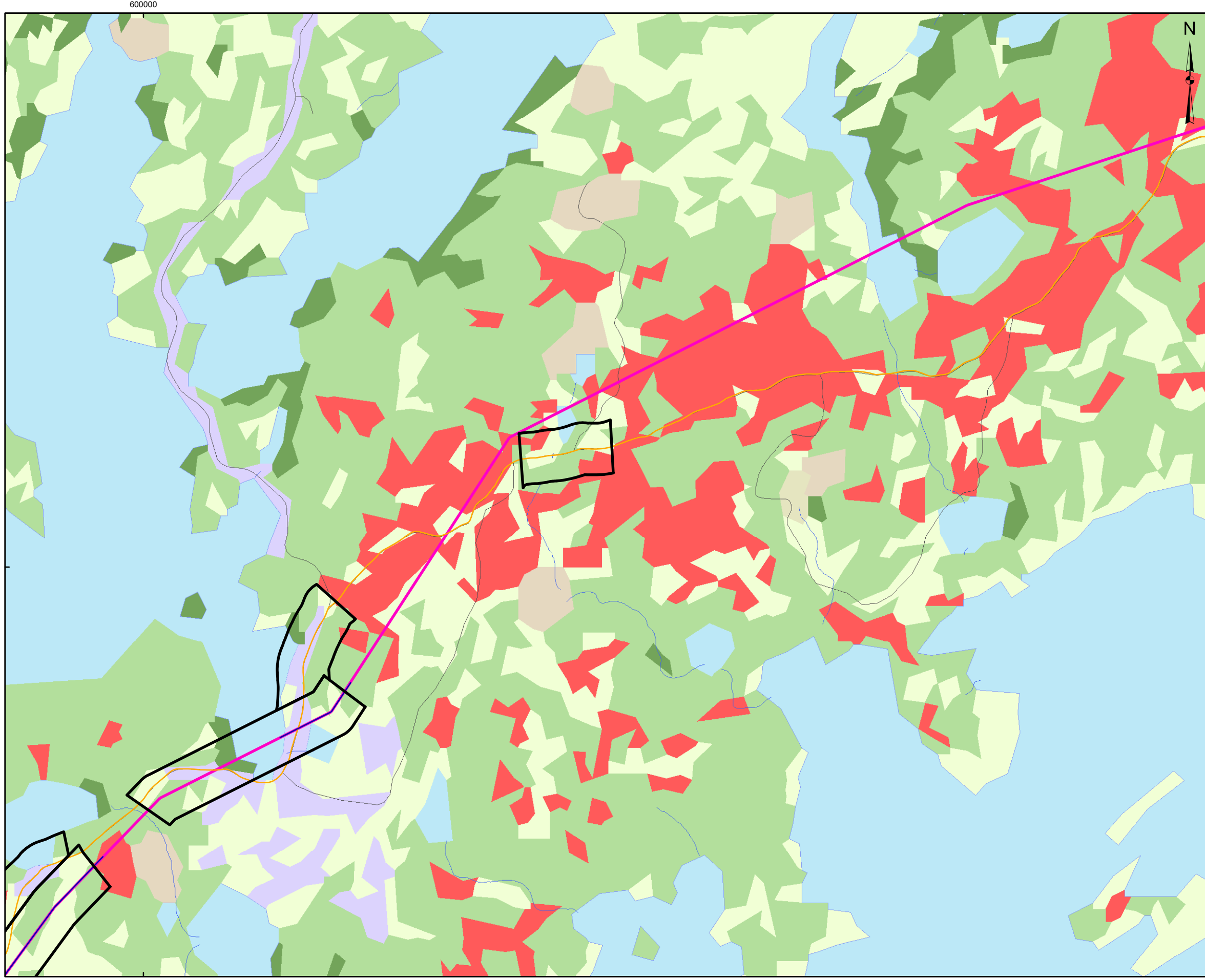
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 ATIKOKAN, ONTARIO, CANADA

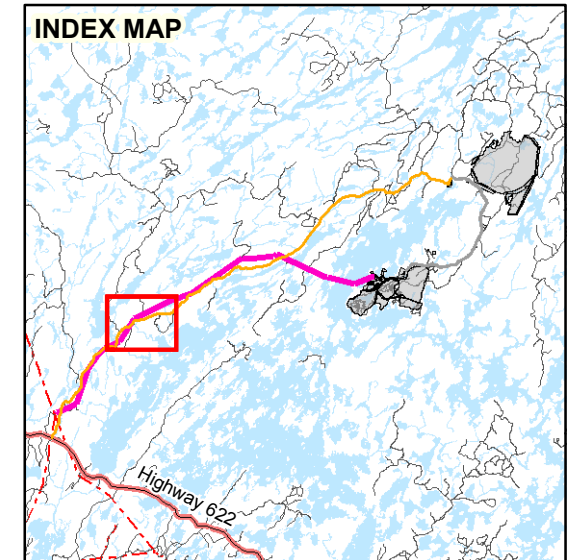
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 AREAS OF POTENTIAL INCREASED COLLISION RATES OF  
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<p>Golder Associates Mississauga, Ontario</p>	PROJECT NO. 1408383	SCALE AS SHOWN	VERSION 1
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**LEGEND**


- Road
  - River/Stream
  - Mine Site Road
  - Access Road (Hardtack / Sawbill)
  - Project Transmission Line
  - Lake
  - ▭ Potential Area of Increased Bird Collision Rates
- Landcover**
- Forest - Depletion Cuts
  - Forest - Sparse
  - Forest - dense deciduous
  - Forest - dense mixed
  - Forest - dense coniferous
  - Fen - open
  - Fen - treed
  - Bog - open
  - Bog - treed
  - Other - Unknown

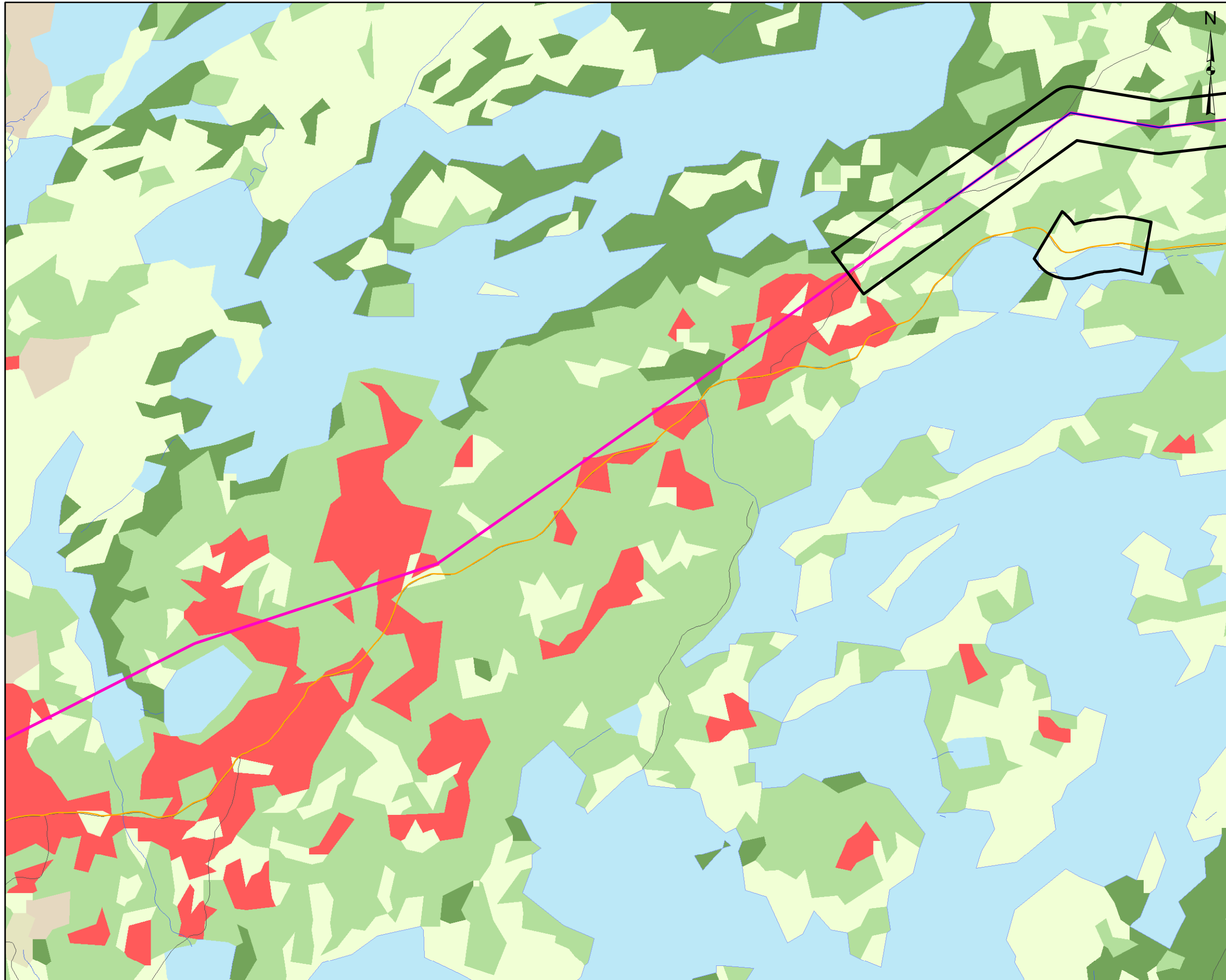


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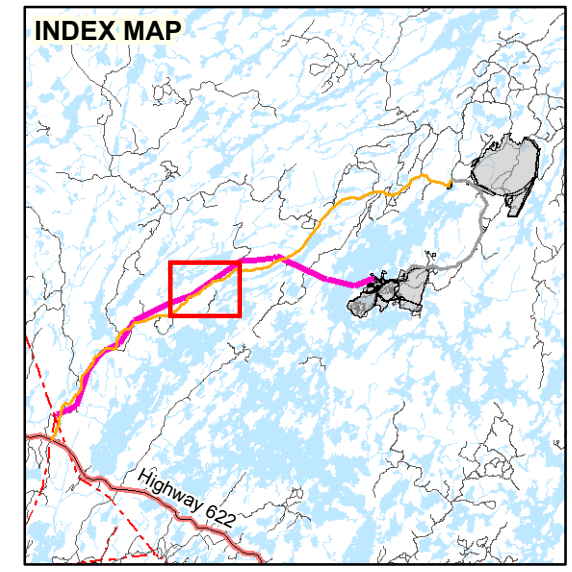


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 <p>Golder Associates Mississauga, Ontario</p>	PROJECT NO. 1408383	SCALE AS SHOWN	VERSION 1
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			<b>FIGURE:</b> <b>T(3)-05-3</b>



**LEGEND**

- Road
- River/Stream
- Mine Site Road
- Access Road (Hardtack / Sawbill)
- Project Transmission Line
- Lake
- Potential Area of Increased Bird Collision Rates
- Landcover**
- Forest - Depletion Cuts
- Forest - Sparse
- Forest - dense deciduous
- Forest - dense mixed
- Forest - dense coniferous
- Fen - open
- Fen - treed
- Bog - open
- Bog - treed
- Other - Unknown



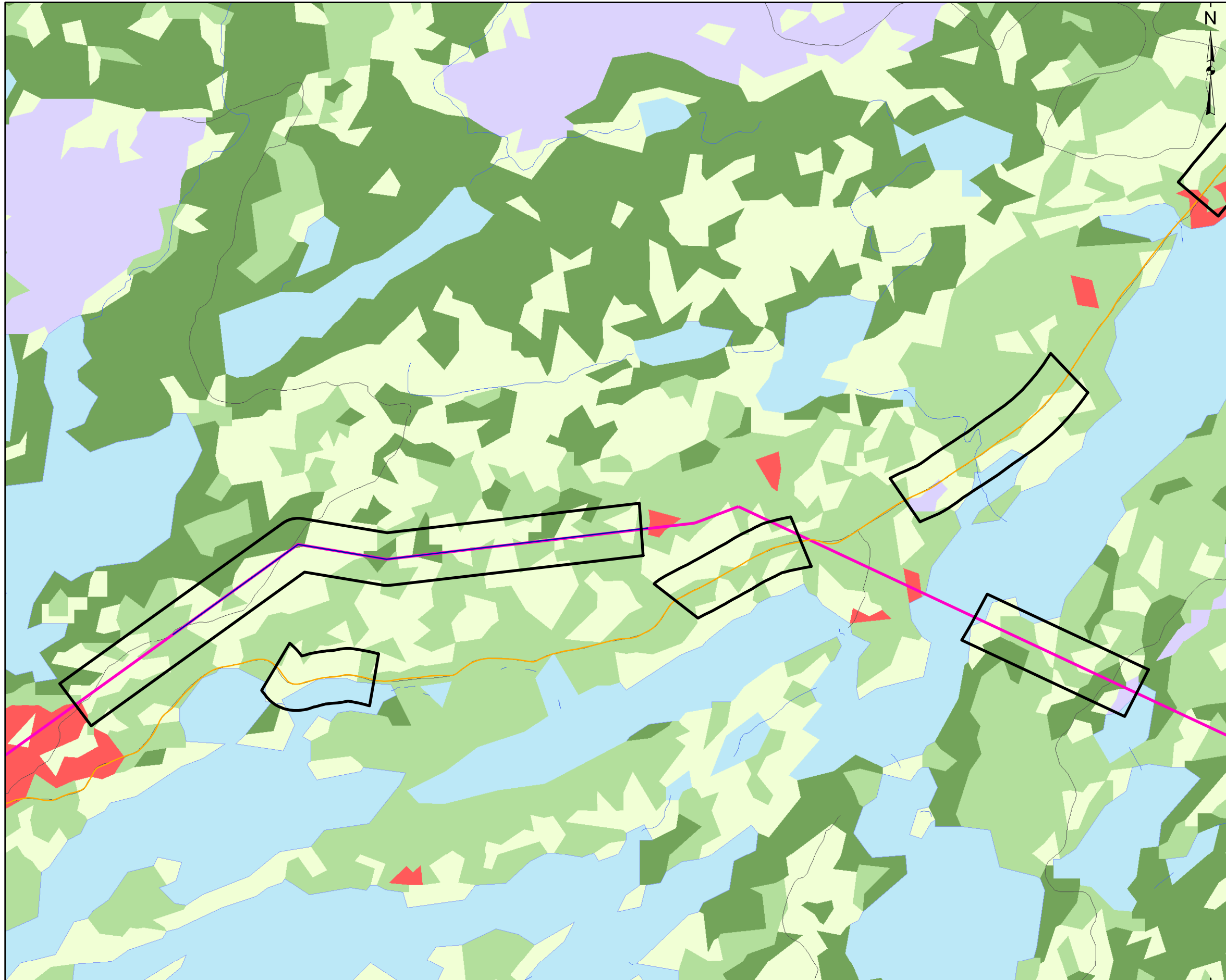
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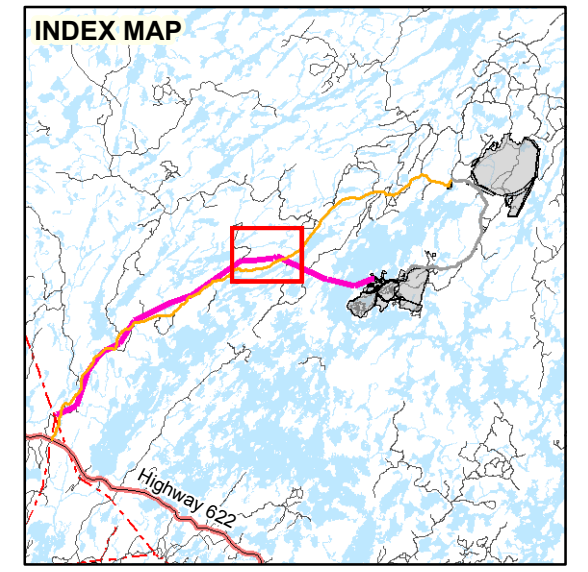


**LEGEND**

- Road
- River/Stream
- Mine Site Road
- Access Road (Hardtack / Sawbill)
- Project Transmission Line
- Lake
- ▭ Potential Area of Increased Bird Collision Rates

**Landcover**

- Forest - Depletion Cuts
- Forest - Sparse
- Forest - dense deciduous
- Forest - dense mixed
- Forest - dense coniferous
- Fen - open
- Fen - treed
- Bog - open
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- Other - Unknown



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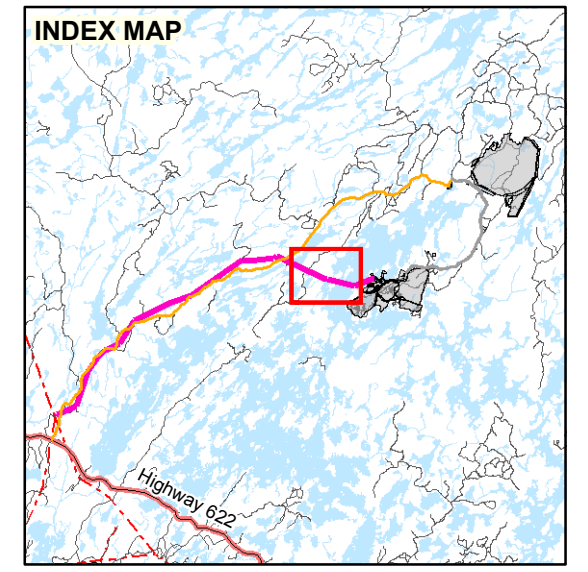
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**LEGEND**


- Road
  - River/Stream
  - Mine Site Road
  - Access Road (Hardtack / Sawbill)
  - Project Transmission Line
  - Lake
  - ▭ Potential Area of Increased Bird Collision Rates
- Landcover**
- Forest - Depletion Cuts
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  - Forest - dense coniferous
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  - Fen - treed
  - Bog - open
  - Bog - treed
  - Other - Unknown

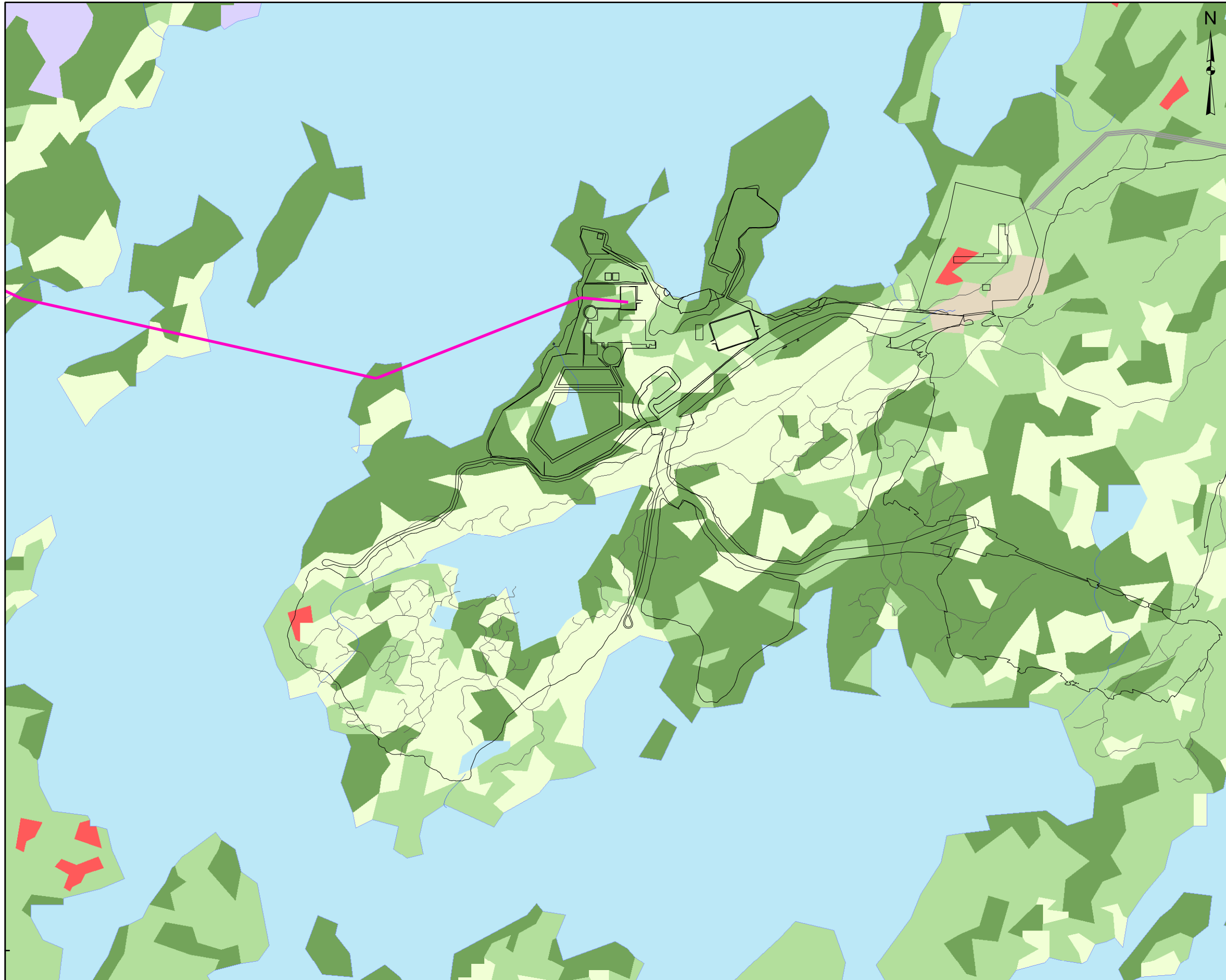


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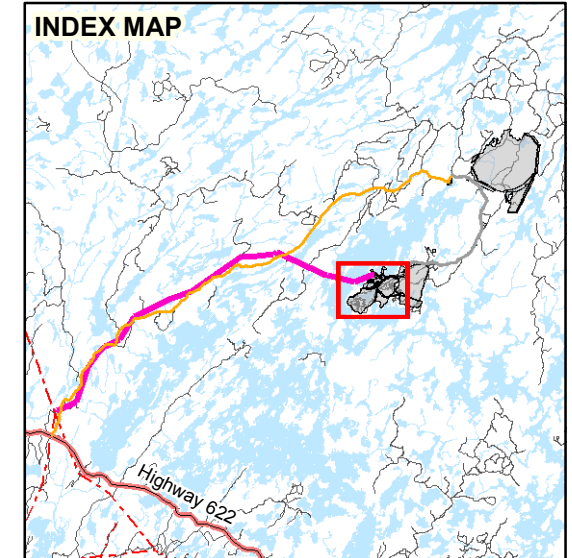


<b>PROJECT</b>		<b>HAMMOND REEF GOLD PROJECT ATIKOKAN, ONTARIO, CANADA</b>	
<b>TITLE</b>		<b>AREAS OF POTENTIAL INCREASED COLLISION RATES OF COMMON NIGHTHAWKS WITH THE TRANSMISSION LINE</b>	
 Golder Associates Mississauga, Ontario	PROJECT NO. 1408383	SCALE AS SHOWN	VERSION 1
	DESIGN CGE 14 Nov. 2008	<b>FIGURE: T(3)-05-6</b>	
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**LEGEND**

- Road
  - River/Stream
  - Mine Site Road
  - Access Road (Hardtack / Sawbill)
  - Project Transmission Line
  - Lake
- Landcover**
- Forest - Depletion Cuts
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  - Fen - open
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  - Bog - treed
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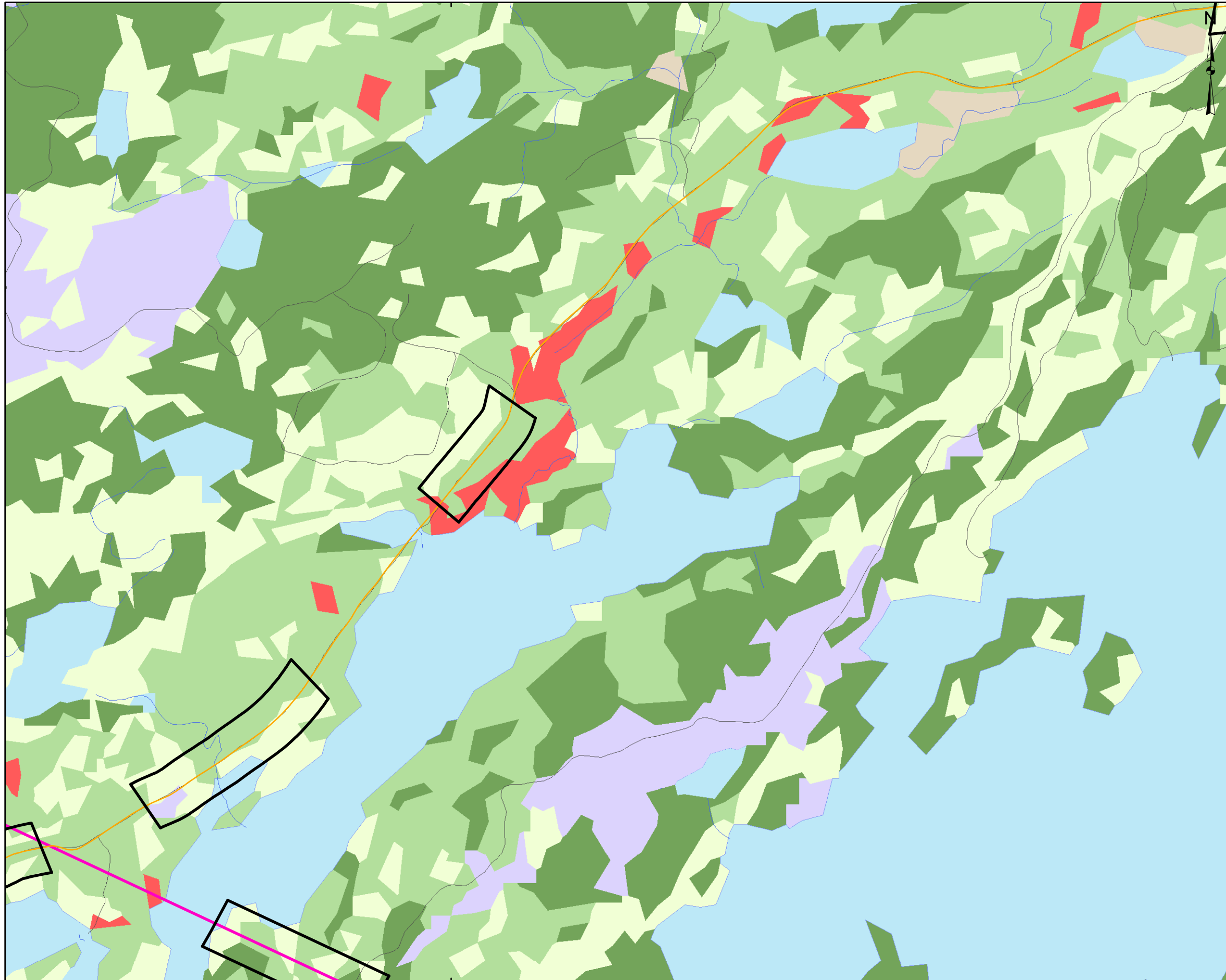
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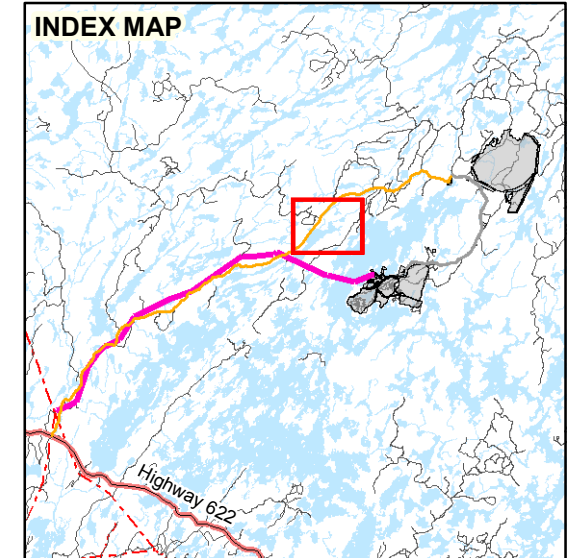
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**LEGEND**

- Road
- River/Stream
- Mine Site Road
- Access Road (Hardtack / Sawbill)
- Project Transmission Line
- Lake
- ▭ Potential Area of Increased Bird Collision Rates
- Landcover**
- ▭ Forest - Depletion Cuts
- ▭ Forest - Sparse
- ▭ Forest - dense deciduous
- ▭ Forest - dense mixed
- ▭ Forest - dense coniferous
- ▭ Fen - open
- ▭ Fen - treed
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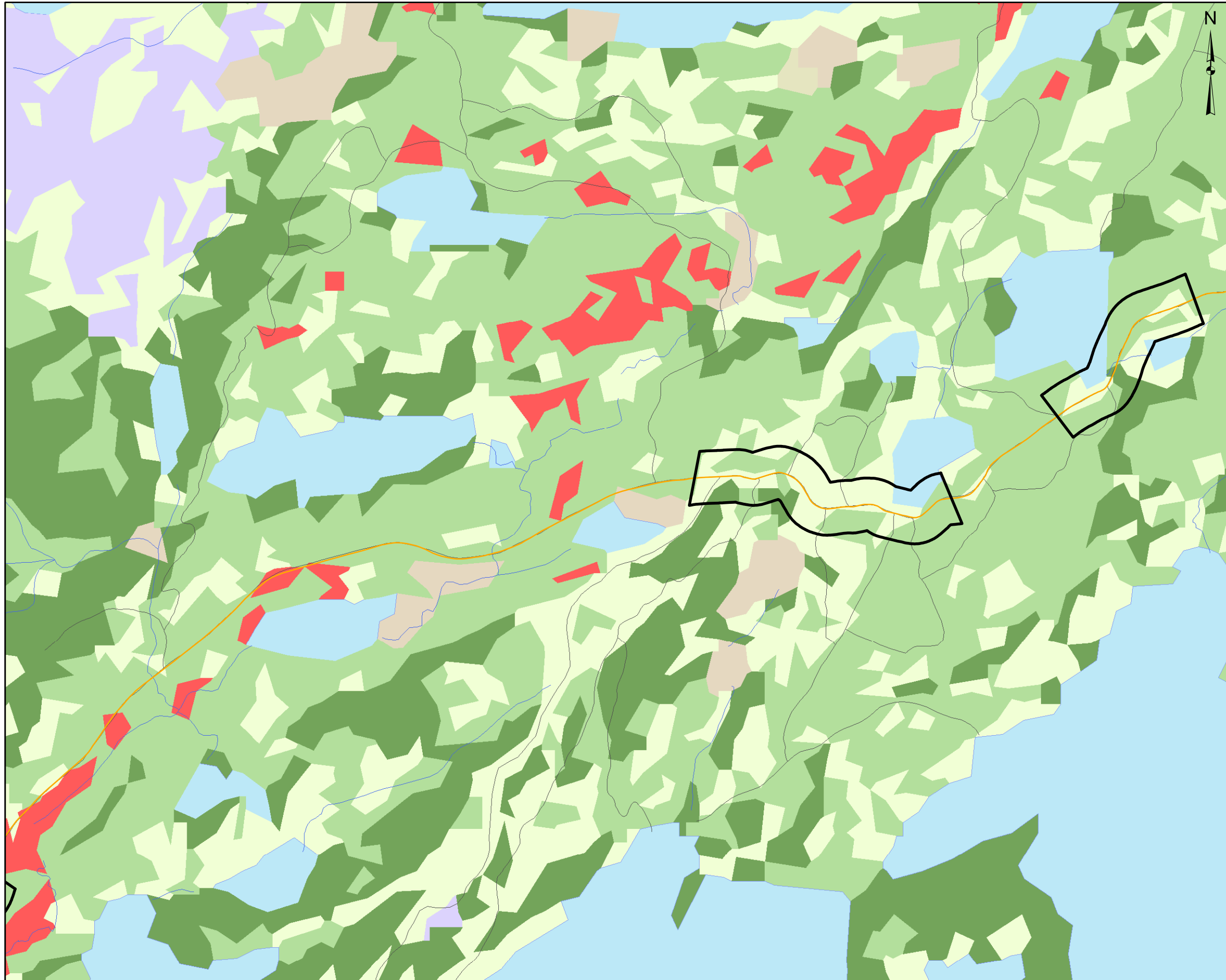
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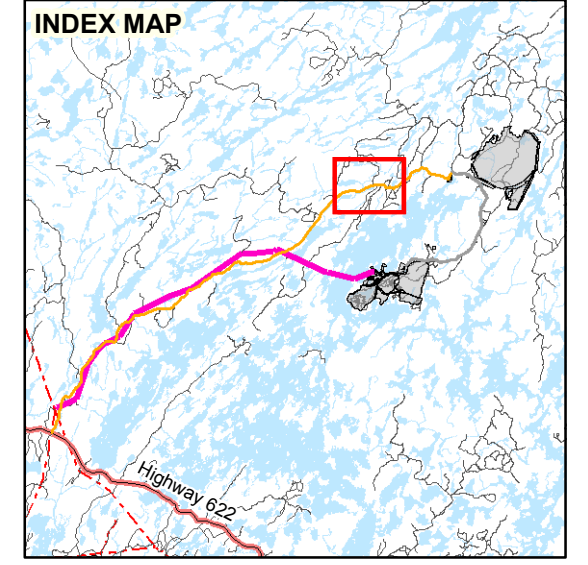


**LEGEND**

- Road
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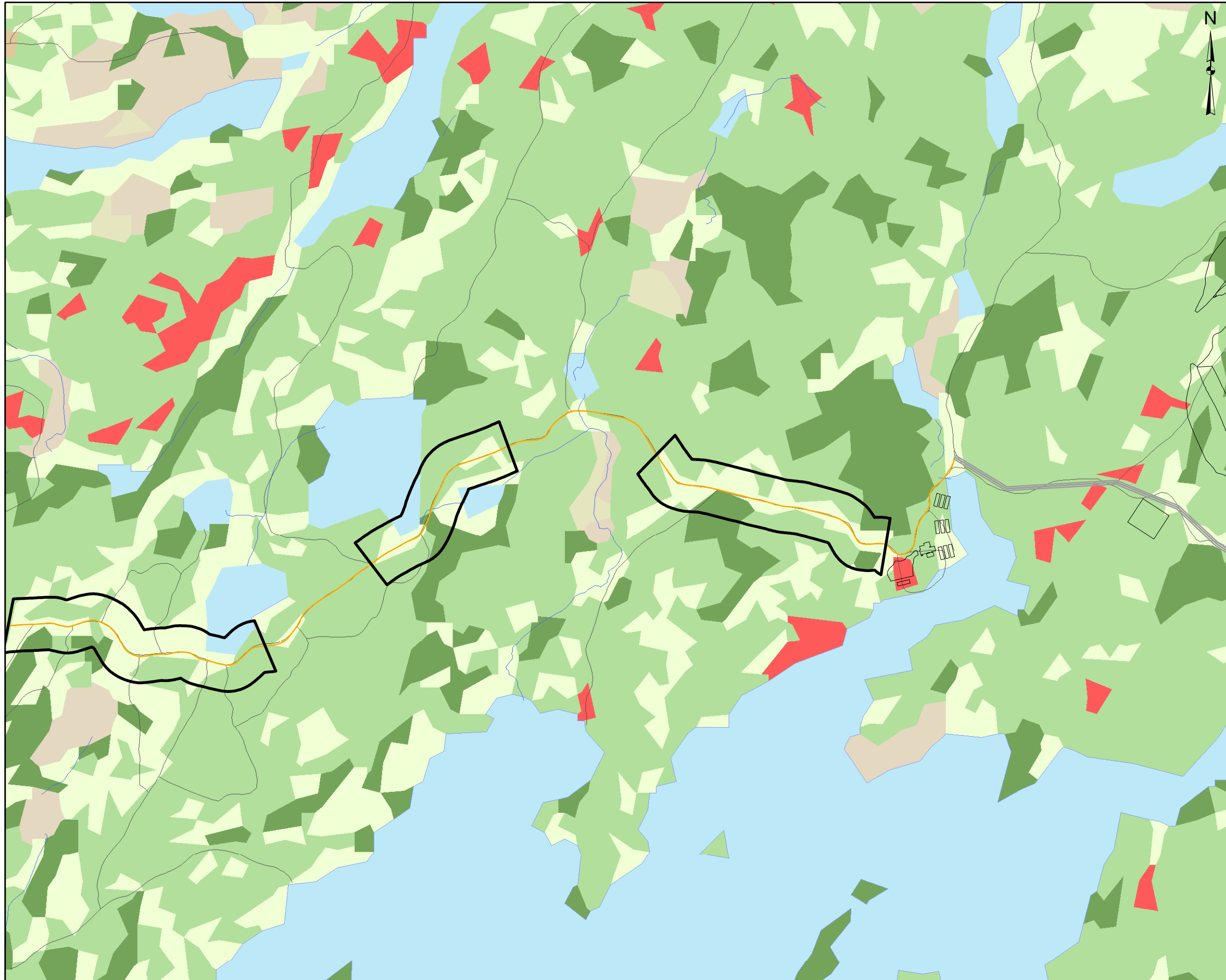


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<p>Golder Associates Mississauga, Ontario</p>	PROJECT NO. 1408383	SCALE AS SHOWN	VERSION 1
	DESIGN	CGE	14 Nov. 2008
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			<b>FIGURE:</b> <b>T(3)-05-9</b>

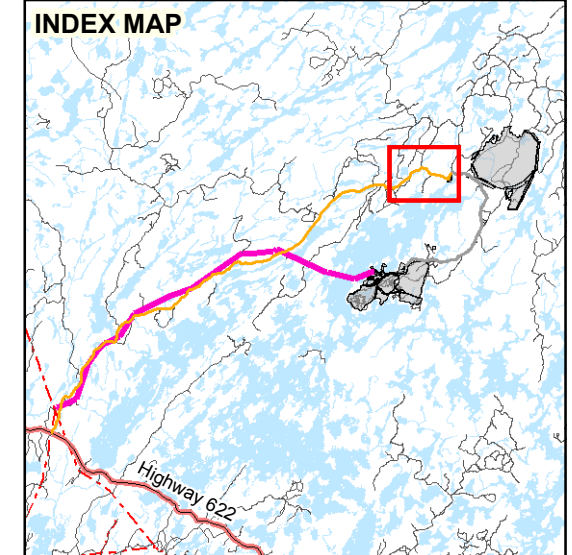


**LEGEND**

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**Landcover**

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			<b>FIGURE:</b> T(3)-05-10