

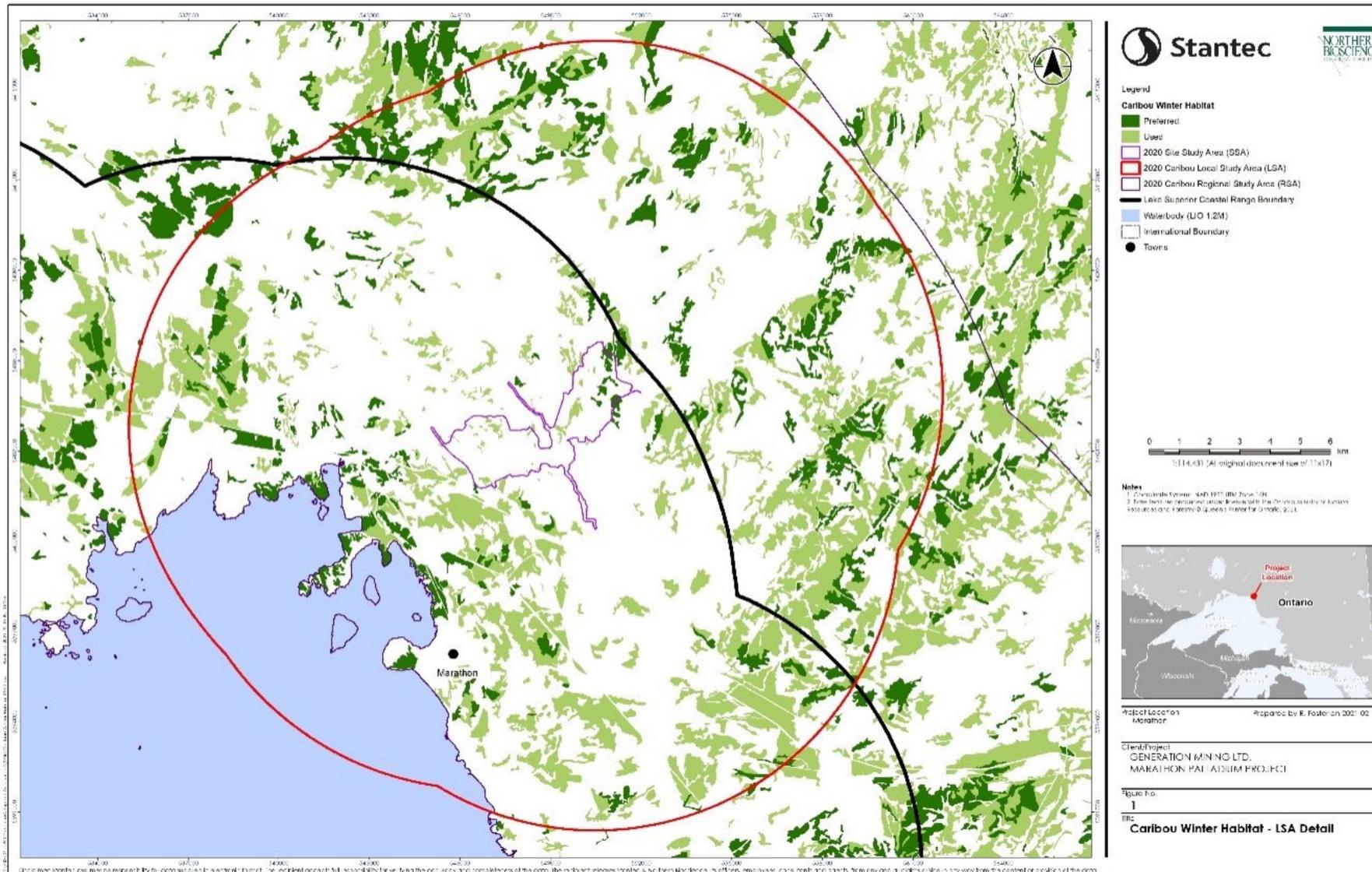
December 2021

**MARATHON
PALLADIUM
PROJECT**

Baseline Terrestrial Studies and Caribou Mitigation Planning



Caribou Habitat Modelling)

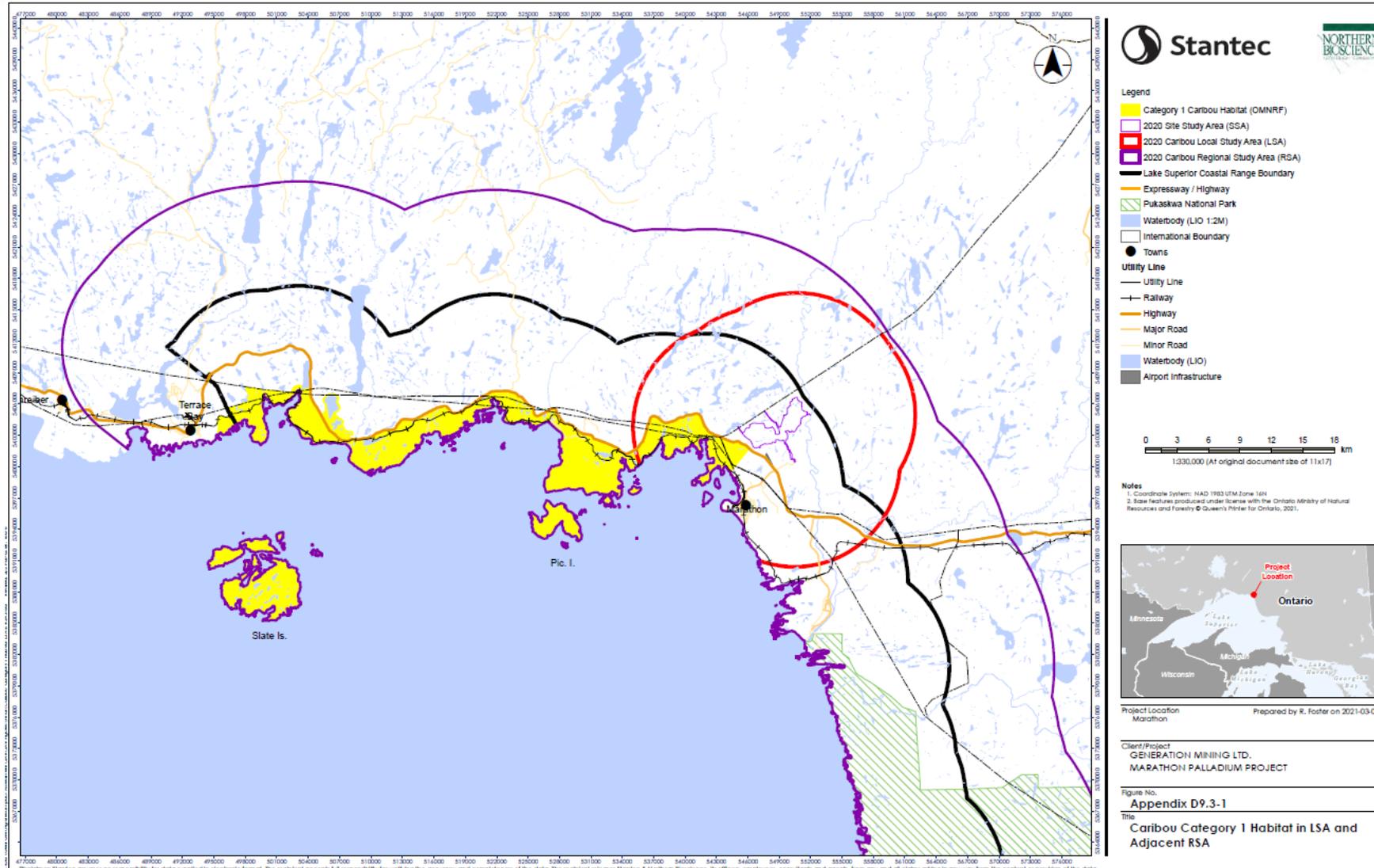


COASTAL RANGE,
BORDERING ON
THE
DISCONTINUOUS
RANGE

WINTER HABITAT –
106 HA LOST

REFUGE HABITAT –
732 HA LOST

Caribou Habitat Categorization

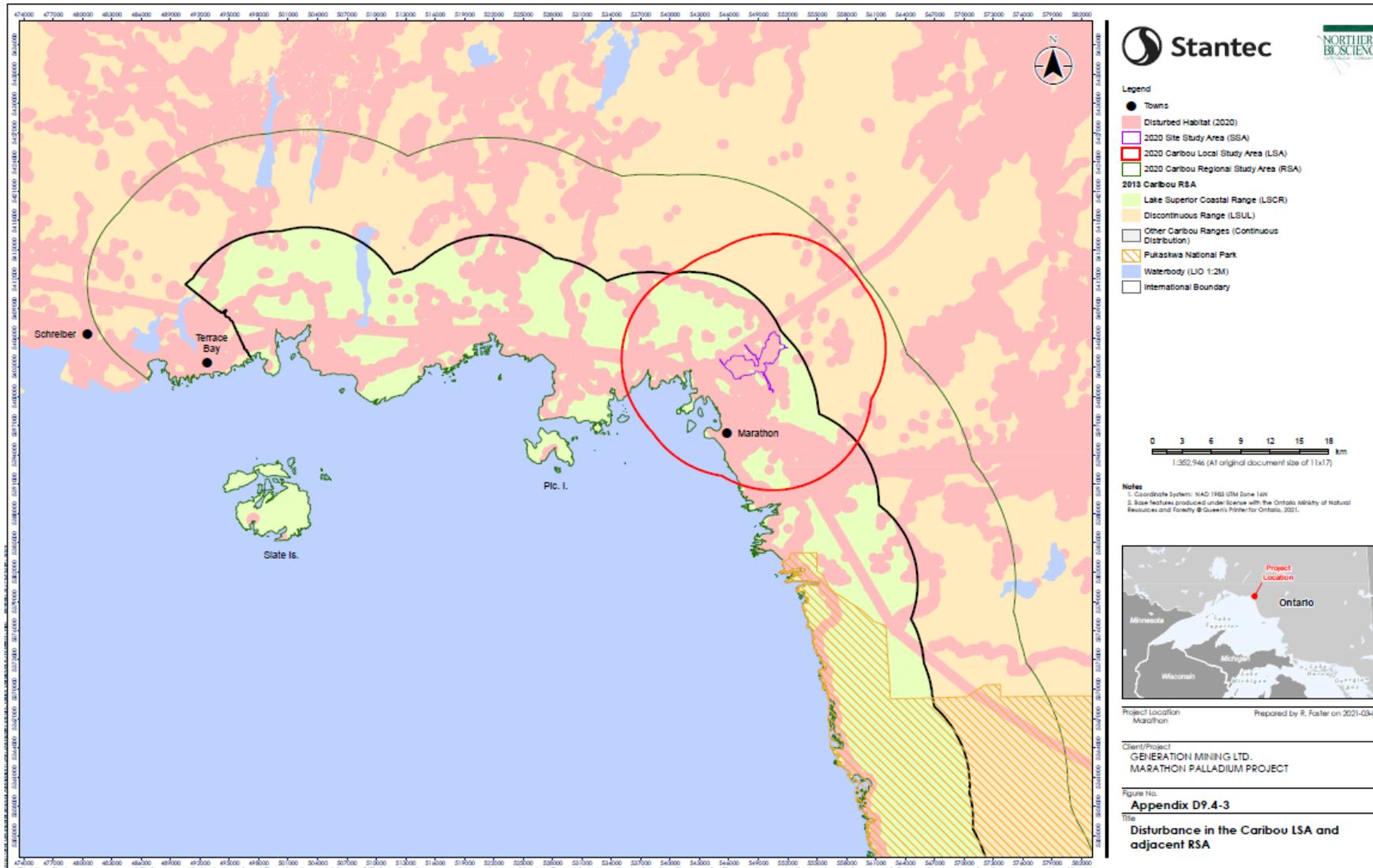


COASTAL RANGE,
BORDERING ON
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RANGE

CATEGORY 1 –
NONE PRESENT

CATEGORY 2 &
CATEGORY 3-
1116 HA LOST

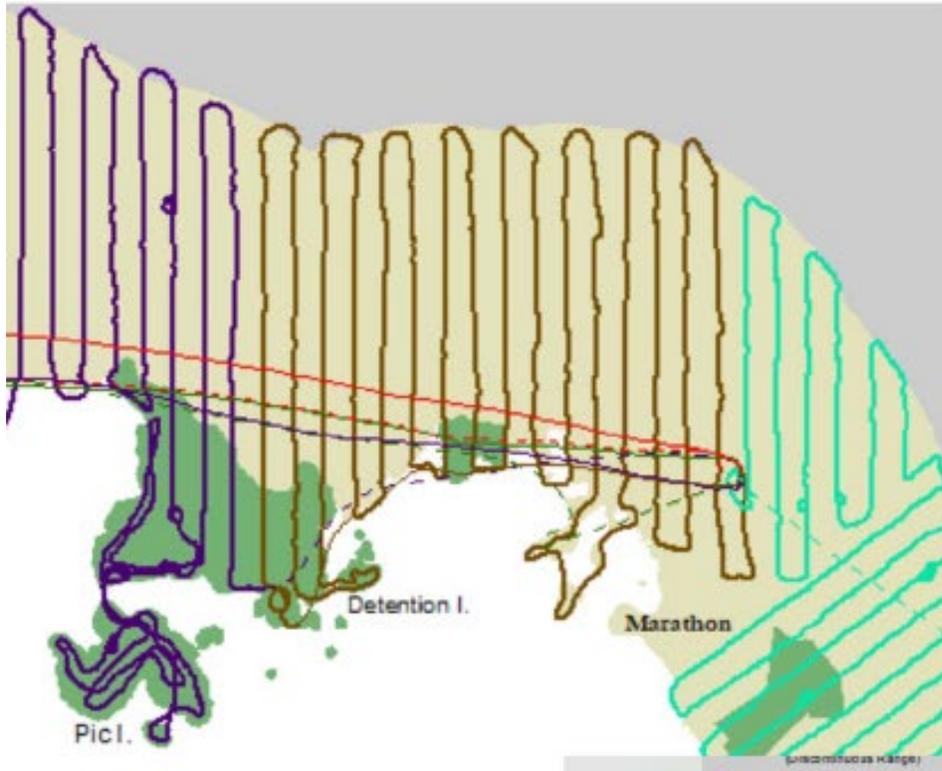
Caribou Habitat Disturbance



COASTAL RANGE,
BORDERING ON THE
DISCONTINUOUS
RANGE

96% OF THE SSA IS
ALREADY DISTURBED

43% OF LSA IS
DISTURBED



- Four aerial surveys conducted since 2014 on mainland and nearshore islands
- Only one caribou seen total
- Tracks of up to 3-4 groups caribou also observed several locations
- No sign observed east of Coldwell Peninsula (Neys P.P.) – none on GenPGM property
- OMNRF's (2018) minimum animal estimate (MAE) is 10 caribou in mainland Coastal Range
- OMNRF estimated a total of 55 ± 13 -277 based on modelling of tracks (observed vs. inferred)

MITIGATION APPROACH

- Road and trail decommissioning
 - Active revegetation of linear disturbances
 - Improve long term results through installation of barriers and non-linear features
- Slash pile and chipper debris remediation
 - Three types: old slash, tree length slash and chipper pads
 - Slash can be recovered and used as a soil amendment
 - Tree length slash can be piled, burned and area replanted
- Enhanced silviculture and Stand improvement
 - 70 ha identified in the Deadhorse Block
 - Birch-dominated stands that are over 110 years of age
 - Poor canopy closure
 - Dense balsam fir understory
 - Implement herbicides, shear blading and infill planting
- Research and enhanced monitoring

FOREST MANAGEMENT PLANNING

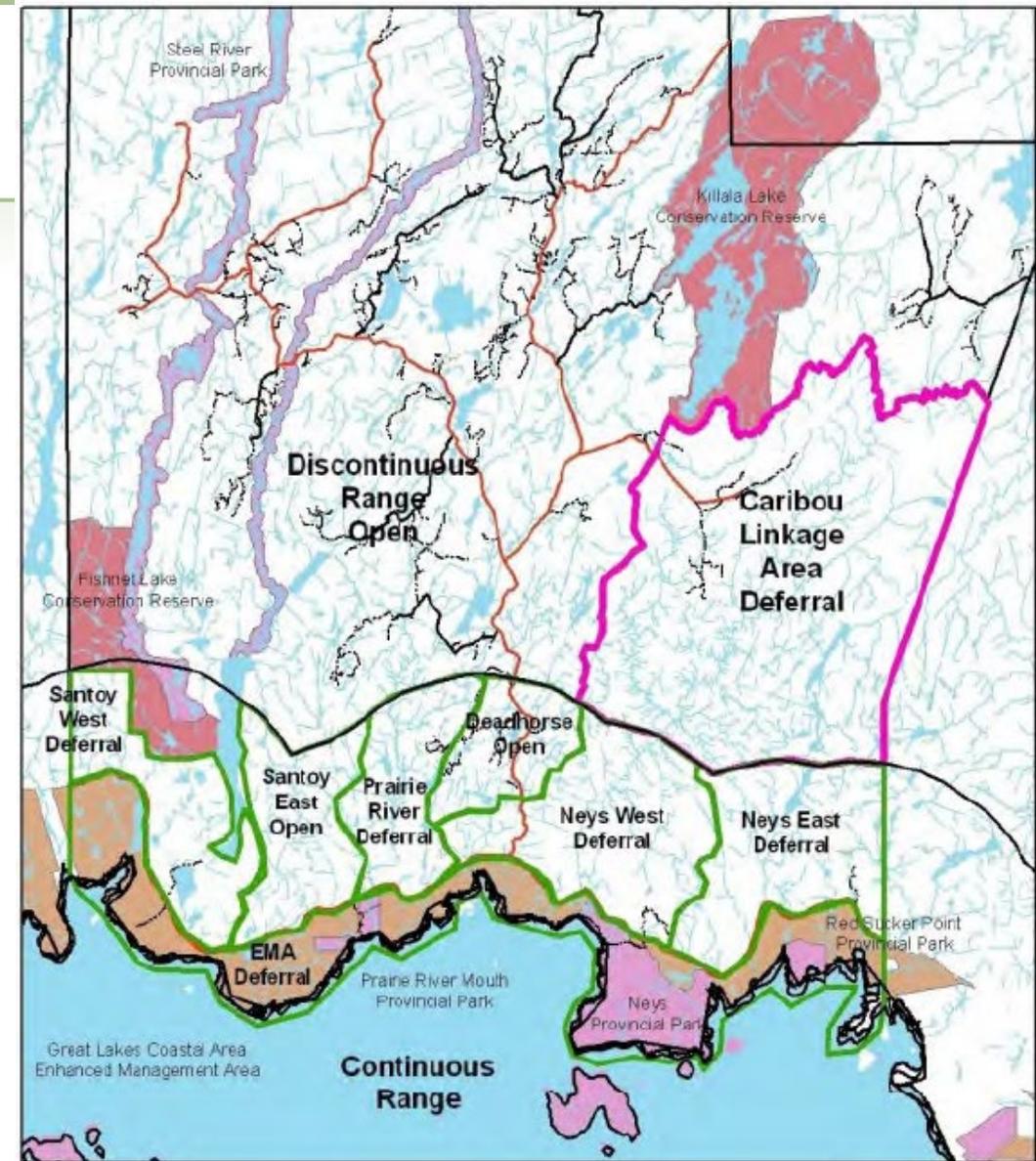
22 blocks in Clusters #2-5 are currently preferred focus for activities

Represent a total potential remediation area of 466 ha

Focused in Neys-Killala Corridor of discontinuous range

Includes all available blocks in the coastal range

- Active road decommissioning
- Enhanced silviculture
- Vegetation management
- Infill planting
- Long term health of conifers

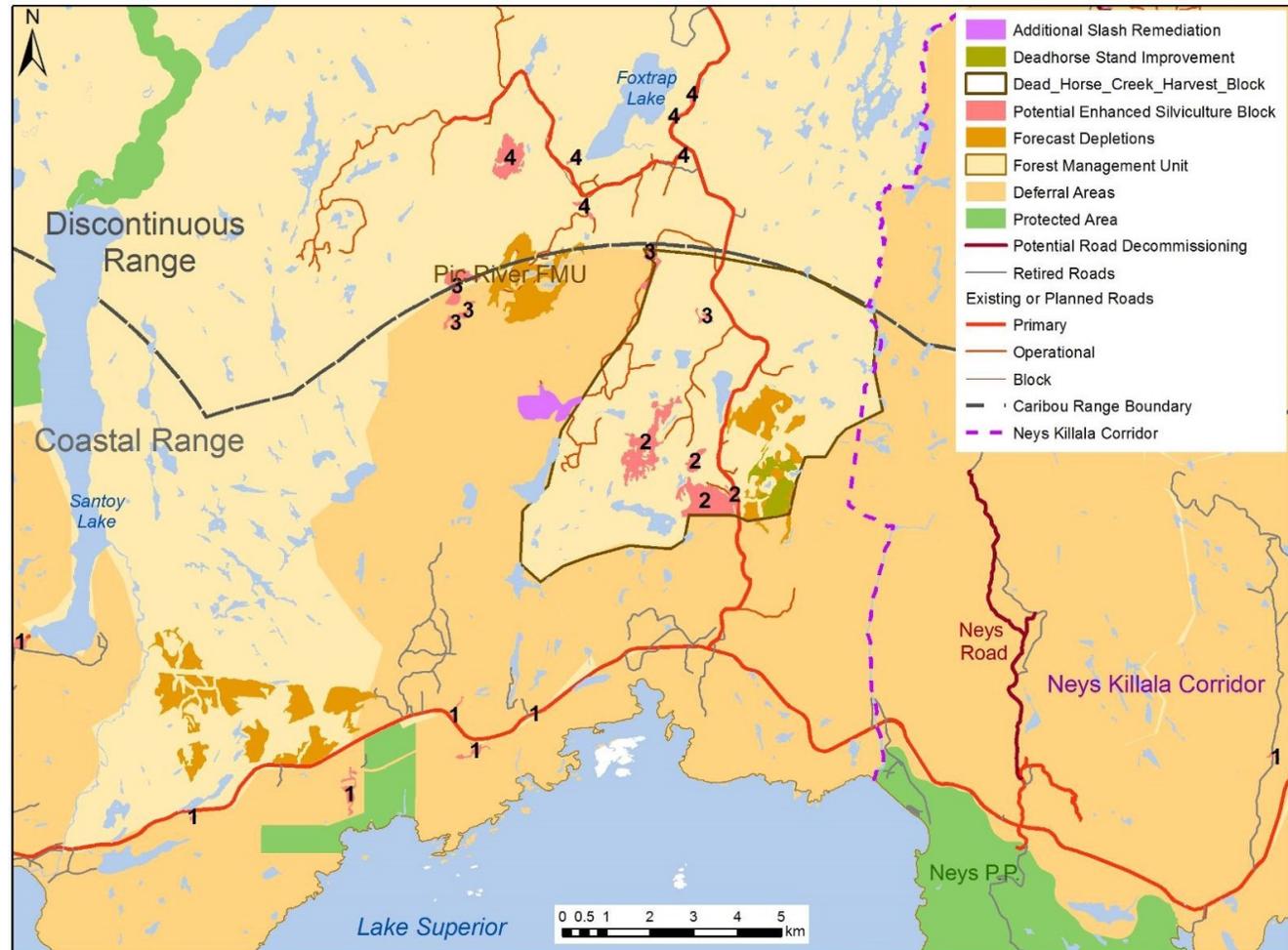
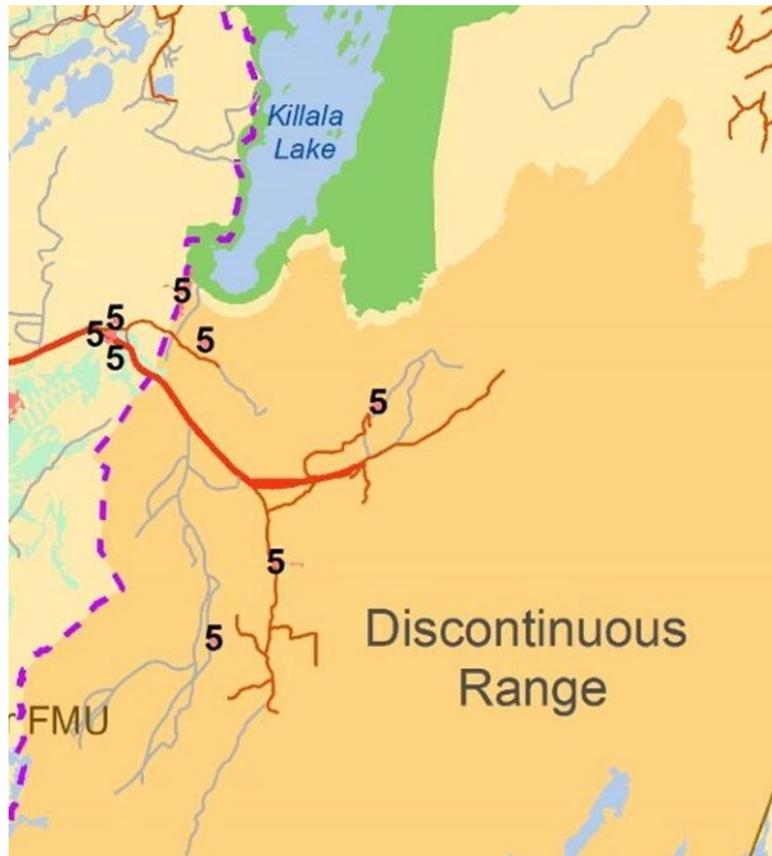


Legend		
CCP ZONES	PROF Roads Inventory	Land Use Areas
Coastal	Designation	Designation
PROF Continuous Deferral	HIGHWAY	Conservation Reserves
PROF Discontinuous Deferral	PRIMARY	Enhanced Management Area
Management unit	SECONDARY	Forest Reserve
Lakes	TERTIARY	General Use Area
Rivers & Streams	TRAIL	Provincial Park

1. Active decommissioning and planting of approximately 55 km of the **Nama Creek Road Network**;
2. Active decommissioning of approximately 9 km "**Neys**" **Retired Road**;
3. Active road decommissioning of approximately 13 km of **Vein Lake West Road Network** with enhanced silviculture and slash pile remediation in adjacent roadside areas; and
4. Active road decommissioning and enhanced silviculture, including vegetation management and infill planting in the **80-ha Deadhorse Creek / McLaren Lake Block** to increase the conifer component and improve future potential caribou habitat.

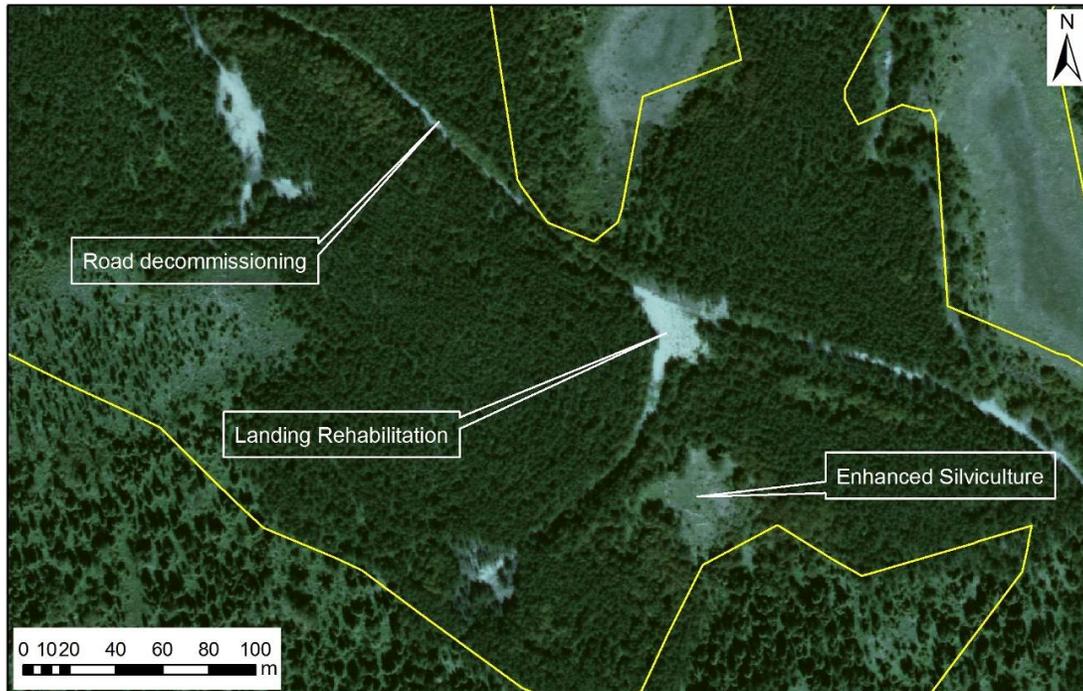
Cluster	# Blocks	Minimum Block Size (ha)	Maximum Block Size (ha)	Mean Block Size (ha)	Total Block Area (ha)	MNR Caribou Range	Approx. Distance from Coastal Range	Approx. Distance from Project (km)	Former FMU	Inside Killala Corridor	Inside Deferral Area	Priority
2	5	0.4	81.8	35.3	176.6	Coastal	0	25	Pic River	no	no	high
3	5	4.5	29.2	11.8	59.0	Coastal	0	30	Pic River	no	partial	high
4	6	0.8	47.2	10.7	64.0	Discontinuous	2	30	Pic River	no	no	high
5	6	3.5	11.8	6.8	40.8	Discontinuous	10	25	Pic River	yes	yes	high

DEADHORSE CREEK AND MCLAREN LAKE



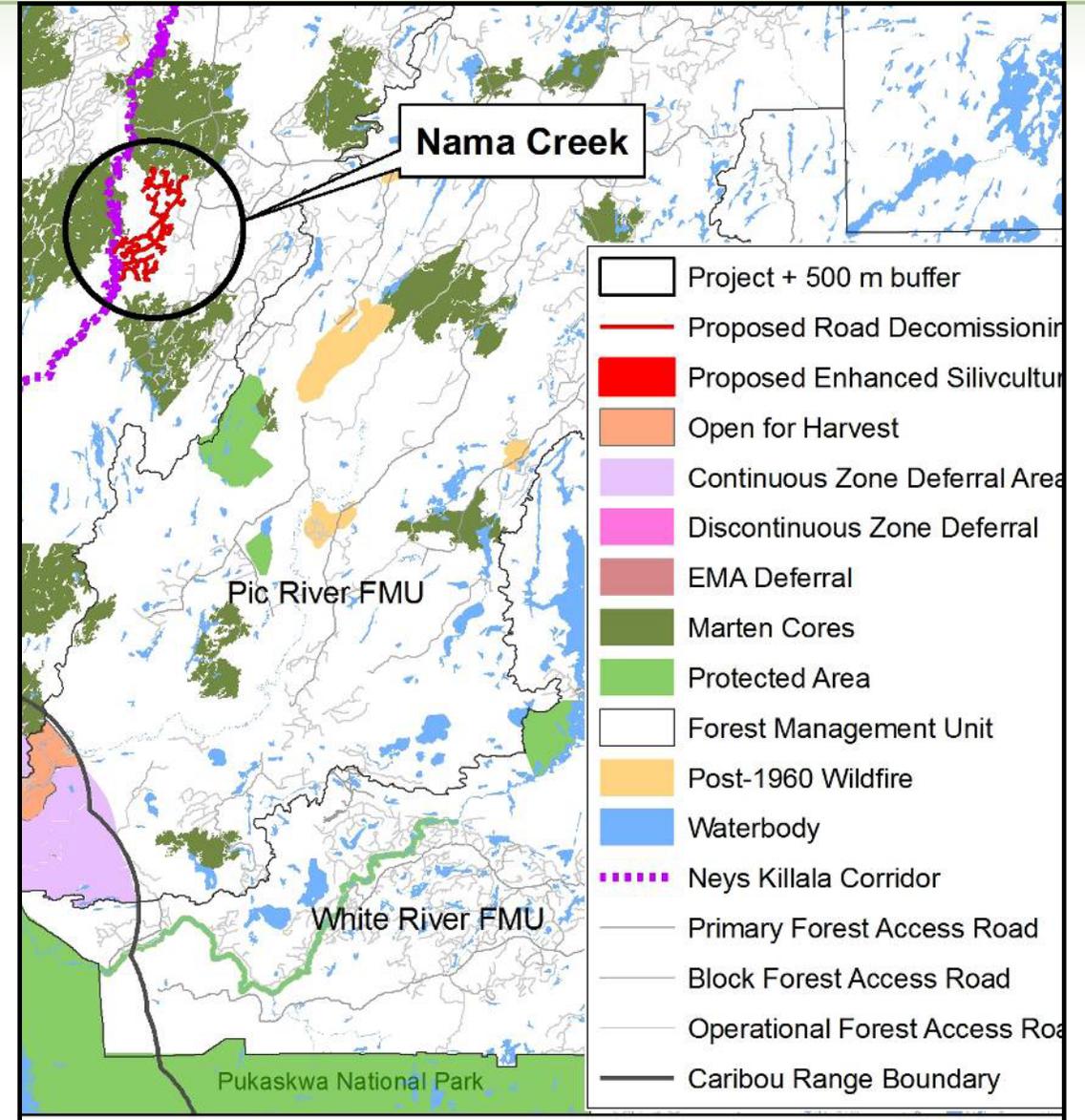
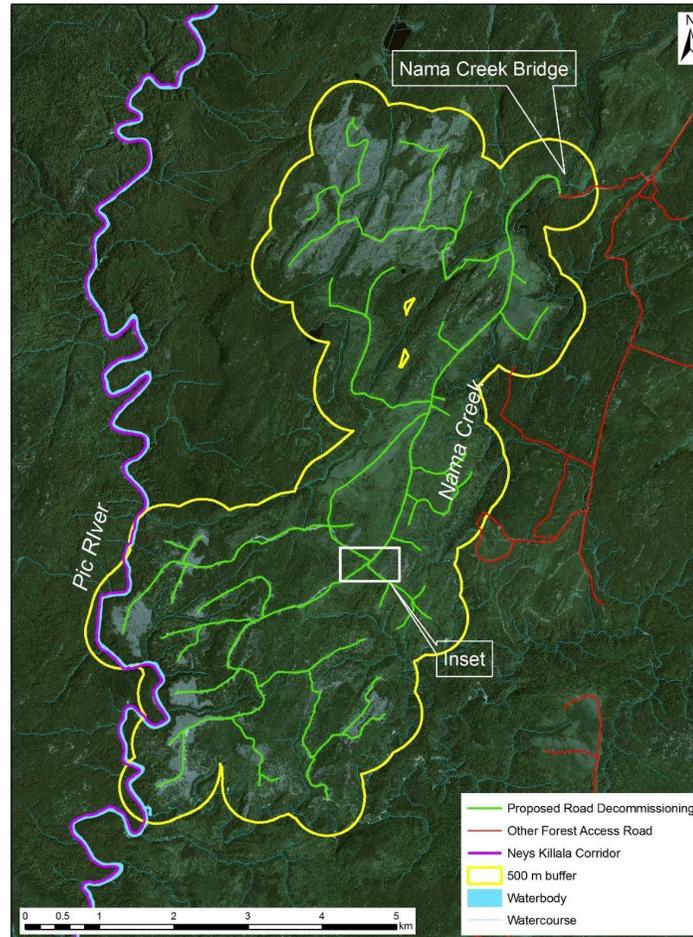
NEYS AND VEIN LAKE

- Retired roads, mostly impassable but some recreational use
- Neys: 9 km of potential decommissioning work
- Vein: 13km of potential rehabilitation



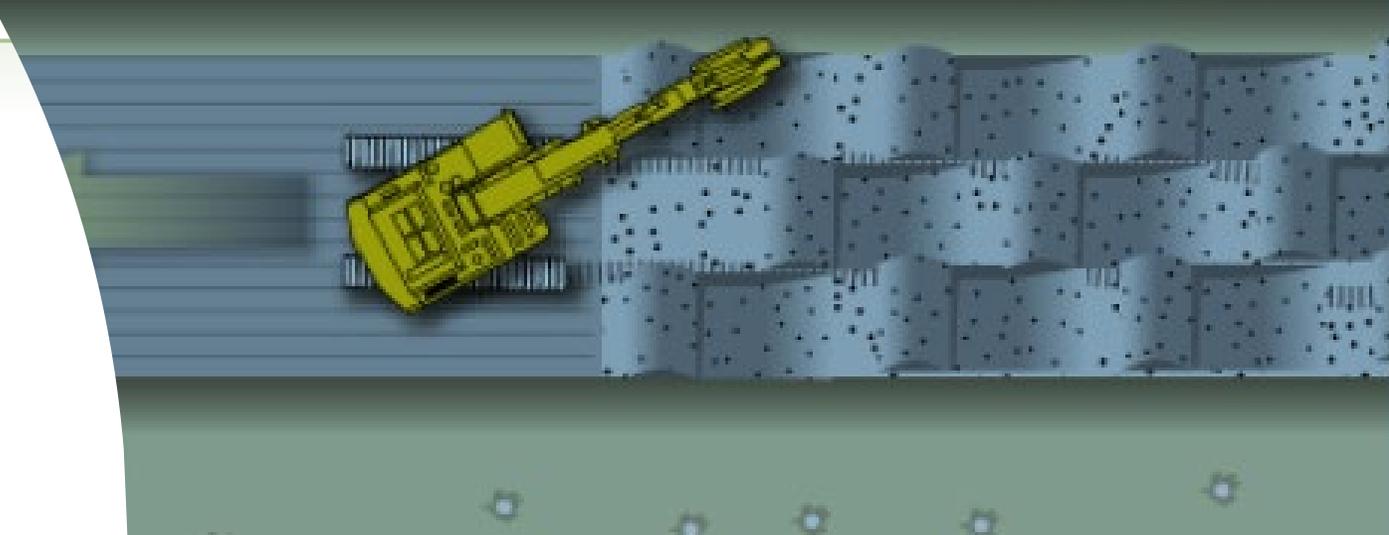
NAMA CREEK ROAD

Decommissioning of 55 km of roadbed resulting in approximately 80 ha of new refuge habitat.



ROAD DECOMMISSIONING

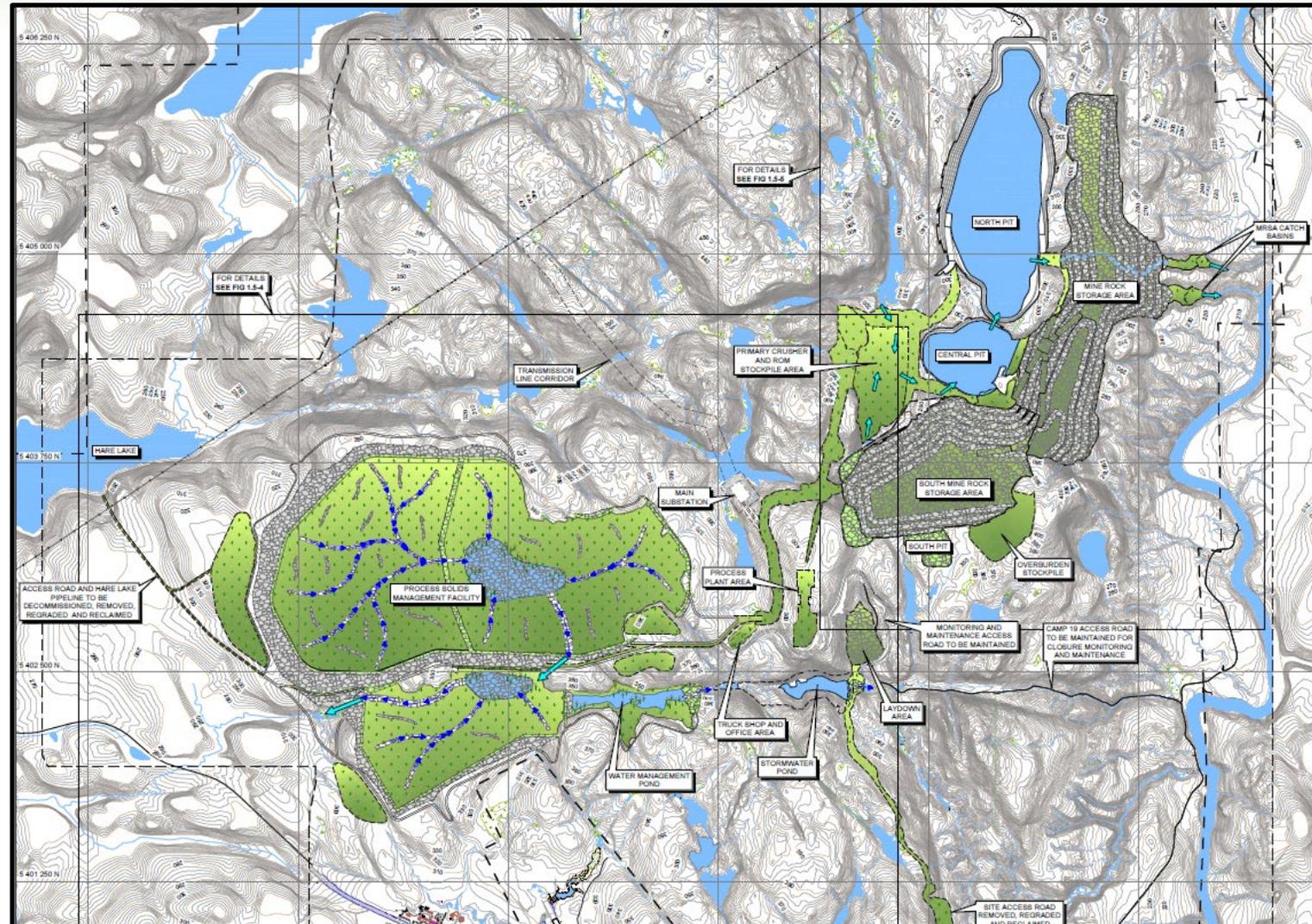
- Blocking of entrance through berms, ditches, boulders,
- Removal and remediation of water crossings
- Contouring of roadway
- Revegetate roadway through scarification of roadbed
- Planting or seeding to discourage access
- Placement of organic or inorganic debris to impede human or animal movement
- Full obliteration, recontouring, and restoring natural slopes to eliminate roadway



CLOSURE PHASE

Developing closure plan to implement re-vegetation and reclamation activities on the Project site

Focus is on returning environment to near pre-development state and minimizing use of non-native species



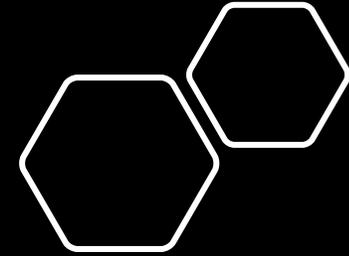
HABITAT MONITORING

Effectiveness monitoring will evaluate the success of treatments and guide further actions:

- Regeneration surveys will be undertaken
- Structural complexity will be assessed
- Human access will be assessed by
- Trail cameras will be installed



GENERATIONPGM



More Information on the Project can be found at

www.genmining.com

and the Impact Assessment Registry at

<https://iaac-aeic.gc.ca/050/evaluations/proj/54755?culture=en-CA>

If you have additional questions,

please email us at comments@genpgm.com