



Dawson Regional Land Use Plan Connaught Property Impacts

October 26, 2021

TSX-V: ATC

Overview & ATAC Introduction



- ▲ ATAC Resources Ltd. is a publicly-traded junior mining company.
- ▲ We have worked primarily in Yukon since 2006, with expenditures of >\$150M.
- ▲ Our Connaught Property lies fully within the Dawson Regional Land Use Plan area.
- ▲ **Presentation Overview:**
 - ▲ General Plan Comments
 - ▲ Connaught Property
 - ▲ Caribou and Exploration & Mining
 - ▲ LMU 23



General Plan Comments

Land Availability

- Mineral exploration needs **large amounts** of land **available** for exploration. But only **small amounts** of land are **likely to be disturbed** or developed.
- Approximately **45%**¹ of the planning area fully withdrawn (SMA or TTP).

Certainty

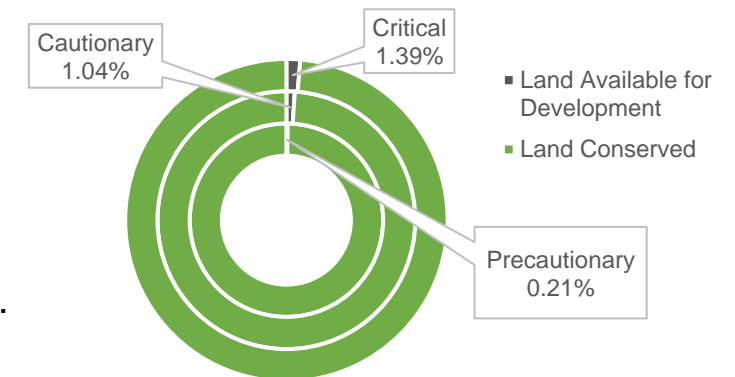
- Need to know where we **can** and **cannot** explore.
- Development thresholds **do not provide certainty**, particularly when baseline data is limited, and lead investors to believe we **cannot**.

Cumulative Effects Thresholds

- Cumulative effects critical thresholds in the draft plan are **low**, with critical thresholds ranging from **0.25% to 5%**.
- Swift and Hannon, 2010², found that **10-30% disturbance critical thresholds** were generally empirically supported by research, but specific thresholds largely depended on the species in question.
- A 2011 study by Environment Canada³ of critical habitat for Woodland Caribou found a **critical threshold of 35-45%** disturbed habitat.
- With the draft land use designations, the **total**¹ amount of disturbance allowed is:
 - Precautionary Level: 82.4 km² or **0.2%**
 - Cautionary Level: 411.6 km² or **1.0%**
 - Critical Level: 548.6 km² or **1.4%**
- Effectively **98.6% of the region is designated for conservation** in the current draft plan.
- Research by the Environmental Law Institute recommends **conservation targets of 20 to 50%**⁴.

“It sometimes is said that it takes **500-1,000** grassroots exploration projects to identify **100** targets for advanced exploration, which in turn lead to **10** development projects, **1** of which becomes a profitable mine.”

- Eggert, 2010, *Mineral Exploration and Development: Risk and Reward*



1. Percentages calculated based on the total land area not including LMUs 13 and 14, which are subject to future planning. Does not take reclamation or decommissioning into account.

2. Swift TL, Hannon SJ. Critical thresholds associated with habitat loss: a review of the concepts, evidence, and applications. *Biol Rev Camb Philos Soc.* 2010 Feb;85(1):35-53

3. Environment Canada. 2011. *Scientific Assessment to Inform the Identification of Critical Habitat for Woodland Caribou (Rangifer tarandus caribou), Boreal Population, in Canada: 2011 update.* Ottawa, Ontario, Canada. 102 pp. plus appendices

4. Environmental Law Institute, 2003. *Conservation Thresholds for Land use Planners.* <https://www.eli.org>

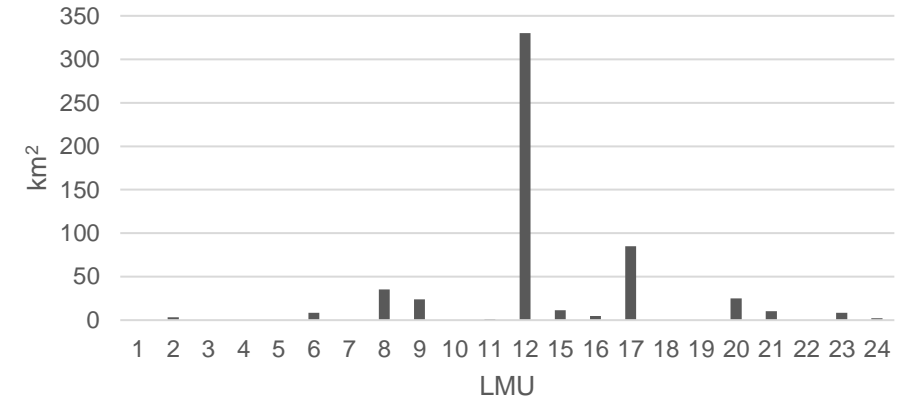
General Plan Comments

LMU	1	2	3	4	5	6	7	8	9	10	11	12	15	16	17	18	19	20	21	22	23	24	Total
Area (km ²)	7,950	329	926	2,761	2,101	831	1,681	1,411	473	984	368	6,606	1,118	472	3,403	533	481	1,000	4,124	355	850	816	39,573
Area (%)	20%	1%	2%	7%	5%	2%	4%	4%	1%	2%	1%	17%	3%	1%	9%	1%	1%	3%	10%	1%	2%	2%	
Zone	SMA 2	ISA 2	SMA 2	SMA 2	TTP	ISA 2	SMA 2	ISA 3	ISA 4	SMA 1	ISA 1	ISA 4	ISA 2	ISA 2	ISA 3	SMA 1	SMA 2	ISA 3	ISA 1	SMA 2	ISA 2	ISA 1	
Cautionary Threshold		0.75%				0.75%		1.88%	3.75%		0.19%	3.75%	0.75%	0.75%	1.88%			1.88%	0.19%		0.75%	0.19%	
Land Available (km ²)		2				6		26	18		1	248	8	4	64			19	8		6	2	412
Critical Threshold		1.00%				1.00%		2.50%	5.00%		0.25%	5.00%	1.00%	1.00%	2.50%			2.50%	0.25%		1.00%	0.25%	
Land Available (km ²)		3				8		35	24		1	330	11	5	85			25	10		9	2	549

Cumulative Effects Thresholds vs. Mine Footprints

- Several ISA-designated LMUs wouldn't allow development of a **single mine** at the Cautionary or Critical threshold levels:
 - Minto: ~ **5 km²**
 - Victoria Gold: ~ **7 km²**
 - Casino: ~ **28 km²**
- At the Cautionary level, **9 LMUs would allow a Minto-sized mine, 7 allow a Victoria-sized mine, and only 2 allow a Casino-sized mine**
- At the Critical level, **10 LMUs would allow a Minto or Victoria-sized mine, and only 3 allow a Casino-sized mine**
- 3 ISA-designated LMUs would not allow any of these mines** at the Critical level

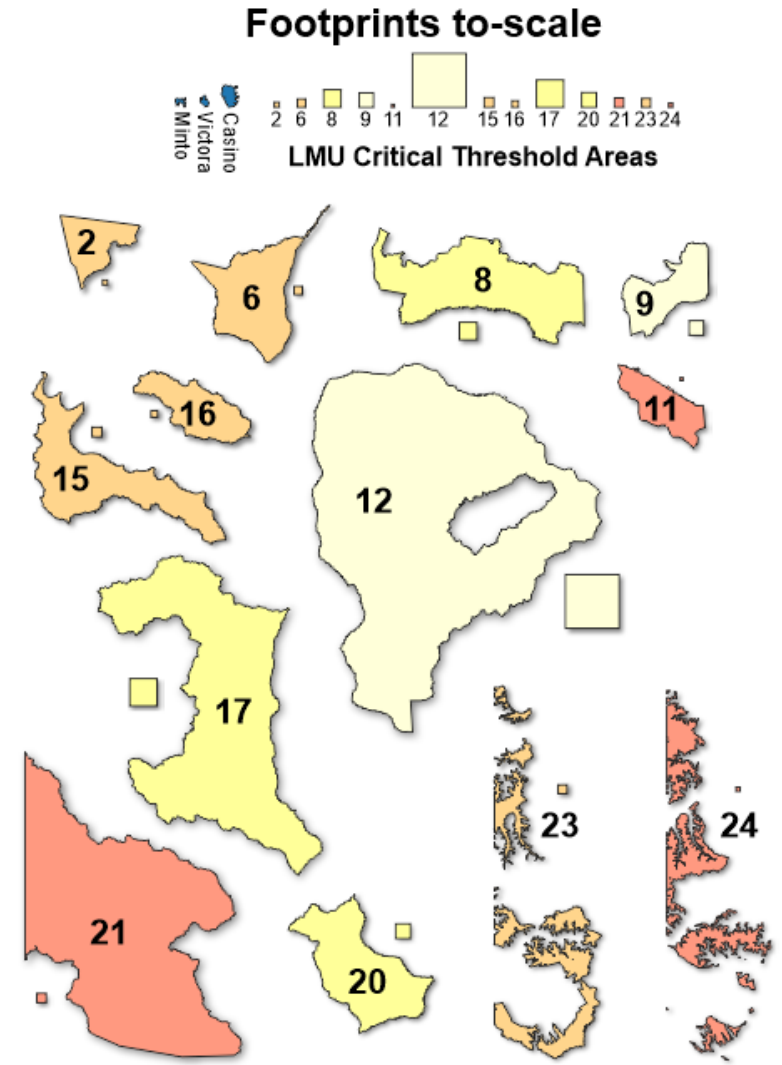
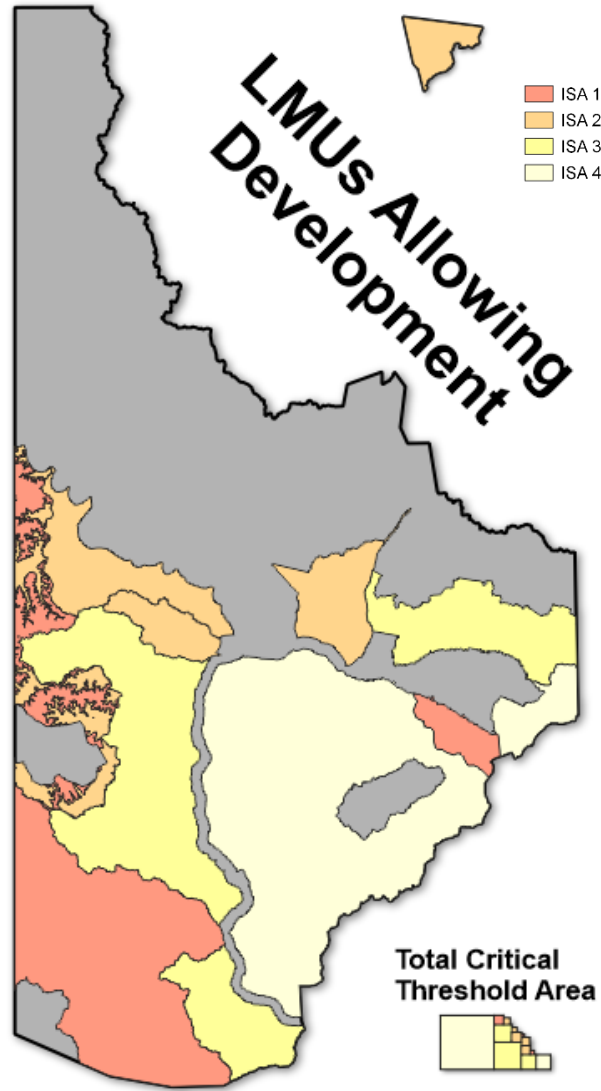
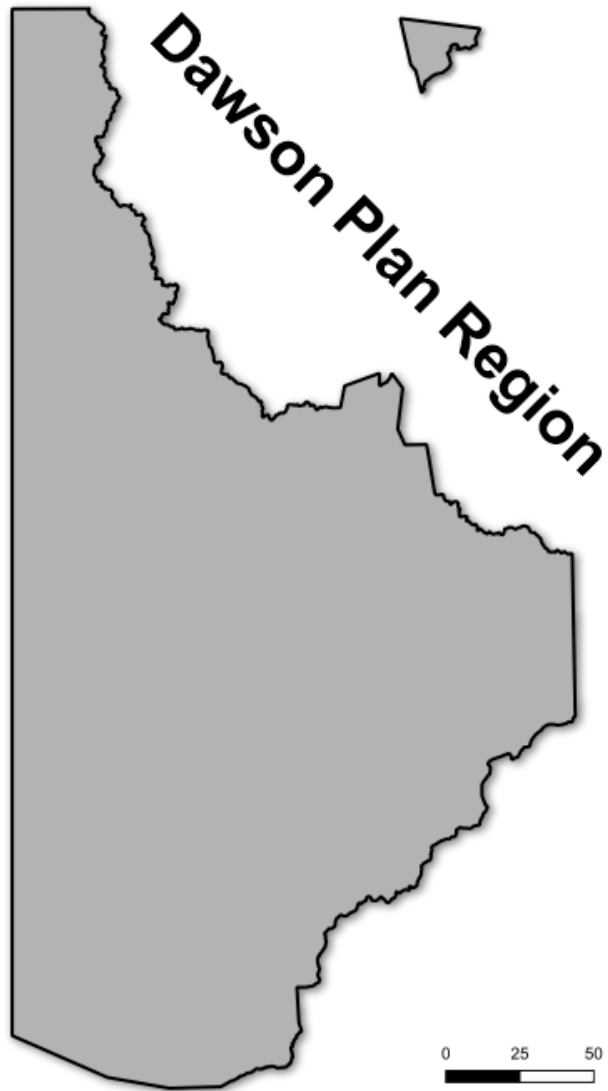
Land Available for Development
(Critical Threshold)



➤ **Recommendation: Increase ISA Critical and Cautionary thresholds significantly (consider 5%-20%). Ensure all ISAs can accommodate at least one modest-sized mine.**

Note: Footprint sizes are rough approximations based on satellite photos or site infrastructure plans available in YESAB filings. They do not represent any data from the companies in question and should not be used for detailed analysis. LMU 24 is high elevation portions of LMU 23.

General Plan Comments



General Plan Comments

Climate Change and Mining

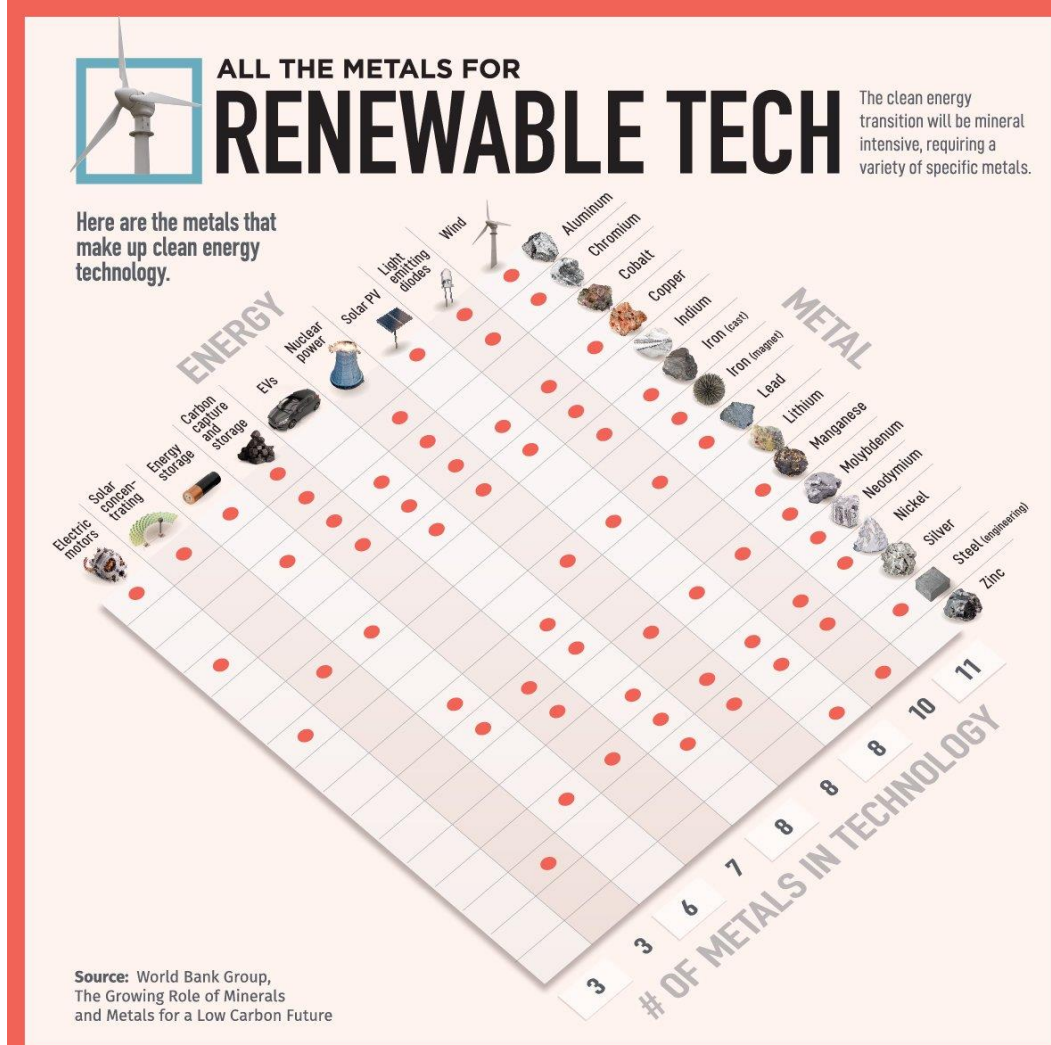
- Mining is **necessary** to fight climate change and transition to a low-carbon economy.^{1,2}
- **Critical minerals** are essential for green and renewable technologies.^{3,4,5}
- **Significant shortages forecast**, with limited production in North America.
- Mining “close to home” allows us to:
 - ✓ **Ensure clean energy is used**
 - ✓ **Minimize transportation costs**
 - ✓ **Uphold environmental standards**
 - ✓ **Control and reduce negative social impacts** from resource extraction

"Climate change is both the challenge of our time and the economic opportunity. The mining sector will play a critical role in supplying the minerals and metals for batteries needed in the clean economy and I am pleased to see the actions taken today to do that in a manner that is both responsible and sustainable. This makes good sense for the planet and for the economy."⁶

- The Honourable Jonathan Wilkinson, Canada's Minister of Environment and Climate Change

➤ **Recommendation: Add language to reflect the importance of mining and critical minerals in fighting climate change**

1. Canada's Critical Minerals List 2021. Natural Resources Canada. <https://nrcan.gc.ca/criticalmetals>
2. The Role of Critical Minerals in Clear Energy Transitions. IEA. 2021. <https://www.iea.org>
3. Energy Resource Governance Initiative: Mineral Sector Governance for a Responsible Energy Transformation. <https://erqi.tools>
4. Canadian Minerals and Metals Plan. Action Plan 2020. <https://minescanada.ca>
5. Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition. World Bank Group. 2020. <https://www.worldbank.org>
6. Canada's Mining Industry Commits to Climate Change Action. Mining Association of Canada. May 5, 2021.



Source: World Bank Group, The Growing Role of Minerals and Metals for a Low Carbon Future



The Earth's natural resources power our everyday lives. VC Elements breaks down the building blocks of the universe.

We live in a material world.

General Plan Comments

The “Precautionary Principle”

- Need to be careful it isn’t used as a tool to entirely **avoid** making decisions.
- Rio Declaration text is the broadly accepted definition; differs significantly from the definition chosen for the draft Dawson Regional Land Use Plan.

“A lack of conclusive scientific evidence does not justify inaction on managing the environment, particularly when the consequences of inaction may be undesirable or when the costs of action are negligible”

Dawson Draft Land Use Plan, as per International Institute for Sustainable Development

vs.

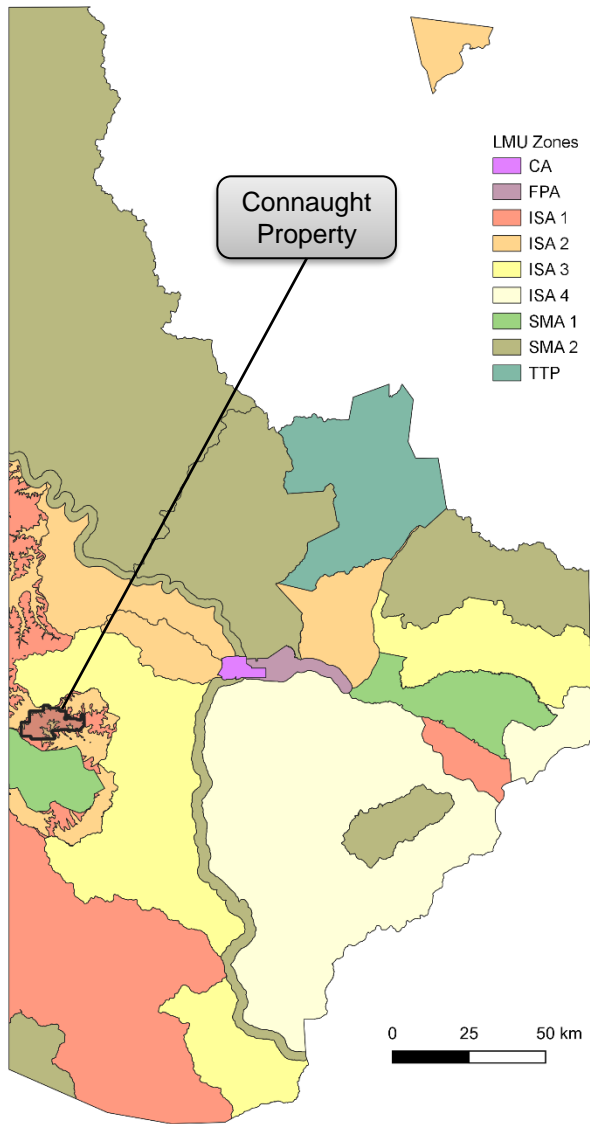
“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

Rio Declaration on Environment and Development, United Nations, 1992

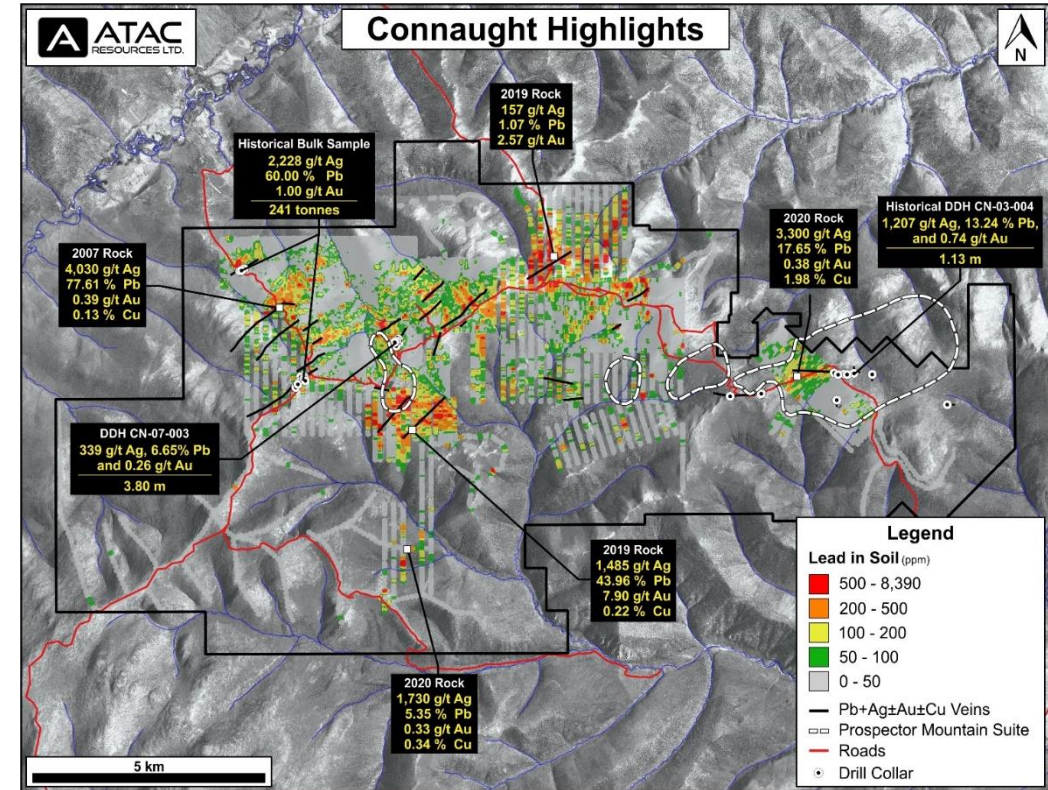
- Emphasis is on threats of **serious or irreversible damage**, and **not postponing cost-effective measures to prevent environmental degradation**.
- Precaution is warranted but needs to be reflective of **modern mineral exploration** and development methods, **progressive reclamation**, mitigation strategies and **adaptive management** approaches.

➤ **Recommendation: Adopt the Rio Declaration definition of the Precautionary Principle in the final plan.**

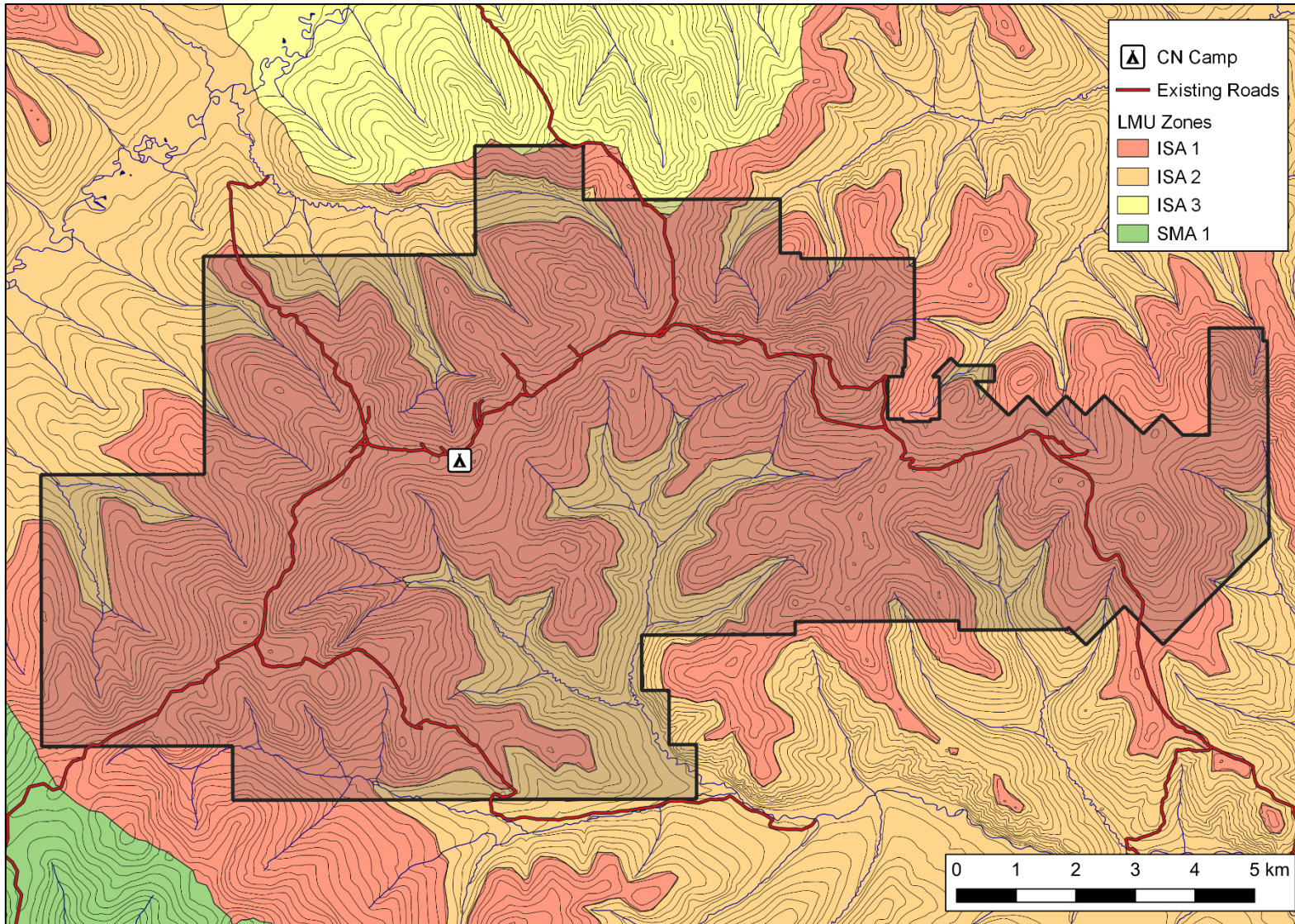
ATAC's Connaught Property



- 137 km² road-accessible property, owned by ATAC since 2006
- Varying amounts of historical exploration, dating back to 1967:
 - Trenching
 - Drilling
 - Small Scale Mining
- Historical exploration focused on silver-lead-gold veins
- **Existing road networks** on major ridges
- ATAC 2021 exploration focused on large **copper porphyry target**
- Property is entirely within LMU 23
- Caribou observed in *some* years
- Unclear if it is within a “caribou migration corridor” as they are not mapped in the draft plan
- Despite being in an ISA, where development is expressly allowed, additional restrictions make it unclear if advanced exploration and/or development is possible at this location
- ATAC intends for Connaught to be a **major focus of exploration** next year, ***if exploration and potential future development is allowed by the final land use plan***



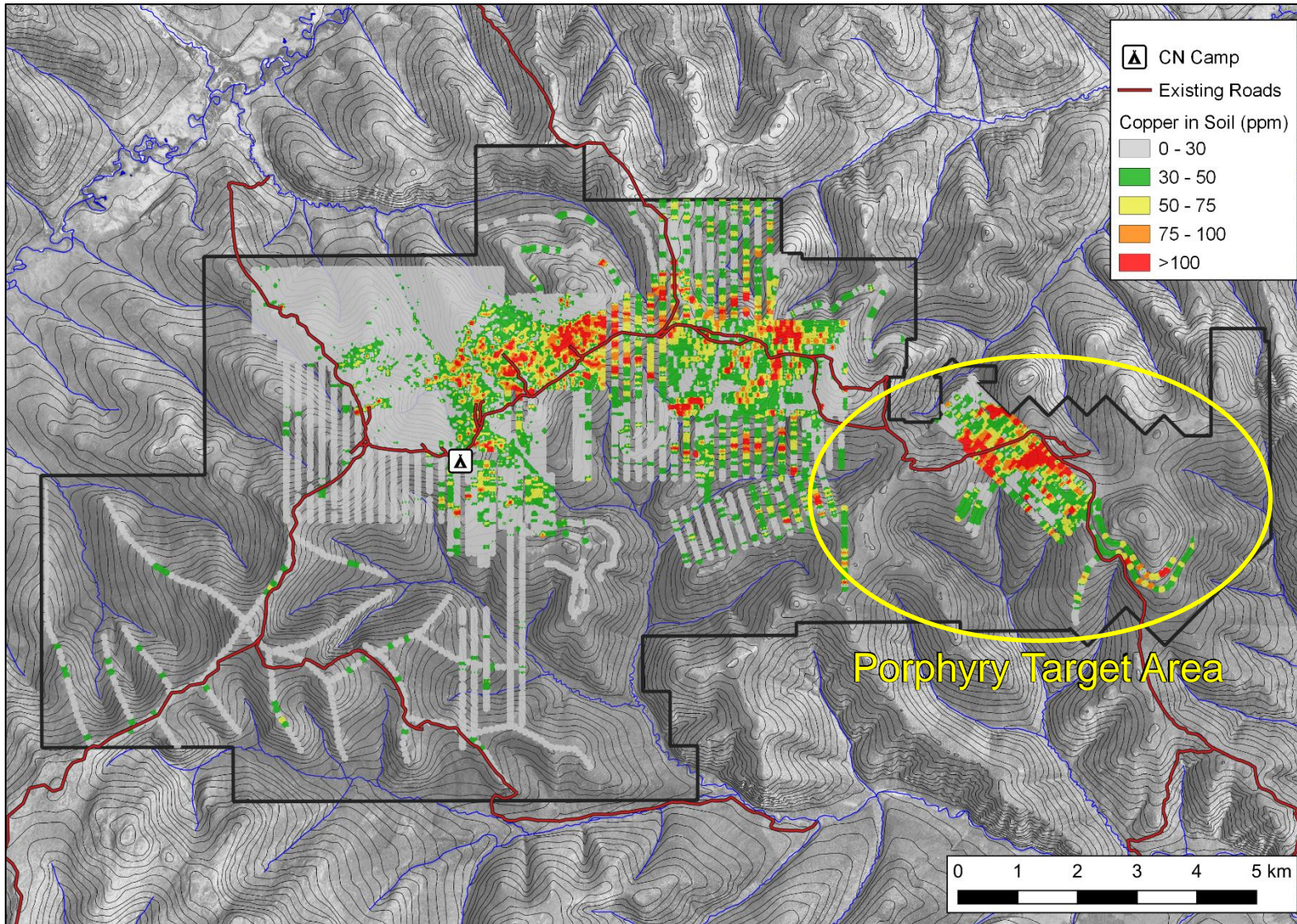
ATAC's Connaught Property



- 80% in ISA 1
- 20% in ISA 2
- **Existing network of roads** along ridge-tops provides all-season access from the Sixtymile placer camp
- Historical camp location in the West portion of the property
 - Re-activated in 2021
 - Temporary tent camp with wooden platforms



ATAC's Connaught Property



- Very strong copper-in-soil anomalies on east side of property
- Work in 2021 included:
 - Trenching
 - Geophysics
 - Soil Sampling
 - Re-logging historical core
- Encouraging potential for significant **copper/molybdenum**/gold porphyry mineralization



Fortymile Caribou Herd

- Very little public data on the fortymile caribou herd documented in any of the planning materials:
 - Minimal references in the Resource Assessment Report
 - Draft Plan maps only show boundaries of herd ranges
 - **No information provided on which ridges are “key for migration”**
- Recent data¹ shows the herd has had **significant recent recovery** and hunting is once again allowed².
- Exploration and mining have been occurring ***in conjunction with the herd recovery*** and are capable of co-existing with appropriate mitigations.
- Research suggests that this part of Yukon is **not core habitat** for the fortymile herd, and that key factors for decline were **reduced nutrition due to overabundance, wolf predation, and excessive harvest**³.
- The LMU 23 Rationale for Designation **does not seem to reflect current research and data**, and could be misleading:

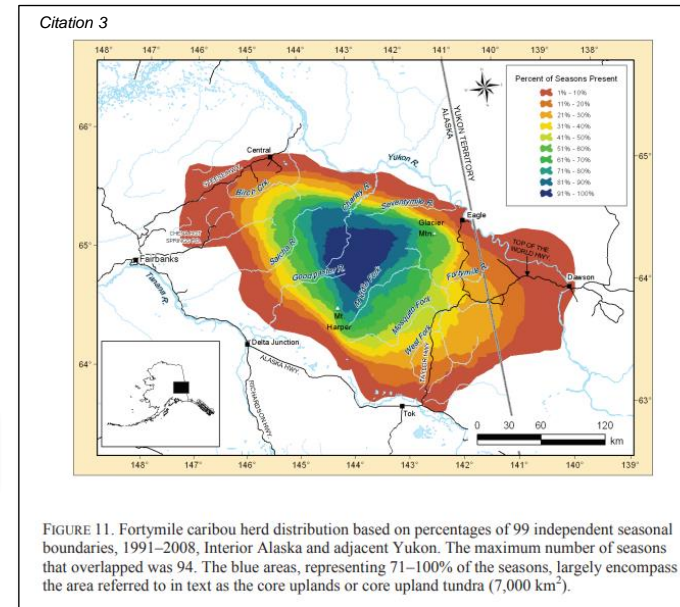
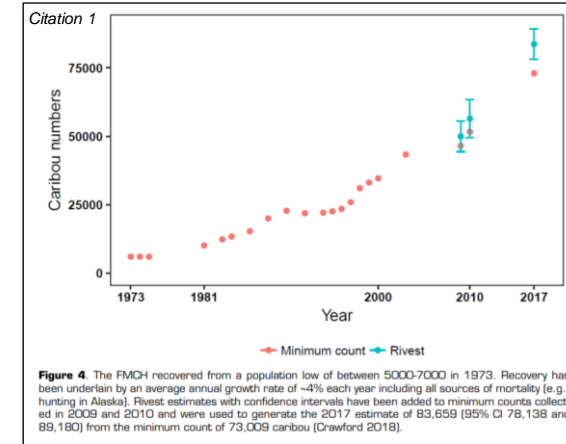
LMU 23: Fortymile Caribou Corridor

Rationale for Designation

- The Fortymile caribou herd overlaps with areas of high human-caused disturbance and the herd is experiencing a cumulative impact from development. Major issues facing the herd are barriers to movement and loss of habitat. As such, key caribou migration pathways must be maintained, and disturbance to key caribou (summer and winter) habitat areas, should be minimized.

➤ Recommendation: Revise the Rationale for Designation

1. Fortymile Harvest Management Committee. 2020. Fortymile Caribou Harvest Management Plan. Dawson City, Yukon, 54pp.
2. Yukon reopens hunt as Fortymile caribou population booms. CBC News. Jan 2020. <https://cbc.ca/news/canada/north/yukon-reopens-fortymile-caribou-hunt-1.5412108>
3. Bortje, R.D., C.L. Gardner, K.A. Kellie, and B.D. Taras. 2012. Fortymile caribou herd: Increasing numbers, declining nutrition, and expanding range. Alaska Department of Fish and Game, Wildlife Technical Bulletin 14, AWF&G/DWC/WTB-2012-14. Juneau, Alaska.



CBC Sign In

North

Yukon reopens hunt as Fortymile caribou population booms

225 permits will be available until the end of March, wildlife officials say

Chris Windeyer - CBC News - Posted: Jan 02, 2020 8:00 AM CT | Last Updated: January 2, 2020

Caribou graze near the Dempster Highway Oct. 18. Two major barren ground caribou herds are converging near the highway north of Dawson City, Yukon. (Heather Avery/CBC)

comments

For the first time in 25 years, the Fortymile caribou herd is open for hunting. **Citation 2**

Caribou Mitigations

- Caribou migrations do not follow the same path each year, and flexible and adaptive measures are important.
- Adaptive management and mitigation measures are frequently used to allow mining to co-exist with healthy caribou populations, for example:
 - Timing windows and temporary curtailment of activities if significant caribou are sighted
 - Minimum overflight altitudes
 - Road embankments sloped and breaks in snow banks to allow crossings
 - Speed limits and vehicle convoys on roads
- ATAC Remains committed to working with Yukon Government and the Tr'ondëk Hwëch'in to identify and implement mitigation measures.
- Example - Agnico Eagle, Meliadine Mine, Nunavut

- <https://storymaps.arcgis.com/stories/2cc206908190458aa1ff785c11832372>
- Vehicles must stop if caribou are on the access road.
- When caribou are within 200 m of the road, vehicles must slow to 10 km/hr.
- If groups of over 50 caribou are observed within 5 km of the mine, blasting and other surface mining operations stop.
- When large groups of caribou are observed near the access road it is closed.




Photo from Meliadine Mine, Agnico Eagle




Photo from Fortymile Caribou Harvest Management Plan

DID YOU KNOW?

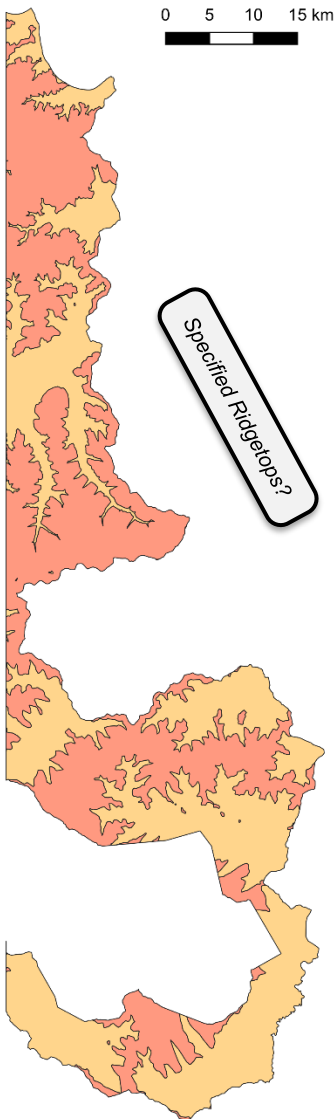
CARIBOU MIGRATION ALERT LEVELS



- LEVEL 1**
 - On-going monitoring throughout the year using collaring program data
 - **Trigger:** 50+ caribou within 10km of Meliadine
 - **Monitoring:** Ground survey every 2 days and review of satellite collar information 2x/week
 - **Mitigation:** Daily site-wide warnings (including KIA, HTO, GN)
 - **Duration:** 5 days or until Level 2 is reached (caribou within 5km of Meliadine)
- LEVEL 2**
 - **Trigger:** Less than 50 caribou are within 5km of Meliadine
 - **Monitoring:** Ground survey every 2 days and review of satellite collar information 2x/week
 - **Mitigation:** daily site-wide warnings about caribou. Environmental Supervisor may add more measures, i.e. stopping work, depending on caribou distribution/proximity, etc.
 - **Duration:** 10 days or when Level 3 starts or when caribou pass outside 5km.
- LEVEL 3**
 - **Trigger:** 50+ caribou within 5km of Meliadine
 - **Monitoring:** ground survey 3x/day and review of satellite collar information min. 2x/week
 - **Mitigation:** daily site-wide warnings (3x/day) about caribou. Work suspension protocol begins.
 - **Duration:** until caribou pass outside 5km

 AGNICO EAGLE

LMU 23 Discussion



- Unusual shape with irregular and complex borders
- Caribou migration paths change year-to-year
- Split of ISA level by elevation is impractical:
 - Hard for projects to plan around very complex borders
 - Leads to isolated pockets of higher or lower designation
 - Will be very challenging to track overall level of disturbance given complex shape
(Cumulative between both zones? Each zone individual?)
 - Could lead to infrastructure ‘skirting’ an elevation line for a much longer distance rather than a smaller disturbance across a ridge
- Special Management Directions for Caribou and LMU 23 are **not compatible** with the definition of an ISA:
 - Restrictions on “any large quartz exploration projects (Class 4) or quartz mines”
 - “No major infrastructure” on “specified ridgetops important for caribou migration”
 - Rationale that notes “Maintaining the current level of disturbance”

3.2.2 INTEGRATED STEWARDSHIP AREAS

The Integrated Stewardship Area (ISA) designation is used to identify areas where higher levels of industrial and other development can occur. The intent of all ISAs is to enable existing and future economic activities for both surface uses and subsurface resource extraction.

4.2.1.1 CARIBOU

Recommended Management Practices

- c High concentrations of small-scale disturbance and any large quartz exploration projects (Class 4) or quartz mines should be avoided within key migration routes.

LMU 23: Fortymile Caribou Corridor

Special Management Directions (Recommendations to achieve Vision)

- a. No major infrastructure should be developed within specified ridgetops important to caribou migration (see Map 2 & 4 Appendix A).

Recommendations:

- **Remove or modify conflicting Special Management Directions and Recommended Management Practices** to allow exploration and development to proceed with appropriate mitigations for caribou habitat and migration pathways.
- **Consider merging LMU 23** south of the Top of the World Highway with adjacent LMUs
or
Consider splitting LMU 23 into two zones:
 - a. North of the Top of the World Highway - ISA 1
 - b. South of the Top of the World Highway - ISA 2 or 3
- Use **best practices and mitigations** to allow mineral exploration and development to co-exist with a sustainable caribou population.



Thank you

