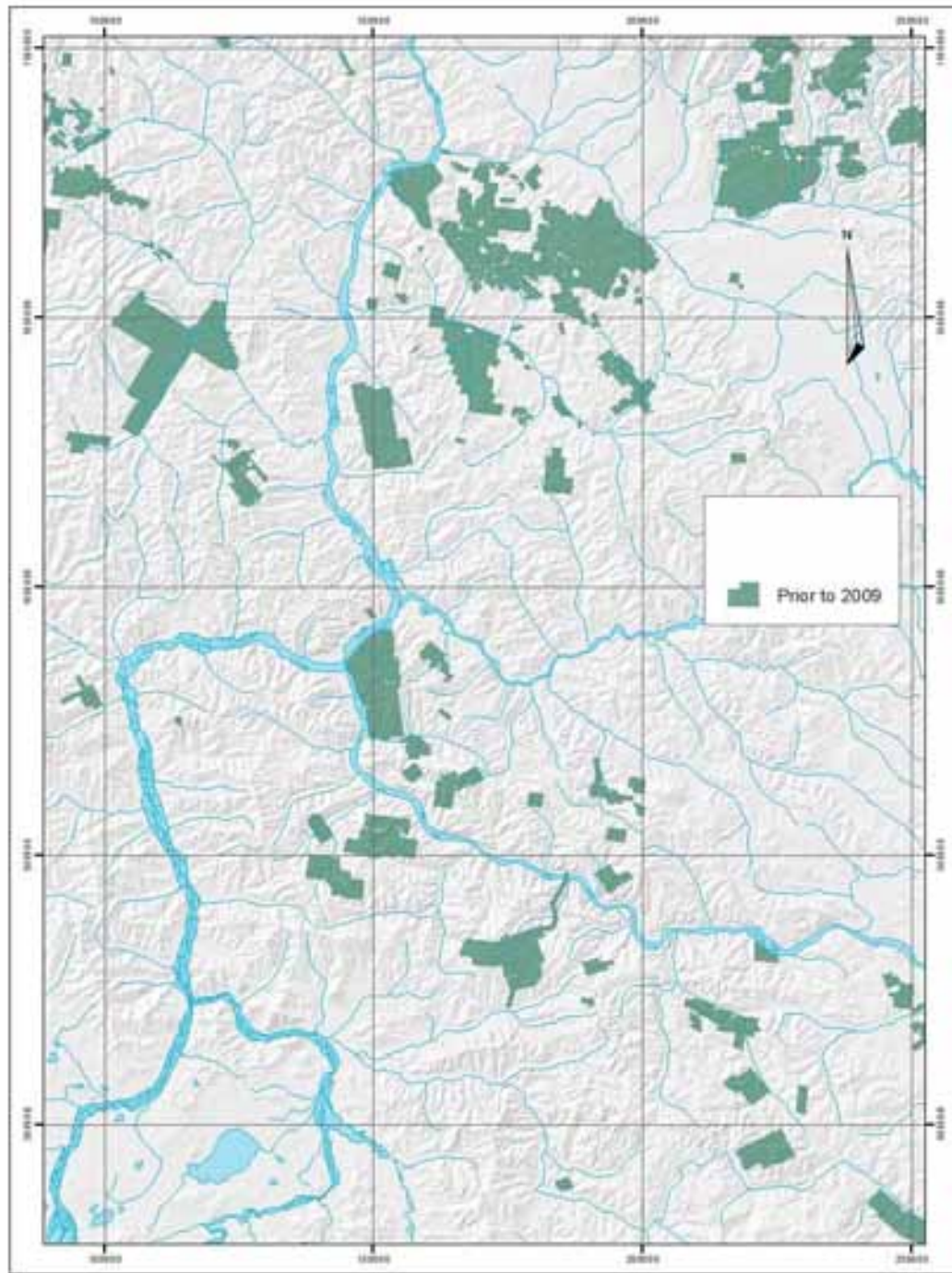


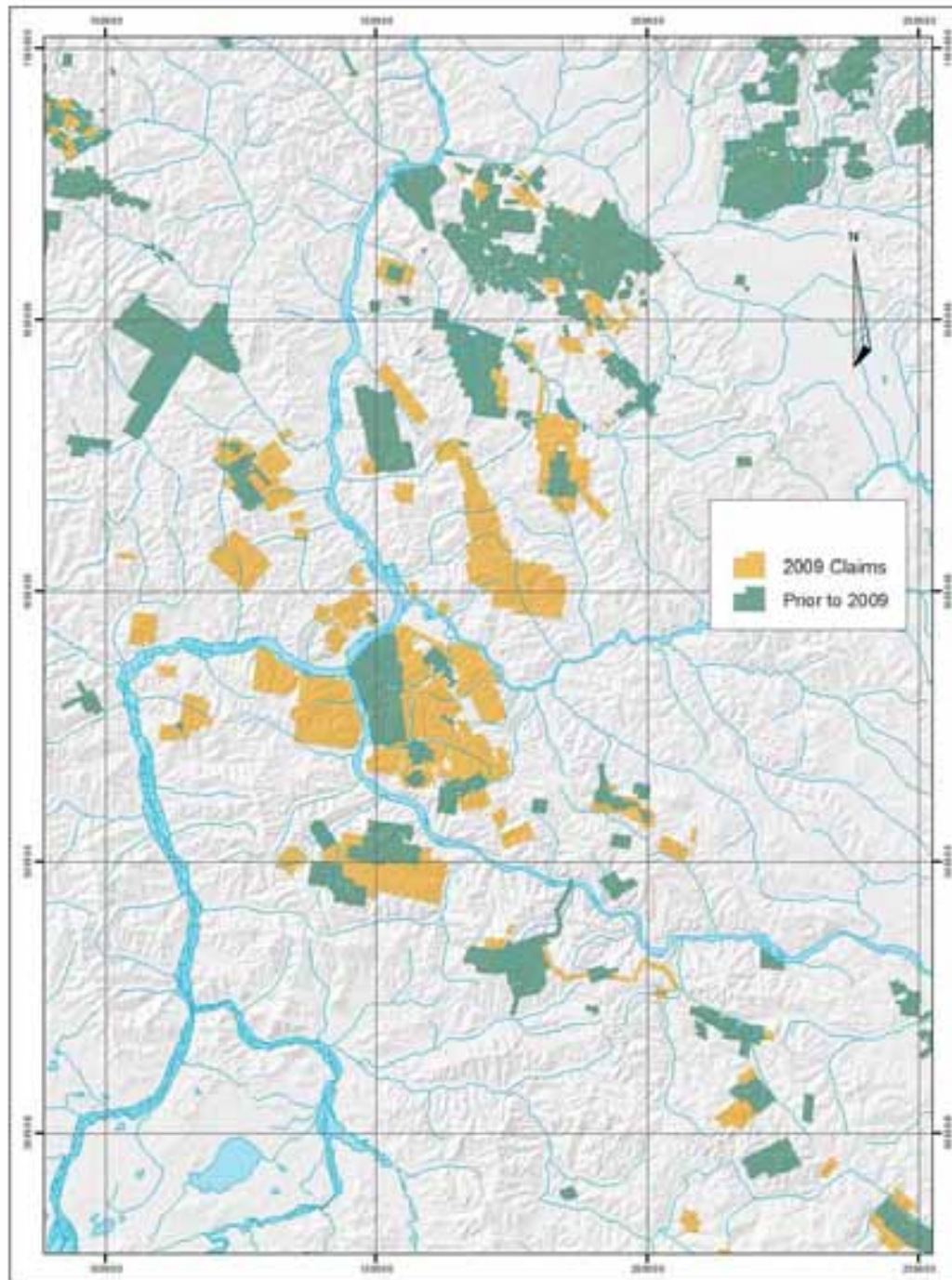
White Gold Area Cumulative Effects

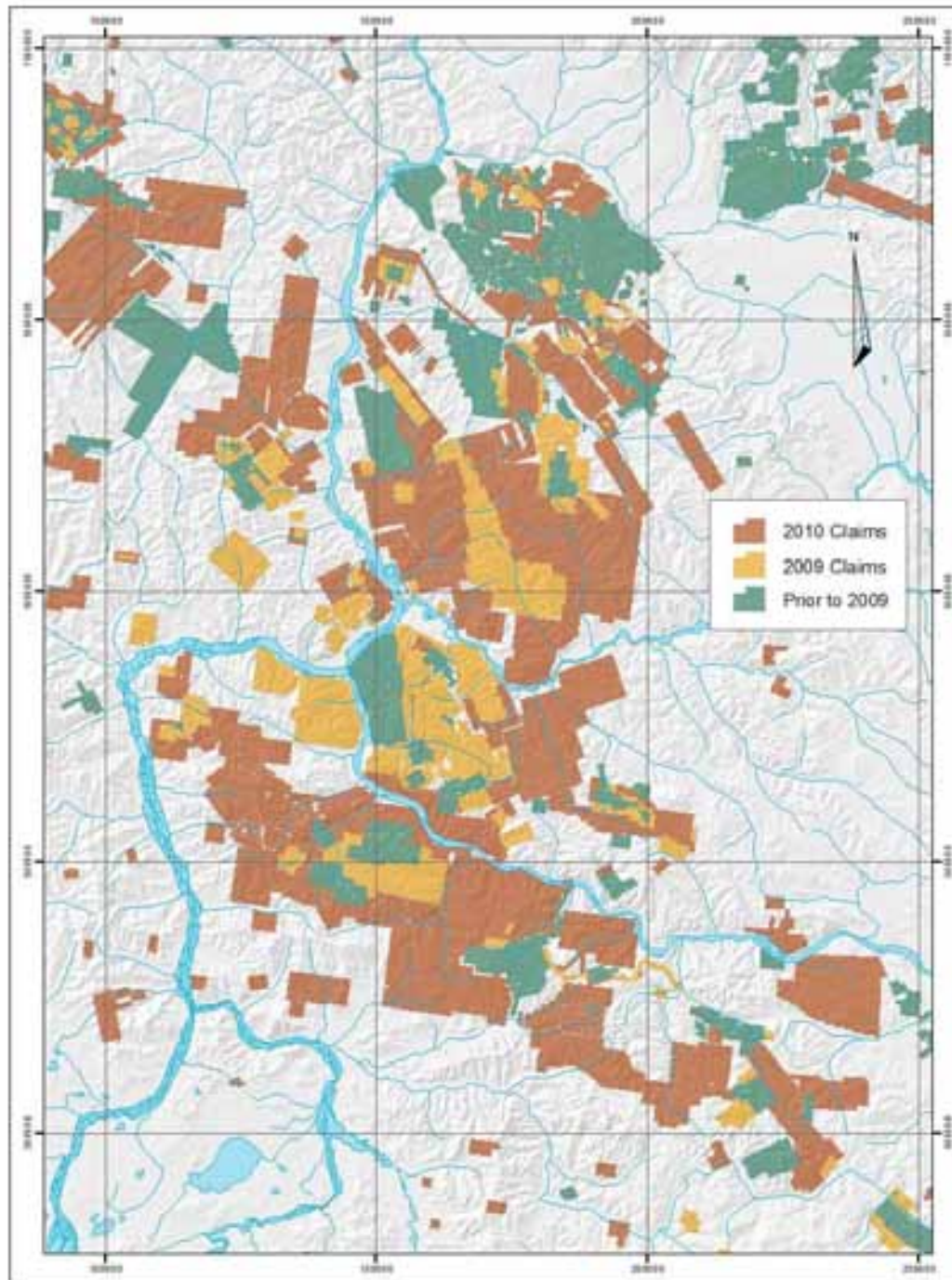
YESAB
Yukon Environmental and Socio-economic
Assessment Board



Natural Resource Consultants









Background

- White Gold area: the focus of hard rock exploration in Yukon
- Exploration companies are required to submit project proposals to YESAB District Office for evaluation
- YESAB is required to consider cumulative effects



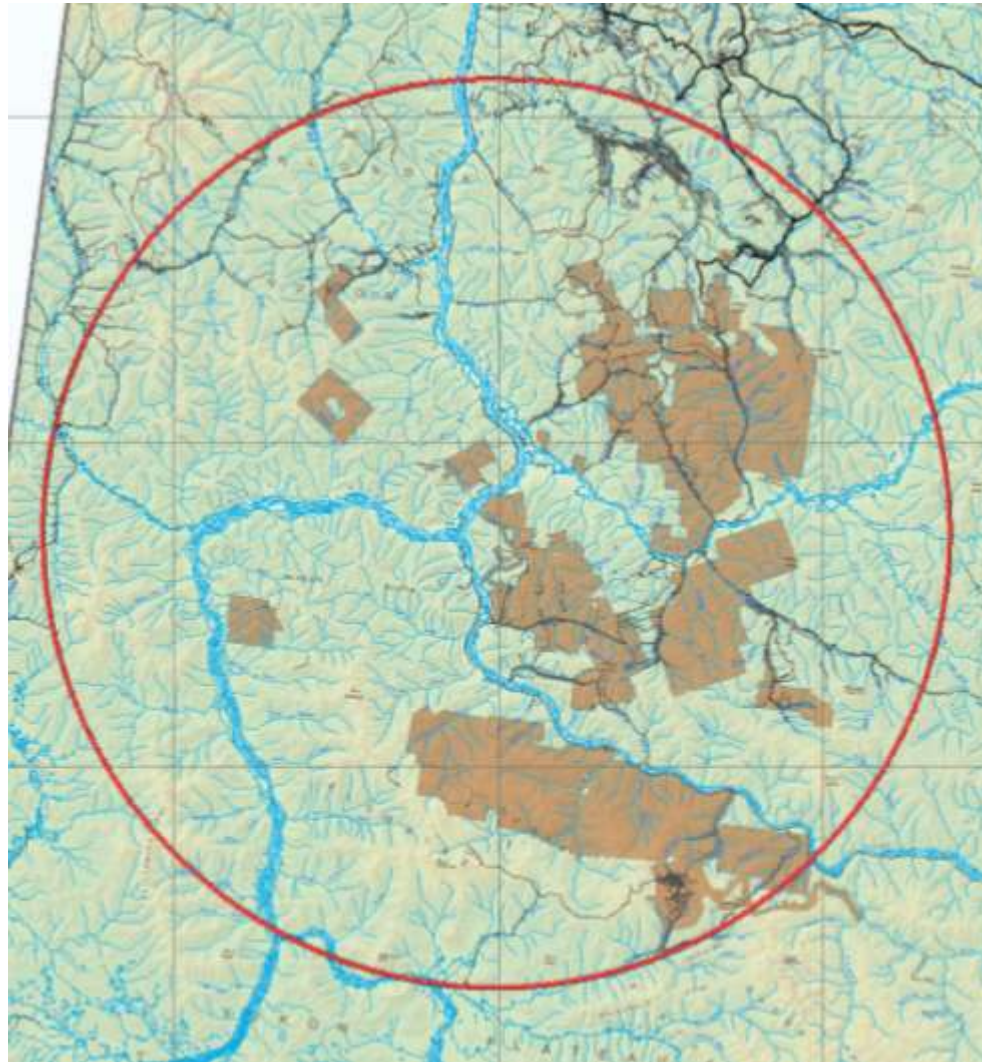
Background

- **Cumulative Effects:** Changes to environment components caused by an activity in combination with other past, present, and future projects.
- Wildlife are a valued component (VC) that could negatively interact with exploration projects



Study Area

Centred on White
Gold property



Key Wildlife Species

- Moose
 - Primary harvest species
 - Important subsistence harvest species for local First Nations
- Thinhorn Sheep
 - Valued trophy animal
 - Abundance is low in area, but distribution is unknown
- Fortymile Caribou
 - Recovering herd
 - Management goal: Re-establish herd in Yukon through reducing mortality and maintaining habitat



Information from DO application

YESAB Form 1

Class 3/4 Quartz
Mining Land Use
Approval application

Project Number	Project Name	Sector	DO	Length of new access	Game Management Area
2010-0056	Frisco Creek Placer	Placer	Dawson	4.31 km	313
2010-0073a	JP Ross and Maisey Claims	Quartz	Dawson	55 km	310 (30%) 312 (70%)
2010-0073b	Yellow and RP Claims	Quartz	Dawson	0 km	306
2010-0075	Touleary Property	Quartz	Dawson	1.68 km	313 (95%) 314 (5%)
2010-0076	Green Gulch	Quartz	Dawson	6.41 km	313
2010-0077	Dan Man	Quartz	Haines Junction	11.56 km	503
2010-0087	Coffee, Cream and Kirkman Claims	Quartz	Haines Junction	0 km	318 (55%) 502 (5%) 509 (40%)



Moose

- Ubiquitous throughout White Gold area
- Density in the area is average for Yukon



- **Issue: New access could cause harvest rates to exceed the 4% AAH threshold.**



Moose Harvest

For each Game Management Area:

- Current licensed harvest
- Moose density
- Road/trail access density
- River access points
- Length of river access

For each Project:

- Summarize potential new access by GMA



Moose Analysis

- Moose harvest range: <1–9 moose/year/GMA
- Harvest already exceeds 4% AAH threshold in GMA 313
- Confirmed that access drives moose harvest
 - Harvest was correlated with linear access and river length, but independent of the moose population density
- Harvest increased at a rate of ~5 moose/km access/km²
- Additional linear access is a key project interaction



Thinhorn Sheep

- Sheep are commonly observed in the area
- Unknown distribution
- **Issue: Disturbance, particularly during lambing**



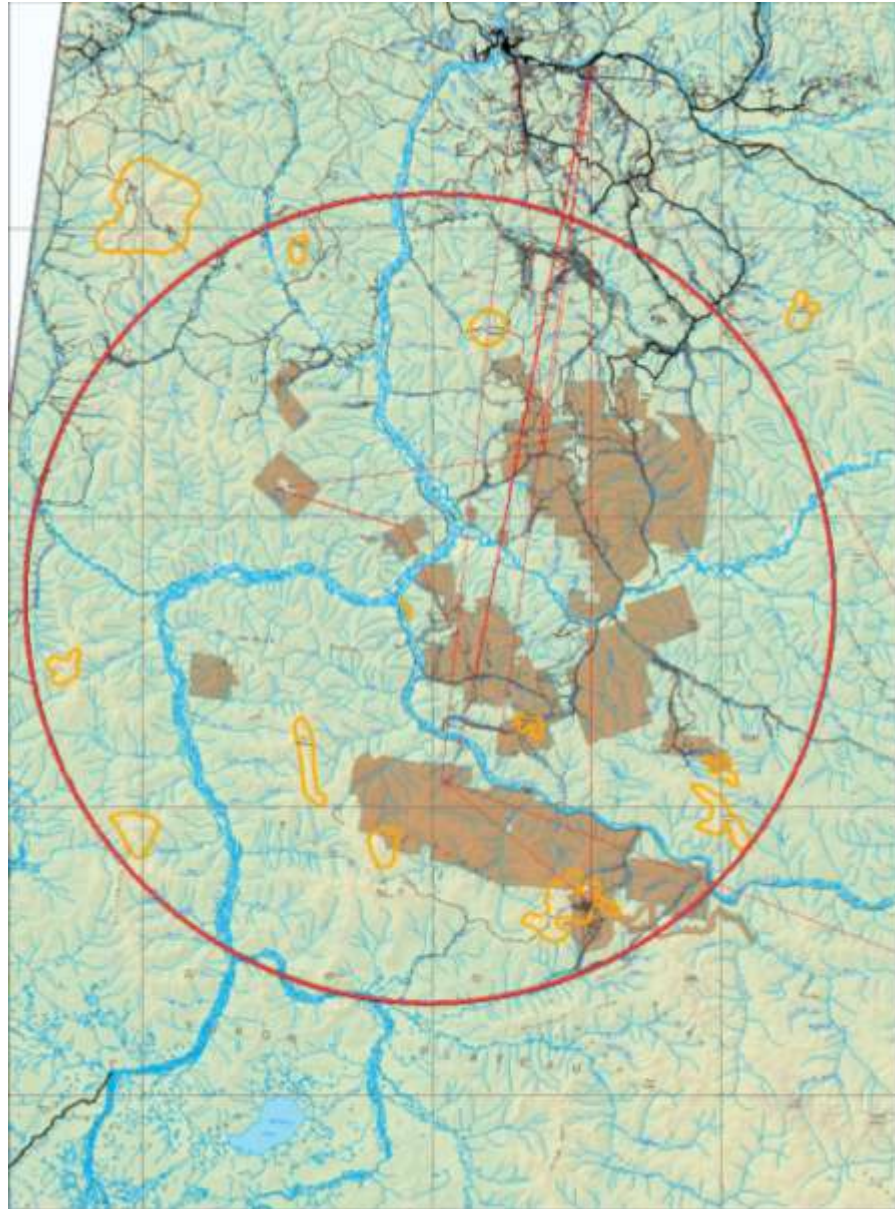
Spatial Data Development and Analysis

Identification of potential sheep habitat

- Aspect
- Steepness
- Patch size
- Elevation

Project-specific

- Potential flight paths



Fortymile Caribou

- Currently, few caribou occur in the area
- **Issue: Maintaining functional winter range to support the herd's expansion**



Spatial Data Development and Analysis

Identification of high
(green) and low
probability winter
habitat

EOSD land cover

Remove burned
areas



YESAB Assessments

- Assessors are able to assess potential project effects in CE context for key wildlife species
- 4% AAH threshold allowed assessors to make stronger recommendations about access
- Site-specific mitigations for sheep lambing areas
- Caribou winter habitat loss is estimated to be minor



Implications for Land Use Planning

- Development quantifiable thresholds are important for successfully assessing project cumulative effects
 - Project proponents have more certainty in environmental requirements, decreasing risk
 - Environmental assessments can more effectively address project effects at a landscape level
 - Decrease assessment timelines

