

Use of on-site offsets

Mitigating cumulative impacts to caribou from diamond mining

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Or: how did the caribou cross the road?



Mackenzie Valley Environmental Impact Review Board

The Review Board:

- conducts environmental assessments of development projects in Northwest Territories, Canada
- independent co-management Board with equal Indigenous and government representation
- Is a result of land claims
- ensures local decision making
- makes recommendations to government

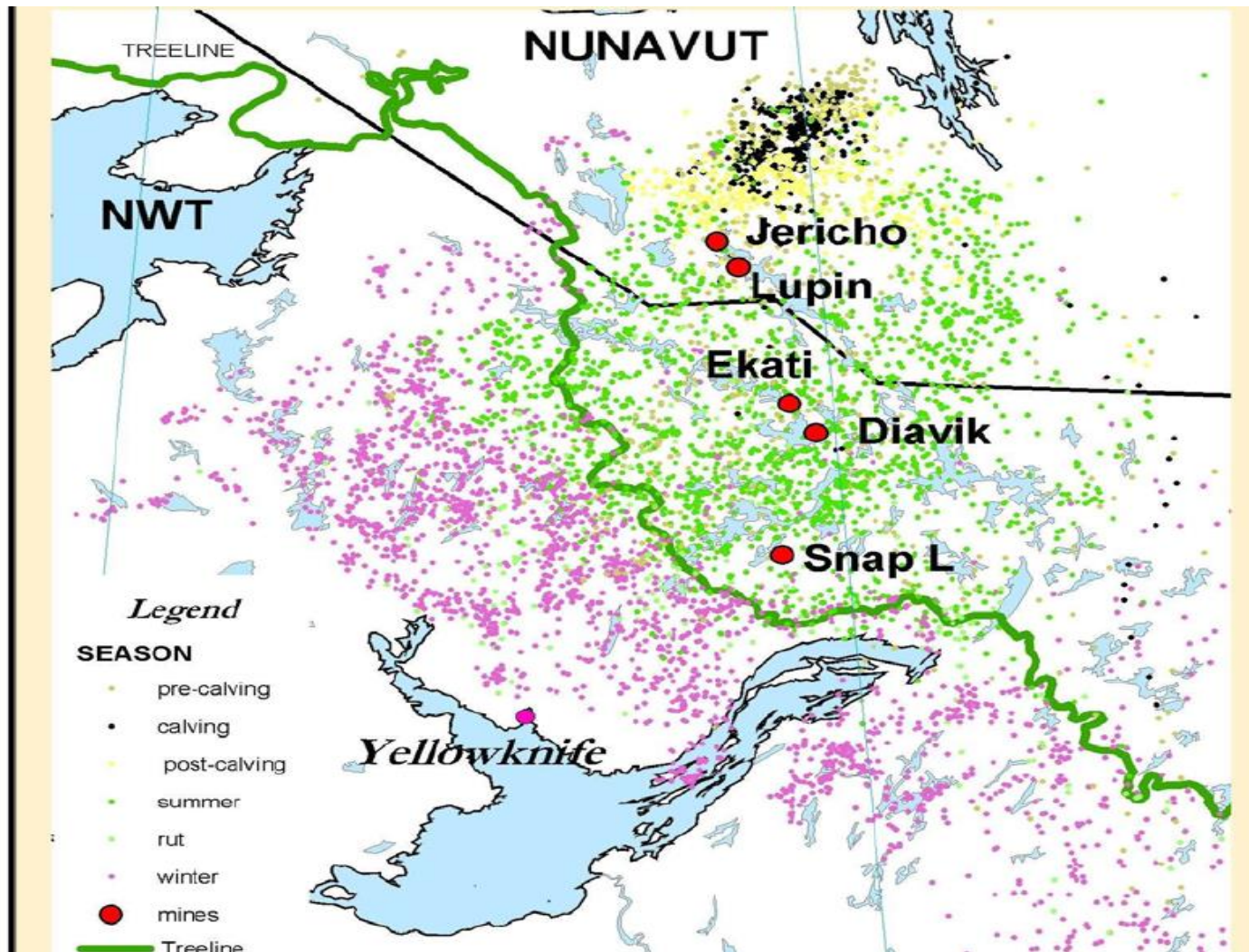


Northwest Territories Canada





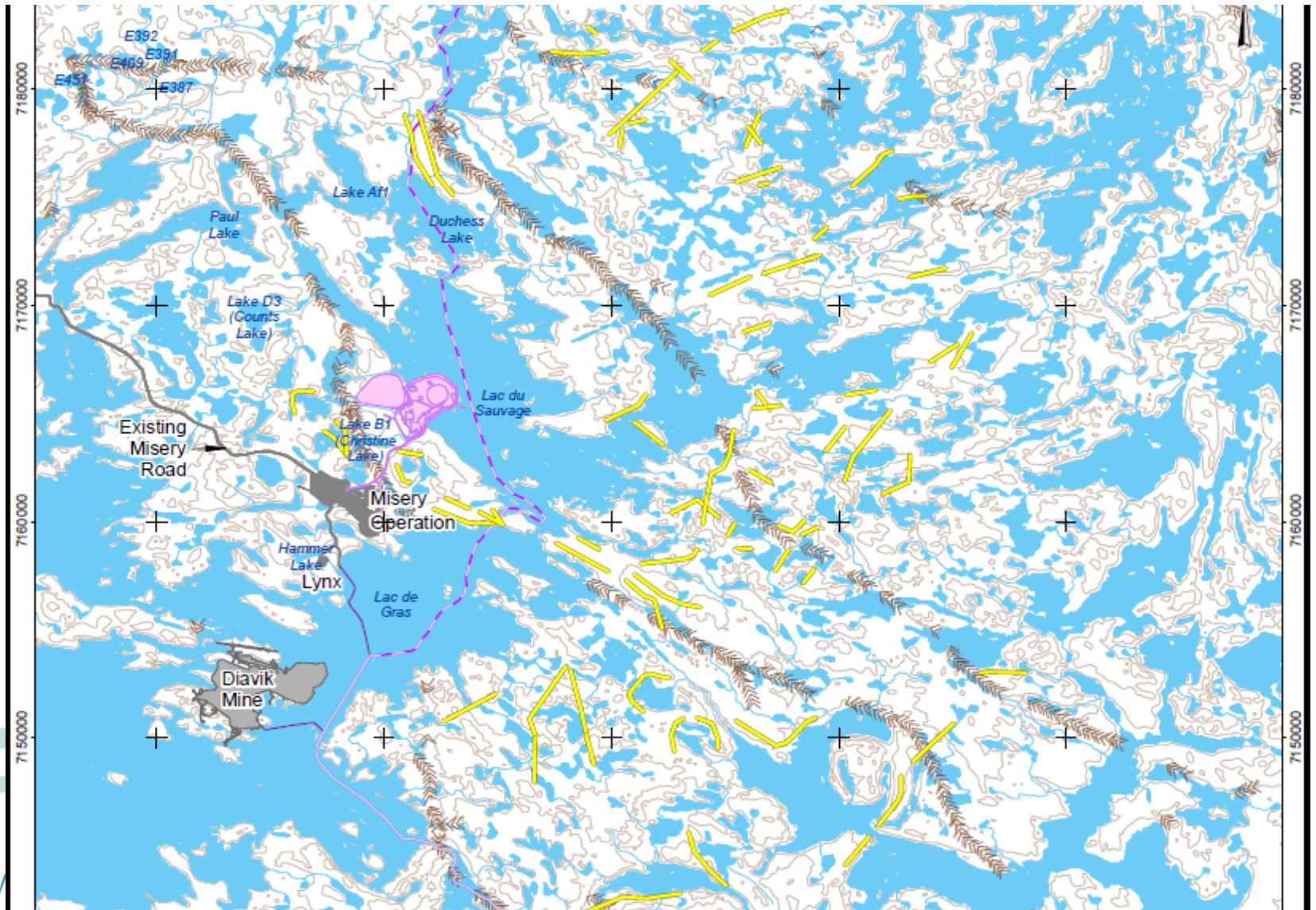
Bathurst caribou herd ranges and mine locations



Ekati mine area with Jay pit expansion



Caribou movement – historic trails



Potential impacts to caribou from road

sensory disturbance from
road traffic

noise, visual, lights

dusting on lichen,

partial barrier effects from
road

caribou hesitate to cross or
are deflected, energy loss



Mitigation proposed by developer

- If caribou on road, close road until caribou leave
- Stockpile ore at either end of road to allow for extended closures during migration
- use pilot vehicles and convoys will be considered to create longer gaps in traffic
- Speed limits will apply to all mine vehicles, not just ore trucks



Public hearings in communities

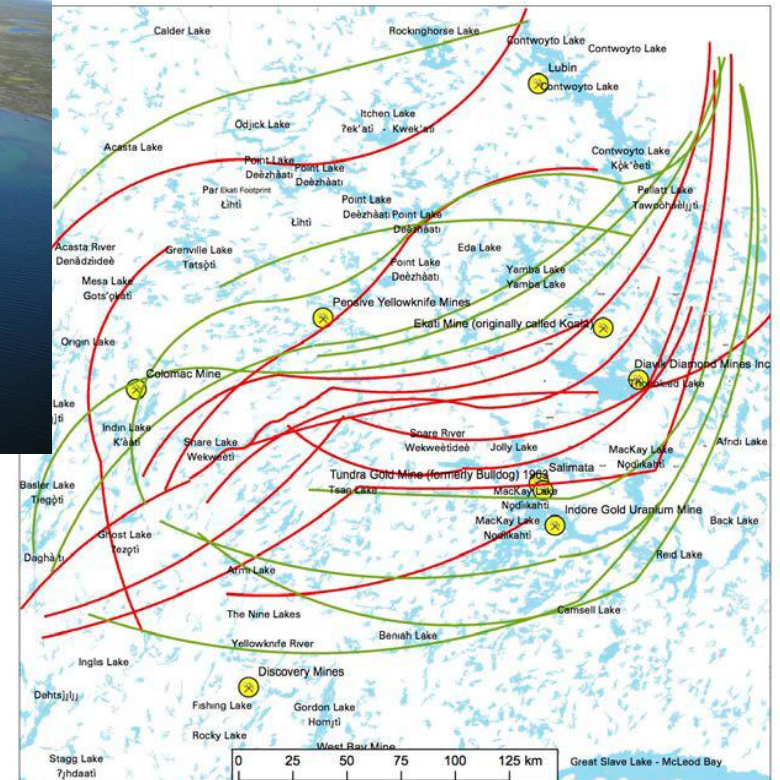


Communities say impacts to well-being and traditional way of life significant

- Low caribou numbers has resulted in reduced harvesting and less time on the land
- Loss of knowledge transfer between generations
- Jay expansion continues to degrade area for harvesting
- Any activity that inhibits caribou recovery is significant



Images from Indigenous presentations at hearing



Bathurst Caribou Migration Trails

Tłı̨chų Traditional Knowledge



Review Board findings – significant impacts

- mitigations proposed by developer not enough to address residual impacts
- significant adverse project specific and cumulative impacts to caribou movement
- mine expansion would prolong significant impacts to Indigenous use of caribou by continuing to limit harvesting

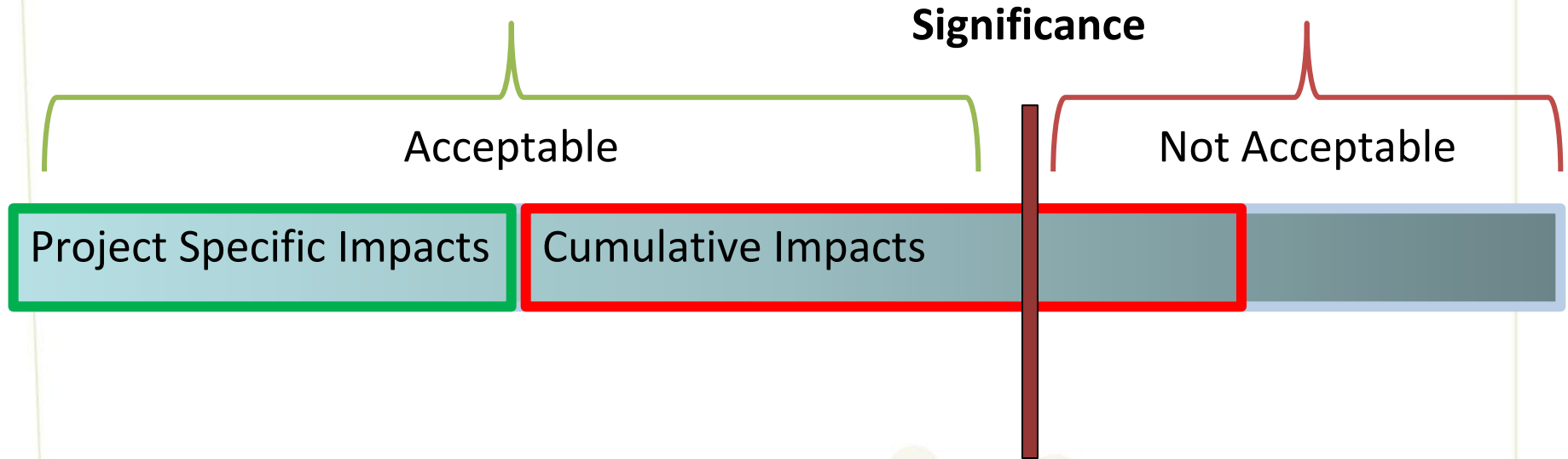


Reasons for finding significant impacts

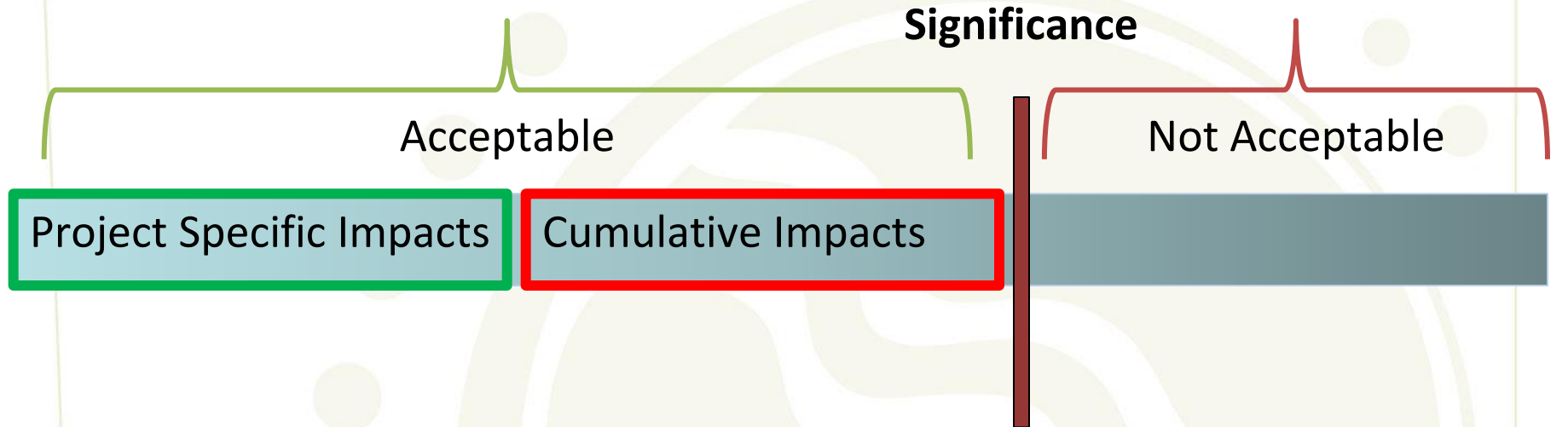
- Caribou herd is vulnerable, precarious state
- Existing cumulative impacts significant, Jay project adds stressors
- Mine expansion at a critical movement corridor
- Physical barriers and sensory disturbance
- Harvest ban in place so any impact that inhibit ability of herd to recover is significant



Before Offsets:



After Offsets:



Review Board solution - offsets

Offset requirements:

- actions that enhance mitigation, no net additional impacts
- offsetting actions must be near area of impact to achieve net neutral impacts
- must address both impacts to caribou and human use of caribou
- offsets must be like-for-like (no \$ or arena please)



Offset – scheduling activities during migration



Accelerate reclamation at existing Ekati tailings ponds, waste rock storage areas



Offsets - Improving dust suppression at other mine site areas



Offsetting – valuable tool when more than just mitigation is needed

