

HAZARDS MAPPING AND TRADITIONAL KNOWLEDGE



YUKON RESEARCH CENTRE
Yukon College

Cyrielle Laurent





HAZARDS MAPPING PROCESS IN JEAN MARIE RIVER

- Permafrost mapping requested by the community
- Long terms observations of changes
 - Elders stories
 - Land users observations

Recommendations

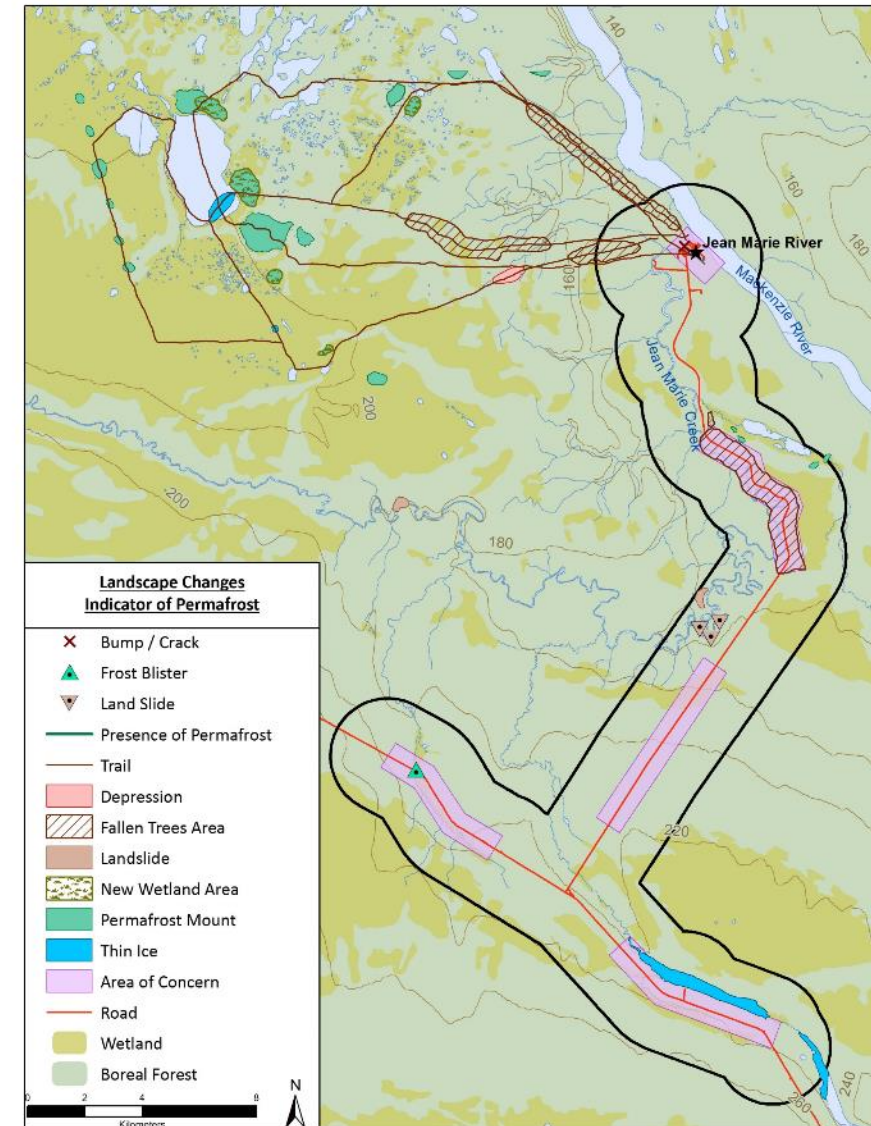
- Build the project with communities
- Include trainings and workshops
- Build awareness





HOW DO YOU INCLUDE TK OF PERMAFROST CONDITIONS?

- Formal conversations (meetings and workshops)
- Informal conversations
- Hire field assistant(s) from the community
- Participatory mapping
 - Combines the tools of modern cartography with interviews or focus groups





HOW TO INCLUDE TK IN MAPPING PROCESS?

- Participatory mapping will guide the field work
- Integrate TK in spatial database
- Use TK as a component of mapping model
- Keep the community involved
 - Data validation meeting

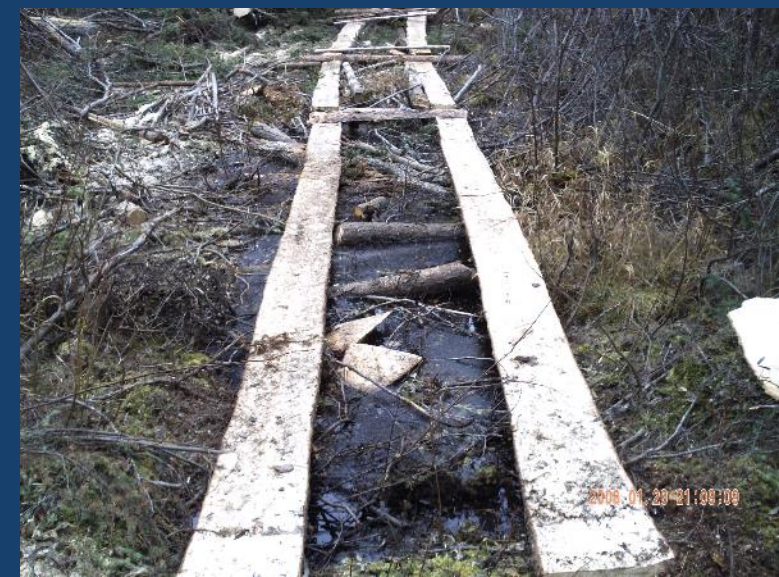


infra	File Geodatabase Feature ...
land	File Geodatabase Feature ...
political_bnd	File Geodatabase Feature ...
tech	File Geodatabase Feature ...
TK	File Geodatabase Feature ...
veg	File Geodatabase Feature ...
water	File Geodatabase Feature ...
wildlife	File Geodatabase Feature ...



PERMAFROST BRINGS CHALLENGES

- Reduced access and travel safety on the land
- Difficulties to practice traditional activities
- Reduced country food





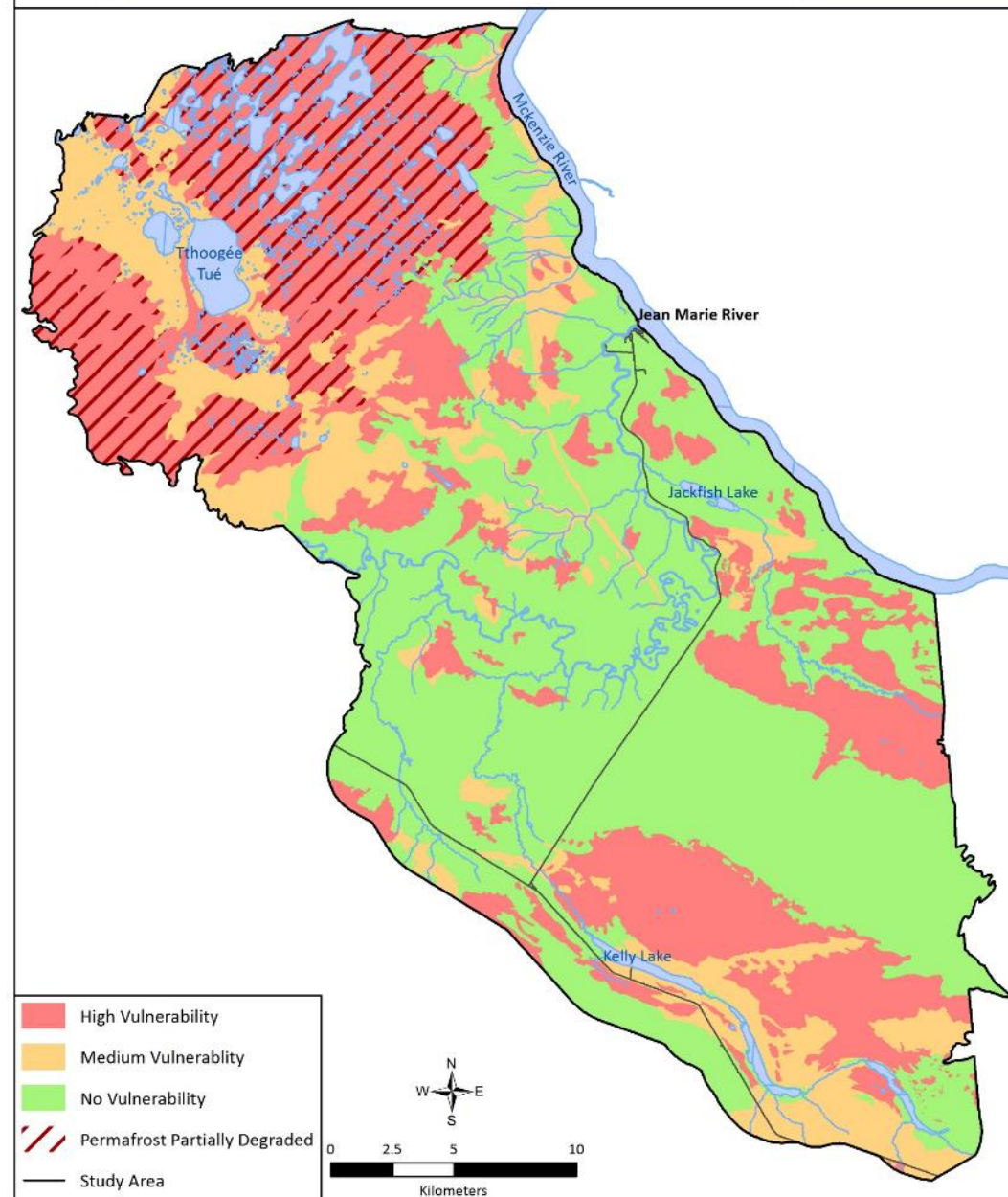
PERMAFROST MAP



Vulnerability to Permafrost Thawing Final Draft
March 2014

Yukon College

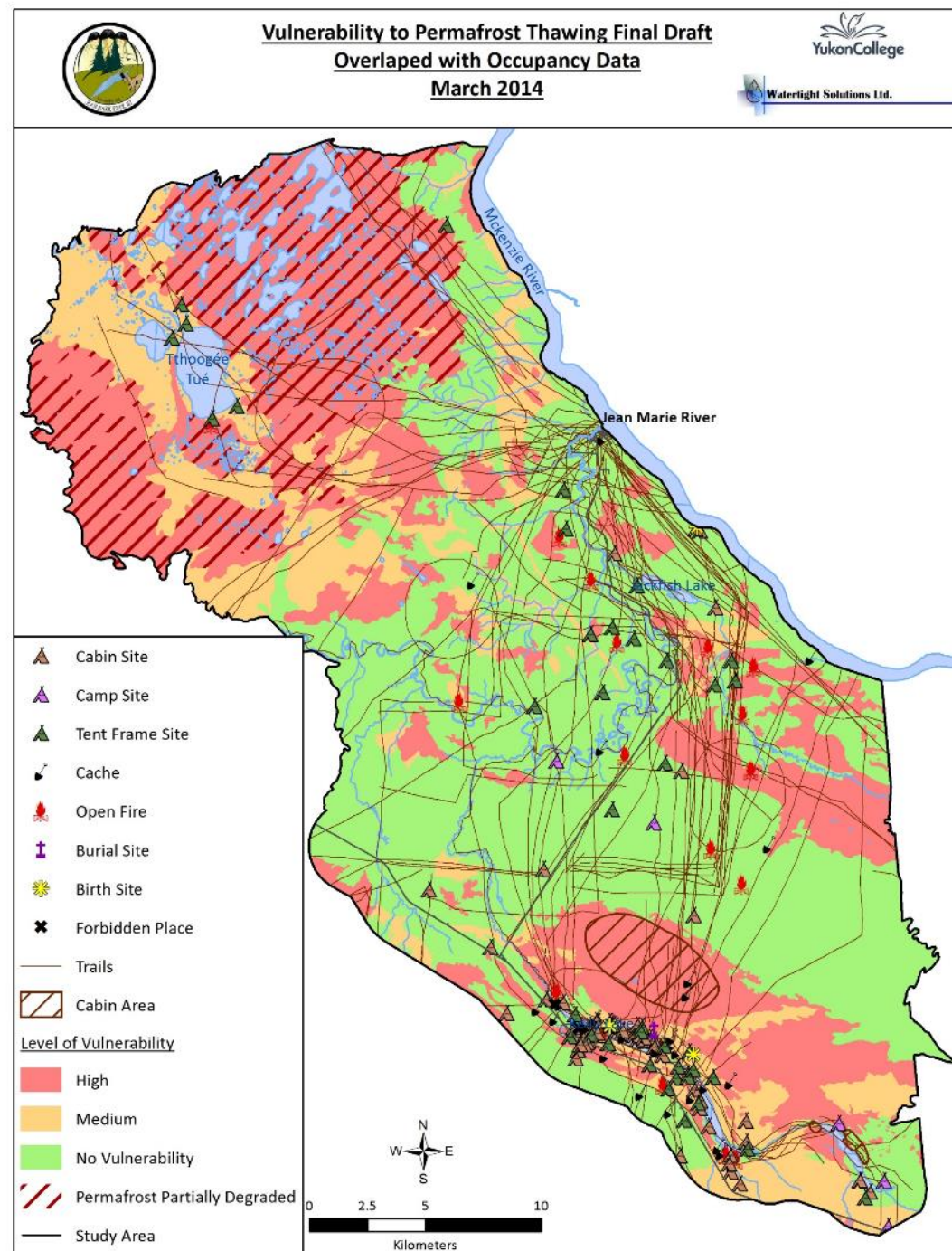
Waterlight Solutions Ltd.





HOW TO USE HAZARDS MAPS?

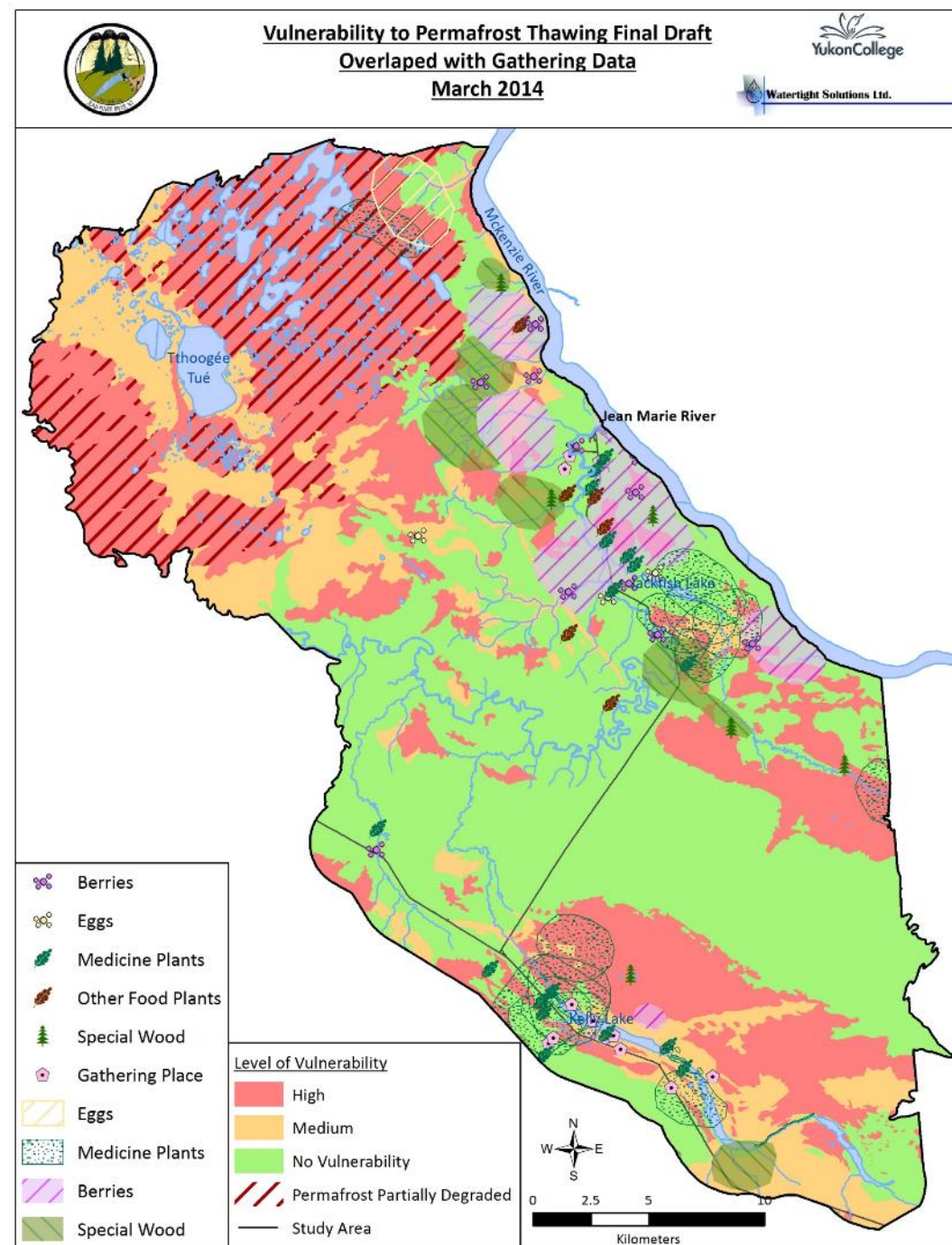
- 57% of occupancy sites overlap with permafrost





HOW TO USE HAZARDS MAPS?

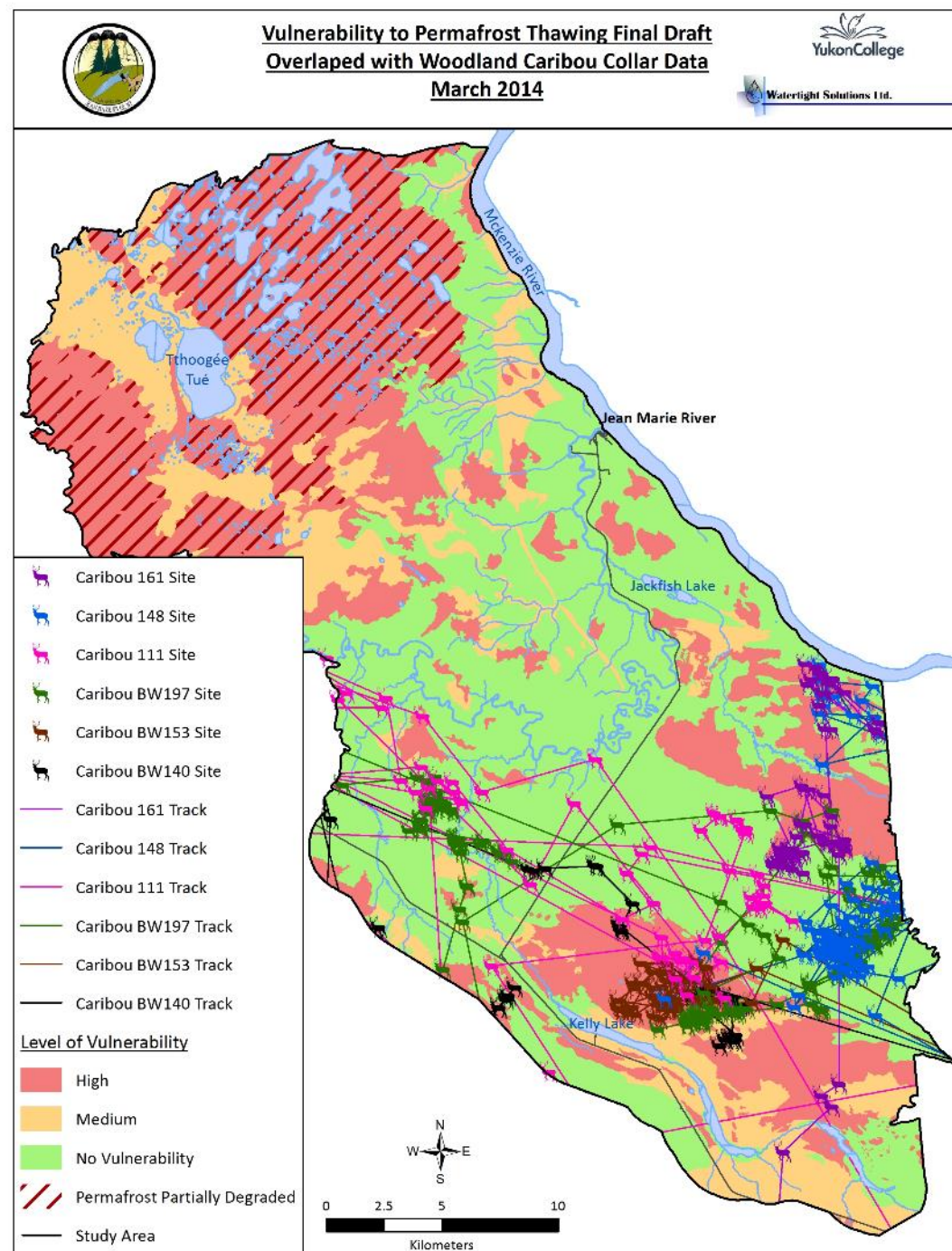
- 33% of gathering sites overlap with permafrost





HOW TO USE HAZARDS MAPS?

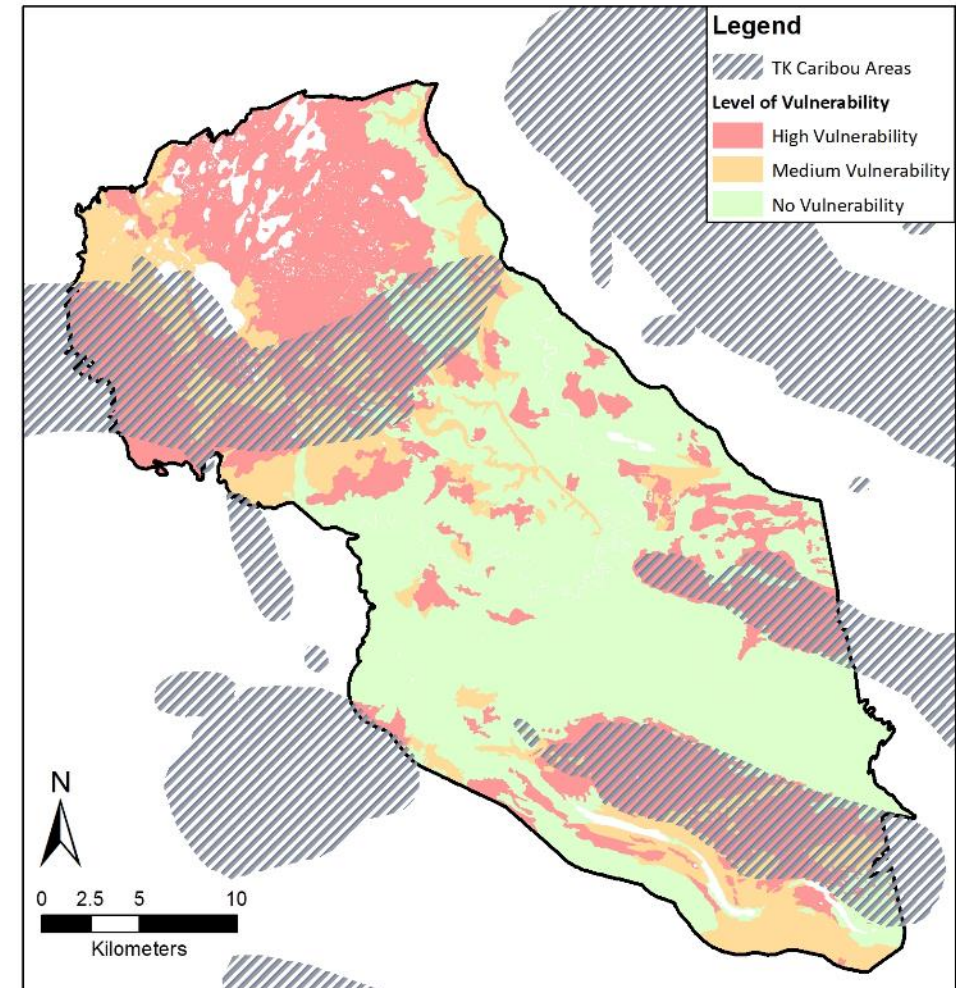
- 37% big game sites overlap with permafrost
- 38% caribou GPS points overlap with permafrost





HOW TO USE HAZARDS MAPS?

- Impact of permafrost and forest fire on caribou habitat
- 88% overlap between caribou areas and permafrost



THANK YOU

Partners and funders



Health
Canada

Santé
Canada



Aboriginal Affairs and
Northern Development Canada

