

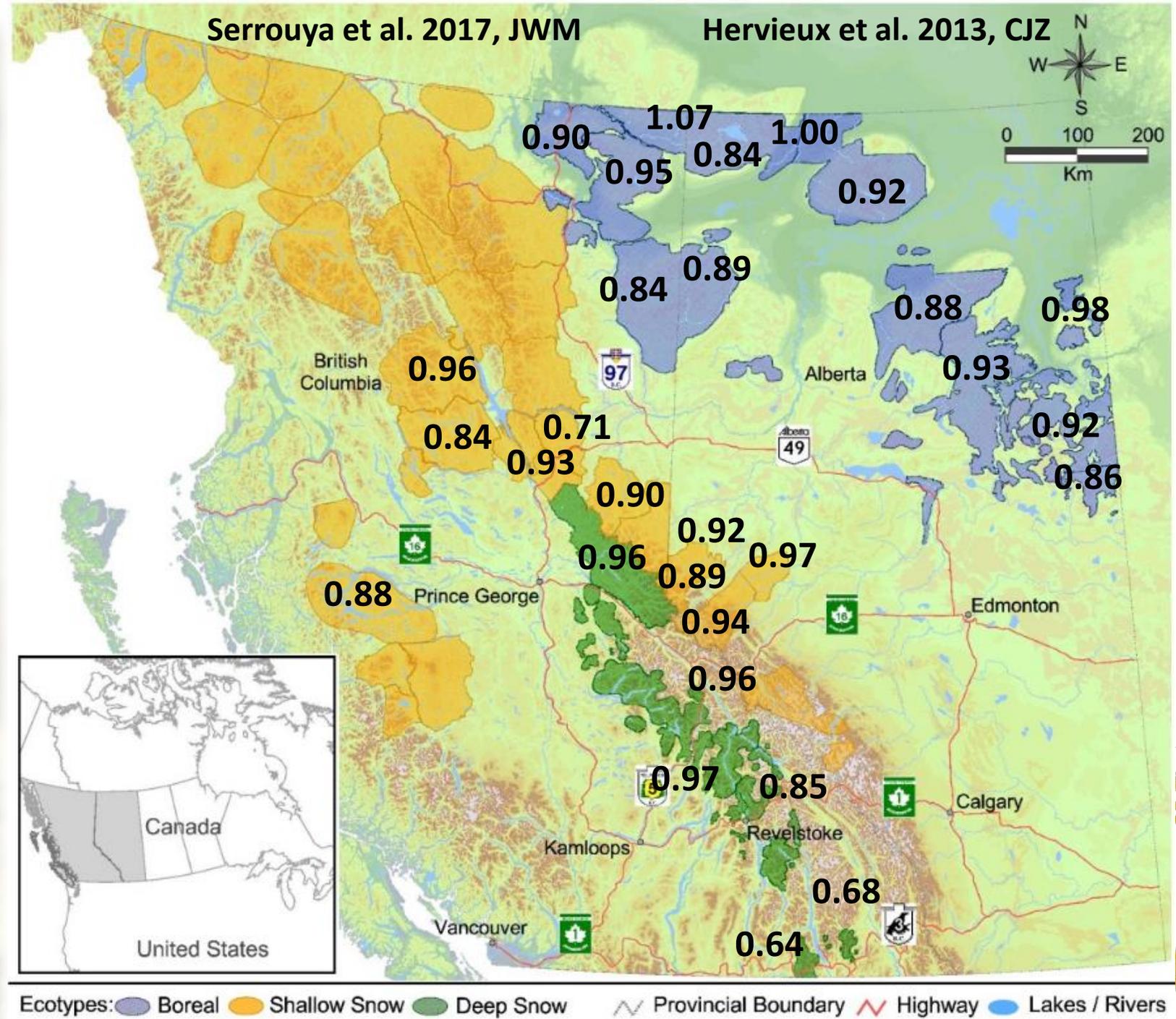
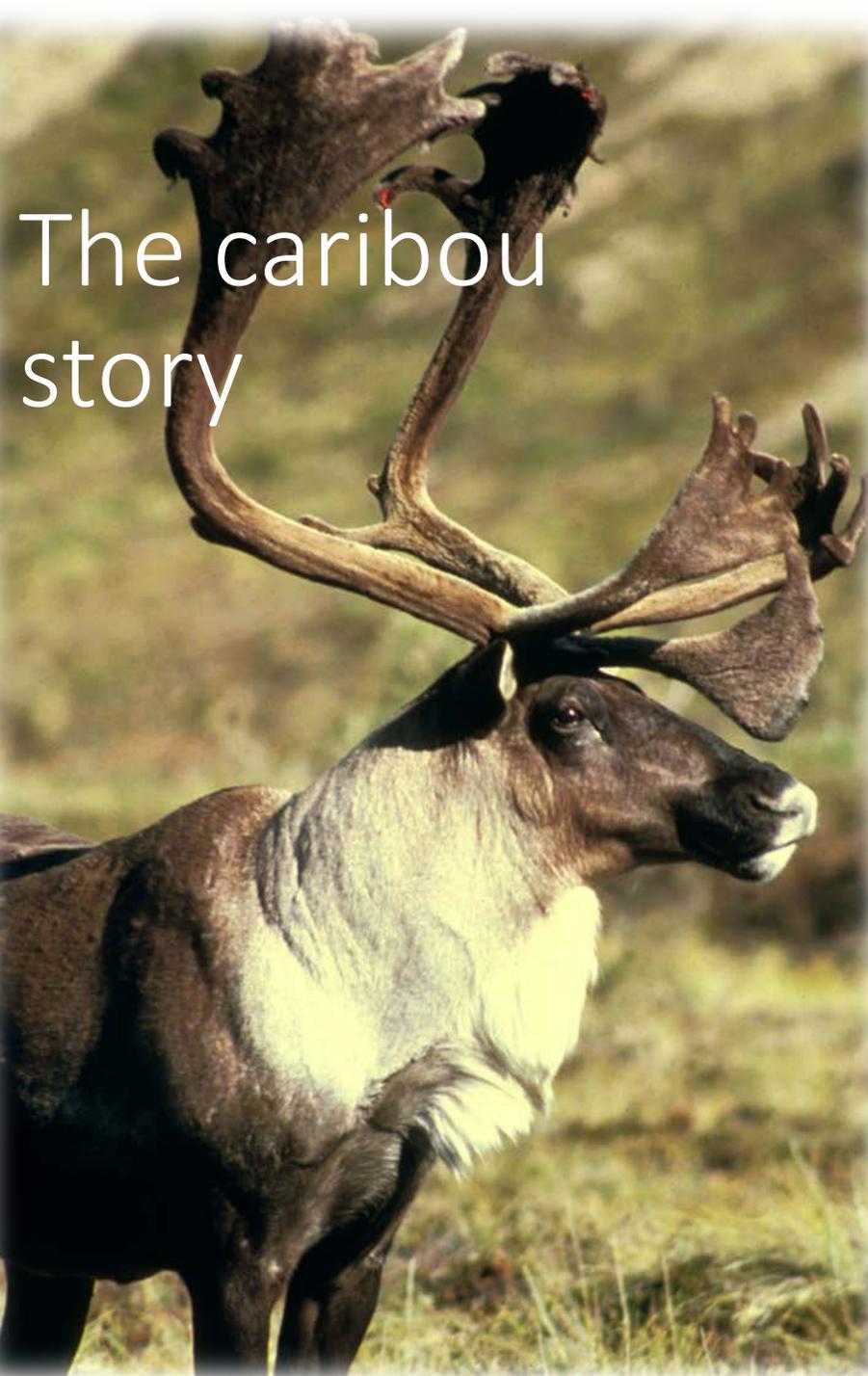


Collaborative Research: Science for Caribou Recovery

Caribou Monitoring Unit



The caribou story



Caribou Monitoring Unit

- Supports woodland caribou recovery in western Canada
- Active research to understand:
 - causation behind caribou population declines
 - how we can start to recover populations



CMU Collaborations

- Research
- Prioritizing Restoration
- Testing Recovery Options



CMU Collaborations

- Research
 - Ecosystem Monitoring Camera Program
 - Caribou use of fire skips and the influence of fire on seismic recovery
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- Research
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 - Caribou use of fire skips and the influence of fire on seismic recovery
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 - Defining functional habitat recovery
 - Prioritizing areas for restoration in the Oil Sands Region
- Testing Recovery Options



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 - Regional Industry Caribou Collaboration
 - Predicting the effects of restoring linear features



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CMU Collaborations

- Research

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- Prioritizing Restoration

- Defining functional habitat recovery
- **Prioritizing areas for restoration in the Oil Sands Region**

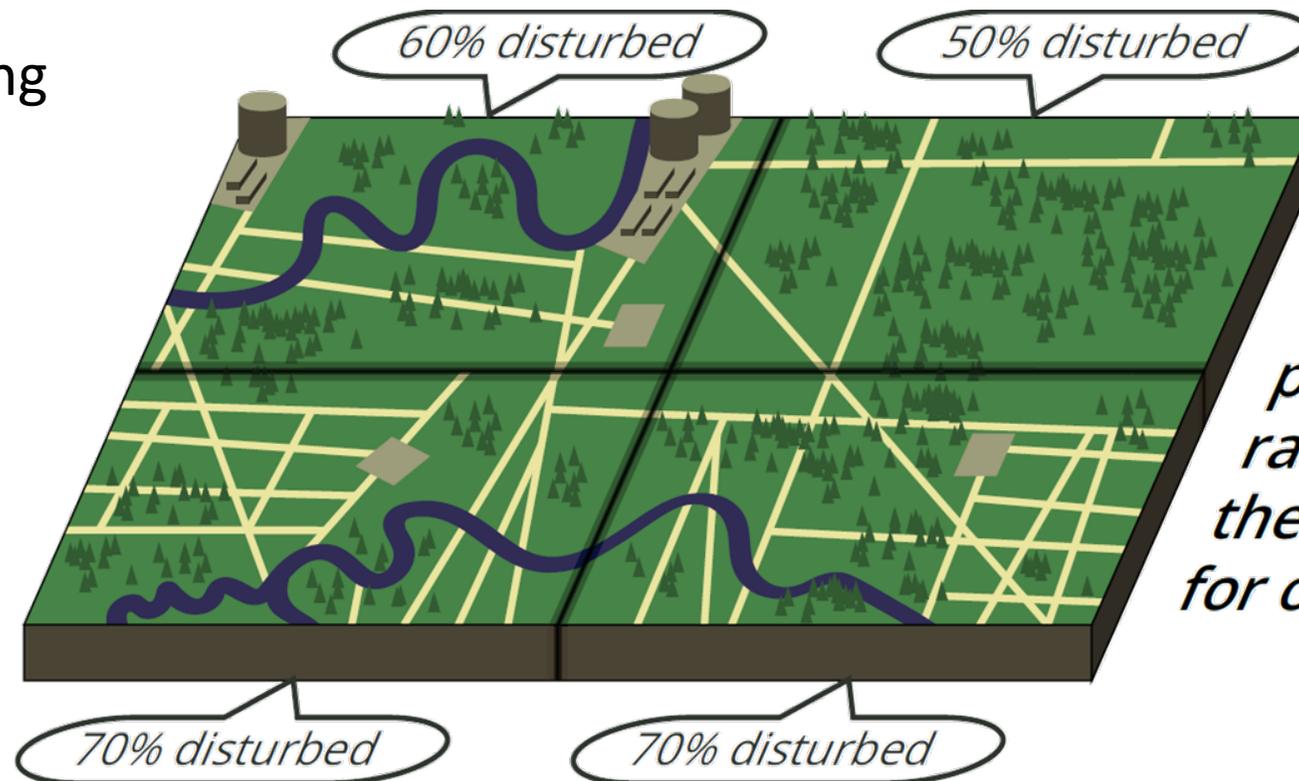
- Testing Recovery Options

- Regional Industry Caribou Collaboration
- Predicting the effects of restoring linear features



The Need:

- Collaboration with Canada's Oil Sands Innovation Alliance
- Recognizing the need to prioritize restoration
 - Expensive
 - Time consuming
 - Urgent
 - Effectiveness



In a working landscape, how do we prioritize restoration to get the best "bang" for our "buck?"

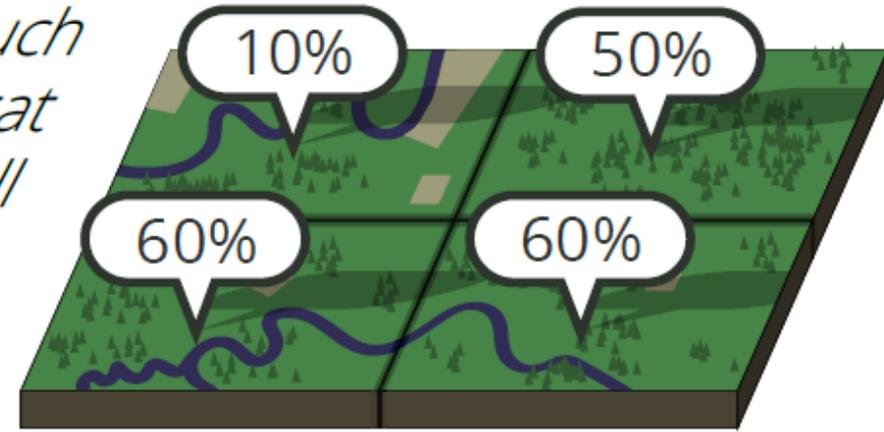


The Approach:

the BANG:

How much undisturbed habitat is gained if all seismic lines are restored?

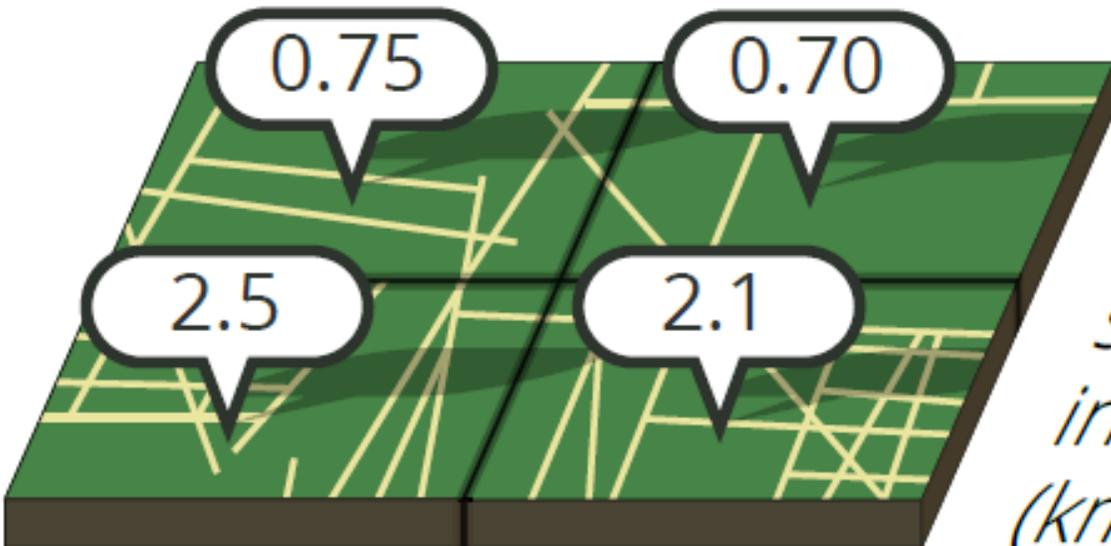
(% disturbed - % disturbed if restored)



the BUCK:

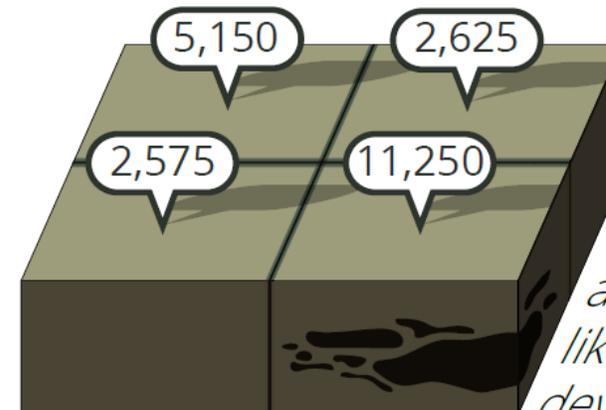
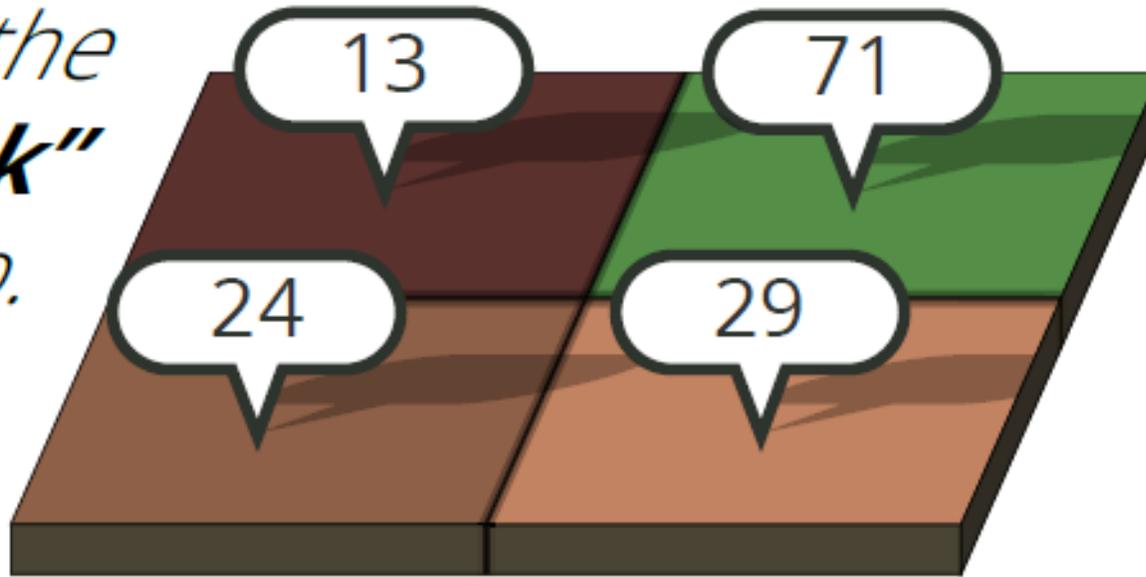
The density of seismic lines that are in each township.

(km/km²)



The Approach:

*We divide to get the
"bang-for-buck"
of each township.
Higher
"bang-for-buck"
= higher priority.*



*Lastly, adjust
to **resource
value** (\$MM CDN).
to pull restoration
away from areas
likely to be
developed in the
near future.*

The Approach:

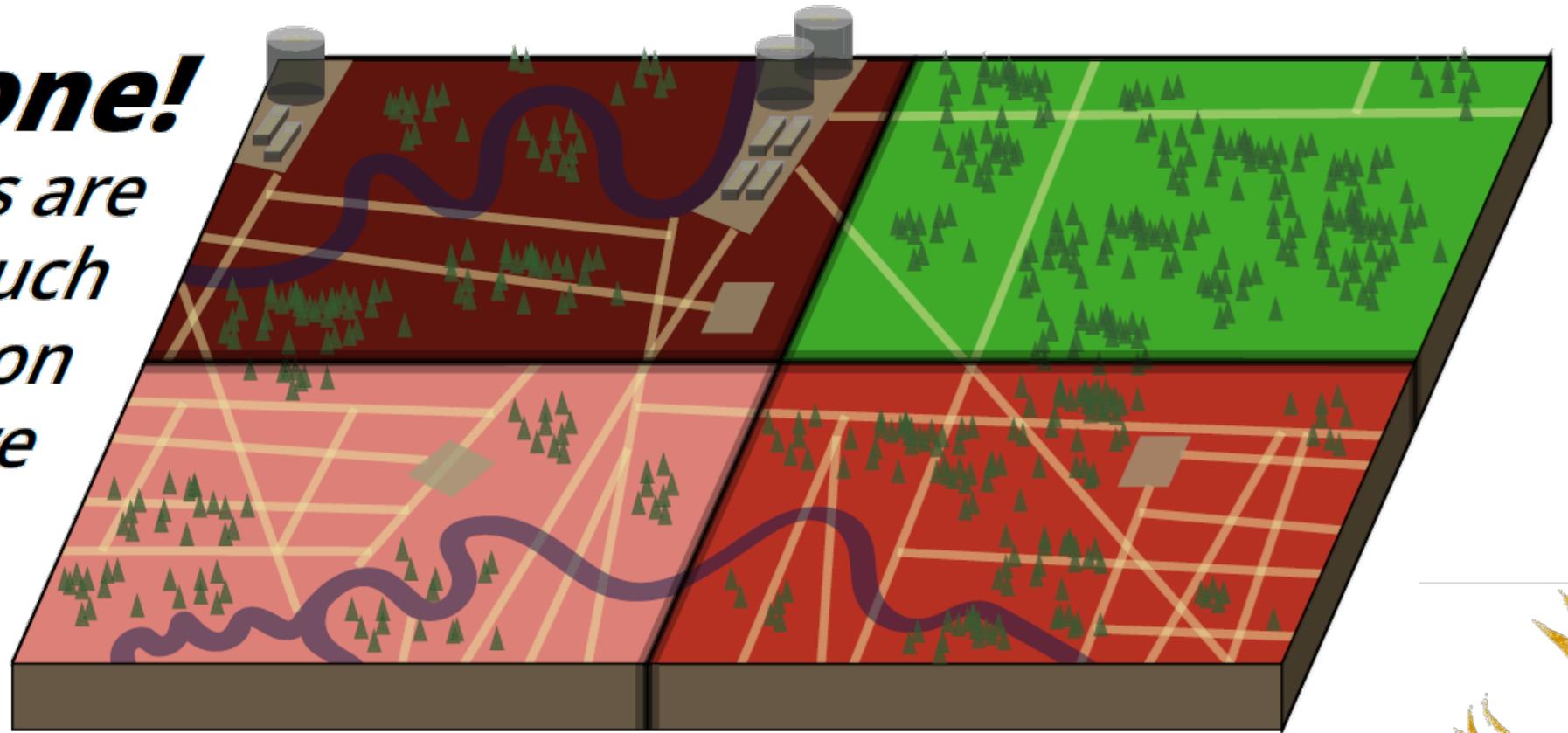
All done!
Areas are prioritized such that restoration efforts are most effective.

priority level:



high

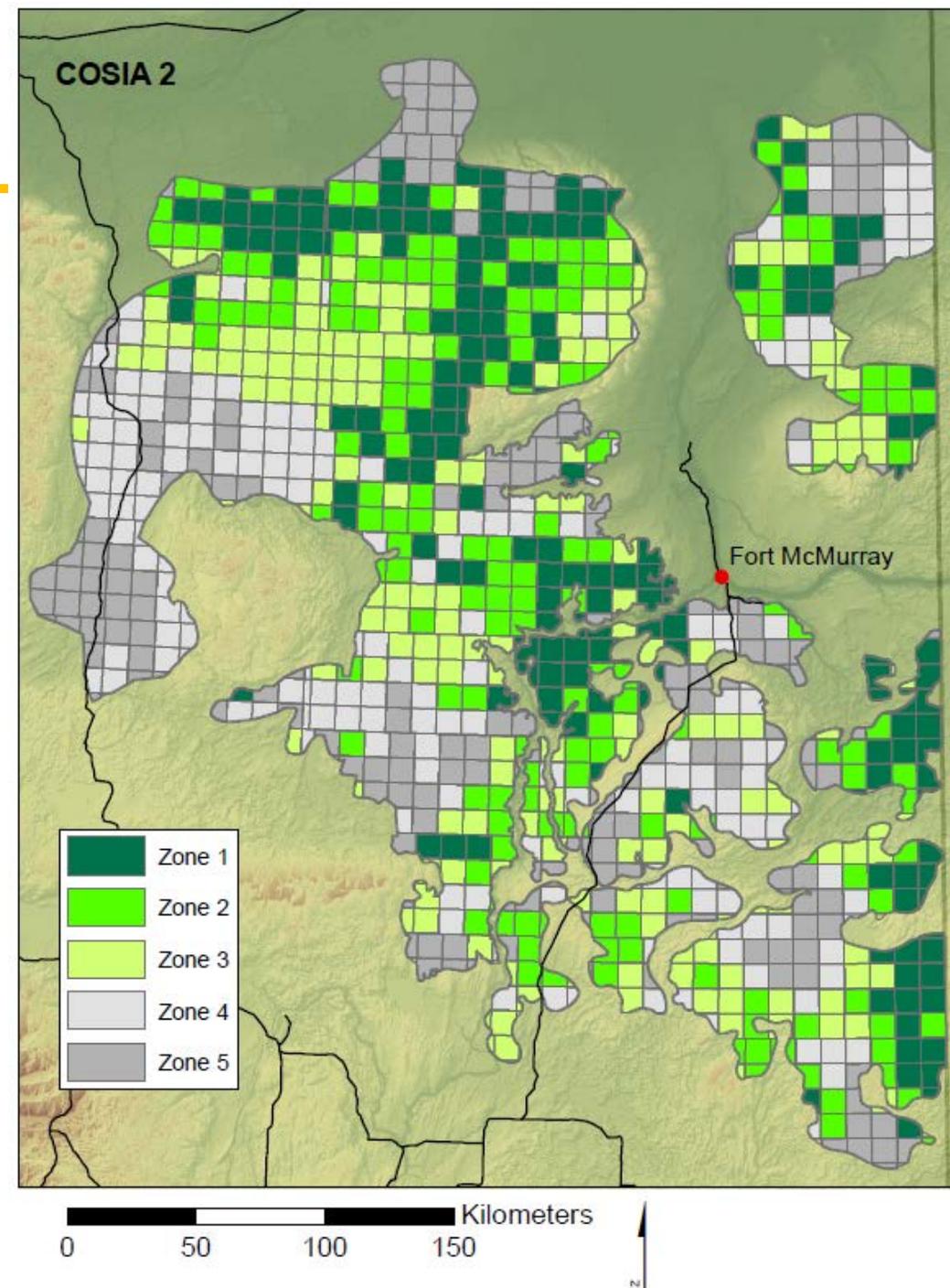
low



CMU

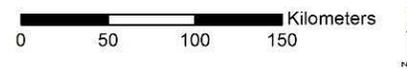
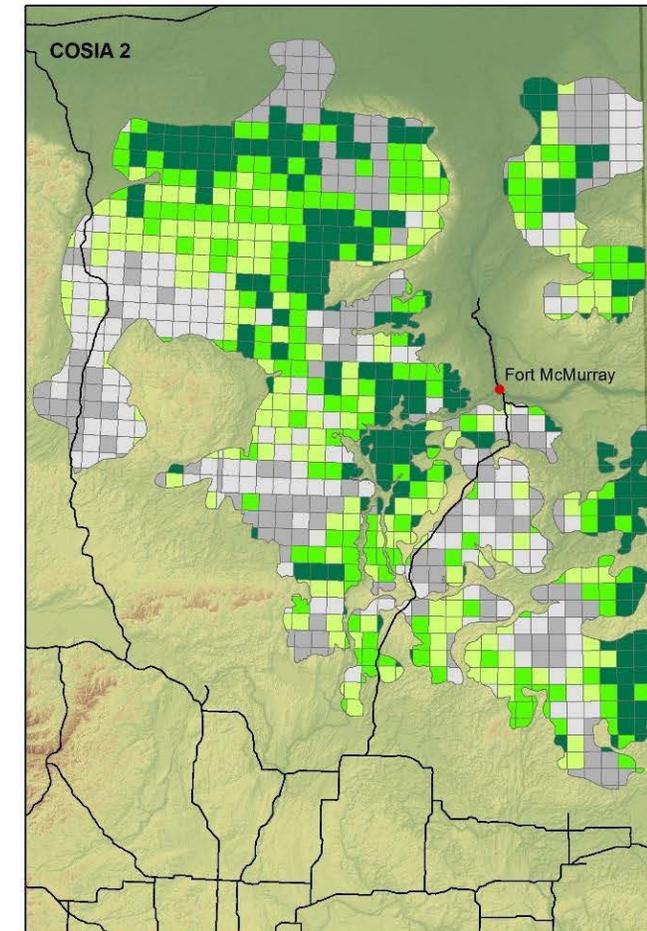
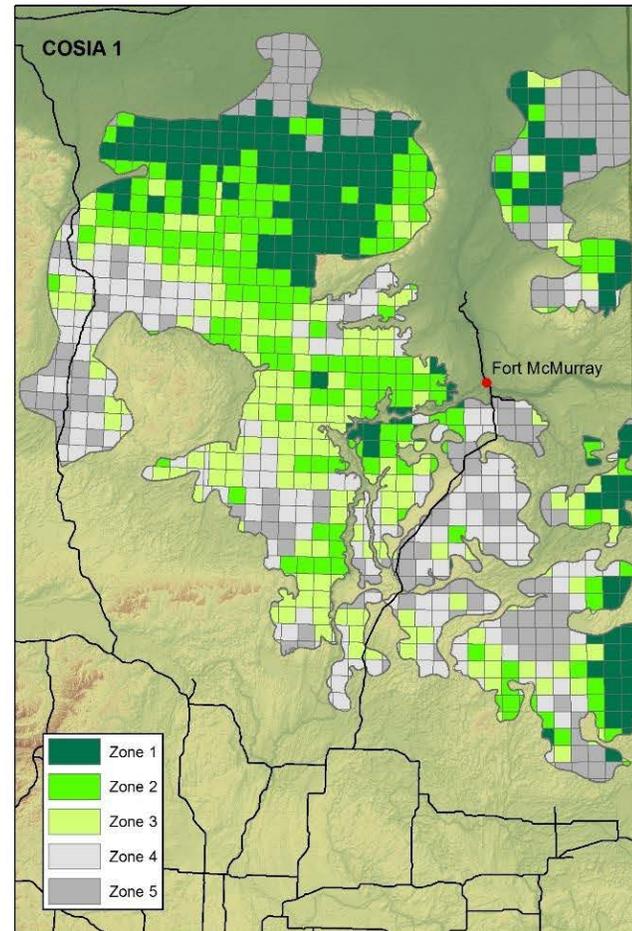
The “End” Result

- Each township is ranked into priority Zones.
- Currently being used to plan restoration programs by RICC



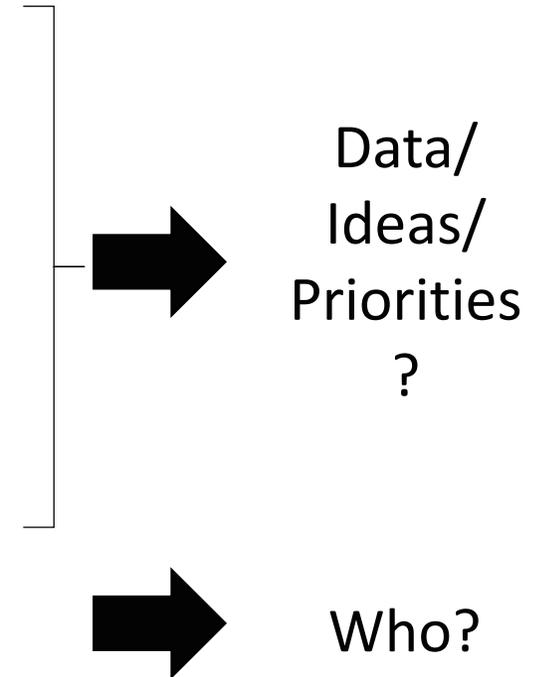
The “End” Result

- Each township is ranked into priority Zones.
- Currently being used to plan restoration programs by RICC
- **THIS IS AN ITERATIVE PROCESS**



What's next?

- Incorporating caribou habitat value
- Multi-scalar
- Future industry disturbance
- Incorporating additional stakeholders/collaborators



Questions?

We are always keen to add to our collaborators

Rely on data collection and scientific input from multiple stakeholders

For more information about our projects, go to cmu.abmi.ca



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Rely on data collection and scientific input from multiple stakeholders

What gaps do you see in our overall research program?

Do you have suggestions for our Prioritization work?

Is there something you are interested in contributing to any of our projects?

Can any of our projects be further tailored to meet new needs?

Do you see a missing link between our science and outreach?

Do you have ideas for how we can better communicate?

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