

Planning and Protecting Water Resources Through Regional Impact Assessment

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Treaty 6 Territory and the Homeland of the Metis

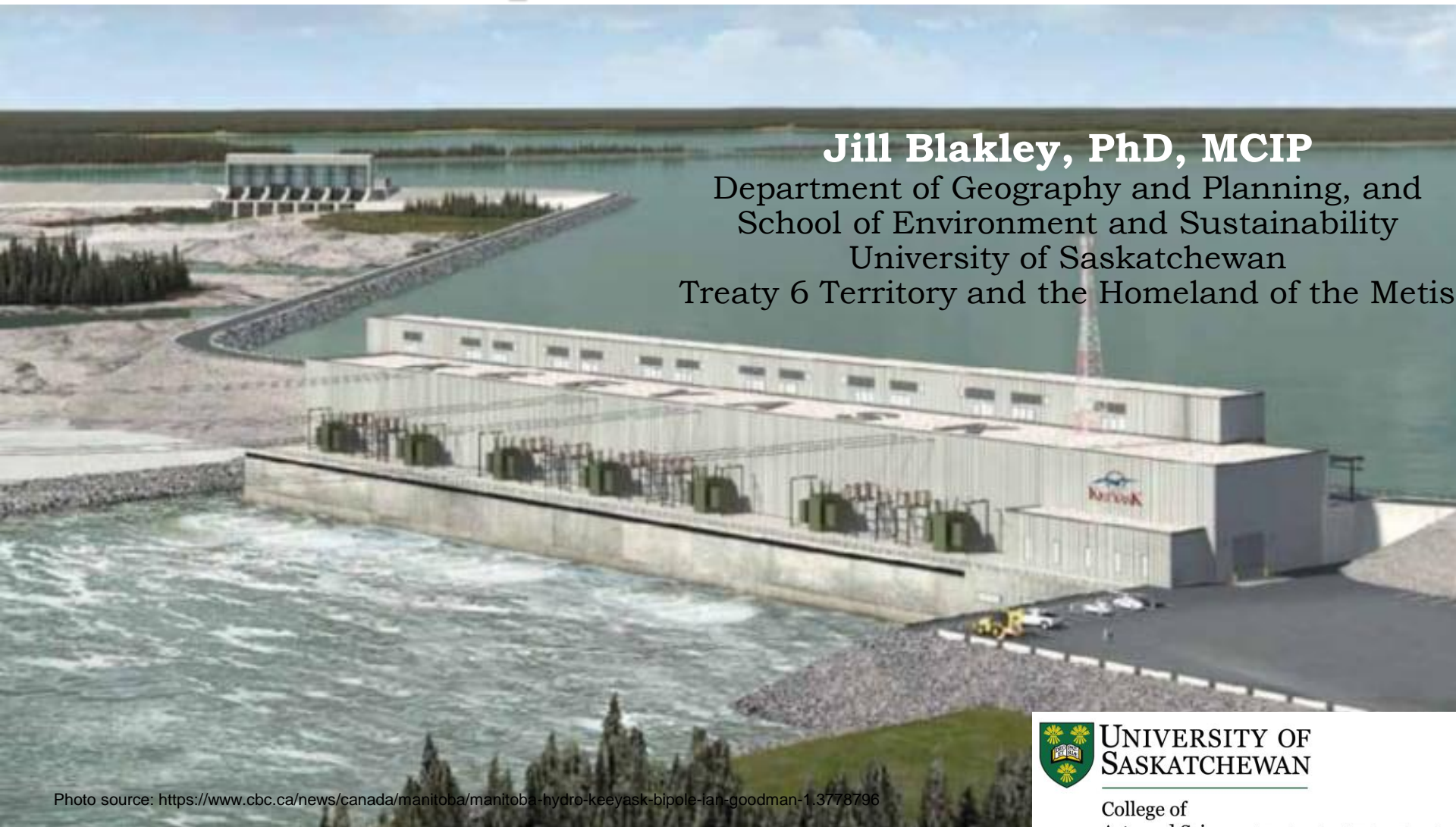


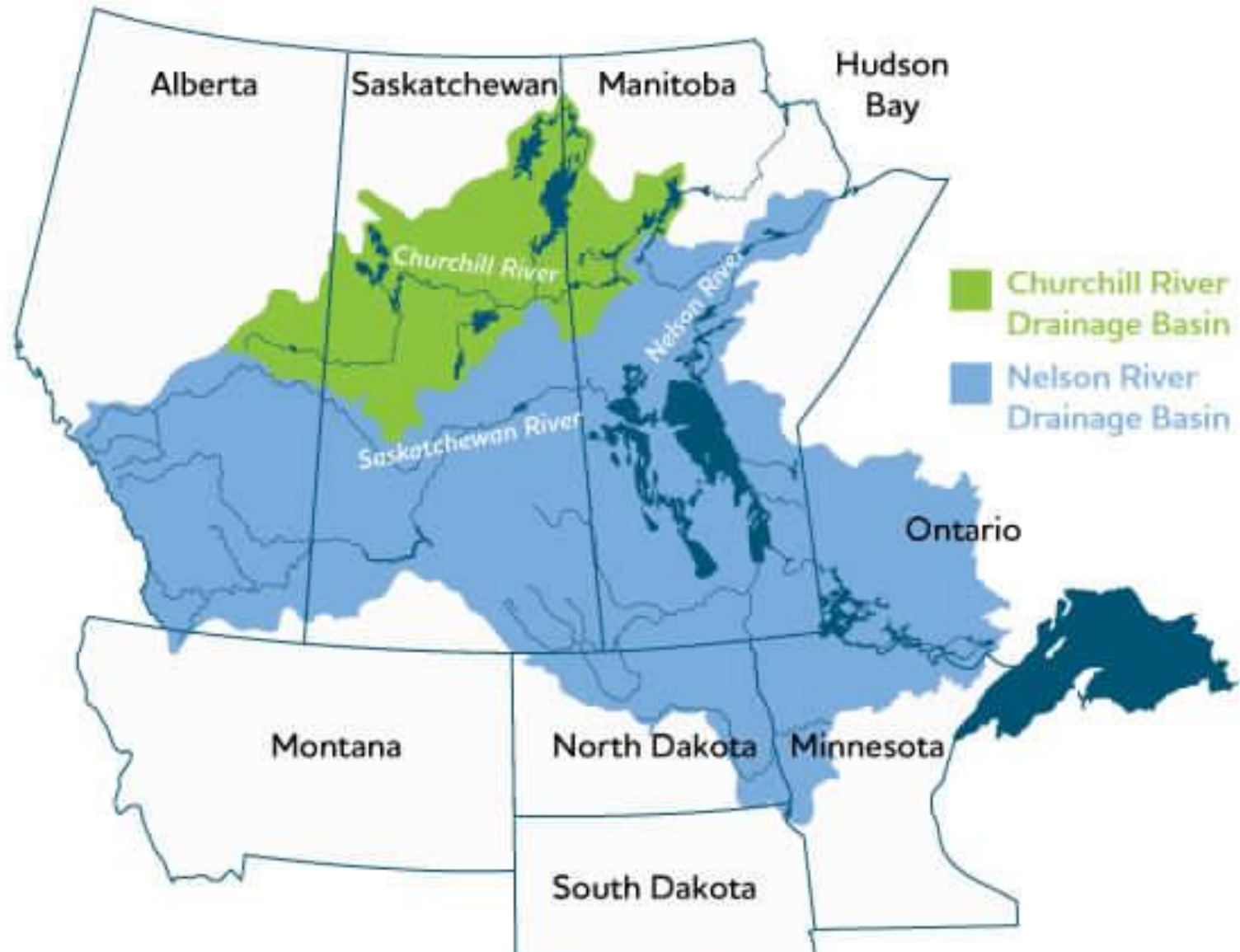
Photo source: <https://www.cbc.ca/news/canada/manitoba/manitoba-hydro-keeyask-bipole-lan-goodman-1.3778796>



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When embarking on regional-scale IA, we have to think carefully...



...about existing development legacy, and the new legacy we desire

Hydroelectric Development in Manitoba – Past, Present, Future

- 1 Burntwood River -**
 Wuskwatim - 200 MW
 First Rapids - 210 MW
 Manasan - 270 MW
 Early Morning - 80 MW

- 2 Laurie River -**
 Laurie River 1 - 5 MW
 Laurie River 2 - 5 MW

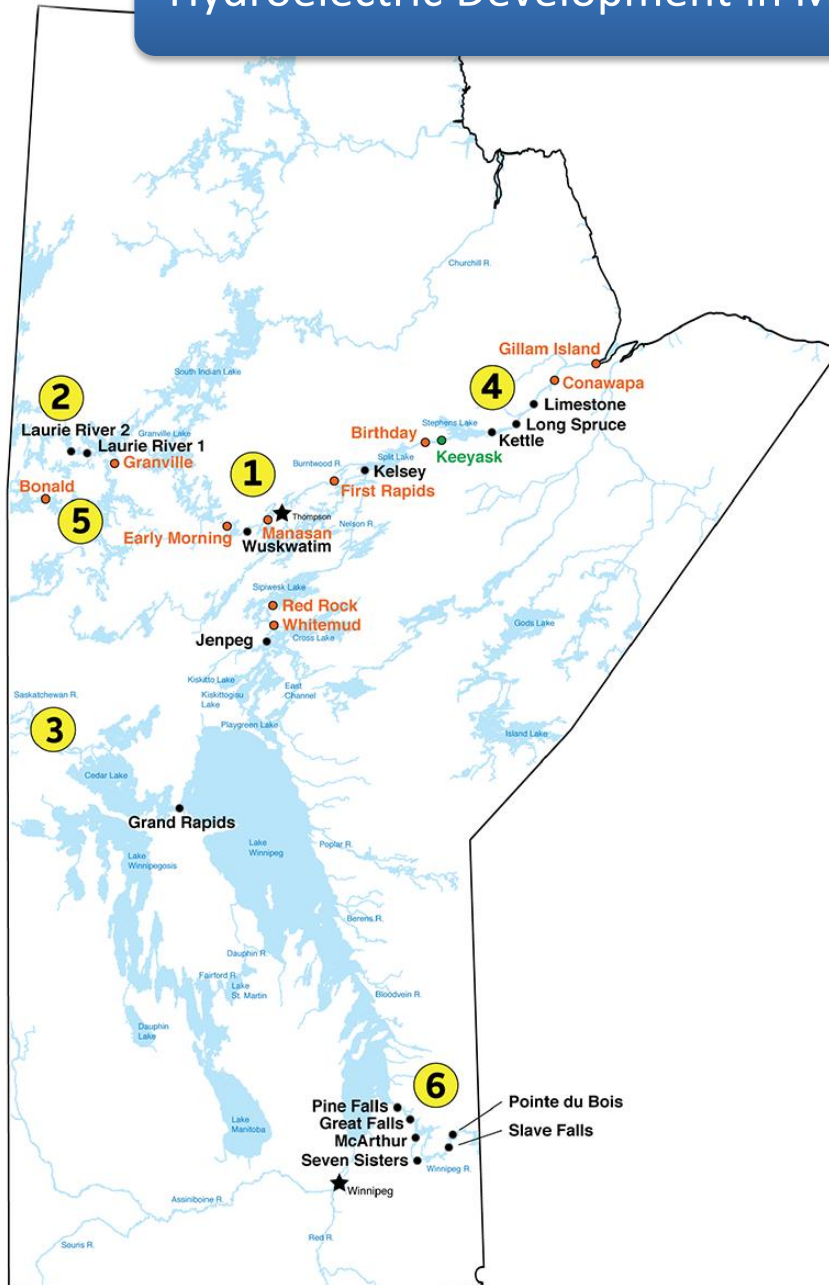
- 3 Saskatchewan River -**
 Grand Rapids - 480 MW

- 4 Nelson River -**
 Jenpeg - 129 MW
 Kelsey - 250 MW
 Kettle - 1,220 MW
 Long Spruce - 1,010 MW
 Limestone - 1,340 MW
 Keeyask - 695 MW
 Conawapa - 1,485 MW
 Gillam Island - 1,080 MW
 Birthday - 380 MW
 Redrock - 250 MW
 Whitemud - 310 MW

- 5 Upper Churchill River -**
 Granville - 120 MW
 Bonald - 110 MW

- 6 Winnipeg River -**
 Pine Falls - 89 MW
 Great Falls - 136 MW
 McArthur - 55 MW
 Seven Sisters - 165 MW
 Pointe du Bois - 77 MW
 Slave Falls - 67 MW

• **Current sites-** 5,228 MW
 • **Under development-** 695 MW
 • **Potential sites-** 4,295 MW



1. Burntwood River:
 200 MW current
 (1 reservoir)
 560 MW future
 (3 reservoirs)

4. Nelson River:
 3949 MW current
 (5 reservoirs)
 4200 MW future
 (6 reservoirs)

5. Upper Churchill River:
 0 MW current
 (0 reservoirs)
 230 MW future
 (2 reservoirs)

Regional Impact Assessment (IA)

Expanded scale better facilitates cumulative effects assessment

Ideally provides decision-making framework & monitoring data

Can be strategic or non-strategic

Can focus on one sector or multiple sectors

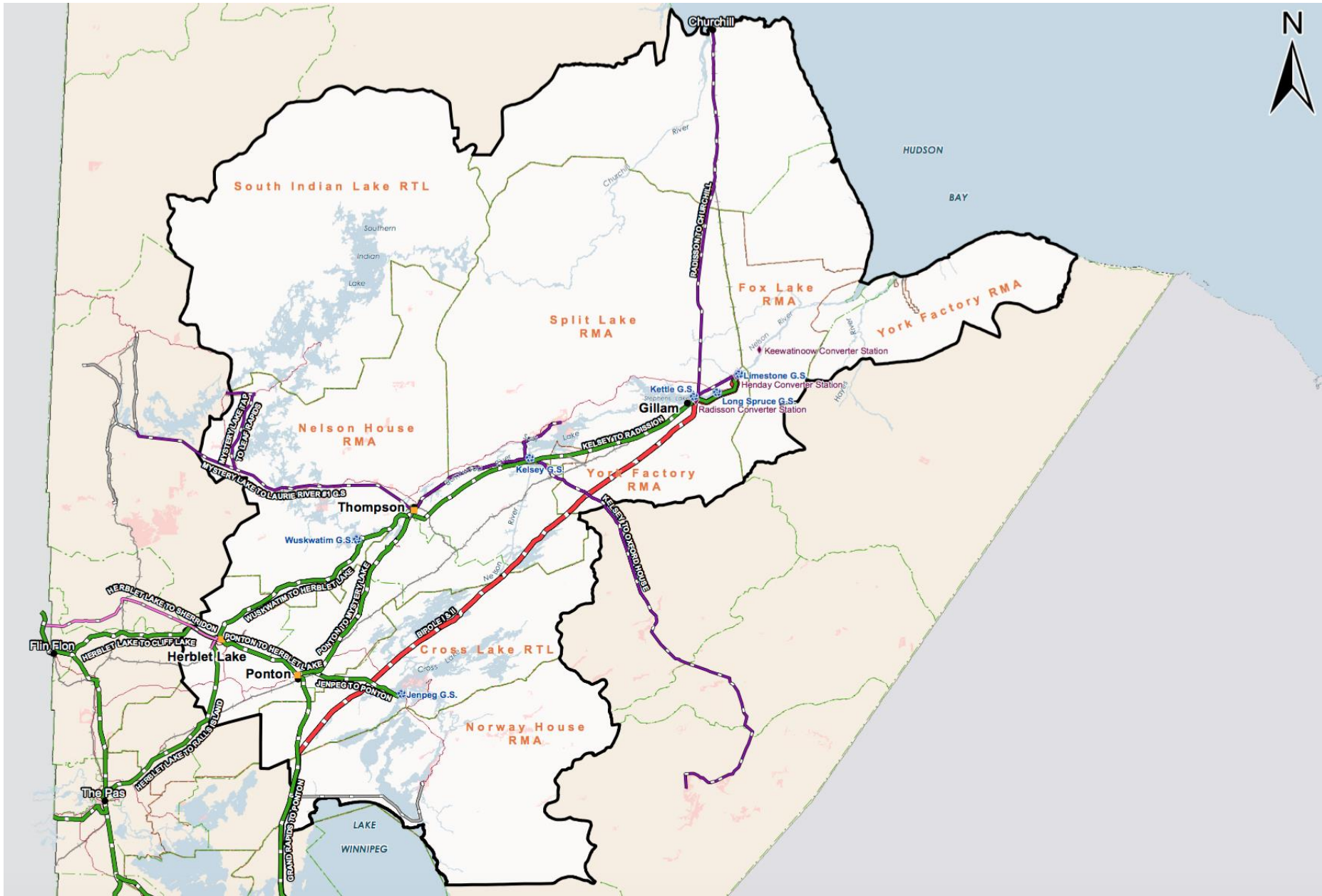
Scale of some single-project IAs so large, they are *de facto* Regional IAs

What were some of the water-related issues in recent regional-scale IAs in northern Manitoba?

What can be learned and applied to Regional IA initiatives in the future?

Case 1. Regional Cumulative Effects Assessment

Manitoba Hydro

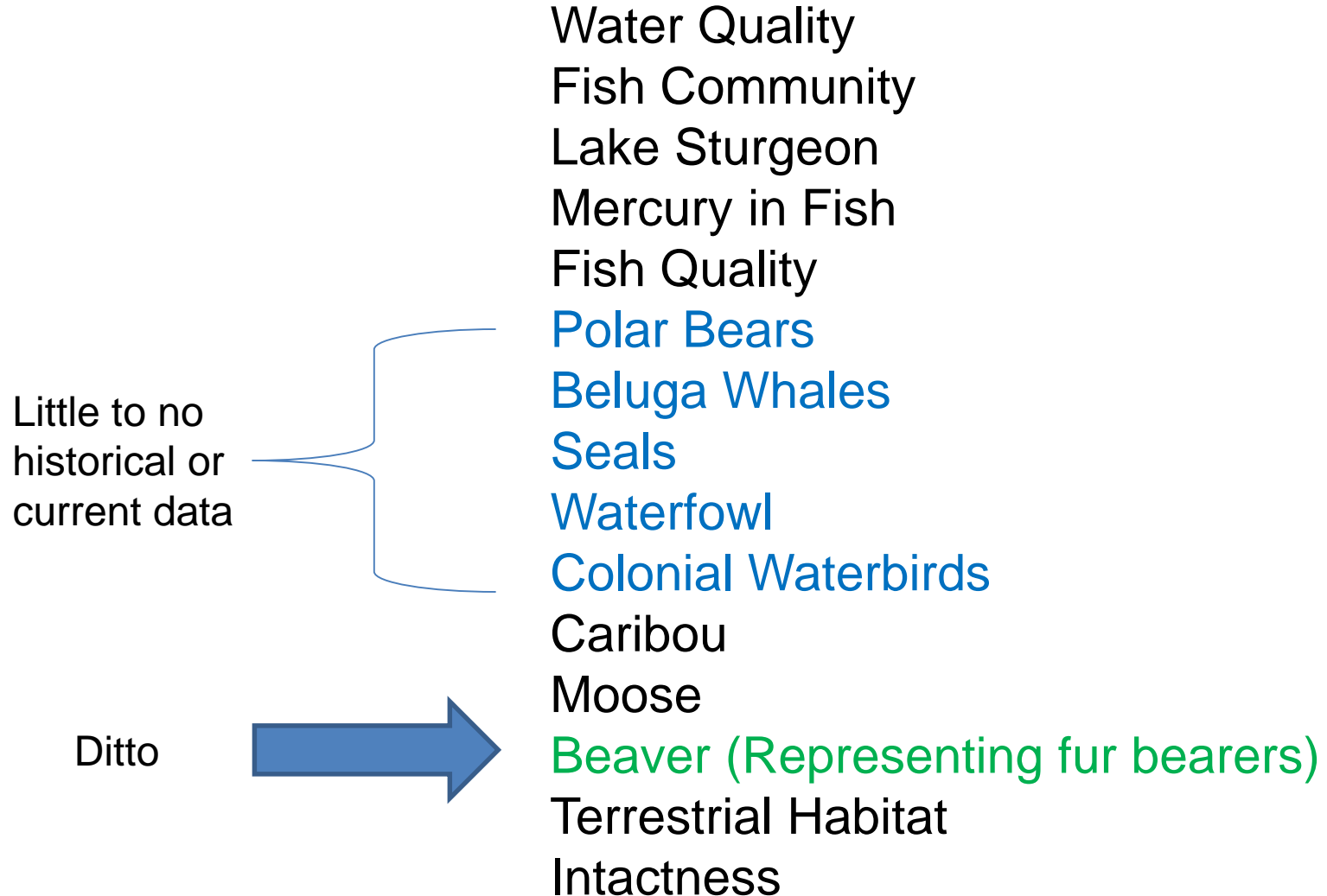


Water-related habitat fragmentation



Significant uncertainty about the cumulative impacts to certain water-dependent species

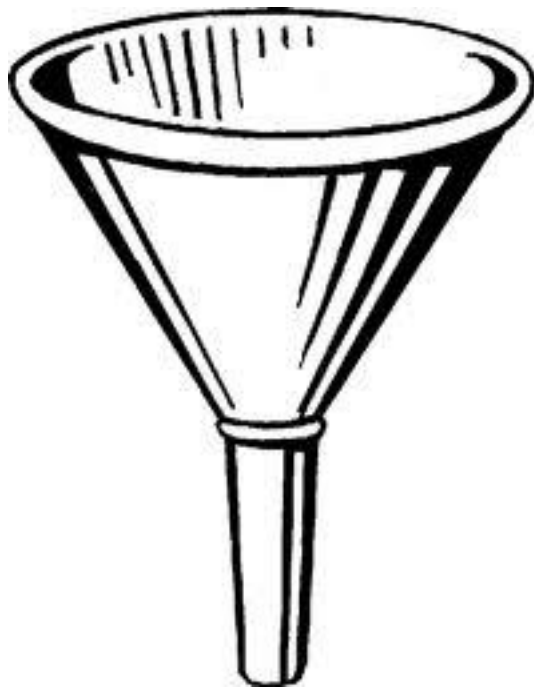
Valued Components - RCEA



Water-related experiential impacts



Ambitious scoping is needed in Regional IA

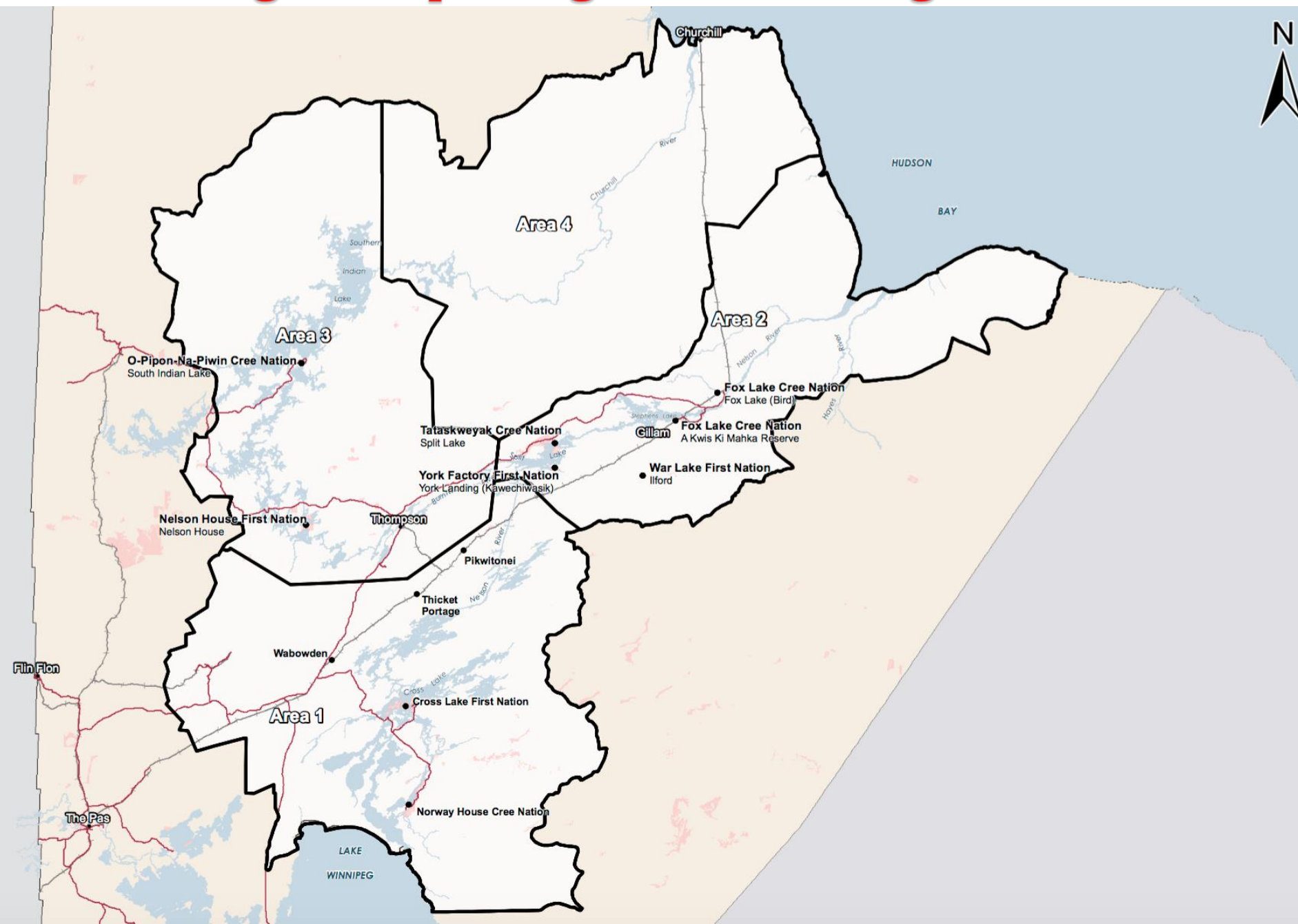


Ambitious



Restrictive

'State of region' reporting needed in Regional IA



Case 2. Keeyask hydro-electric generation project

Manitoba Hydro



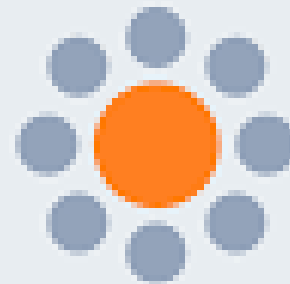
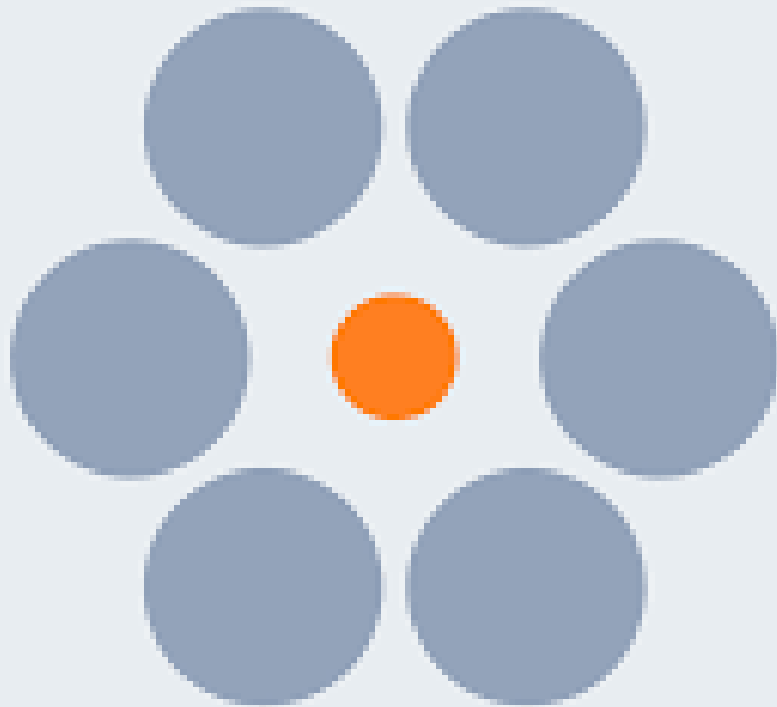
Source: <https://keeyask.com/the-project/project-descriptions/>

What constitutes a future project?



Wuskwatim Generating Station

Expanded scales of analysis can be both a 'good thing' and a 'bad thing'

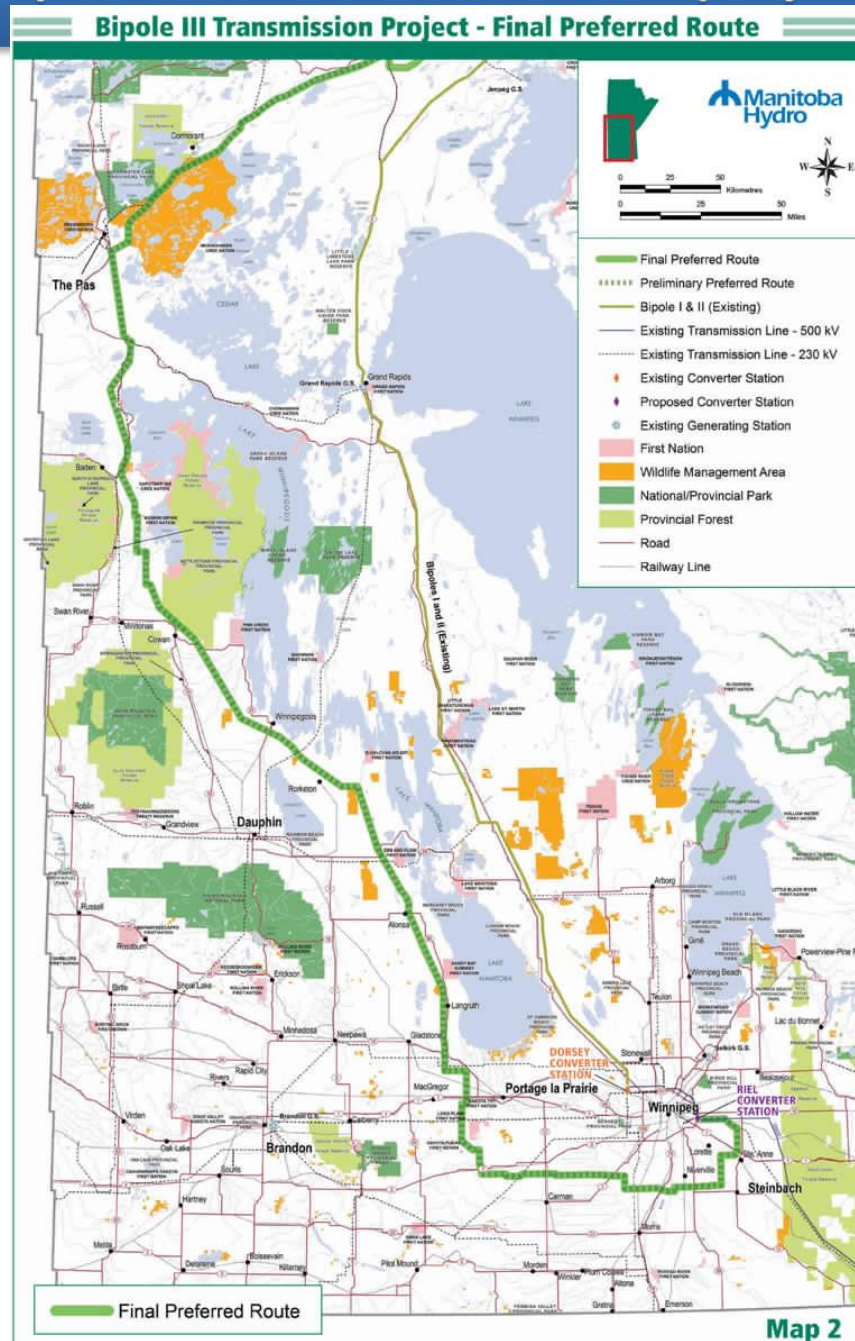


Need for a greater emphasis on indirect effects

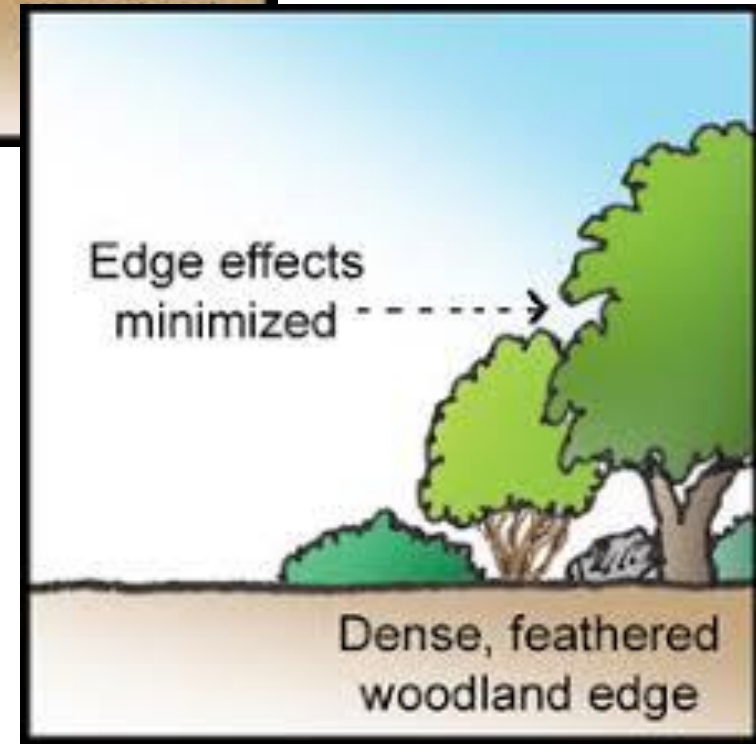
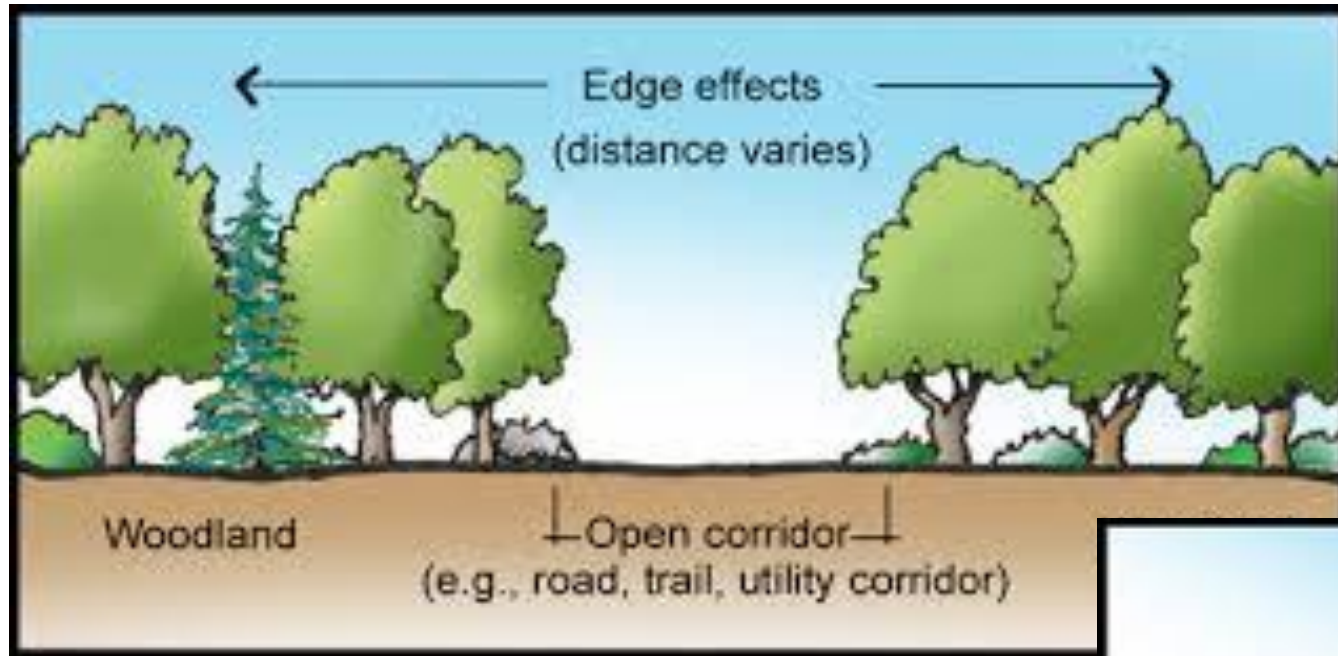


Case 3. Bipole III transmission line project

Manitoba Hydro



Edge effects during operational phase

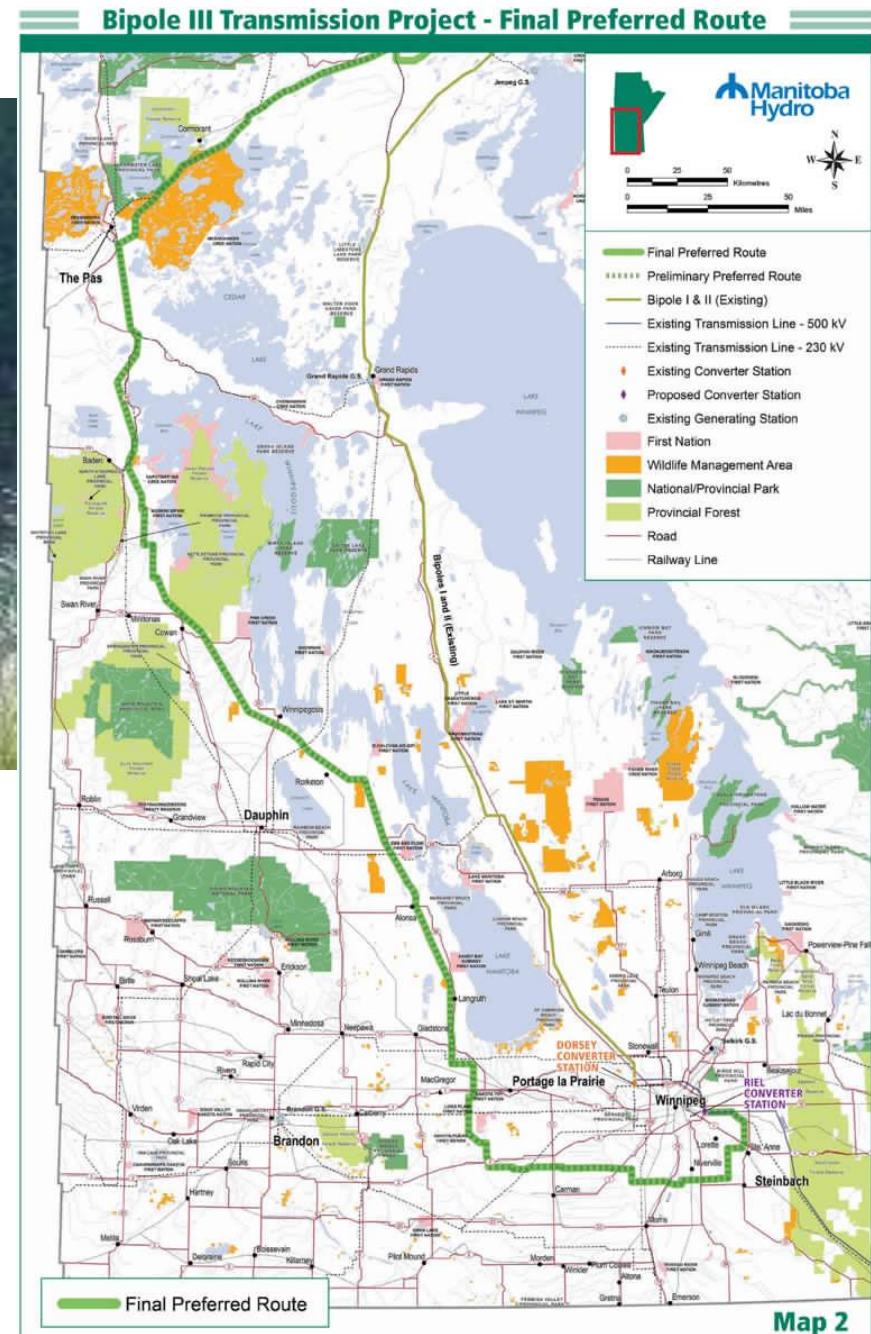


Water access and use



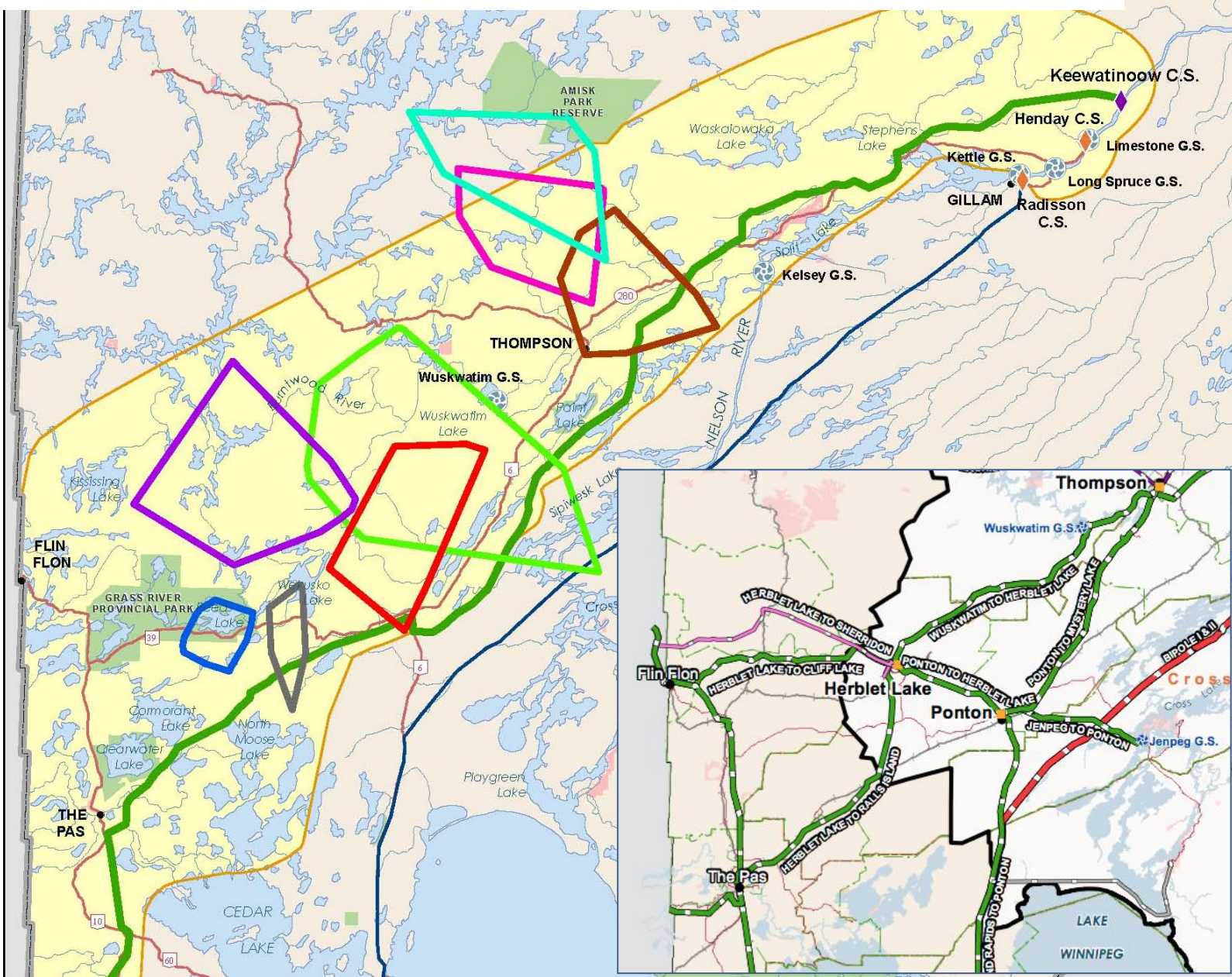
Moose have a known reluctance to cross powerline powerline corridors when coincident with roads (Bartzke et al. 2015)

Sage grouse won't cross powerline corridors to mingle (Ma-Washington 2015)



Some insignificant effects may become significant

Polygons indicate wolf habitat in the vicinity of the Bipole III corridor



Key Messages from Across Cases



1. Goals and opportunities in regional IA are different – ‘project approval +’
2. Water teaches us that scoping must be ambitious, connected, dynamic
3. Issues of water quality, quantity, use and access are universal, and will likely feature strongly in any regional IA
4. Regional IA is not ‘business as usual’

Regional IA

~~should~~

~~can~~

MUST

*be used to inspire a better legacy of both
environmental stewardship and Indigenous
partnership in Canadian resource extraction regions,
and particularly in northern Manitoba*

Thank-you

*Panel Sponsor: Wildlife Conservation
Society (WCS) of Canada*

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