Boundaries in Setting Agri-Environmental Priorities

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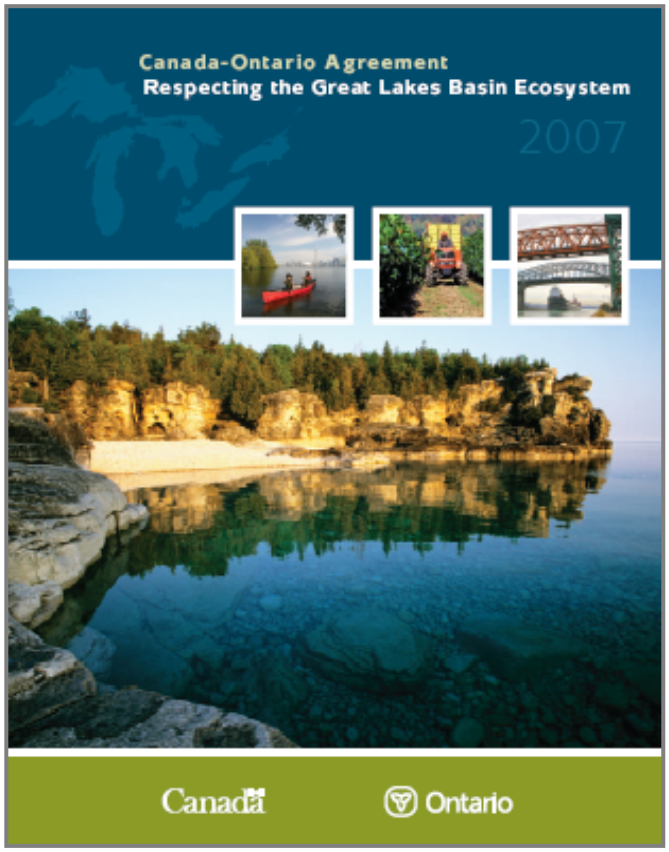
Overview

- Context and description of an OMAFRA Priority Setting Project
- What does this have to do with Boundary Issues in Water Quality Management?
- Example approaches and considerations for setting boundaries / priorities

Main Driver



- Canada Ontario Agreement Respecting Great Lakes Basin Ecosystem 2007
  - **Annex 3** – Lake and Basin Sustainability
    - **RESULT 2.2 -** Reduce microbial and other contaminants and excessive nutrients from rural sources by undertaking actions specified in the binational Lakewide Management Plans and binational lake action plans.

    Canada and Ontario will:

    - a) Identify priority watersheds in lakes Huron, St. Clair and Ontario in order to address water quality and aquatic ecosystem concerns in the near-shore zone;

Raised a Series of Questions

- Priority based on what?
- Whose priority?
- Priority for what?
- What are you prepared to do if you declare somewhere a priority?
- What scale of watershed?
- But each watershed has its own priority issues?
- If going to clean up worst spots, isn't it unfair to "reward" those who have the greatest environmental impact?
- What would make something a Great Lakes priority for OMAFRA compared to OMAFRA's other priorities?

Where do Priorities come from?

- OMAFRA Vision
  - Thriving rural Ontario, agriculture, and food sectors
- OMAFRA Mission
  - A catalyst for transforming our agriculture and food sectors and rural communities for a healthy Ontario
- Our strategic priorities are focused on creating:
  1. thriving agriculture and food sectors;
  2. strong rural economies; and
  3. safe food, healthy animals and a healthy environment

Operationalizing Priorities

Example Definitions of Priority:

- State of coming first in time
- An item's relative importance
- A preferential position allotted to any project, development, or the like, which gives it first claim to the necessary resources
- Giving preference in order of importance
- State of having most importance or urgency and therefore having a ranking above others
- The right or privilege of precedence over others

Implications

- How do you decide what (or who) is more or less important?
- If declare something a priority better be prepared to "back it up" with resources
- Amount and nature of resources available could affect how you set priorities

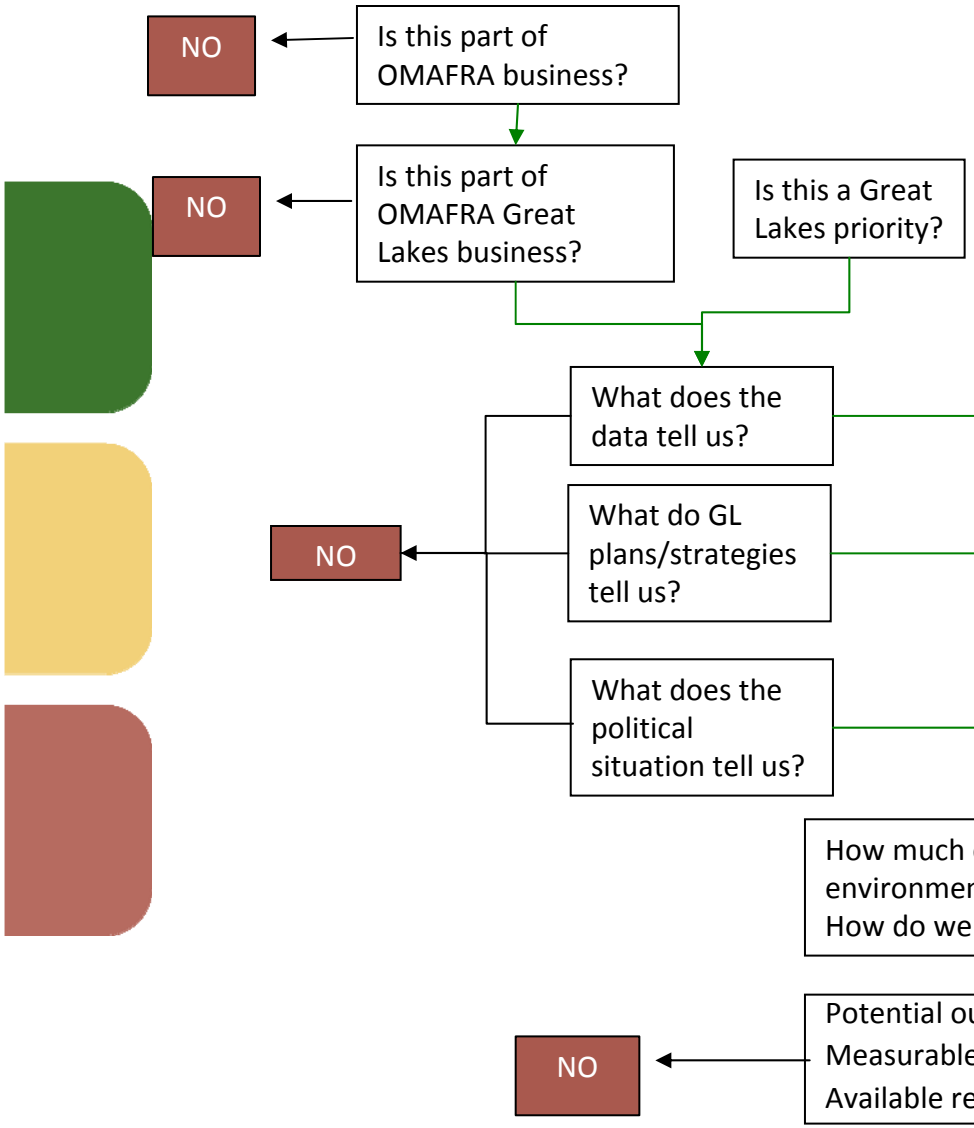
Project

- To develop a decision making framework for agricultural priority issues and watersheds that can aid Environmental Management Branch with internal business processes in evaluating and deploying resources on a geographic and/or issue basis
- Currently focussed on Great Lakes programming but may be relevant to other programs if pilot is successful
- Potential scope:
  - screening internal and external requests for participation on certain projects and determining appropriate levels of involvement by specialists, engineers and analysts
  - program funding criteria, and/or
  - illustrating to OMAFRA staff and partner COA ministries, the OMAFRA considerations in identifying priorities for deploying resources for Great Lakes programming

Project (cont'd)

- Currently
  - consultant hired
  - literature/jurisdictional scan of why and how priorities are set elsewhere is near completion
- Next steps:
  - internal consultation to analyze framework/methodology options
  - potential to engage those outside ministry if potential framework can be agreed upon
  - piloting and analysis of methodology
  - considerations for implementation

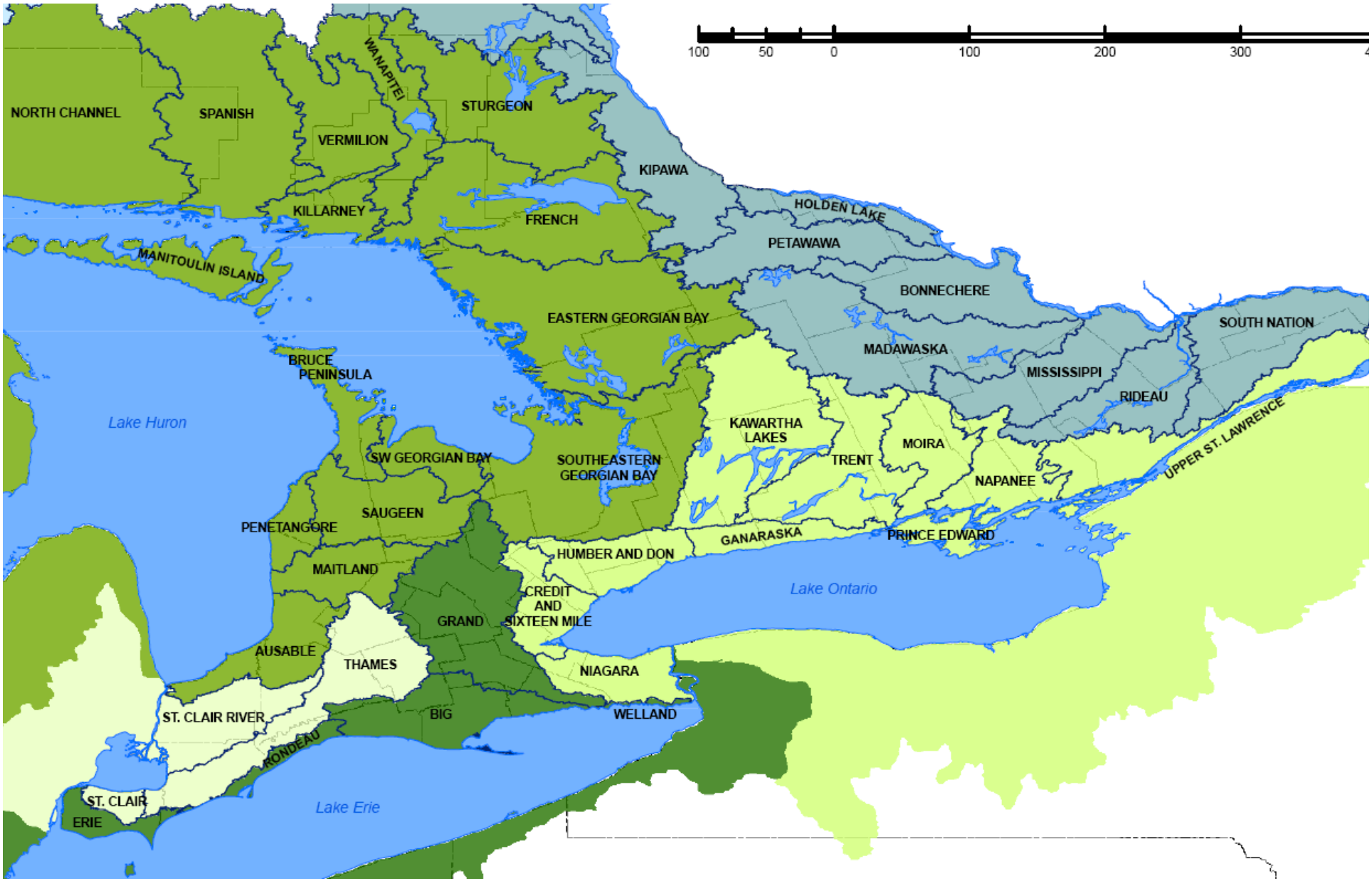
Concept

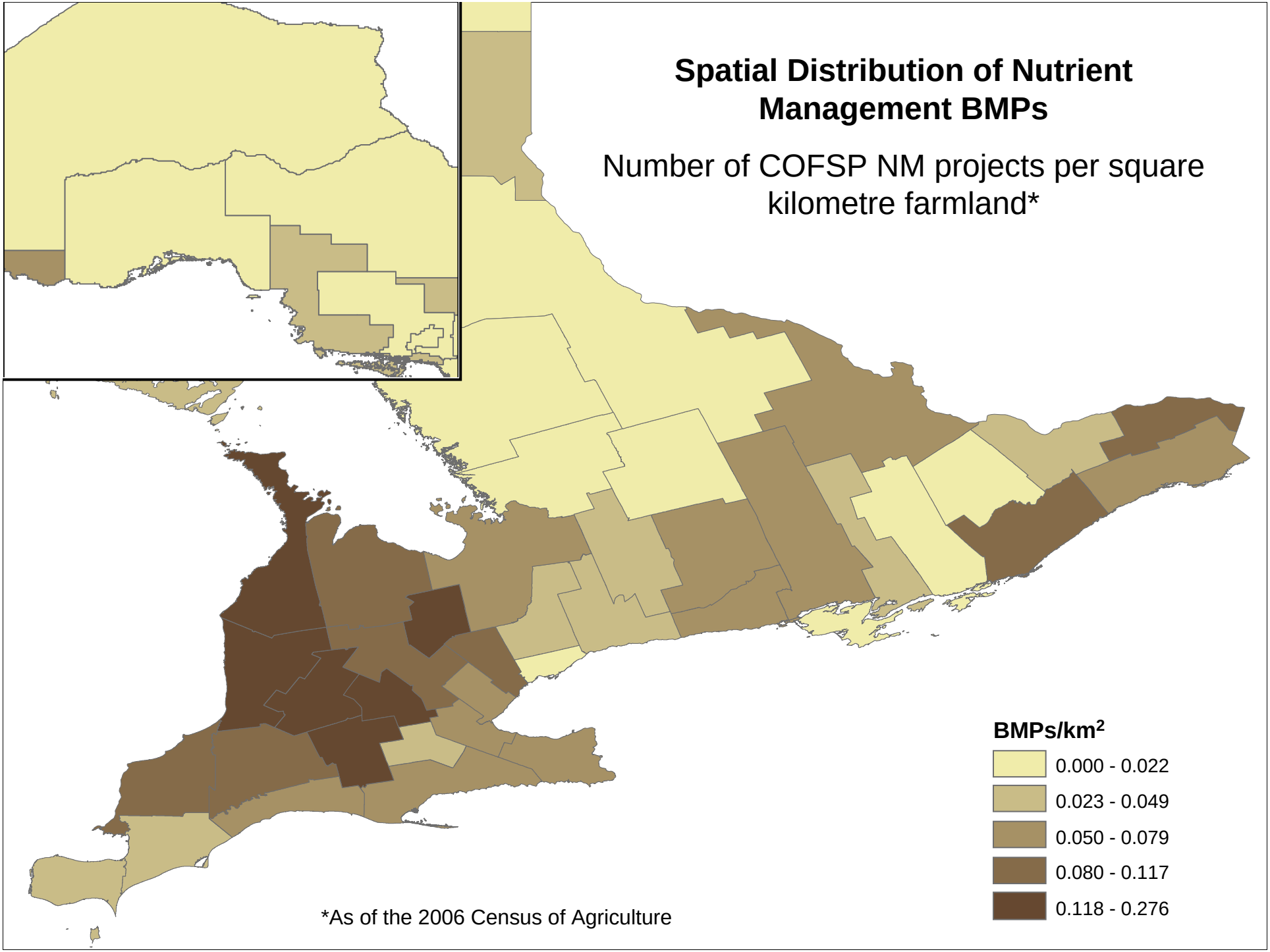


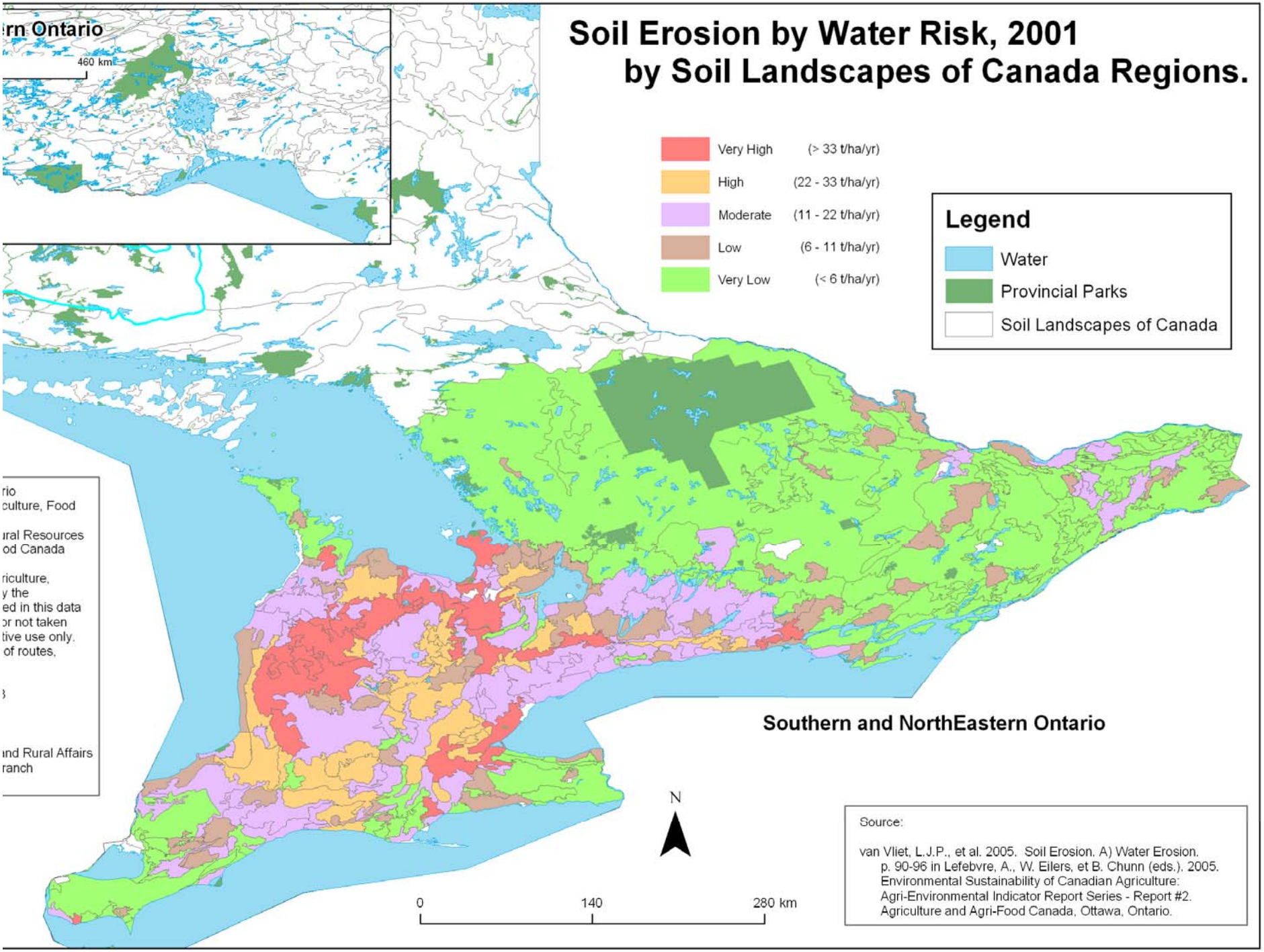
- Decision Making Framework
- Decision Support Tools
  - Data Available
  - Analysis
  - Role for Consultation

- Particularly will be looking at how available information can be utilized

What does this have to do with Boundaries?




Spatial Distribution of Nutrient Management BMPs
Number of COFSP NM projects per square kilometre farmland*
BMPs/km2
0.000 - 0.022
0.023 - 0.049
0.050 - 0.079
0.080 - 0.117
0.118 - 0.276
*As of the 2006 Census of Agriculture


rn Ontario
460 km
Soil Erosion by Water Risk, 2001
by Soil Landscapes of Canada Regions.
Very High (> 33 t/ha/yr)
High (22 - 33 t/ha/yr)
Moderate (11 - 22 t/ha/yr)
Low (6 - 11 t/ha/yr)
Very Low (< 6 t/ha/yr)
Legend
Water
Provincial Parks
Soil Landscapes of Canada
rio
culture, Food
ural Resources
od Canada
riculture,
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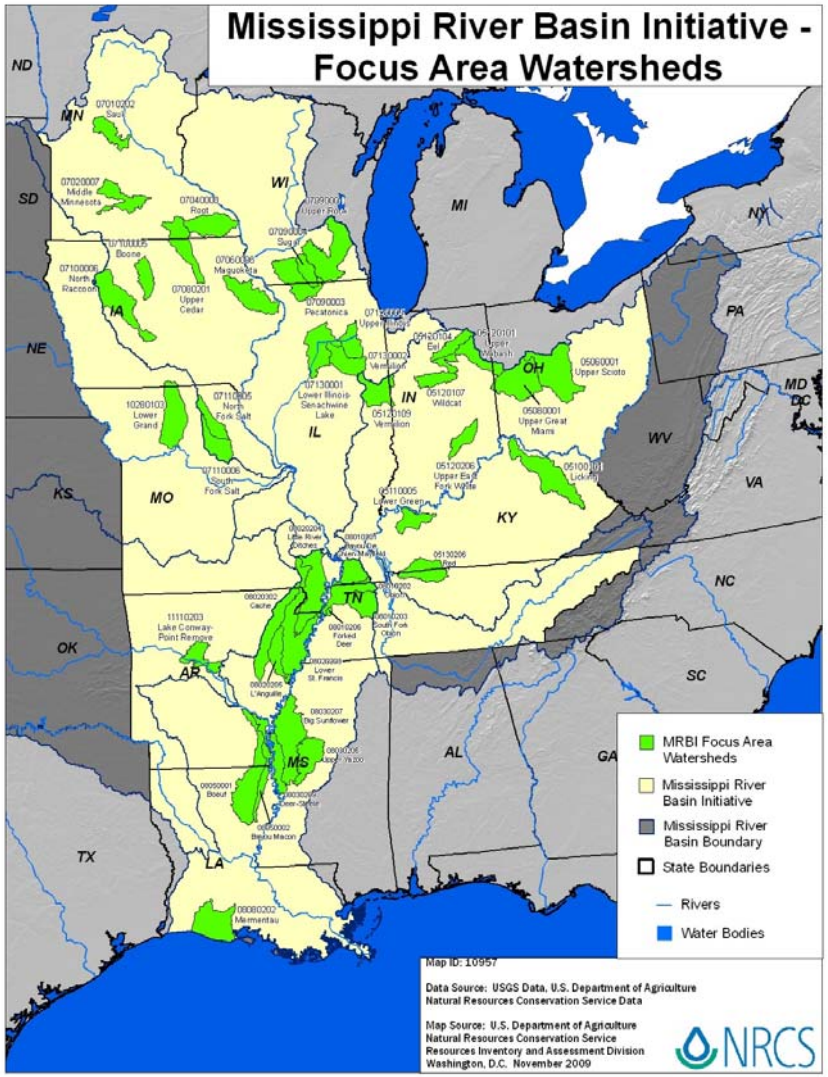
ed in this data
or not taken
tive use only.
of routes,
nd Rural Affairs
ranch
Southern and NorthEastern Ontario
N
0
140
280 km
Source:
van Vliet, L.J.P., et al. 2005. Soil Erosion. A) Water Erosion.
p. 90-96 in Lefebvre, A., W. Eilers, et B. Chunn (eds.). 2005.
Environmental Sustainability of Canadian Agriculture:
Agri-Environmental Indicator Report Series - Report #2.
Agriculture and Agri-Food Canada, Ottawa, Ontario.

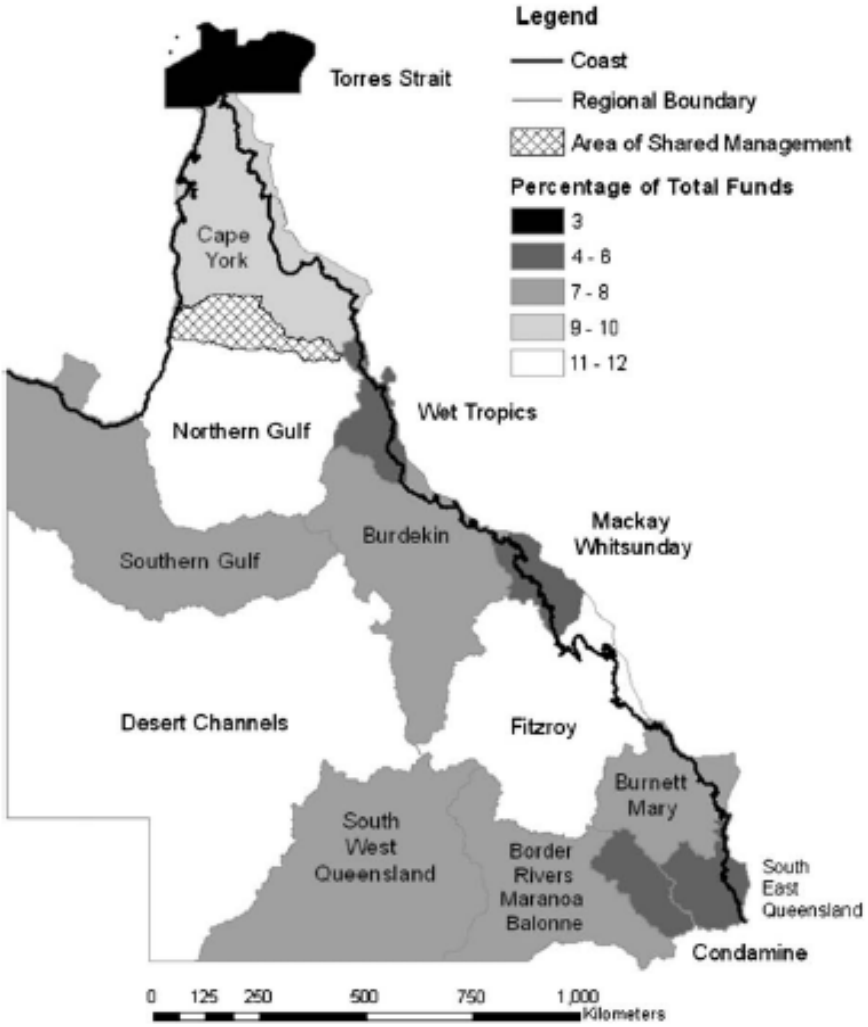
Approaches to Setting Priorities



United States

- Channel USDA funding to areas that have the greatest impact on addressing Taskforce Priorities (reduce nitrogen runoff and leaching to reduce hypoxic zone), while balancing state and local priorities at the same time
  - E.g. erosion control, wildlife habitat, air quality, grazing systems
- 12 States select three watersheds each for increased focus and funding
- Indexes use biophysical parameters
  - Interstate Allocation Index uses 31 weighted parameters (EQIP)
  - Environmental Benefits Index uses 6 weighted parameters (CRP)

Approaches (cont'd)



Australia

- Natural Heritage Trust Program
- Multi-criteria analysis used to allocate funds between 14 regions in Queensland
- Financial capability of each region to address natural resource management issues was equalized
- Criteria and importance determined through consultation with members of 14 boards
- Included criteria to represent:
  - Ecosystem health
  - Soil and water quality
  - Geographic extent
  - Population pressures
  - Indigenous natural resource management
  - Economic importance of agriculture
  - Area of heritage sites

Considerations

- Setting priority geographies, Sets boundaries
- Potential for misunderstanding, disappointment, disagreement

Current thinking on approach:

- Minimize complexity to improve communications and likelihood of understanding and acceptance
- Use objective data well to be defensible and logical
- Incorporate input from stakeholder representatives to build credibility and acceptance
- Priorities not just between watersheds but also within each watershed
- Plan for framework and tools to be adaptable and repeatable
- Consider both environmental and economic aspects of sustainability; future opportunities and current “problems”
- Use multiple criteria to meet multiple objectives, thus maximizing use of available resources and opportunities to leverage resources

Conclusion

- Have to cross the boundary between environmental and economic realms if going to be credible with stakeholders and sustainable in the long term
- Instead of thinking of priority setting as creating boundaries, can we use the discussion, data and analysis to cross and align boundaries

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