Enhancing Cumulative Effects Management in Canada

A GIS-based tool for federal project identification

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Need for a Federal Tool

- All projects have a contribution to cumulative effects
- Annually 5000–6000 projects undergo federal EA
- EAs conducted in a widely distributed manner
- No tool connects information on projects for CEA
- EA Registry an underutilized information source
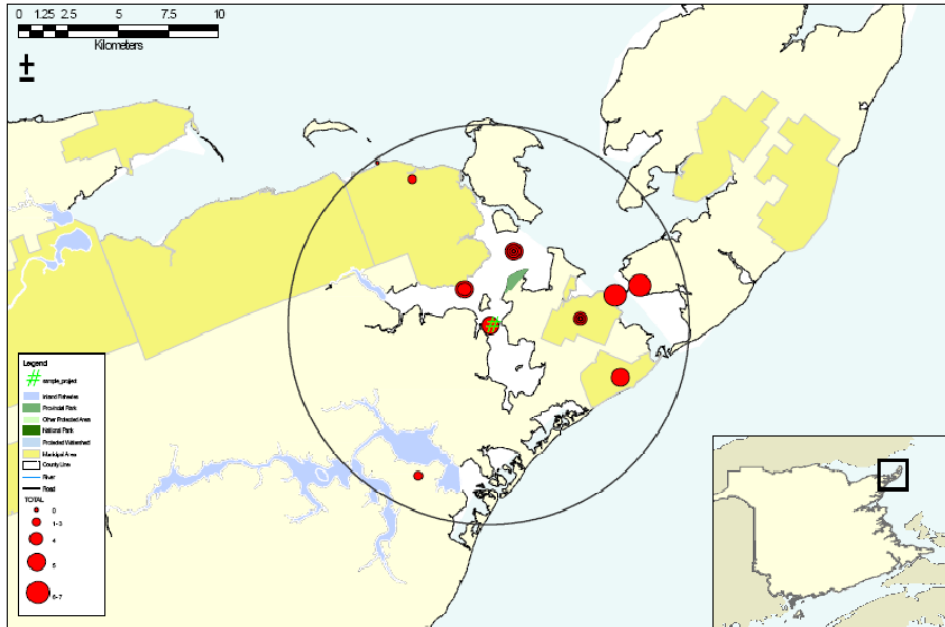
Canadian EA Registry

- Public registry for all federally reviewed projects
- Available Registry data is underutilized
  - \>30,000 projects registered
  - 60+ pieces of information for each assessment
  - Georeferenced by city, latitude/longitude
- Registry currently has limited mapping capability, no analysis tools
- Purpose of Registry information is for public awareness, not analysis

Development of the Tool

- Literature review on characteristics and challenges to CEA

- Registry data entered into a GIS

- Projects mapped and analyzed on basic key criteria

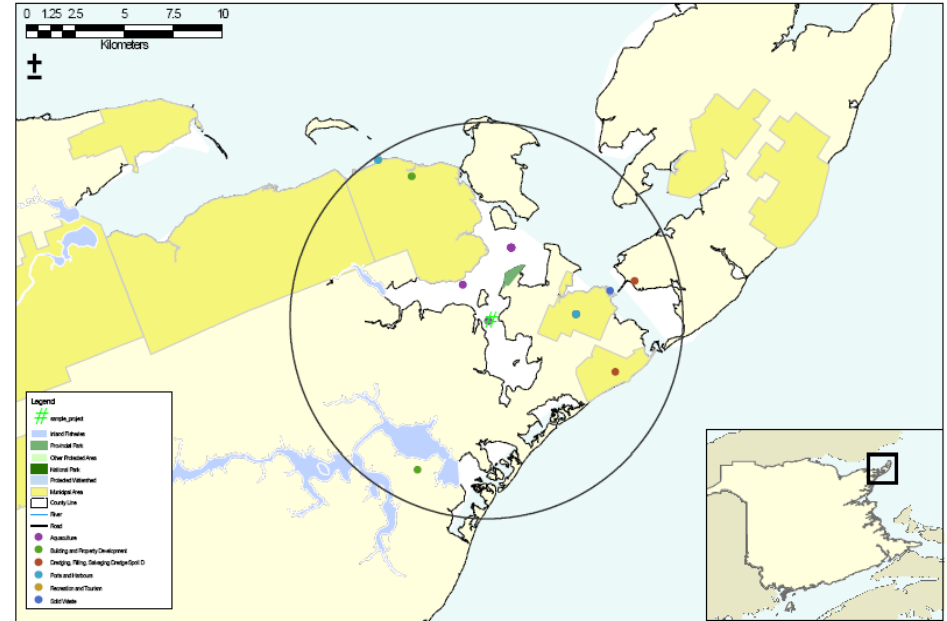- Cumulative effects addressed at project, VEC, and regional levels

Project-Level Focus

Valued Environmental Component Focus

CEARIS Projects within 3km of the Saint John River by Project Descriptor 2004-2006

CEARIS Projects within 5km of Kouchibouguac National Park, by Project Descriptor 2004-2006

Idealized Spatialization of Information Resources
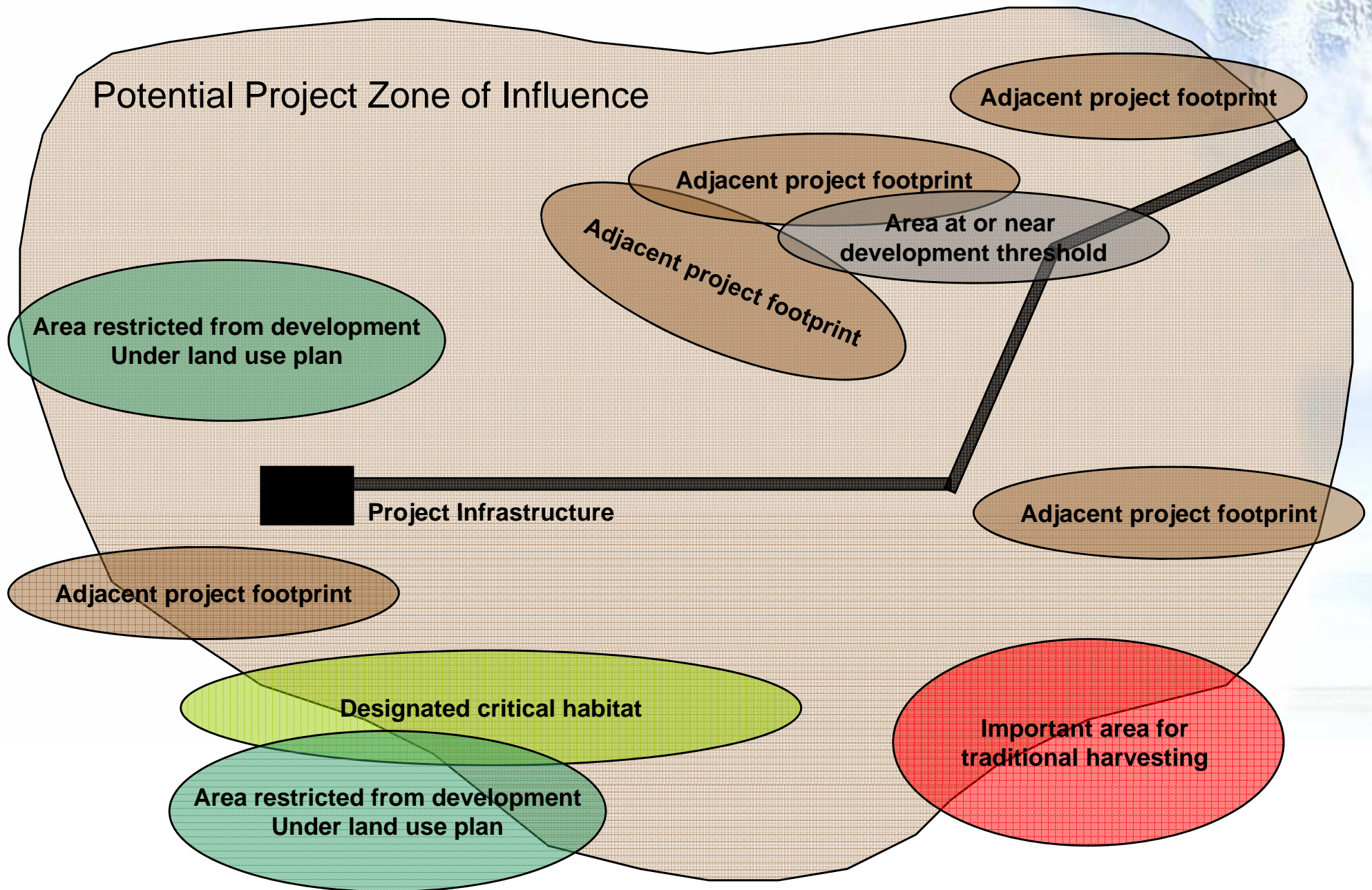
Regional Focus
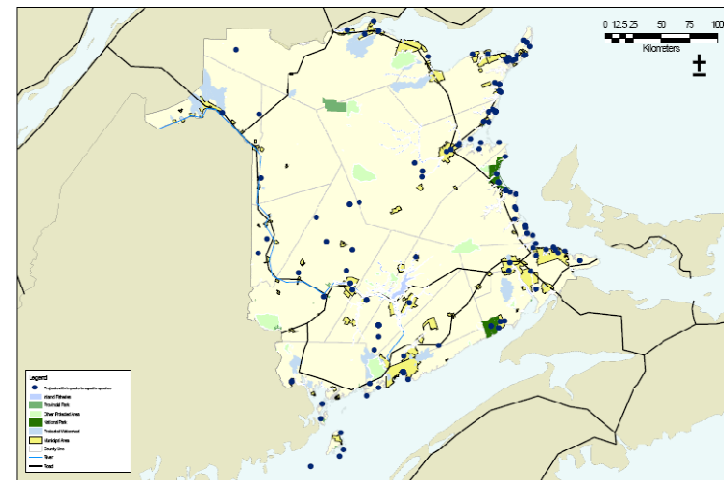

New Brunswick projects with impacts to air 2004-2006

New Brunswick projects with impacts to aquatic species 2004-2006
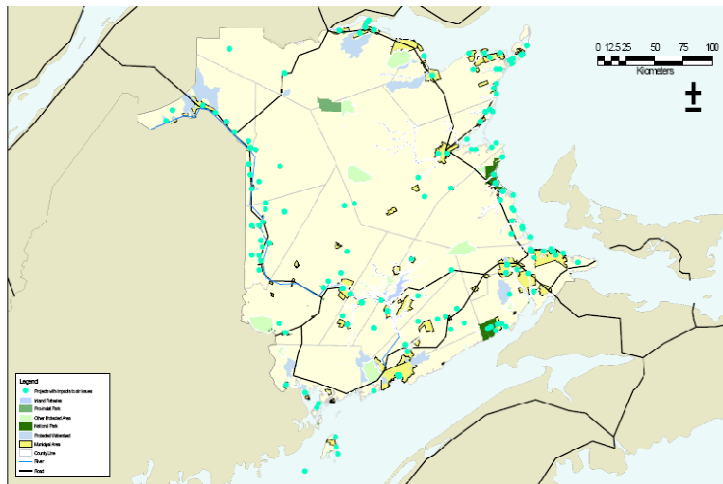
New Brunswick projects with impacts to terrestrial issues 2004-2006

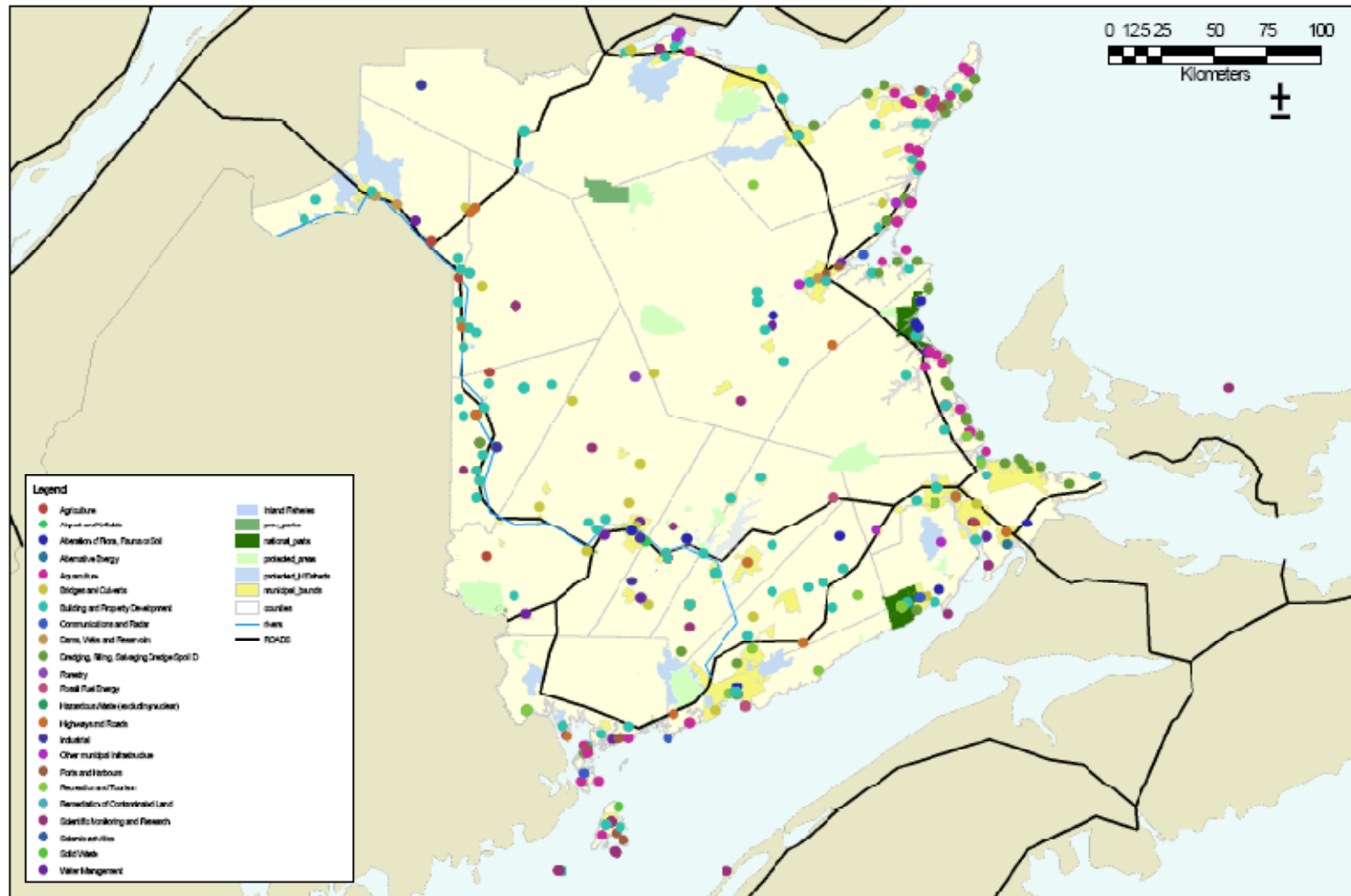New Brunswick projects with impacts to vegetation issues 2004-2006
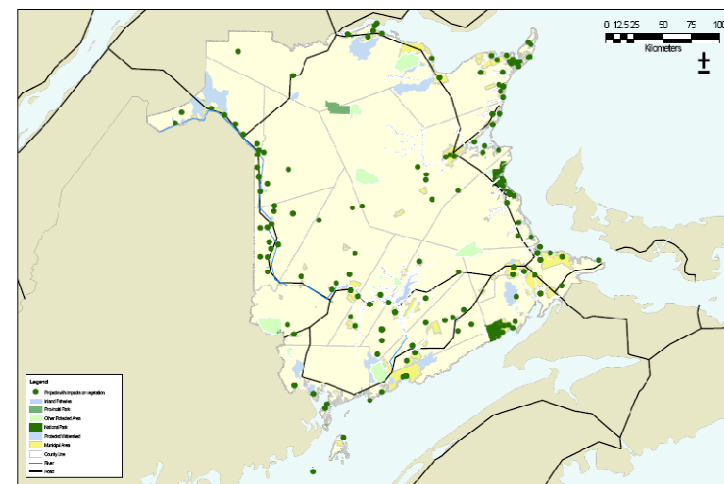
Regional Focus

Cumulative projects affecting environmental components 2004-2006
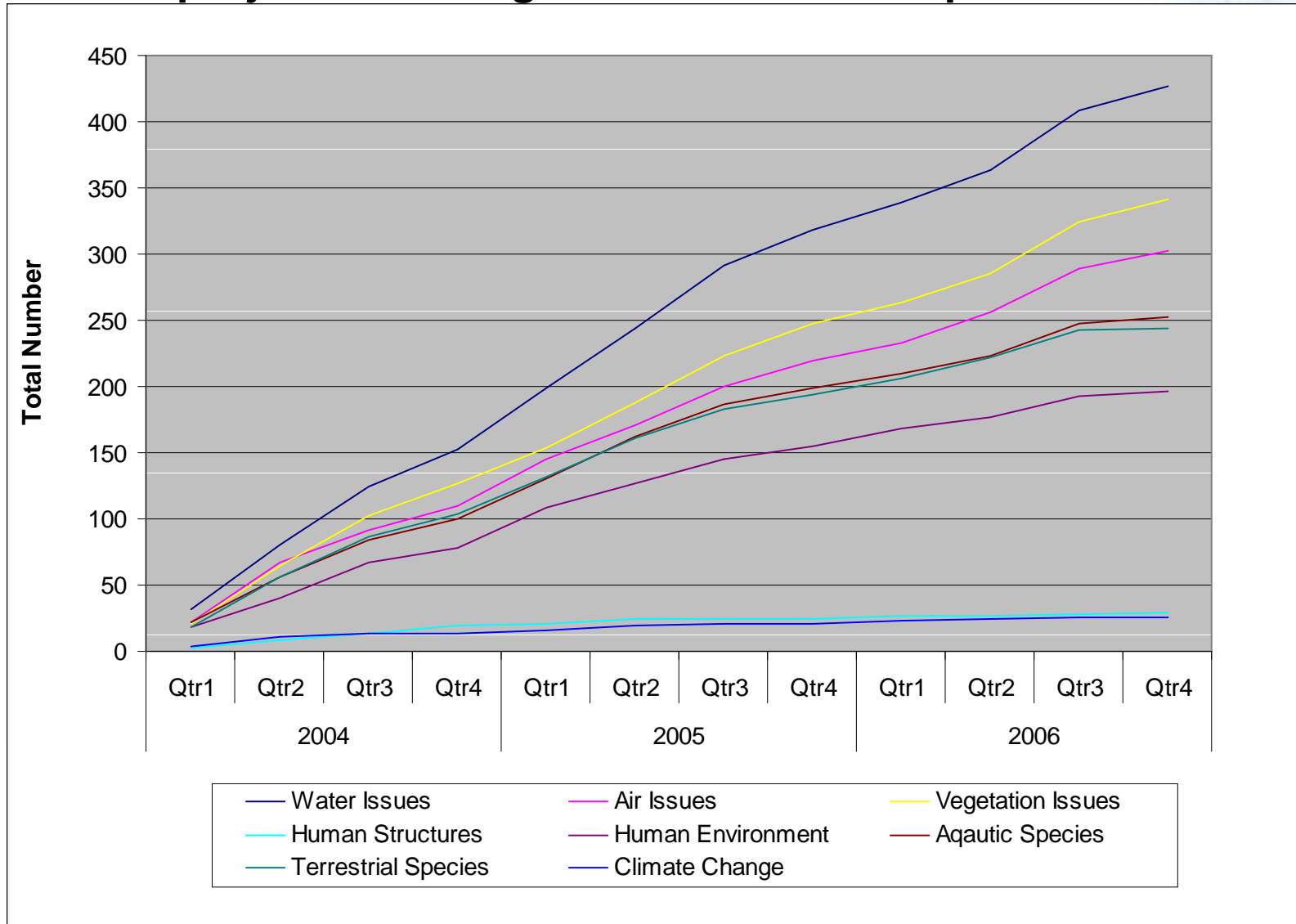
Sectoral Results

New Brunswick projects by CEARIS Project Descriptor 2004-2006

Implementation Considerations

- Ability to address some characteristics and challenges of CEA
- Some key issues not addressed on EA data alone
- Project data is used to scope assessments, consider interconnectedness
- Simplicity of tool can act to improve institutional capacity
- **Areas for improvement remain**

Recommendations

- Improve current georeferencing
- Capture specific project & impact information
- Include monitoring data for analysis
- Link to other systems, initiatives
- Web-enable Registry to allow access by practitioners, public, interested parties

Integrating other data resources

- Provincial EA resources
- Regional thresholds and restrictions
  - Land use plans
  - Conservation/range management plans
  - Lack of established thresholds a key gap
- Socio-cultural registers
- SARA recovery plans and critical habitat
- 'Spatializing' the information resources

Conclusions

- Registry data showed potential for analysis

- Most useful as tool for CE scoping

- Improvements to available data would improve tool for CEA

- Links can and should be made to other data resources and systems