

Development and Implementation of Ecosystem Health Indicators in a Bi-National, Multi-Jurisdictional Setting

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Background

- Great Lakes Basin home to 33 million people
- 18% of the World's surface fresh water
- Home to 45% of Canadian industry
- Drinking water source for 8.5 million Canadians
- \$150 Billion in trade

Background

- Governance is complex:
 - 2 federal governments
 - 8 states
 - 2 provinces
 - Hundreds of municipalities
 - First Nations / tribal lands

Indicator Development

- Great Lakes Water Quality Agreement, 1987, calls for the development of ecosystem health indicators
- Canada and the US in 1994 held the first State of the Lakes Ecosystem Conference (SOLEC) to report on the state of the Great Lakes

Indicator Development

- After the 1996 conference, the process of selection of a suite of indicators began
- Needed a consistent, predictable information base on which to assess the state of the Great Lakes Basin ecosystem

Indicator Development

- Some 850 indicators were selected for possible use
- Expert panel / work groups consisting of Canadian and US experts, were established.

Indicator Development

- Work on indicators in the Great Lakes indicators has involved >150 people from all levels of government, industry, academia, ENGOs, First Nations

- Reviewed indicators grouped under:
 - Nearshore / open water
 - Coastal wetlands
 - Terrestrial nearshore
 - Human health
 - Land use
 - Stewardship / societal

Indicator Development

- By 1998, the suite had been reduced to 80 potential indicators, BUT
- Gaps in ecosystem components existed, and were filled resulting in a suite of about 100 Great Lakes indicators

Reporting

- Reports on 33 indicators in 2000
- Reports on 45 indicators in 2002
- Call for a small number of “key” indicators for public reporting

Present Status

- Over 100 indicators now
- Need to drop some that will not be monitored
- Research for others
- Develop indices for public reporting

Conclusions

- An open transparent system for developing the indicator suite has resulted in broad acceptance of the indicator process and suite of possible indicators