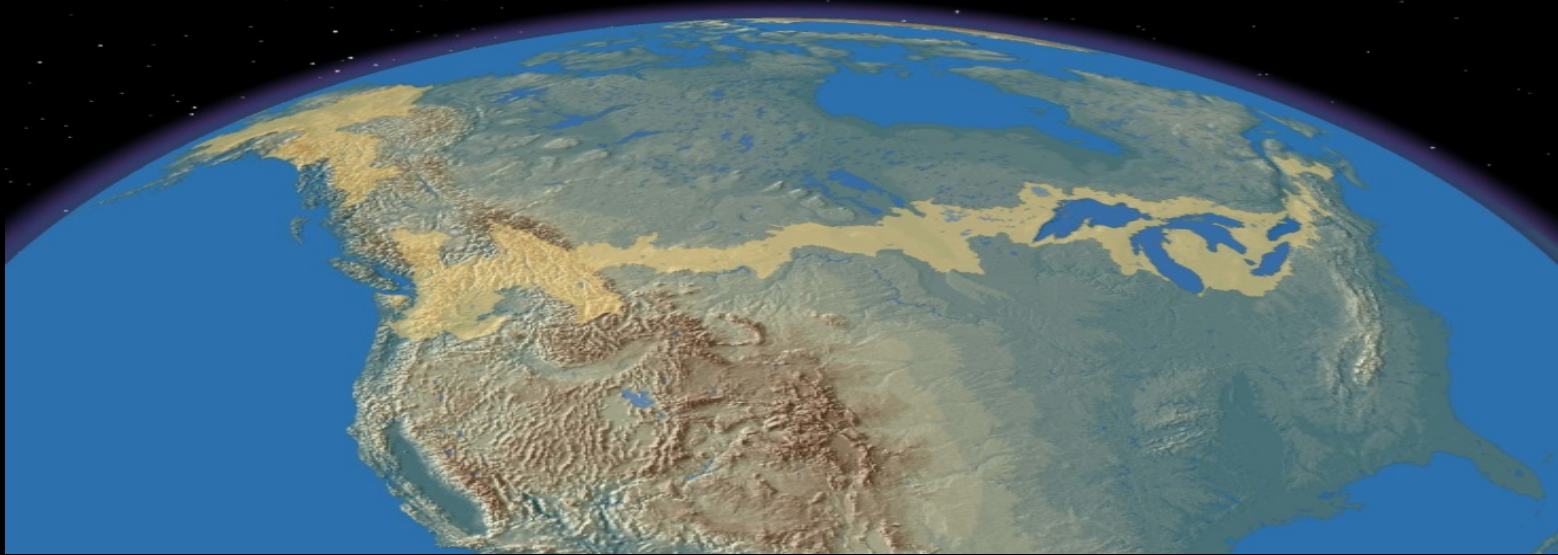


The International Watersheds Initiative of the International Joint Commission



**Presentation at the
Woodrow Wilson International Center for Scholars
Charles Lawson and Willem Brakel
July 23, 2009**

IJC Centennial Celebration Niagara Falls, June 13, 2009

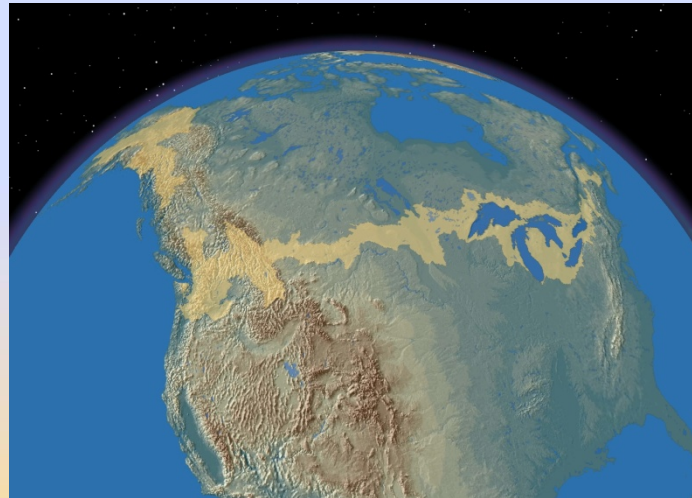




International Watersheds Initiative

40 percent of the border between the U.S. and Canada is water

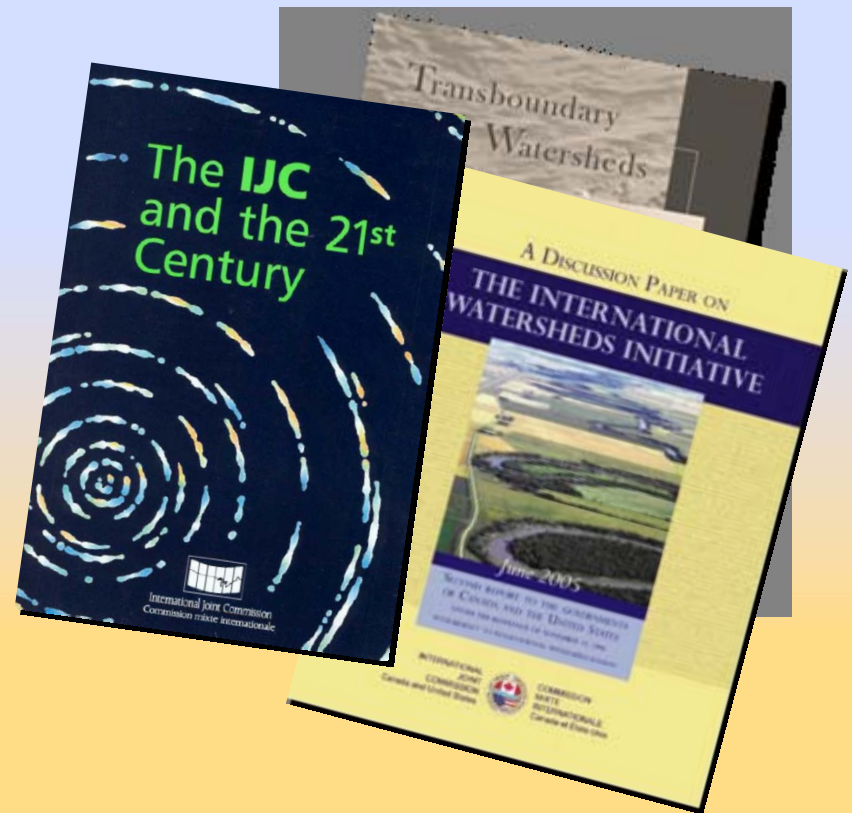
Over 300 lakes and rivers are part of or cross the border



Water resources and environmental problems can be anticipated, prevented and resolved at the local level before developing into international issues.

Origins and Objectives

- Governments asked the Commission's advice on how it might best help them meet the environmental challenges of the 21st century within the framework of their treaty responsibilities



Recommendation from “The IJC and the 21st Century” (1997)

- *“In the past, transboundary water issues were often seen as localized at a specific dam or structure, or were examined in isolation from other factors.”*
- *“Transboundary waters must be addressed in an integrative manner, including both biophysical and human aspects.”*
- *“... new international watershed boards would adopt an integrative approach to the full range of water-related issues that arise in the transboundary environment...”*

IJC Recommendations, June 2005

- Strengthen the capabilities of existing boards to anticipate and respond to watershed issues
- Employ a broader, systemic perspective
- Expand outreach and cooperation
- Promote the development of a common vision
- Develop a better hydrologic understanding
- Create the conditions for the resolution of specific issues.

The International Watersheds Initiative:

Implementing a New Paradigm
for Transboundary Basins



Third Report to Governments on
the International Watersheds Initiative

January 2009

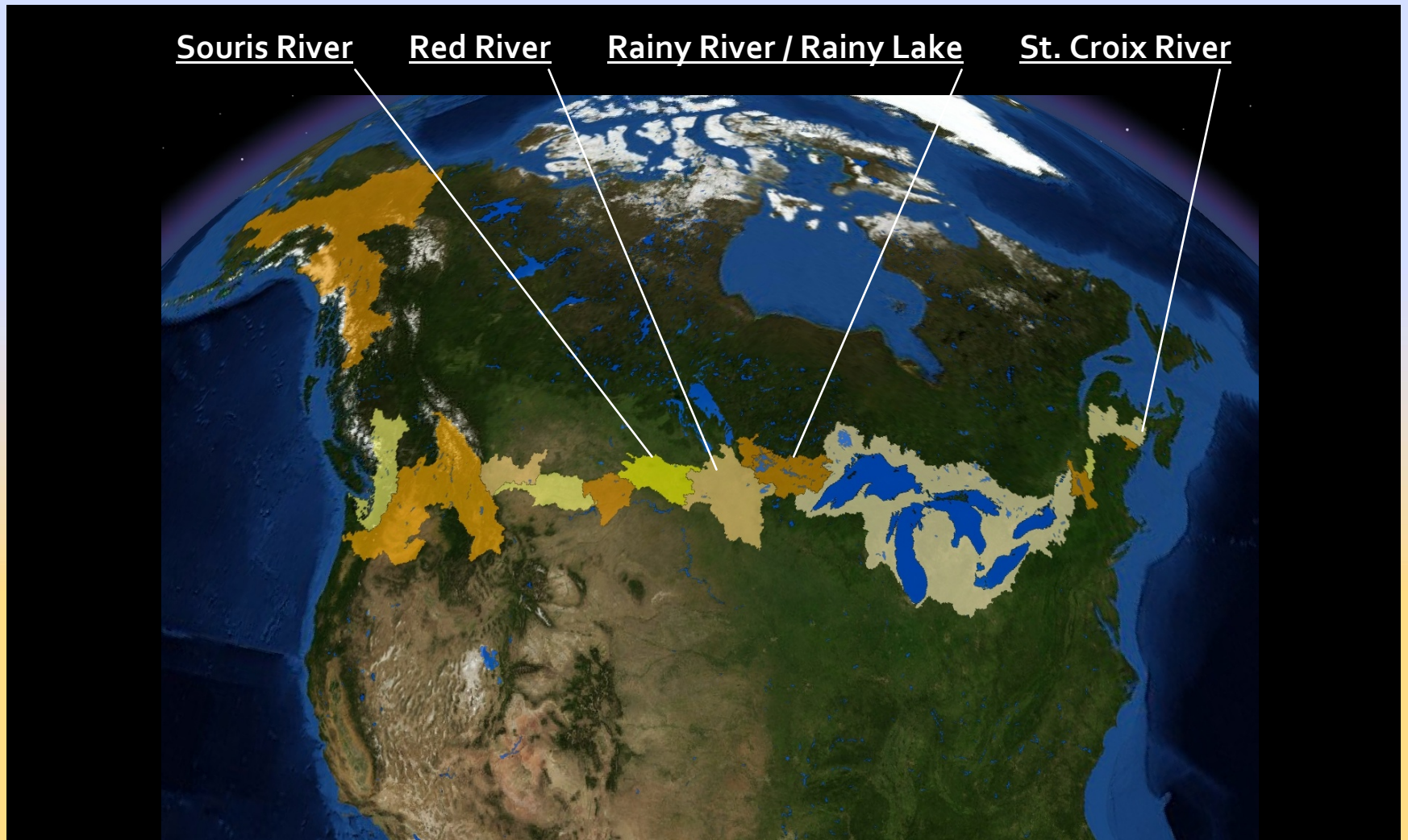


INTERNATIONAL
JOINT
COMMISSION
Canada and United States

COMMISSION
MIXTE
INTERNATIONALE
Canada et Etats-Unis



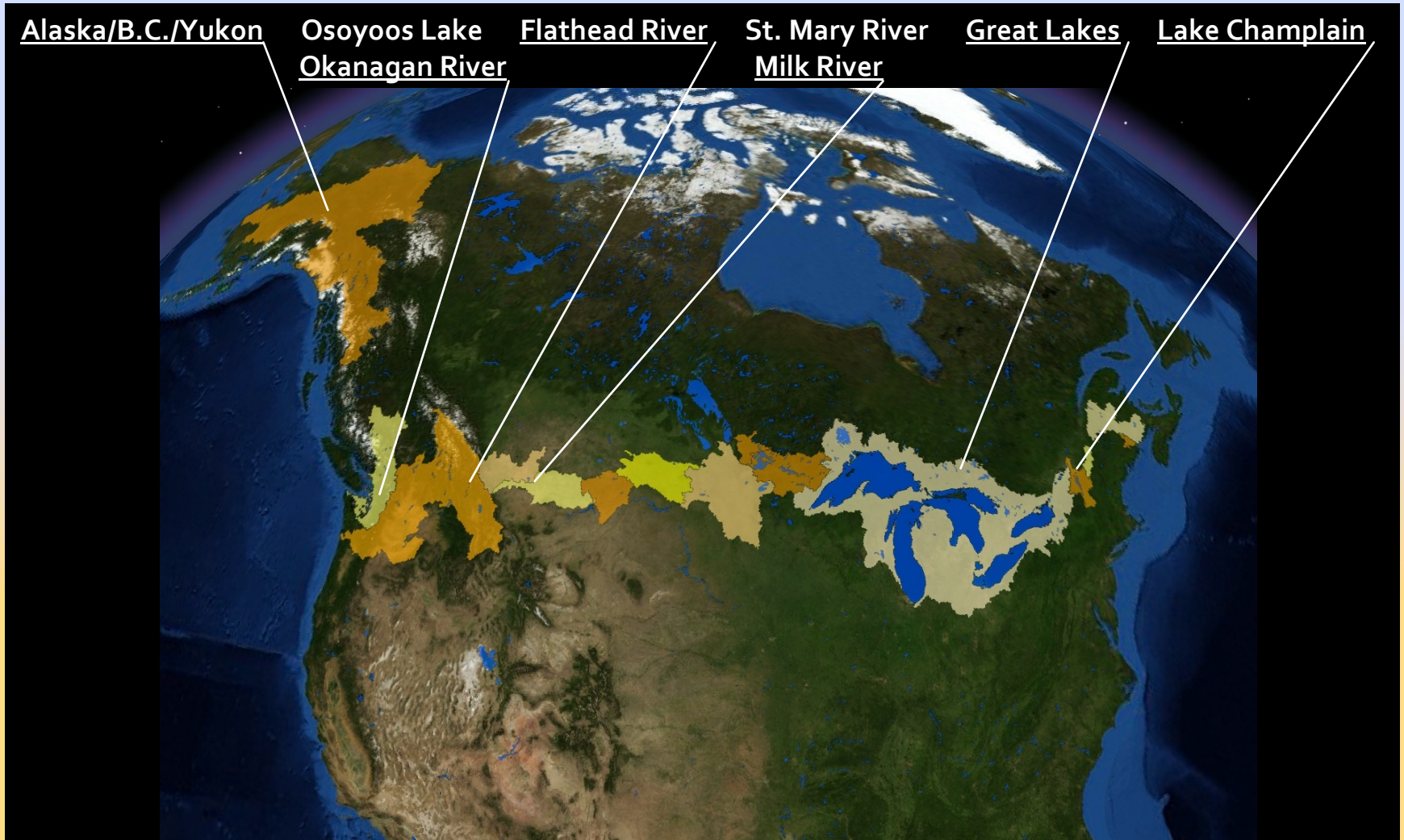
IWI Boards



IWI Board Accomplishments

- **St. Croix:** GIS atlas; modeling; State of the Watershed Report; fish ladders; CSOs
- **Red River:** flood mitigation strategy; Devils Lake parasites and pathogens
- **Rainy River/Lake:** hydropower “peaking” and fish spawning; floodplain mapping; rule curve assessment
- **Souris:** basin mapping; public outreach bulletin

Potential Interest and Activities



Priority Area for Action

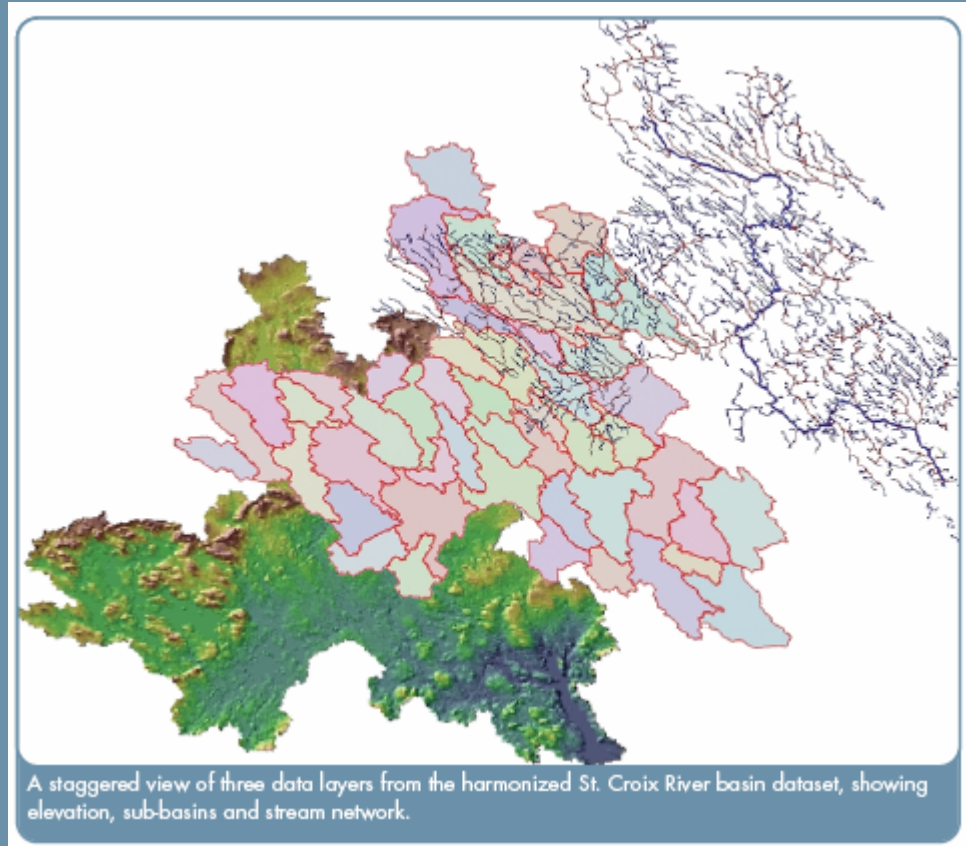
Hydrographic Data Harmonization

Lining up rivers and other features

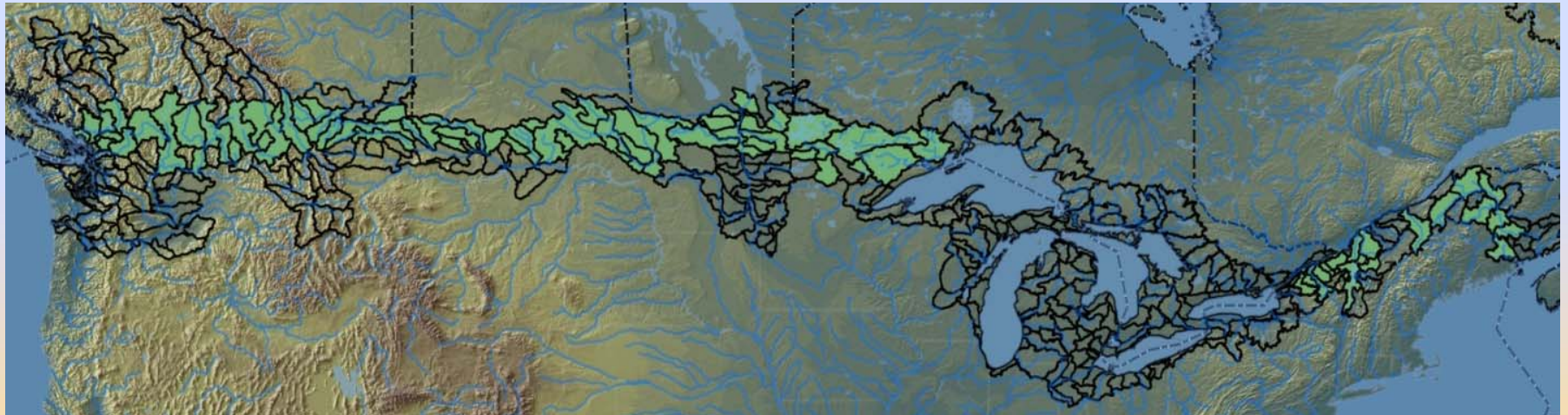
Connecting elevation contours

Matching lines that define catchment areas

Consistency in terminology for geographic features, ground cover and land use



Transboundary Hydrographic Data Harmonization Task Force



Emerging Issues

CLIMATE CHANGE

- Warmer temperatures
- Increased precipitation:
More rain, less snow
- Increased runoff and
increased drought
- Changes in natural stream
flow
- Lengthened growing
season
- Shifts in forest species

WATER QUALITY AND HEALTH

- Emerging chemicals
- Local loadings and
persistent toxic substances
- Eutrophication and
harmful algae blooms
- Recreational water quality
- Quality of drinking water
- Urban sprawl

Examples of US-funded IWI Projects

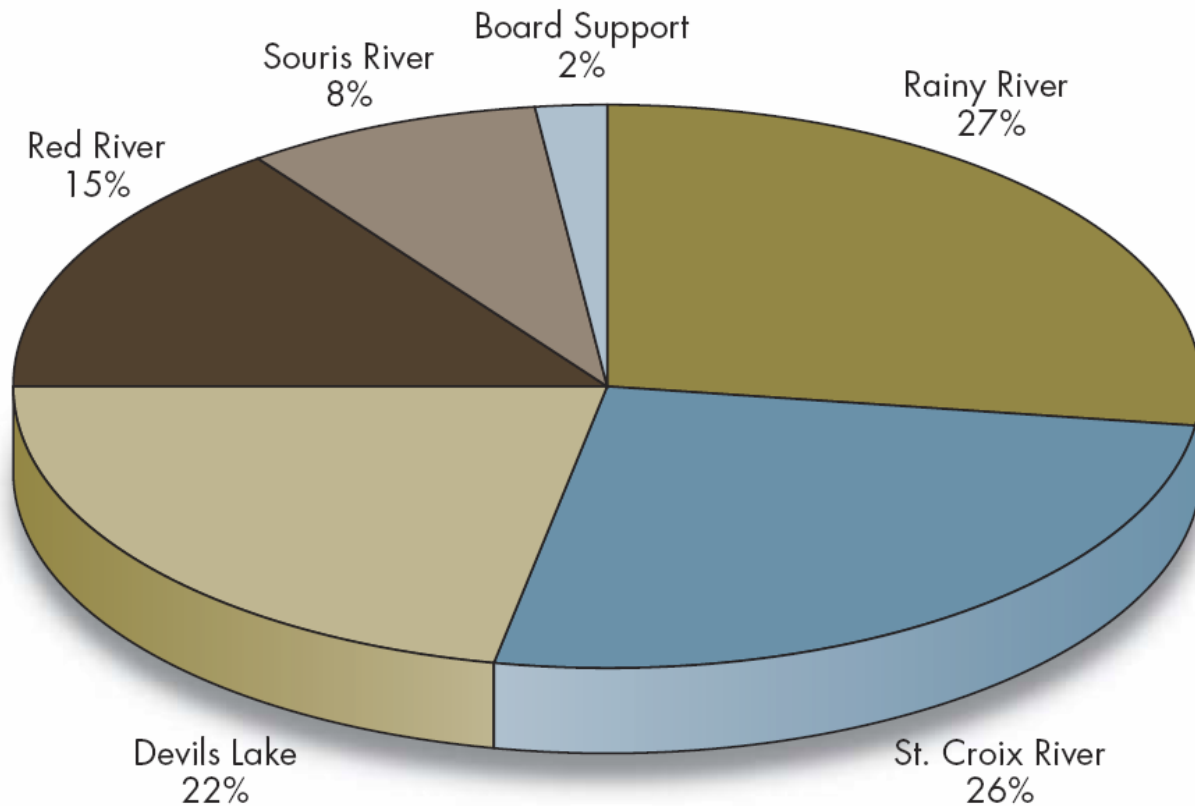
- St. Croix River: Pilot Project for Cross-Border Mapping -- USGS -- \$16,627
- Red River: Nutrient and Ion Data Studies – International Water Institute -- \$40,000
- Rainy River: Hydrologic Data Collection – USGS --\$93,000
- Devils Lake, Red River, Lake Winnipeg: Parasite and Pathogen Monitoring – USFWS -- \$261,109
- Red River: Report and Flyer on Water Regulation Jurisdictional and Policy Issues – RRBC -- \$4,313
- St. Croix River: Rainfall Runoff Model – USACE -- \$192,000
- Rainy River: Flow Hydraulic Models – USACE -- \$264,000

Examples of Canadian-funded IWI Projects

- Red River Basin: Pembina River Refinement of MIKE 11 Hydraulic Model – PFRA -- \$28,000
- Rainy River: 2000 Rule Curve Assessment Workshop – Ont. Min. Nat. Res -- \$15,000
- Red River: Statistical Analysis of Water Quality Trends – U. Manitoba -- \$15,000
- Red River: How Are We Living with the Red? -- R. Halliday -- \$24,500
- Devils Lake and Red River Basin: Fish Parasites and Pathogens Survey – Env. Canada, DFO -- \$177,724
- Souris River: Watershed Backgrounder – Can. Env. Assistance Consultants -- \$25,000

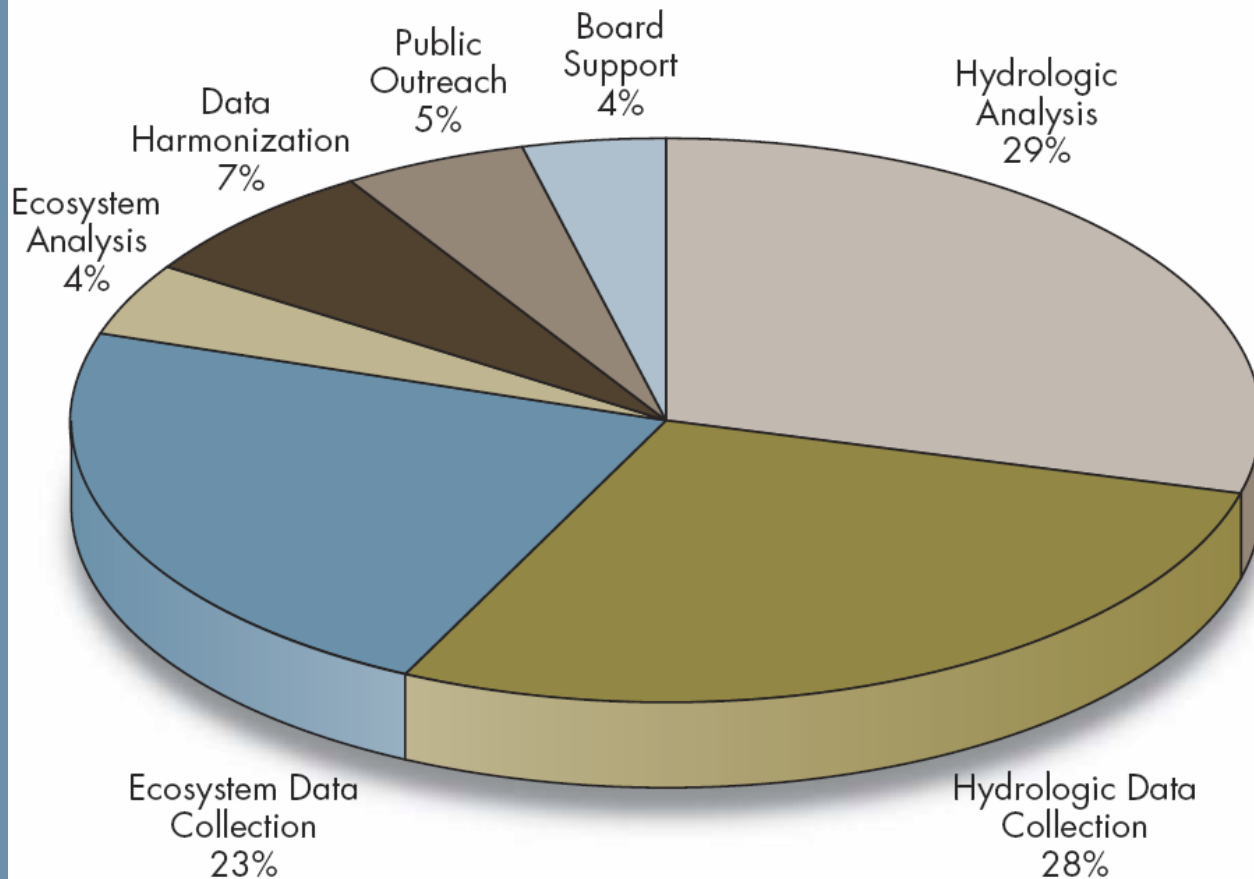
Completed Projects

IWI Projects 2004-08 by Basin



IWI Projects by activity

IWI Projects 2004-08 by Activity



Conclusions

- The watershed approach is effective
- Emerging challenges and threats make a watershed approach increasingly necessary
- Watershed boards can be a model for implementing a watershed approach along the international border
- Each transboundary basin is different. Appropriate models, paths and approaches vary depending on local context

Recommendations

- **Boards:** better outreach to all stakeholders; partnerships; science; leverage resources
- **IJC:** support for boards; information-sharing; project transparency and accountability; improve transboundary GIS data
- **Governments:** modest but sustained funding; policy advice; more involvement of natural resource agencies

