Proposed Nutrient Water Quality Objectives for the Red River at the U.S./Canada Boundary

IJC Public Hearing
Fargo ND

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Outline

- International Red River Board (IRRB) Reporting
- Water Quality Reporting at the U.S./Canada Boundary
- What are Binational WQOs?
- IRRB’s Proposed Nutrient WQOs
- IJC process for Making Recommendations to Governments under a Reference
- How can you be heard? Questions?
Map of U.S./Canada Transboundary Basins

- Columbia River, Kootenay, Osoyoos
- St. Mary & Milk Rivers
- Souris River
- Lake of the Woods and Rainy River
- Red River
- The Great Lakes and St. Lawrence River
- Skagit River
- St. John River
- Lake Memphremagog
- Lake Champlain & Richelieu River
- Saint Croix River
- Yukon River
IRRBR Reporting

- Keeps the IJC informed of basin activities that affect:
  - flows across the boundary
  - water quality at the boundary
  - ecosystem health in the Red River and its tributaries
  - flood preparedness and mitigation activities
What are Binational WQOIs?

...Water quality objectives are a numerical concentration limit or narrative statement, based on scientific criteria, relevant socio-economic and other factors, which has been negotiated to support and protect the designated uses of water ... (IJC, 2017)
What are Binational WQOs?

Progress towards attainment of WQOs is carried out by domestic requirements of each country – federal, state, provincial, tribal, municipal, etc.
IRRB’s Binational WQOs

- Total Dissolved Solids (TDS)
- Chloride
- Sulfate
- Dissolved Oxygen (DO)
- E. Coli

“Recommend amendments or additions when warranted…”

- E. Coli was added in 2009, replacing fecal coliforms as modernized indicator of bacterial contamination (sources such as manure)
Red River Nutrients

- Nutrients are increasing
- Manitoba 2001 trend analysis showed an almost 200% increase at some streams in the Red River watershed (La Salle River, Seine River)
- USGS 2012 study showed increasing trends and higher yields along the Red River

![Graph showing TP in the Red River at PR #204 bridge in Selkirk, MB (WQ0142)]

28.8% increase in median TP concentration from 1978 to 1999 (p=0.0003)
In 2011, IRRB approved a “Basin-Wide Nutrient Management Strategy” as part of its work plan.

Board’s Water Quality Committee is leading this work – includes active membership from over ten organizations
Participants in IRRB’s Proposed Nutrient WQOs

- Red River Basin Commission
- US Environmental Protection Agency
- US Department of Agriculture
- US Geological Survey
- US Army Corps of Engineers
- Environment and Climate Change Canada
- Agriculture and Agri-Food Canada
- Minnesota Pollution Control Agency and Minnesota Agriculture
- North Dakota State Department of Environmental Quality
- Manitoba Agriculture and Resource Development
Study Guiding Principles

• Scientifically defensible
• Integrated watershed perspective
• Coordinated, cooperative and collaborative
• Jurisdictional independence
• Protection and/or restoration of aquatic ecosystems and water uses
• Lake Winnipeg is the end point
• Benefit local water quality and Lake Winnipeg
• Consensus-based
IRRB’s Proposed Nutrient WQOs

Recommendation

• Adopt nutrient concentration objectives and nutrient load targets for the Red River at the US/Canada border.

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Total Phosphorus</th>
<th>Total Nitrogen</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>concentration objective</td>
<td>0.15 mg/L</td>
<td>1.15 mg/L</td>
<td>Seasonal average (April 1st – October 30th)</td>
</tr>
<tr>
<td>Nutrient load target</td>
<td>1,400 tonnes/year</td>
<td>9,525 tonnes/year</td>
<td>Five year running average</td>
</tr>
</tbody>
</table>
What is IJC process for this Proposal?

- A second hearing in Canada is currently being scheduled
- Public comment period ends on February 28, may be extended
- Commissioners will consider all public comments prior to making a recommendation
- Commission will communicate with governments any recommendations
- Recommendations of the IJC to governments are non-binding and not to be considered decisions of the two governments
How can you be heard? Questions?

Your input can be received until February 28, 2020 at:

1) This hearing (please fill out a submission form)

2) By email: Commission@ottawa.ijc.org or Commission@washington.ijc.org

3) By mail or online at: www.ijc.org/nutrient2020

4) At upcoming Public Hearing in Canada. Exact time/location to be announced

IJC website: www.ijc.org