

Isle Lake and Lac Ste. Anne State of the Watershed Report



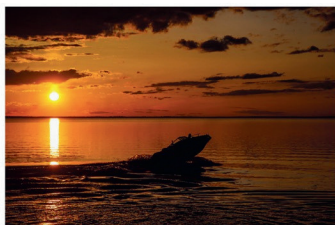
Purpose and Scope of Report:

To characterize the environmental state of the lakes based on available information in order to support future watershed planning and initiatives. This included:

- Local history
- Provincial and municipal government policies
- Technical information
- Environmental trends
- Existing data gaps
- Watershed management recommendations

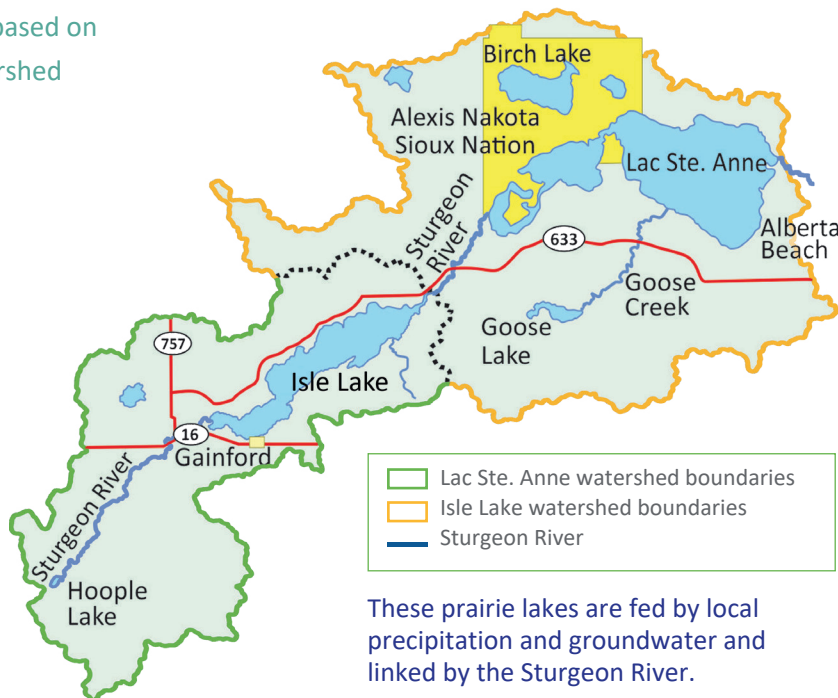
North Saskatchewan Watershed Alliance

Isle Lake and Lac Ste. Anne
State of the Watershed Report



May 2017

Isle Lake and Lac Ste. Anne Watersheds



These prairie lakes are fed by local precipitation and groundwater and linked by the Sturgeon River.

Lake Health Metrics

Areas of High Concern for Both Lakes

Watershed Factors



Land Cover is altered 25-75% from its natural state

Water Quality



High nutrients = lack of oxygen and algae blooms

Shoreline Factors



Shoreline is 25-75% developed

Areas of Moderate Concern for Both Lakes

Water Quality



Fish kills due to low oxygen levels

Watershed Factors



Water quality of lake tributaries

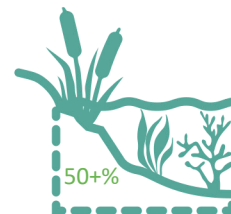
Areas of High Concern for Isle Lake only

Water Quality



High phosphorus levels

Shape, Size & Hydrology



Shallow water levels



If you see Flowering Rush, don't pull or dig. Report it to: 1-855-336-BOAT (2628) or use EDDMapS Alberta

Invasive Species: Flowering Rush

Flowering Rush is an invasive plant that grows in shallow water

- Spreads rapidly by root fragments and bulbils
- Displaces native vegetation like cattails, sedges and rushes
- Lowers water quality and removes oxygen from the lake, which reduces habitat for fish, waterfowl and aquatic life
- Impedes water flow, interferes with boat propellers and swimming

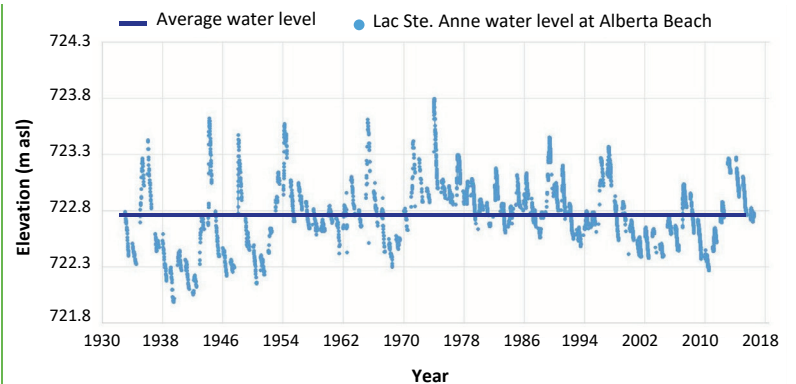
What you can do to stop Flowering Rush from spreading:

- Learn to identify & report it
- Avoid use of chemical fertilizers on lakeside properties
- Clean your boat
- Do not disturb or try to remove it

To learn more, go to: <https://www.lsawaterquality.com/flowering-rush>

Lake Levels: Prone to fluctuations

- Both Isle Lake and Lac Ste. Anne are shallow prairie lakes with mean depths of 4 – 5 metres
- Water levels naturally fluctuate between 1.5 to 2.0 metres depending on annual precipitation
- This can create significant shoreline variations from year to year
- Conserving riparian areas along shorelines is critical to reduce erosion and maintain water quality



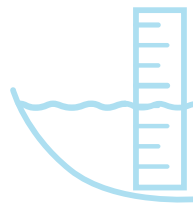
Suggested Future Initiatives



Educate public about lake issues & stewardship



Encourage participation in stewardship programs



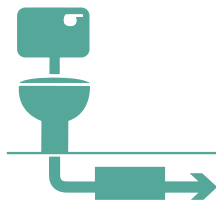
Monitor lake levels in real-time



Monitor lake water quality



Limit use of fertilizers & pesticides near lakes



Update septic systems to prevent contamination



Evaluate & manage road salt use



Encourage shoreline naturalization



Monitor for invasive mussels & Flowering Rush

