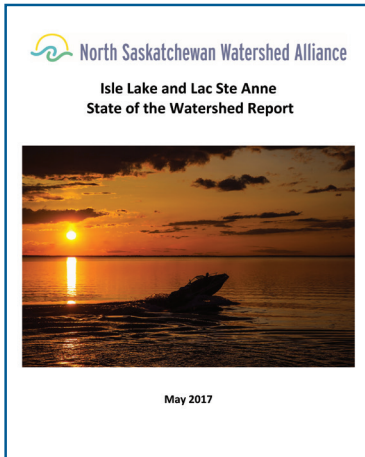


# Isle Lake and Lac Ste. Anne State of the Watershed Report

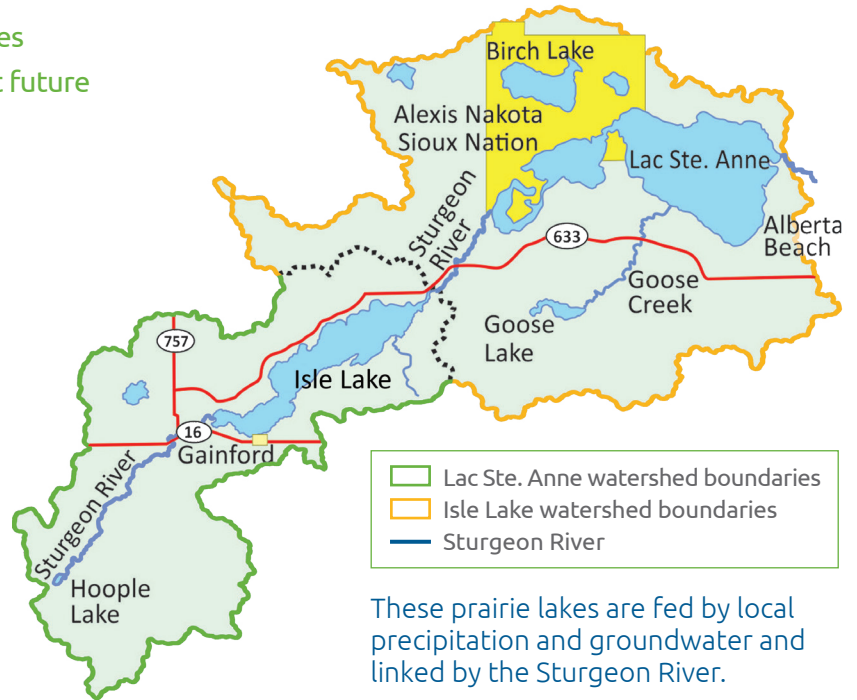
## Purpose and Scope of Report:

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

## 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

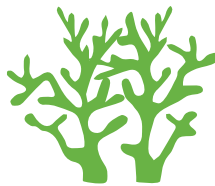
### Areas of High Concern for Both Lakes

#### Watershed factors



Land Cover altered 25-75% from its natural state

#### Water Quality



High nutrients = lack of oxygen and algae blooms

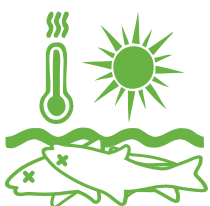
#### Shoreline factors



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



## 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:**

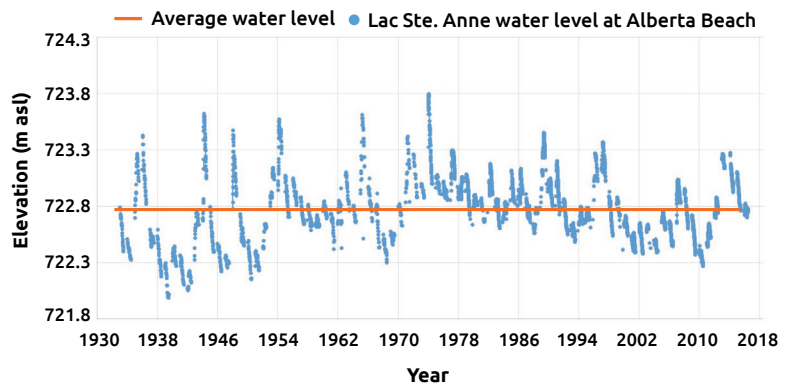
- Learn to identify & report it
- Clean your boat
- Avoid use of chemical fertilizers on lakeside properties
- Do not disturb or try to remove it

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

**To learn more, go to: <https://www.lsaquality.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



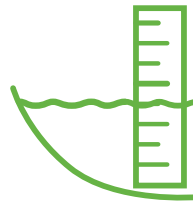
## Suggested Future Initiatives



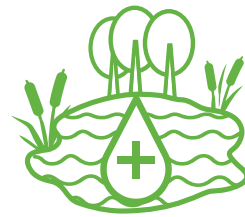
Educate public about lake issues & stewardship



Encourage participation in stewardship programs



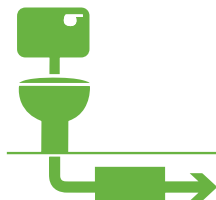
Monitor lake levels in real-time



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