

Lake Management in the North Saskatchewan River Basin

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ALMS Annual Workshop

September 29th, 2017



NSWA Lake Management Projects

- NSWA facilitates watershed management projects on lakes across the North Saskatchewan River Basin

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- Under Government of Alberta's *Water for Life* Strategy
 - Regionally under Watershed Planning and Advisory Councils (WPAC)
 - Locally (at the lake level) under watershed stewardship groups (WSG)

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- Under Government of Alberta's *Water for Life* Strategy
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- Under NSWA's IWMP: "*Develop watershed management plans to address issues in sub-basins..*"

NSWA Lake Management Projects

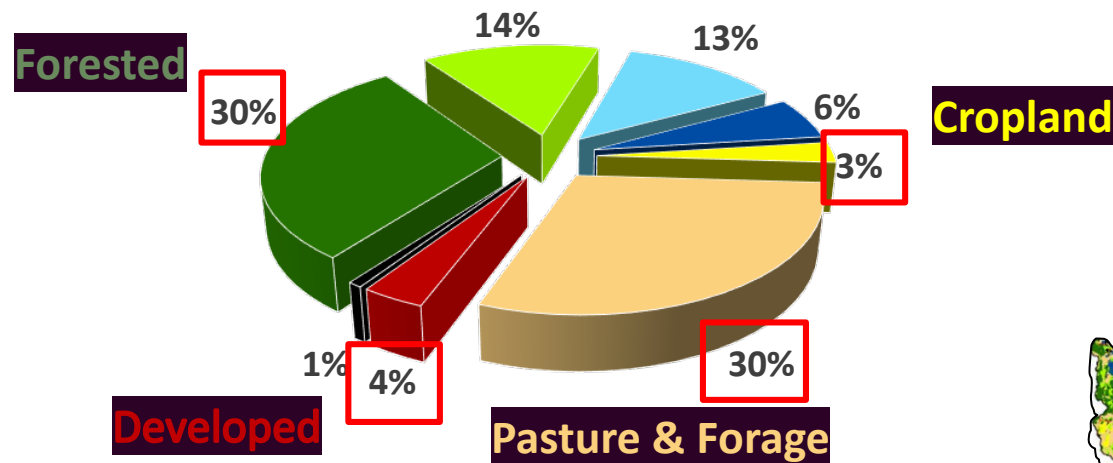
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- 1 • State of the Watershed Reporting
 - Watershed Management Planning
- 2 • Drafting Watershed Management Plans
- 3 • Assisting Plan Implementation and Monitoring Progress

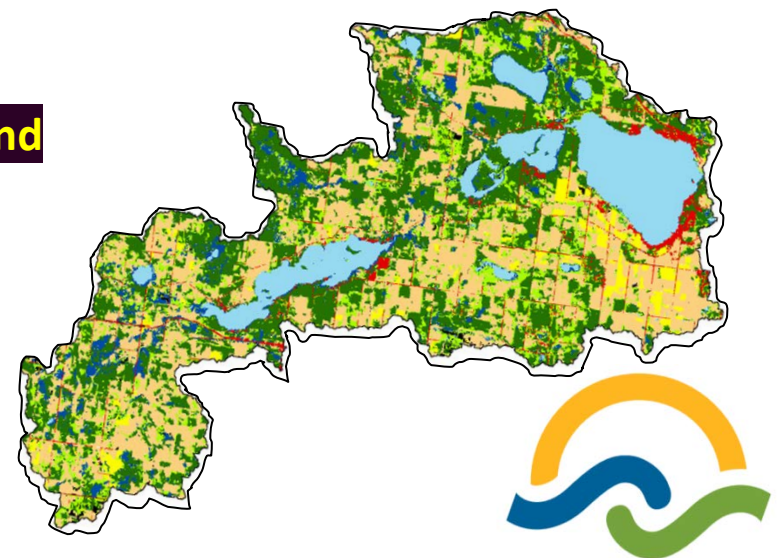


State of the Watershed Reporting

- **Purpose:** to characterize the condition of a lake and its watershed, using a set of indicators
 - Watershed characteristics

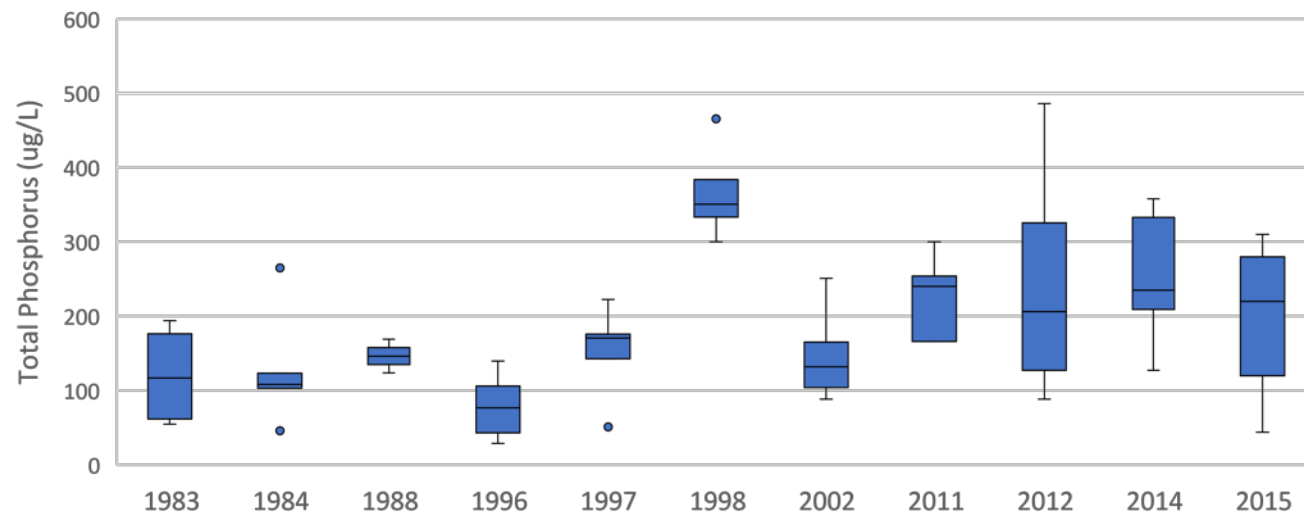


Land cover in the
Lac Ste Anne Watershed



State of the Watershed Reporting

- Purpose: to characterize the condition of a lake and its watershed
 - Watershed characteristics
 - Lake characteristics



Lake Isle Total Phosphorus June to September



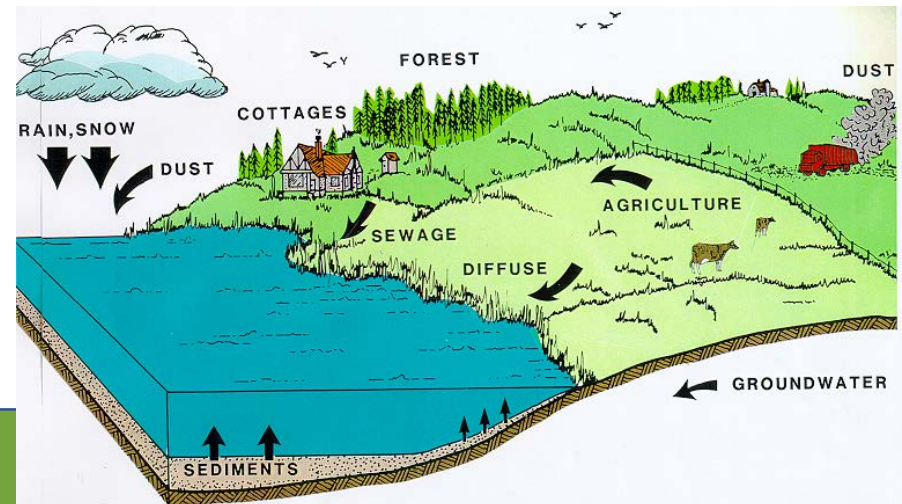
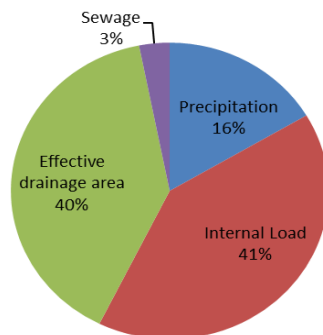
State of the Watershed Reporting

- Purpose: to characterize the condition of a lake and its watershed
 - Watershed characteristics
 - Lake characteristics
- Report may also:
 - Generate new/update old information with technical studies

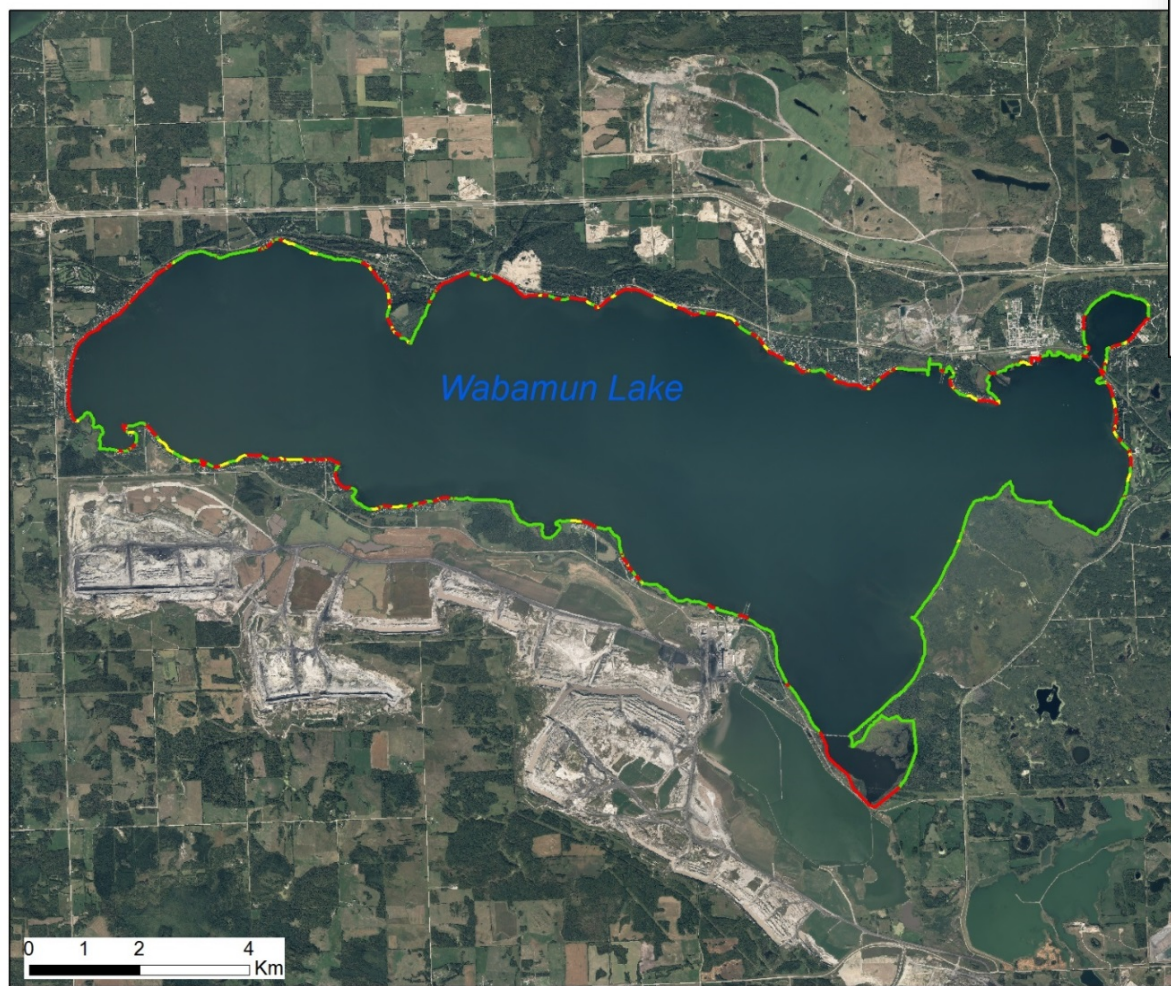


State of the Watershed Reporting

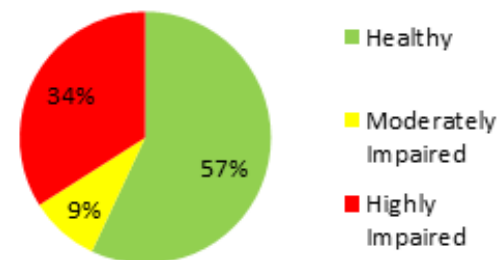
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 - Watershed characteristics
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Wabamun Lake: Aerial Riparian Health Assessment (2014)



Wabamun Lake: Aerial Riparian Health Assessment



Map Legend

Shoreline Health Rating

- Healthy
- Moderately Impaired
- Highly Impaired

This map created for the Wabamun Watershed Management Council by the North Saskatchewan Watershed Alliance on January 30, 2015.

The information presented here is based on high resolution videography that was captured in August of 2014. As well, The orthophotographs captured in 2013 were provided by Parkland County. Funding for the project was provided by the Land Stewardship Centre

 North Saskatchewan Watershed Alliance



State of the Watershed Reporting

- Purpose: to characterize the condition of a lake and its watershed
 - Watershed characteristics
 - Lake characteristics
- Report may also:
 - Generate new/update old information with technical studies
 - Identify knowledge gaps for further study
 - Provide recommendations on next steps



State of the Watershed Reports



Mayatan Lake State of the Watershed Report



August 2012



Jackfish Lake State of the Watershed Report

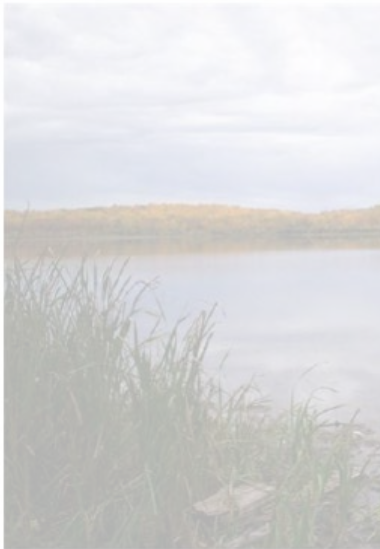


April 2016

State of the Watershed Reports



Mayatan Lake State of the Watershed Report



August 2016



North Saskatchewan Watershed Alliance

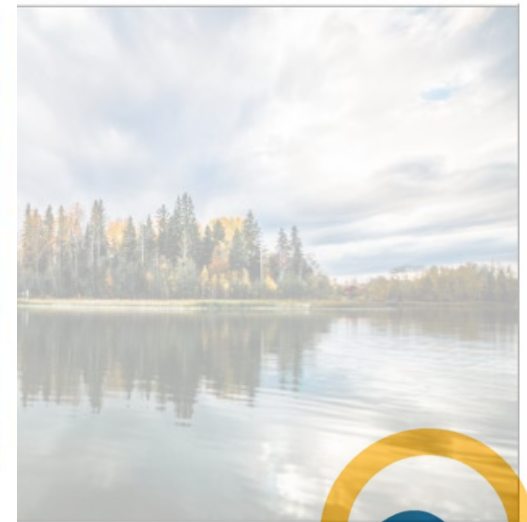
Isle Lake and Lac Ste Anne
State of the Watershed Report



May 2017

North Saskatchewan Watershed Alliance

Jackfish Lake
State of the Watershed Report



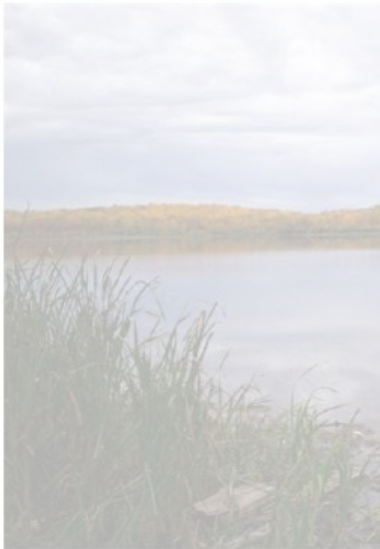
April 2016



State of the Watershed Reports



Mayatan Lake State of the Watershed Report



August 2016



North Saskatchewan Watershed Alliance

Isle Lake and Lac Ste Anne
State of the Watershed Report



May 2017

North Saskatchewan Watershed Alliance

Jackfish Lake
State of the Watershed Report

Upcoming:

- Antler Lake
- Hubbles Lake



April 2016



Lake Management Planning

- **Purpose:** To provide strategic advice on the effective management of land and water with the intent of restoring or maintaining the overall health of a lake and its watershed



Lake Management Planning

1. Identify stakeholders

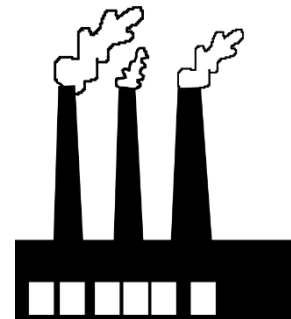


Federal
Provincial
Municipal

First Nation
Métis



WSGs



Lake Management Planning

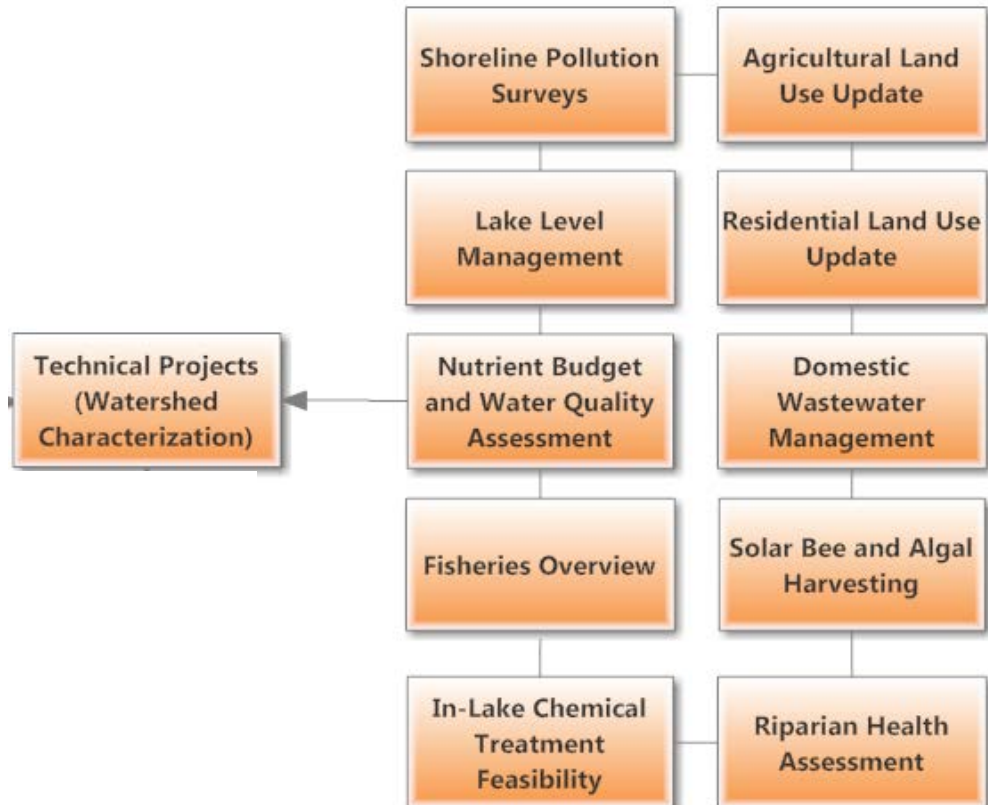
1. Identify stakeholders
2. Form Steering Committee to lead the planning
3. Draft and Approve Terms of Reference
4. Form additional support committees:
 - a. Technical



Lake Management Planning

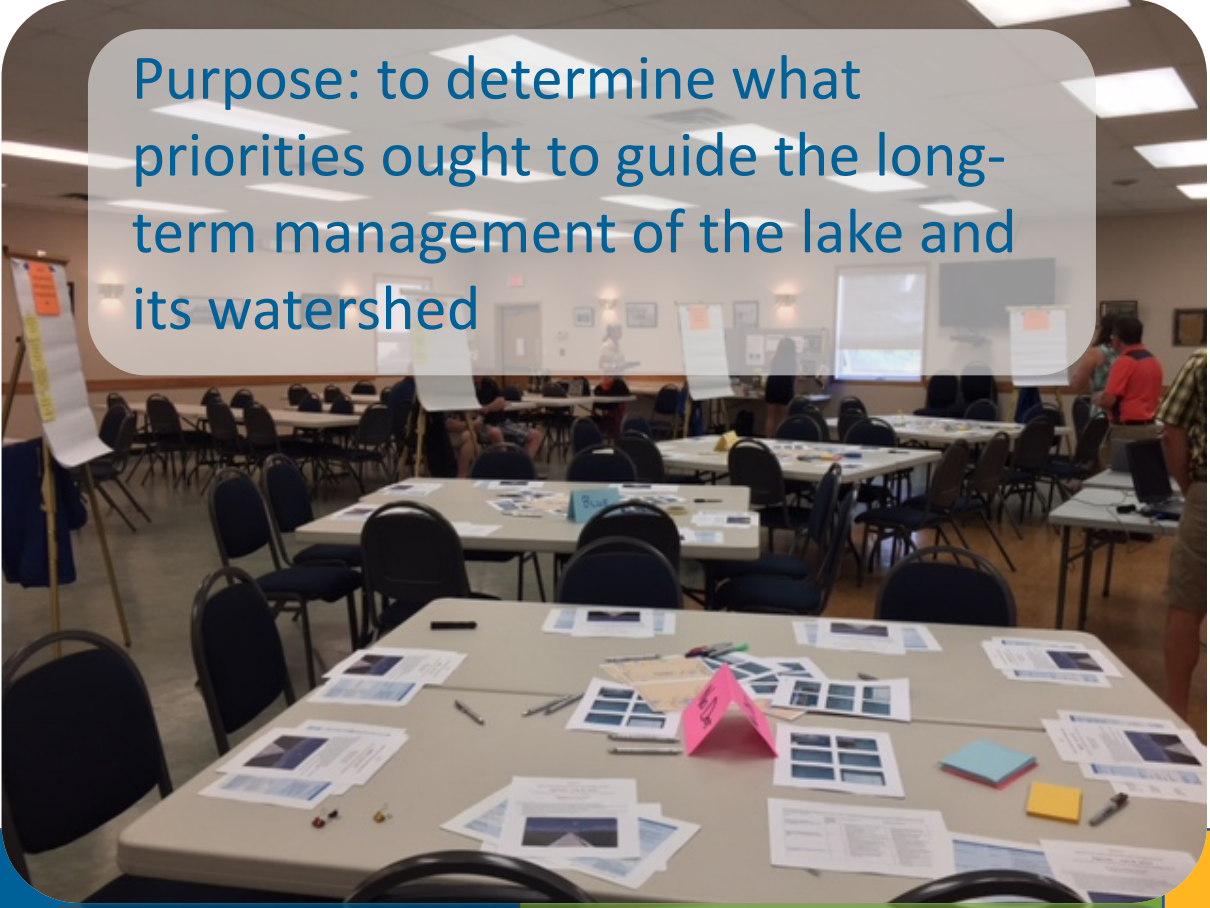
4. Form additional support committees:

a. Technical



Lake Management Planning

5. Stakeholder and Public Engagement



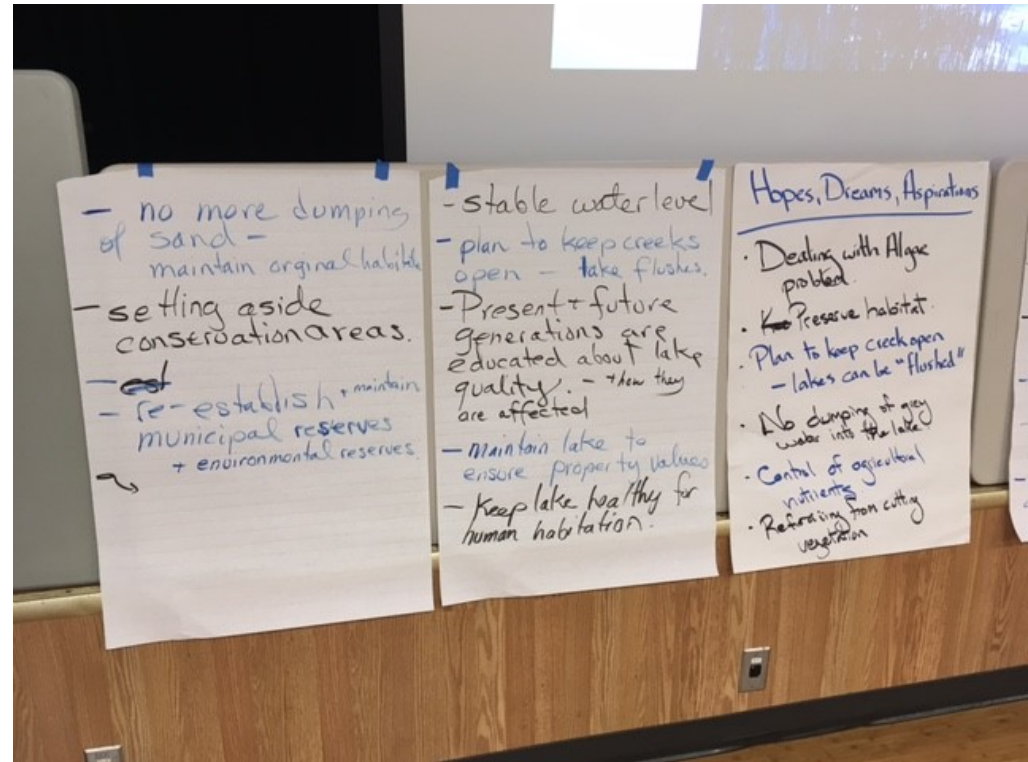
Purpose: to determine what priorities ought to guide the long-term management of the lake and its watershed

1. What are your **aspirations** for the lake?
2. What are the **key issues or obstacles** preventing your aspirations from being realized?
3. What are the **solutions** you think will help resolve these issues?

Lake Management Planning

5. Stakeholder and Public Engagement

a. Workshops



Lake Management Planning

5. Stakeholder and Public Engagement

- a. Workshops
- b. Surveys
- c. Newsletters

Mayatan Lake Watershed Management Plan



Alberta Environment and Sustainable
Resource Development



Lake Management Planning

5. Stakeholder and Public Engagement

- a. Workshops
- b. Surveys
- c. Newsletters
- d. Website
- e. Social Media



MAYATAN LAKE Watershed Workshop II

Mayatan Lake Watershed Management Consultation Workshop Phase II

POSTER

Background Information

Map

MAYATAN LAKE STATE OF THE WATERSHED REPORT

News Type:

NSWA News

Lake Management Planning

- Identify Goals

Lake Management Planning

- Identify Goals

“Water quality is maintained or improved”



Lake Management Planning

- Identify Goals
- Draft Management Directions

Lake Management Planning

- Identify Goals
- Draft Management Directions

“Develop and implement a water quality management program, including the development of water quality objectives...”

Lake Management Planning

- Identify Goals
- Draft Management Directions
- Draft Recommended Actions and Assign Responsibility
 - Policy
 - Technical
 - Stewardship

Lake Management Planning

- Identify Goals
- Draft Management Directions
- Draft Recommended Actions and Assign Responsibility



Watershed Management Plans



North Saskatchewan Watershed Alliance

Mayatan Lake Watershed Management Plan



July 2016

Watershed Management Plans



Mayatan Lake Watershed Management Plan



- Baptiste and Island Lake Watershed Management Plan



3

Implementation

- WMPs are non-regulatory, with no statutory authority
 - rely on the voluntary choices and actions of individual decision makers





3

Implementation

01

Form
Implementation
Committee

02

Develop an
Implementation
Strategy

03

Monitor
Progress and
Adapt Plan as
Needed



Conclusion

- NSWA facilitates watershed management projects on lakes across the North Saskatchewan River Basin

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Questions?