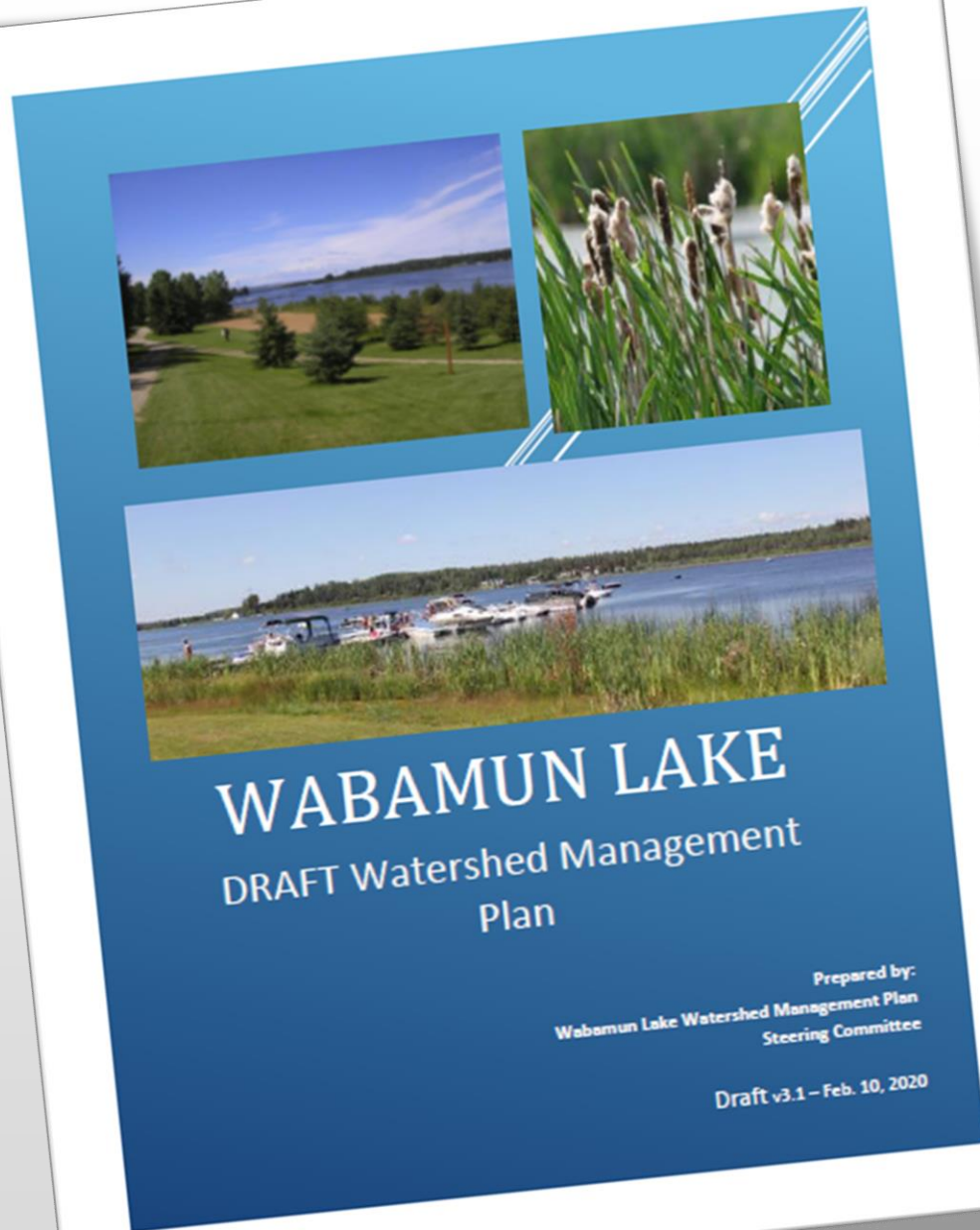


# Overview of the *Draft* Wabamun Lake Watershed Management Plan

July, 2020



# Presentation Purpose

Work on the *Wabamun Lake Watershed Management Plan* was initiated in 2018. The current draft is a reflection of information gathered to date, including what the lake and its surrounding watershed is valued for, what issues are affecting those values, and what actions are needed to address these issues.

Having completed this phase of their work, the **Wabamun Lake Watershed Management Plan Steering Committee** is now engaging others to get input on the draft plan. To facilitate discussion, this presentation provides a quick overview of the plan's content.

# What is a Watershed Management Plan?

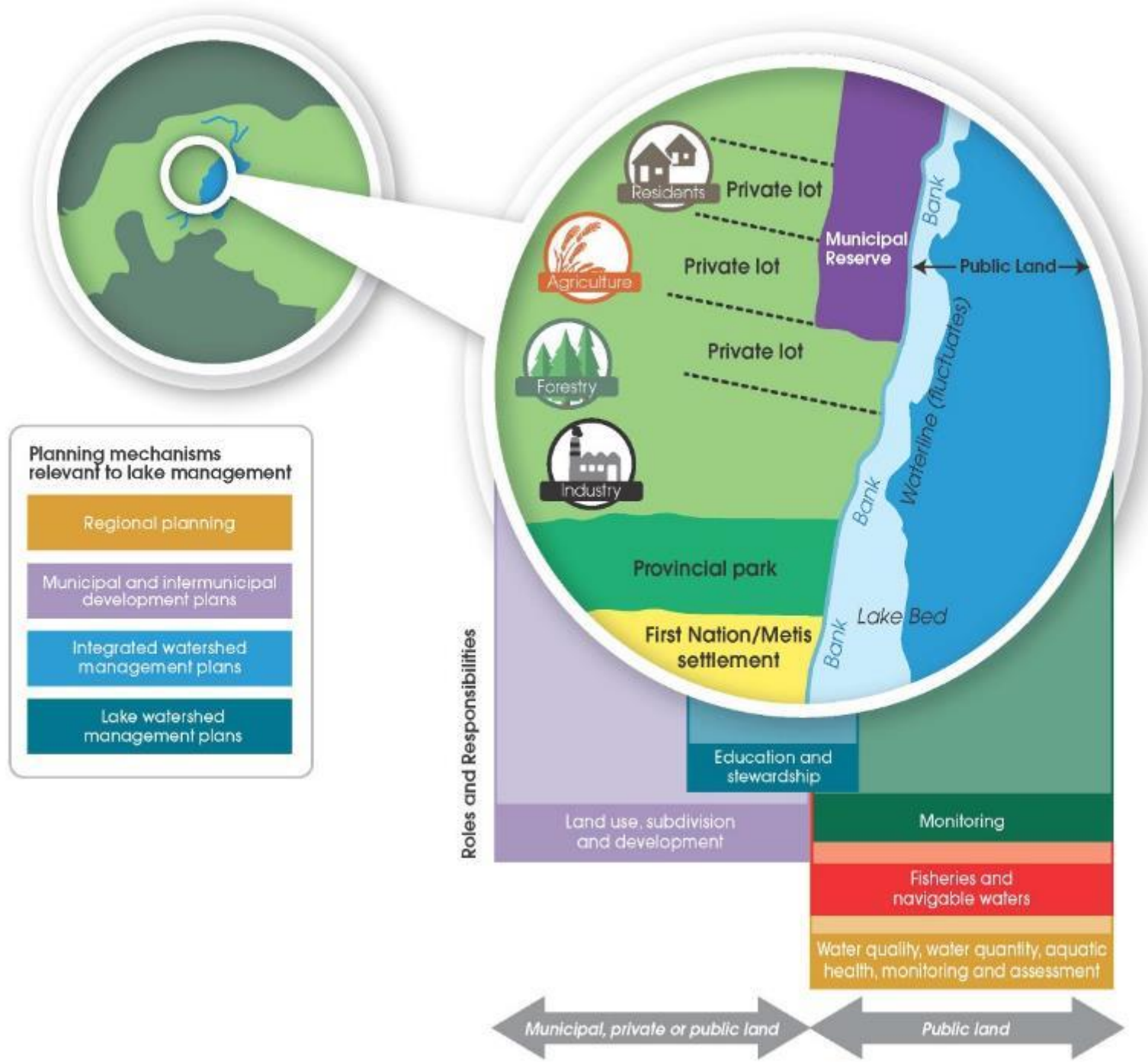
- ▶ A tool for collaboration between lake users and other stakeholders in the Wabamun Lake watershed
- ▶ A proactive, rather than reactive, approach that utilizes knowledge-based adaptive management and continuous improvement
- ▶ A *voluntary* commitment that outlines Who (accountability, authority) will do what, by when, where, how and why (rationale)
- ▶ A roadmap that guides activities for a period of time in order to achieve a shared vision



# Why do a Plan?

The responsibility and authority for lake management in Alberta is complex, requiring a collaborative approach.

The Government of Alberta's Water for Life strategy says *"Water management objectives and priorities ... are established through watershed plans"* and *"Citizens, communities, industry and government work together to improve conditions within the local watershed."*



# What does a Watershed Management Plan do?

A plan answers 5 key questions:

1. Where are we at today? What is the state of our lake?
2. Where do we want to be? What is our vision of the future?
3. What is standing in our way? What are the issues, information gaps?
4. How will we achieve our vision? What are the opportunities solutions?
5. How will we know when we've achieved our vision? What performance measures will we use to measure progress?

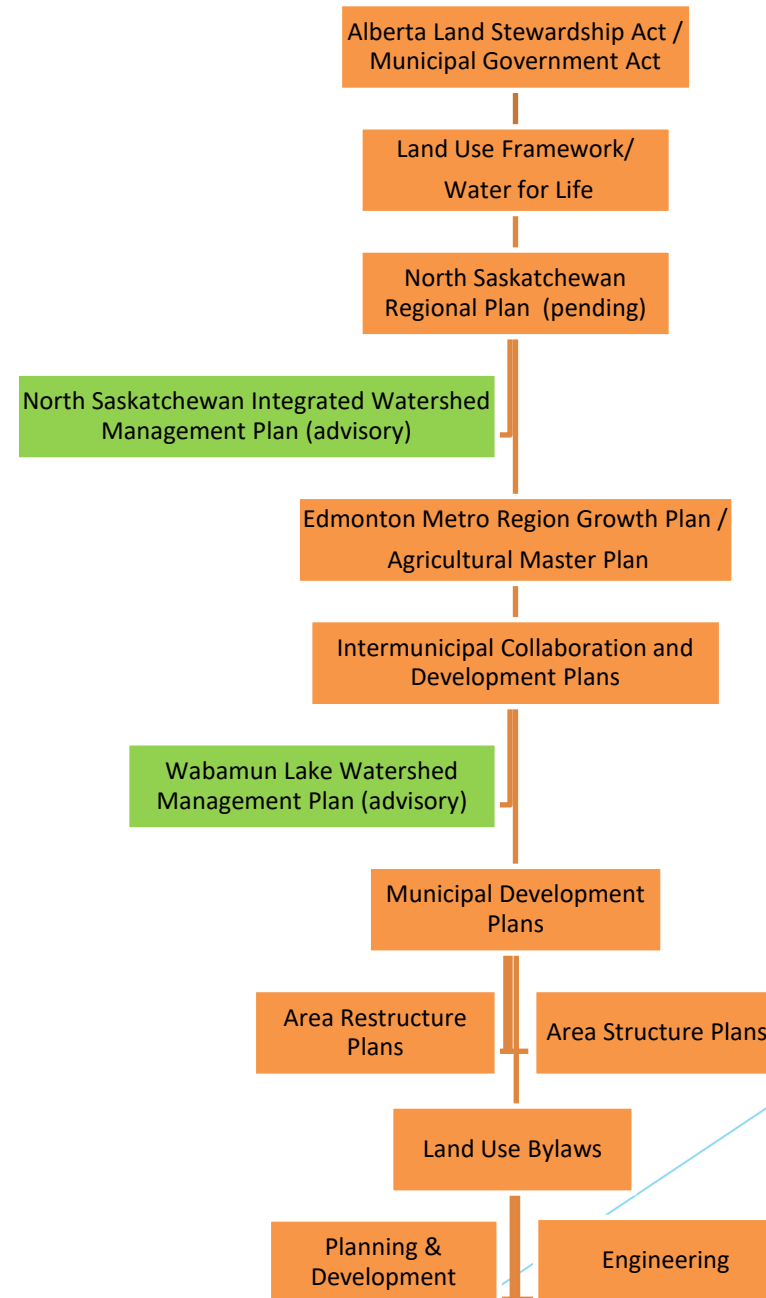


What's  
the  
plan?

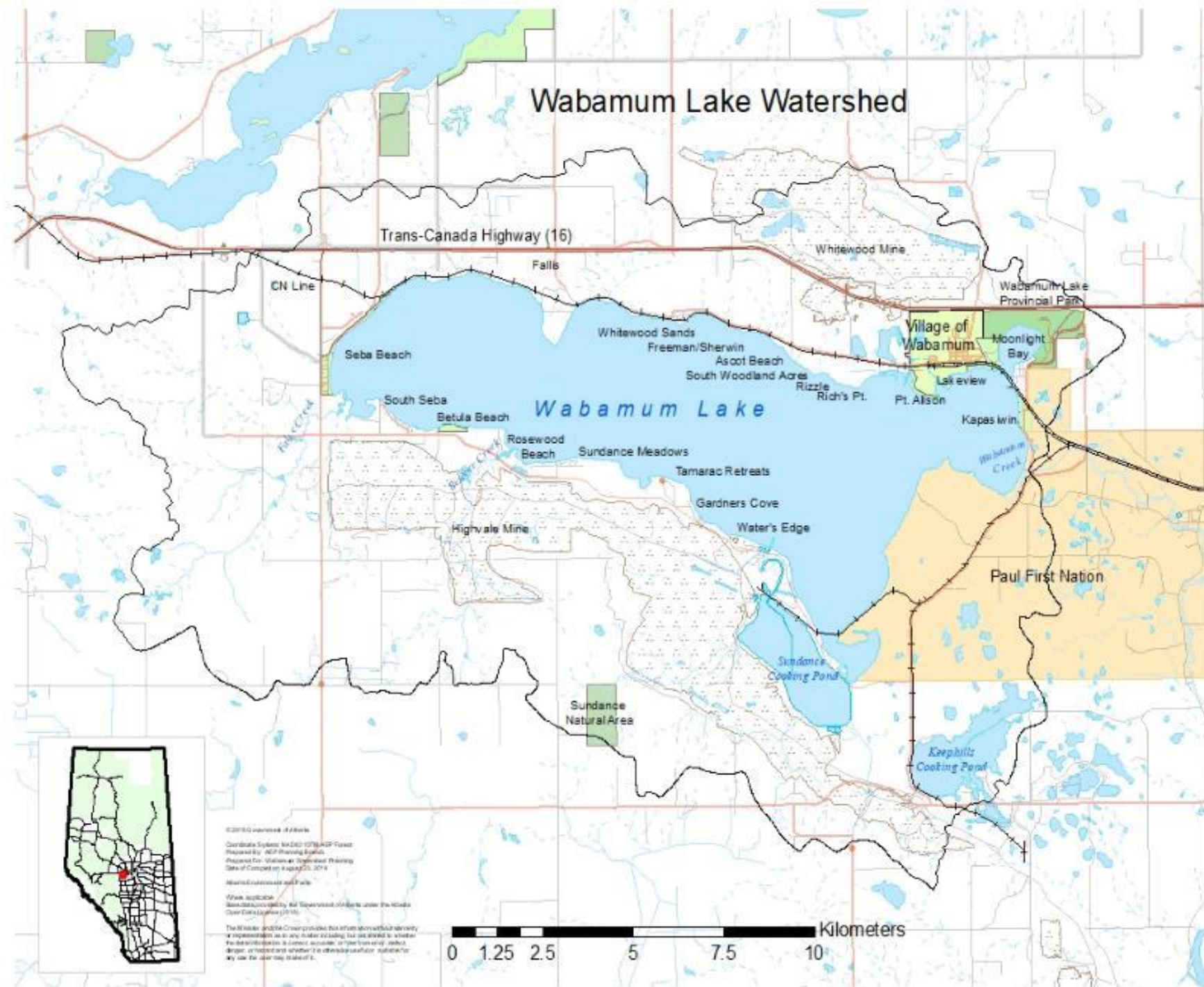


# How does this fit with other planning initiatives?

A watershed management plan provides water- and watershed-centric advice to jurisdictions with a responsibility for land use planning, including provincial and municipal governments.



In developing the plan, the Steering Committee looked at the entire Wabamun Lake watershed, identifying water issues both on the lake and from the surrounding uplands.



# Why Wabamun Lake?

Just under an hour from the Edmonton area (with a population over one million people) Wabamun Lake is highly valued by residents and visitors for a number of reasons such as:

- ▶ Inherent value as a natural ecosystem that provides ecological goods and services such as water filtration, habitat for fish and wildlife, etc.
- ▶ Culturally and spiritually important to Indigenous and other communities
- ▶ An aesthetically pleasing location for recreation, relaxation, connecting with nature and de-stressing
- ▶ A source of water for agriculture (irrigation, livestock watering), industry and other local commercial enterprises that support a local economy



# Risks to Wabamun Lake

The health of Wabamun Lake, a relatively shallow, nutrient rich lake, can be negatively affected by the following potential risks:

- ▶ Invasive Species
- ▶ Blue Green Algae
- ▶ Nutrient Loading
- ▶ Land use development affecting impervious surfaces, stormwater run-off, shoreline or littoral zone disturbance, etc.
- ▶ Loss of Riparian Function
- ▶ Climate Change
- ▶ Cumulative Effects



2019 Cyanobacteria (Blue-green algae) bloom

# The Wabamun Lake Watershed Management Plan

To protect values and address risks, the Wabamun Lake Watershed Management Plan starts with a vision. It also looks at:

What issues/ info gaps are standing in the way?

What opportunities are available to assist us?

What solutions are available?

- ▶ **Goals** (where do we want to be, rationale)
  - ▶ **Strategies** (how will we get there)
    - ▶ **Actions** (what needs to be done)
      - ▶ **Lead / Partners** (who will do it)
        - ▶ **Budget / Resources needed**
          - ▶ **Performance Measures** (how will we measure progress?)



# Wabamun Lake WMP Vision

*The Wabamun Lake watershed is a healthy ecosystem with a robust economy and a thriving community that demonstrates its collective responsibility to be the best stewards of the lake environment, for current and future generations.*



# Wabamun Lake WMP Goals

The plan strives to achieve four goals:

1. Good Water Quality
2. Healthy Aquatic Ecosystems and Biodiversity
3. Wise Land Use
4. Engaged Stewards



# Goal: Good Water Quality

## Important for?

Human and animal health and safety, aquatic ecosystem health, aesthetics, recreation, recreational property values

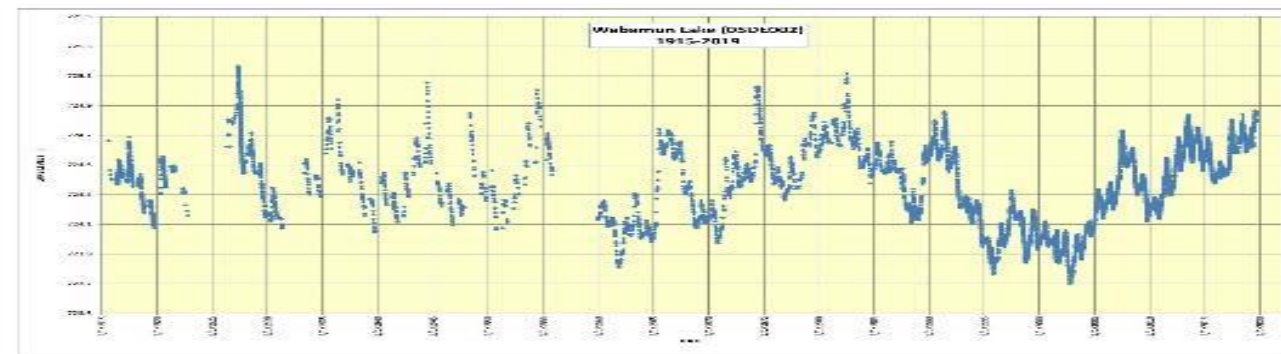
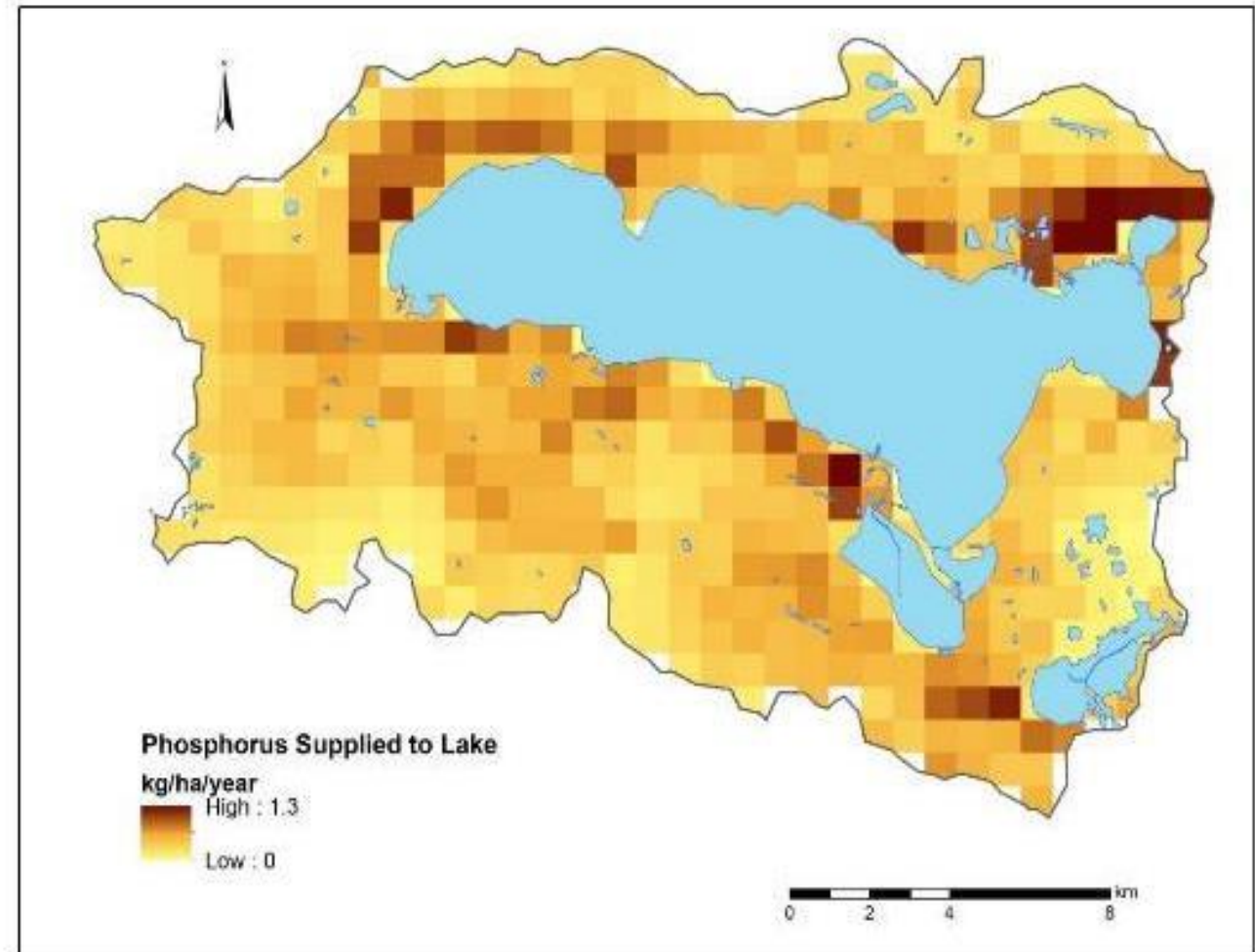
## Management Considerations?

- ▶ Lake level fluctuations, tributary and run-off flows, ground water contributions, precipitation, impact of the weir and beaver dams on outflows, withdrawals
- ▶ Risk of spills, floodplain development, and stormwater introducing contaminants (nutrients, salts, metals, fertilizers, pesticides, pathogens, septic, etc.) and shoreline (riparian area) health / ability to filter out contaminants
- ▶ Guidelines for drinking water, agriculture, industry, recreation, aquatic life
- ▶ Water quality trends ( nutrients are stable; salinity is increasing)
- ▶ Cumulative effects of development and climate change

# Goal: Good Water Quality

*To achieve this goal, the plan will work towards:*

- ▶ Objective: Surface water quality is maintained or improved.
- ▶ Objective: Lake users are knowledgeable about and able to adapt to lake levels, which fluctuate with natural variability.
- ▶ Objective: Groundwater quantity and quality is maintained and protected.



# Goal: Healthy Aquatic Ecosystems

## Important for?

- ▶ Aesthetics, culture, fish and other biodiversity, system sustainability

## Management Considerations?

- ▶ Historical fisheries overharvest, current catch and release, habitat loss, boating density, handling mortality
- ▶ Grebe colony, other sensitive species, biodiversity surveys, invasive species management
- ▶ Littoral zone, riparian areas, wetlands, floodplain development, setbacks, buffers, reserves



**Commercial fishing on Wabamun Lake.** [NA-4723-44] Used with permission courtesy of Glenbow Archives and Special Collections, University of Calgary.

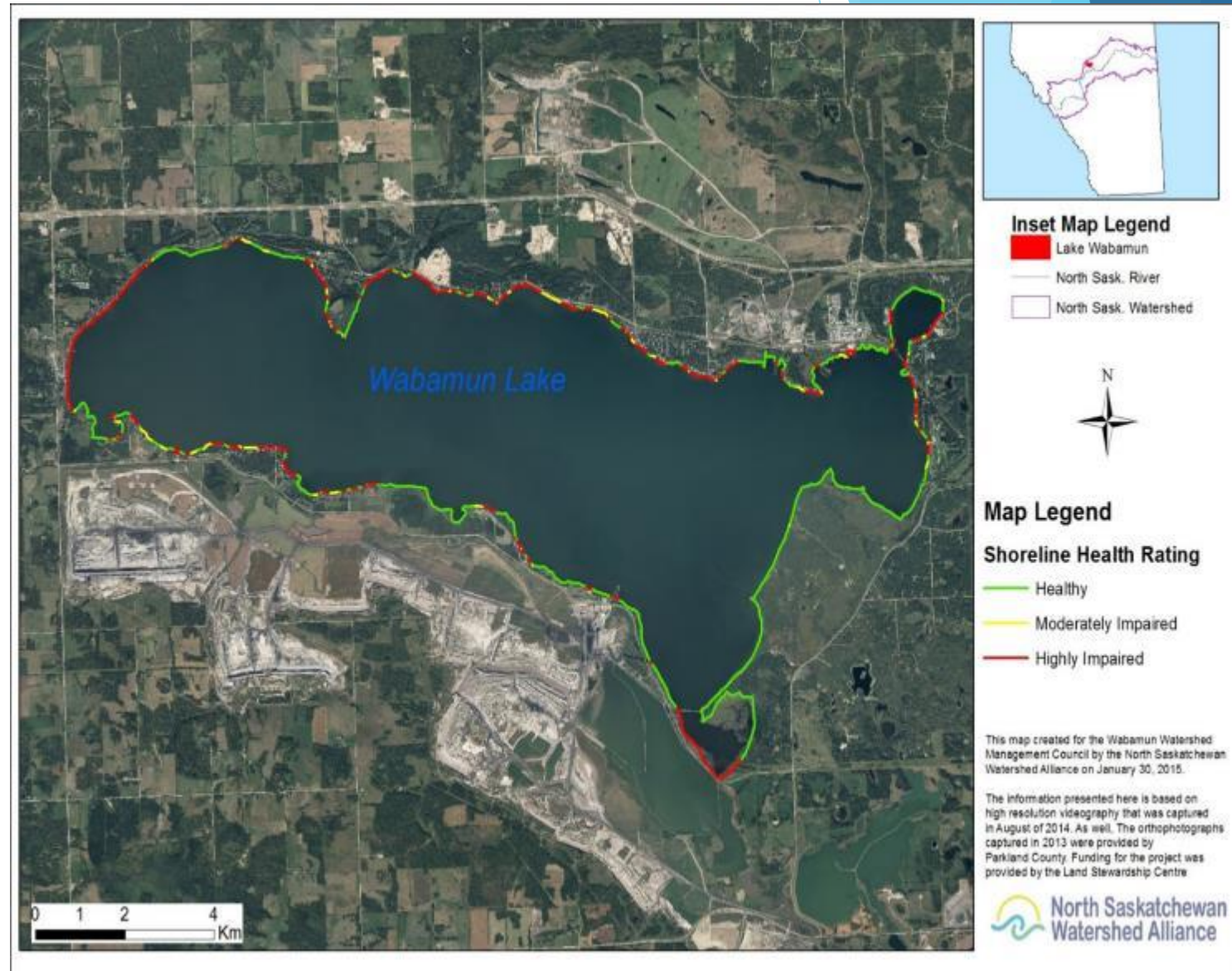


# Goal: Healthy Aquatic Ecosystems & Biodiversity

*To achieve this goal, the plan will work towards:*

Objective: Aquatic ecosystem health is maintained or improved.

Objective: Biodiversity is maintained or improved and the occurrence and spread of invasive species is prevented or mitigated.





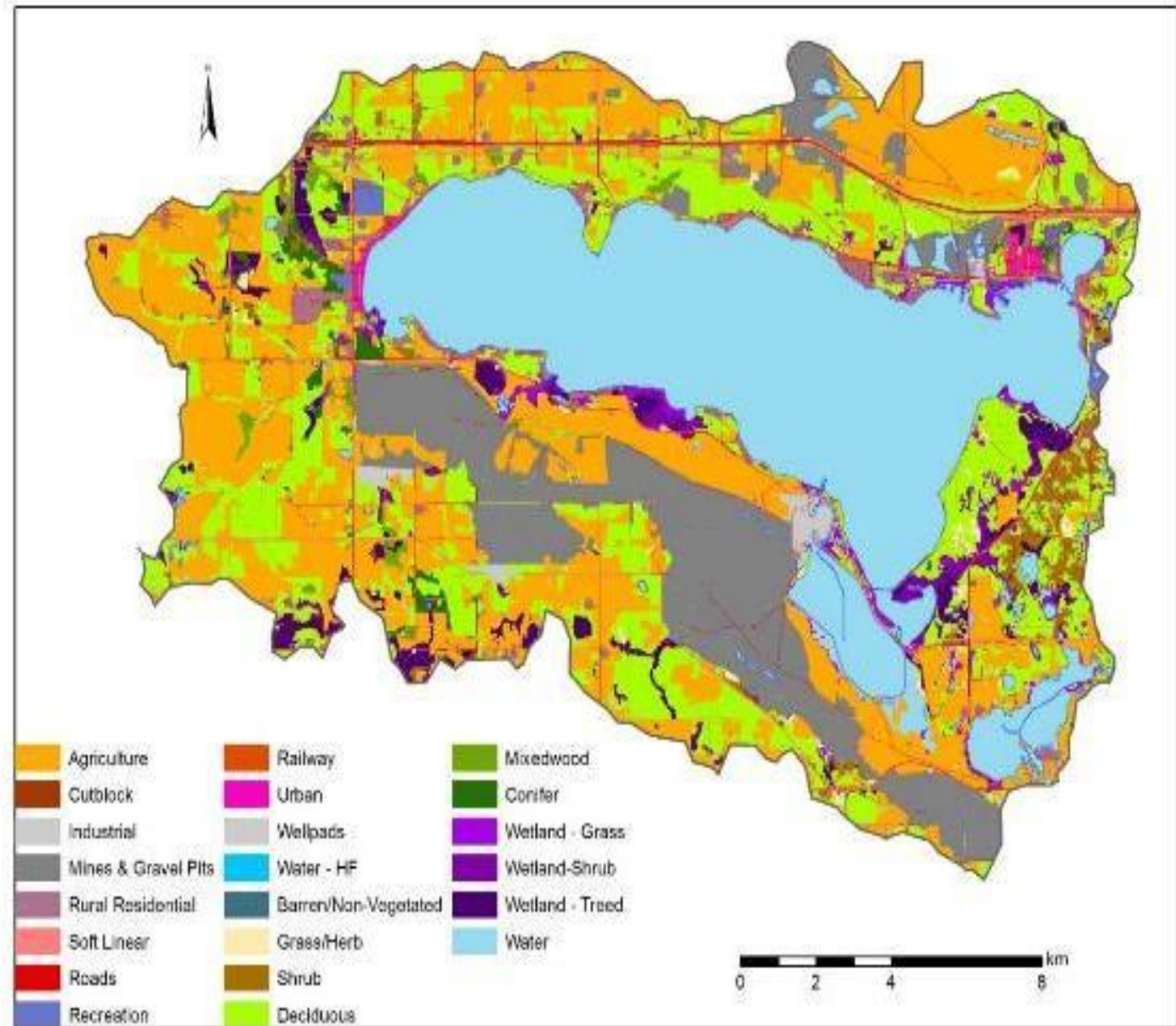
# Goal: Wise Land Use

## Important for?

- ▶ Maintaining environmentally significant areas, productive soils, areas for recreation and other land uses that contribute to a healthy economy

## Management Considerations?

- ▶ Population growth, residential development, mining reclamation, agricultural expansion, commercial and other linear development
- ▶ Federal jurisdiction, provincial policy and regional plans, county initiatives, village and summer village policies and plans



# Goal: Wise Land Use

*To achieve this goal, the plan will work towards:*

Objective: To the extent possible, natural land cover is retained and land use does not impair lake or watershed health.

Objective: Policies and plans are aligned between authorities and regulatory bodies such that development does not impair lake watershed health.

Objective: Knowledge needed to manage the Wabamun Lake watershed is gathered and made available to decision-makers.



# Goal: Engaged Stewards

## Important for?

- ▶ Collaboration, coordination, getting buy-in
- ▶ Leveraging resources, capacity-building

## Management Considerations?

- ▶ What organizations, initiatives, information already exist?
- ▶ Roles and responsibilities (who will do what?)
- ▶ What do people already know; what do they need to be good stewards?



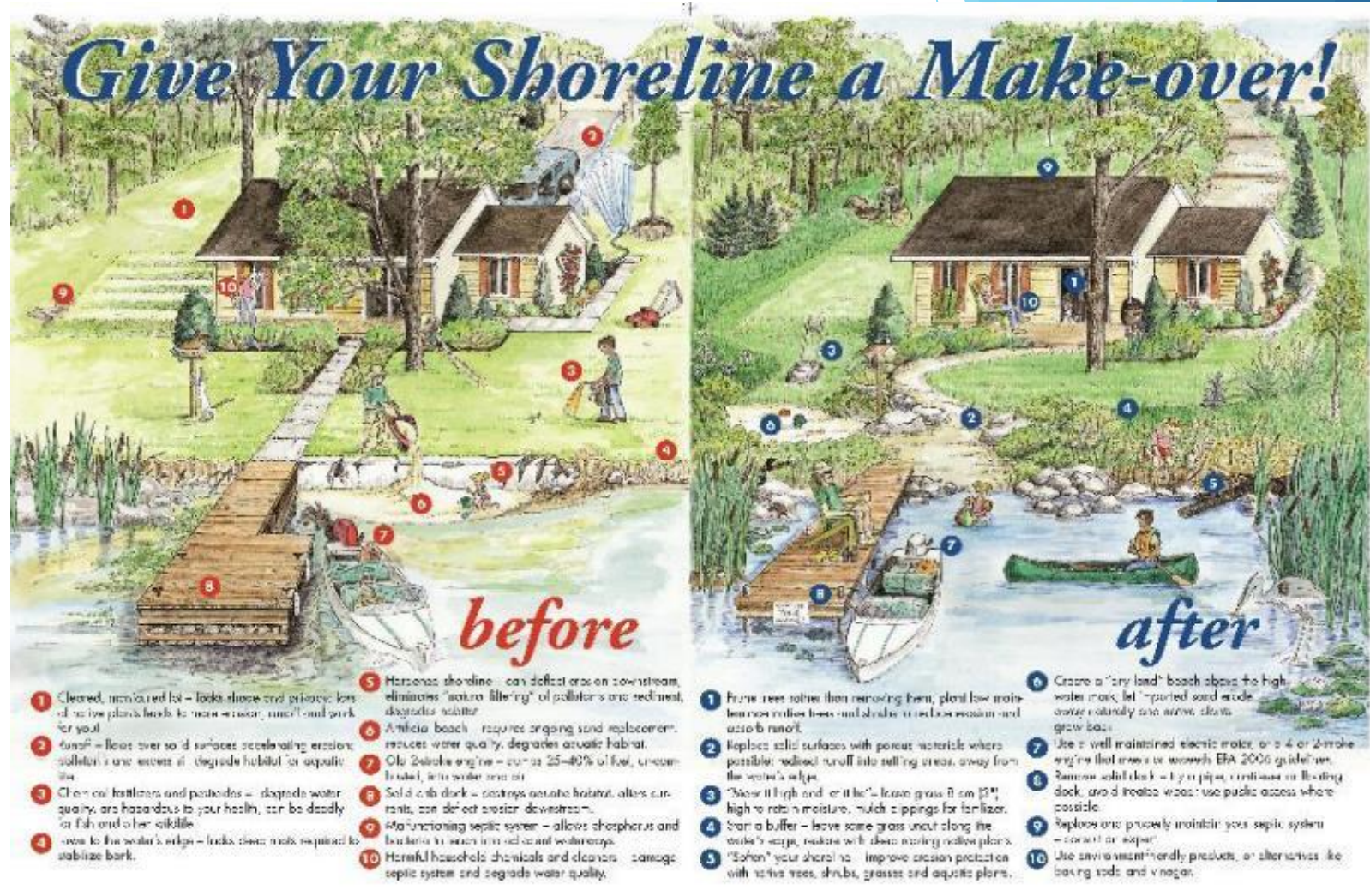


# WMP Goal: Stewardship

*To achieve this goal, the plan will work towards:*

Objective: Residents and visitors are knowledgeable about how they can lessen their impact and contribute to lake health.

Objective: The community shares its collective responsibility to be the best stewards of the Wabamun Lake watershed and stewardship programs inspire individual and collective action.





# Key Partners

As they say, “it takes a village...” and this is certainly true for the Wabamun Lake Watershed Management Plan. Implementation of the plan will only be successful if everyone does their part. Fortunately, the Wabamun Lake community is already engaged and committed to ensuring the lake stays healthy for current and future generations.



**Seba Beach ca. 1900.** [NA-4723-54] Used with permission courtesy of Glenbow Archives and Special Collections, University of Calgary.

# Watershed Groups

## Locally, the WWMC:

- ▶ Represents the Lake community
- ▶ Advocates for lake health
- ▶ Provides education and outreach
- ▶ Provide volunteers for lake sampling, biodiversity counts, etc.
- ▶ For more information, see [www.wwmc.ca](http://www.wwmc.ca)



## Regionally, the NSWA:

- ▶ Solicits funding from the province, municipalities and granting programs in the North Saskatchewan River Watershed
- ▶ In turn, provides financial, logistical and technical support to sub-basin and lake initiatives
- ▶ Oversees key technical initiatives such as the Wabamun Lake riparian assessment
- ▶ For more information, see [www.nswa.ab.ca](http://www.nswa.ab.ca)





## Provincial & Municipal Governments

Support lake health by:

- Regulating development around the lake
- Developing lake friendly policies and plans such as the cosmetic fertilizer and herbicide ban
- Providing Lakeshore Development Guidelines
- Designating Environmentally Significant Areas
- Managing initiatives such as the Healthy Lakes (Septic Inspection) Program
- Managing recreation by providing infrastructure such as the new Sundance Beach boat launch
- Providing logistical and technical support
- Supporting fish management, lake monitoring and other research and monitoring initiatives



# Industry



Support lake health by:

- ▶ Managing surface run-off, erosion and sedimentation at development sites
- ▶ Reclaiming lands
- ▶ Working with municipalities on area structure plans
- ▶ Air, water and biodiversity monitoring programs

# Conservation Organizations and Programs



- ▶ Alberta Lake Management Society's LakeWatch program
- ▶ ALUS Canada
- ▶ Nature Alberta's Living by Water
- ▶ Land Stewardship and Parkland County Green Acreages programs
- ▶ Alberta Conservation Association Kids Can Fish day
- ▶ And more!

# Residents and Visitors

Support lake health by

- ▶ Leaving shorelines in a natural state or if cleared, replanting with native species.
- ▶ Not washing vehicles, pets, or other items in or near the lake.
- ▶ Not cutting/mowing vegetation close to the water.
- ▶ Trimming, rather than cutting down obstructing trees and shrubs.
- ▶ Ensuring septic systems are functioning properly or upgrading to a holding tank/pump-out system.
- ▶ Avoiding the use of fertilizers and cosmetic pesticides, especially near water.
- ▶ Keeping boat wakes as small as possible near shore and wildlife.
- ▶ Clean, drain and drying boats / watercraft before transport.
- ▶ Watching for invasive species and reporting any sightings.
- ▶ Learning more about how to protect the lake and supporting local lake initiatives



# Next Steps

- ▶ The draft Wabamun Lake Watershed Management Plan is currently being reviewed by Steering Committee members and their organizations
- ▶ Next step is to engage other stakeholders and the public
- ▶ Finish the plan by incorporating feedback into the next and final draft
- ▶ Start implementing! Priorities include:
  - ▶ Maintaining a collaborative, representative steering committee
  - ▶ Building on existing educational activities with an initial focus on invasive species, riparian health and agricultural best practices
  - ▶ Restoring shoreline riparian function
  - ▶ Setting up a robust water quality monitoring program that informs decision-makers
  - ▶ Continuing to align municipal policies, plans and processes that promote watershed health (e.g., Fertilizer and pesticide bylaws, septic bylaws, development requirements, etc.)

# Supporters are asked to endorse the plan, such that they:

Accept the *Wabamun Lake Watershed Management Plan (2020)* as information and resolve to:

- ▶ 1. *continue to work collaboratively through the Wabamun Watershed Management Plan Steering Committee to implement the plan as time and resources allow; and*
- ▶ 2. *consider the plan in their own programs and activities, including the development of new or updated statutory and other governing documents.*

# Thank you!

## Questions?

Please submit your comments to  
[info@wwmc.ca](mailto:info@wwmc.ca)

For updates, see  
<https://www.wwmc.ca/watershed-management-plan>

