

Advancing Lake Watershed Management in Alberta

Alberta Lake Management Society
September 2017
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Overview

- Alberta Water Council and the project
- Methodology and findings
- 12 ways to advance lake watershed management
- Next steps and questions

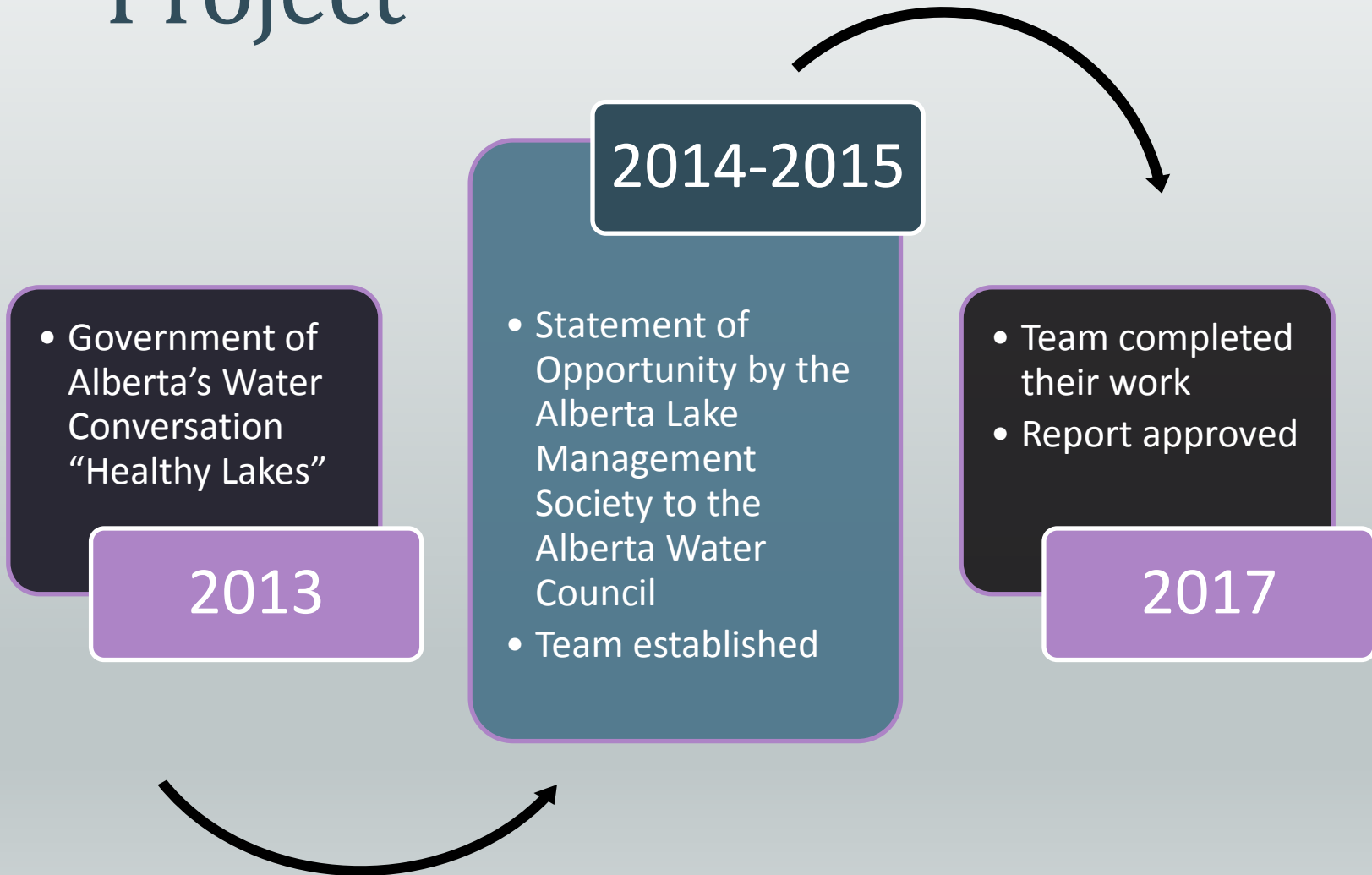


Alberta Water Council

- *Water for Life* partnership
- Multi-stakeholder group of 24 members (government, NGOs, industry)
- Consensus based decision making process
- Advice on provincial water management concerns



Lake Watershed Management Project



Diving in!



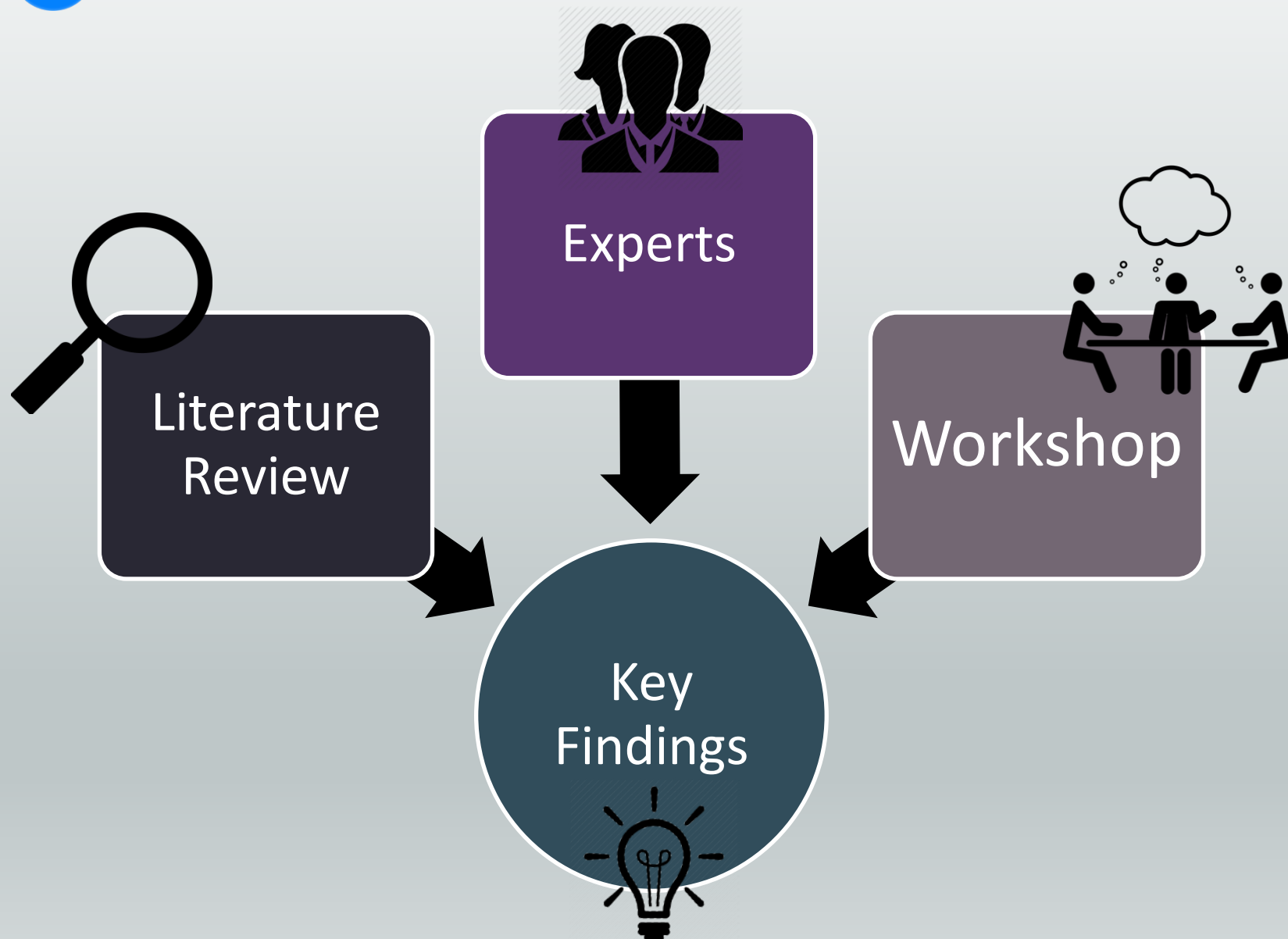
**Alberta Water Council
Lake Watershed Management
Project Team 2016**



Definition

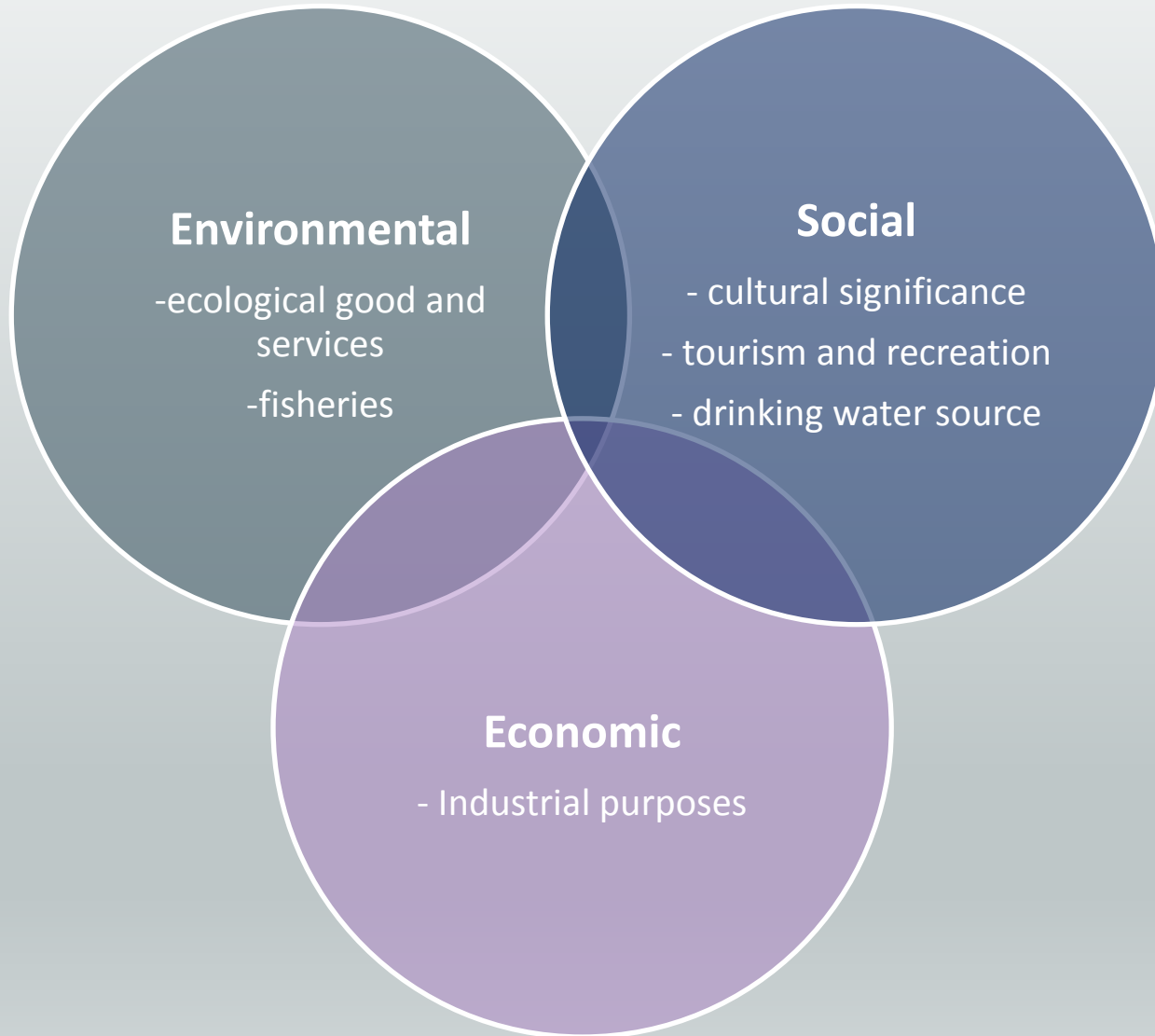
- Lakes cannot be managed in isolation of land use around it.
- Project focused on the **lake watershed** as a management unit.
- **An inland water body where the water is usually deep enough to not freeze to the bottom over the winter.**

Methodology



Lake Watersheds in Alberta

Importance



How many?



3,254
Water bodies

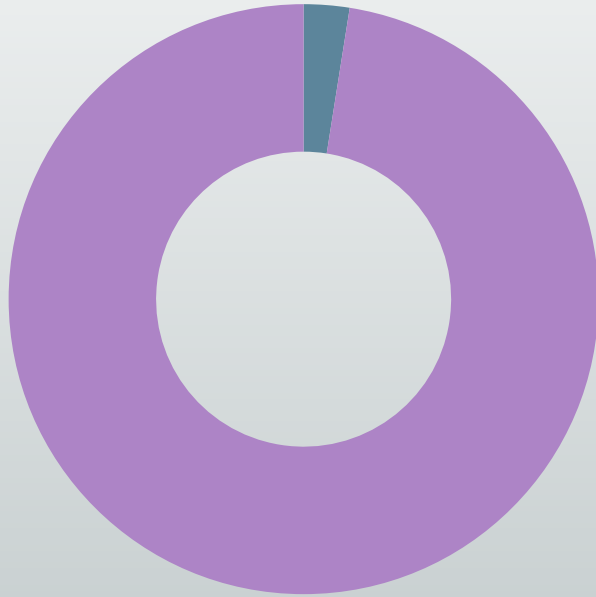


2,244
Named Lakes

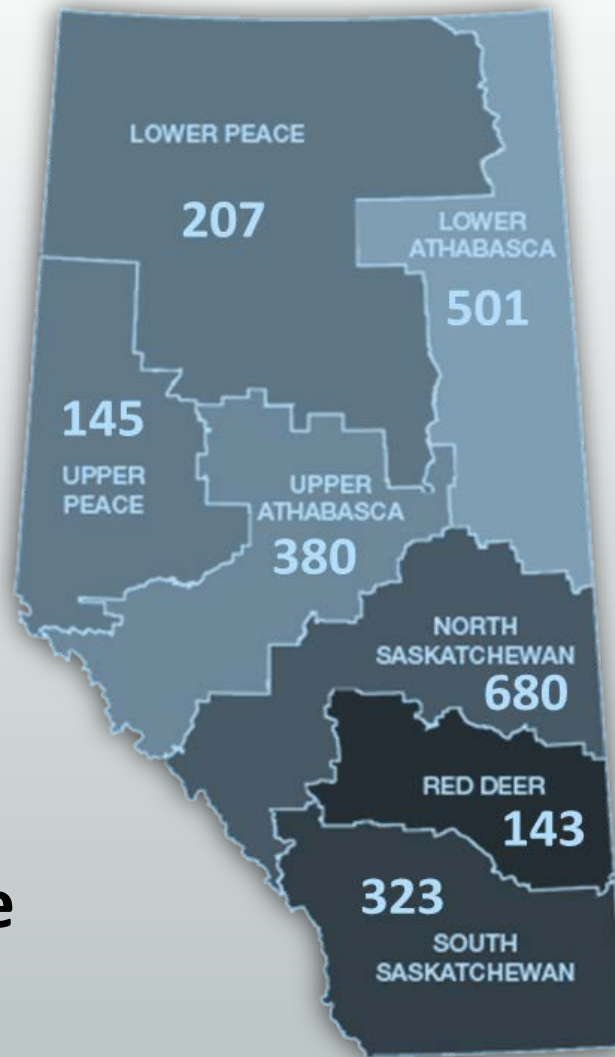


800
Fish-bearing
lakes

Where?



2.5% of Alberta's land base



Challenges

- We use and enjoy our lakes for many activities!
- Pressures and concerns have been on the rise due to a number of reasons.
- Growing awareness about lake-specific issues across the Province.

State of Lake Watershed Management in Alberta



State of Lake Watershed Management



Science and
Knowledge



Governance



Management
Planning



Education,
Stewardship
and Tools

Science and Knowledge

- Data on water chemistry and biota available for some lakes but impacts of land use on lake health not well understood.
- No provincial criteria to assess lake health and inform research and monitoring at the provincial scale.
- Broader baseline assessment of lake health is needed to prioritize management actions.



Governance

- Legislation exist and many jurisdictions are involved, but it is not clear who is accountable for leading this process--no single body, mandate or dedicated resources.
- Land-use decisions around lakes vary greatly among municipalities.
- Various levels of government, different responsibilities, often occurring in silos.



Planning mechanisms relevant to lake management

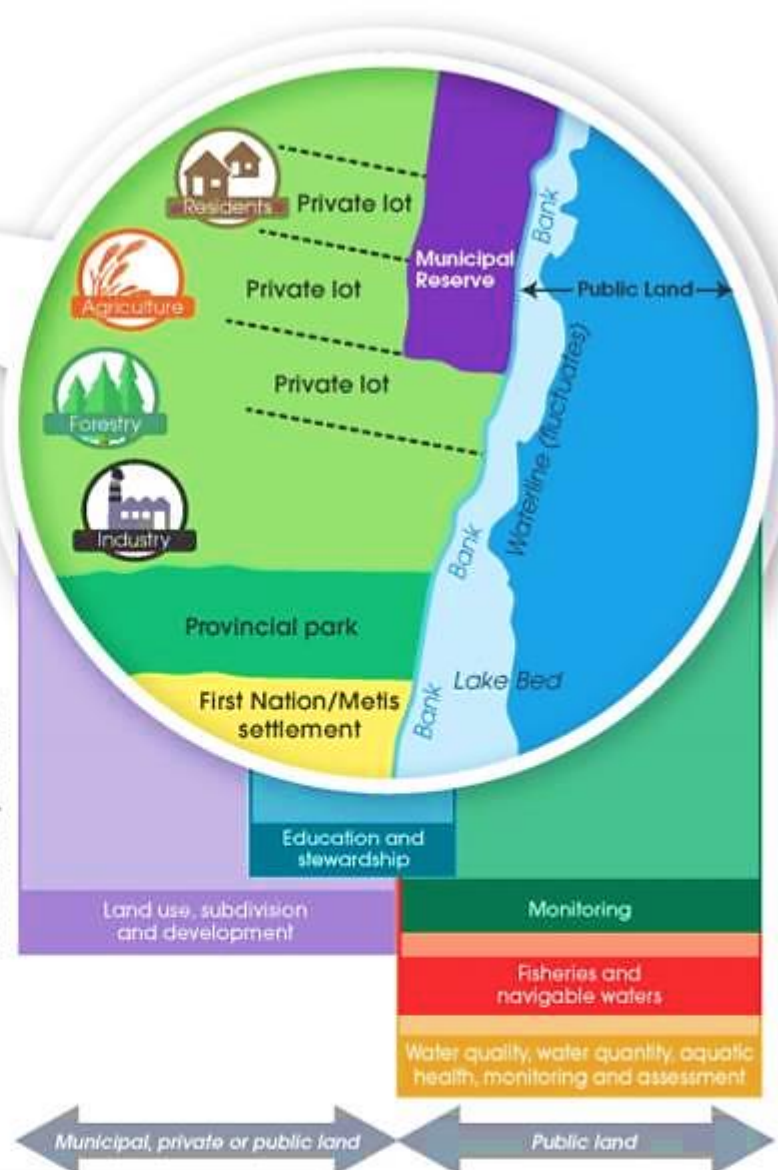
Regional planning

Municipal and intermunicipal development plans

Integrated watershed management plans

Lake watershed management plans

Roles and Responsibilities



Legend

- Federal government
- Government of Alberta
- Municipalities
- WPACs
- Support groups (includes ALMS, Cows and Fish, Living by Water, etc.)
- WSGs and other players (could include a municipality, a group of municipalities, a provincial department, a WPAC, or a support group)

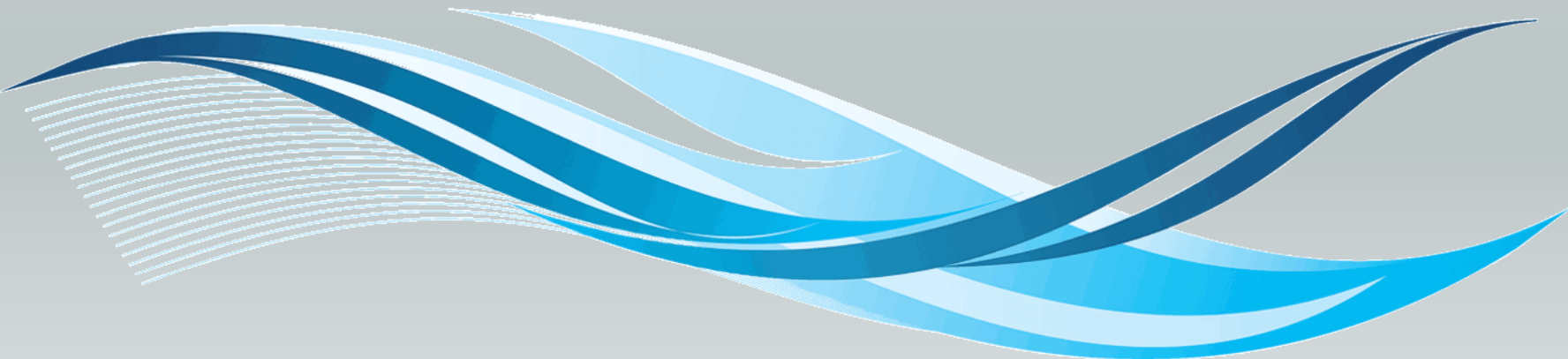
Management Planning

- Lake watershed planning occurring at the local scale by WSGs, WPACs and municipalities--no entity is responsible and accountable for leading.
- Implementation remains a key challenge for advisory plans developed by WSGs and WPACs.
- Planning initiatives are occurring on an *ad hoc* basis, where champions facilitate this process.



Education, Stewardship and Tools

- Tools and resources are available to support lake watershed management, but housed by the agencies that develop them.
- Tools are available for municipalities to incorporate lake management objectives into their statutory plans and bylaws.
- Voluntary and regulatory approaches necessary to foster long-term behaviour change around lakes.



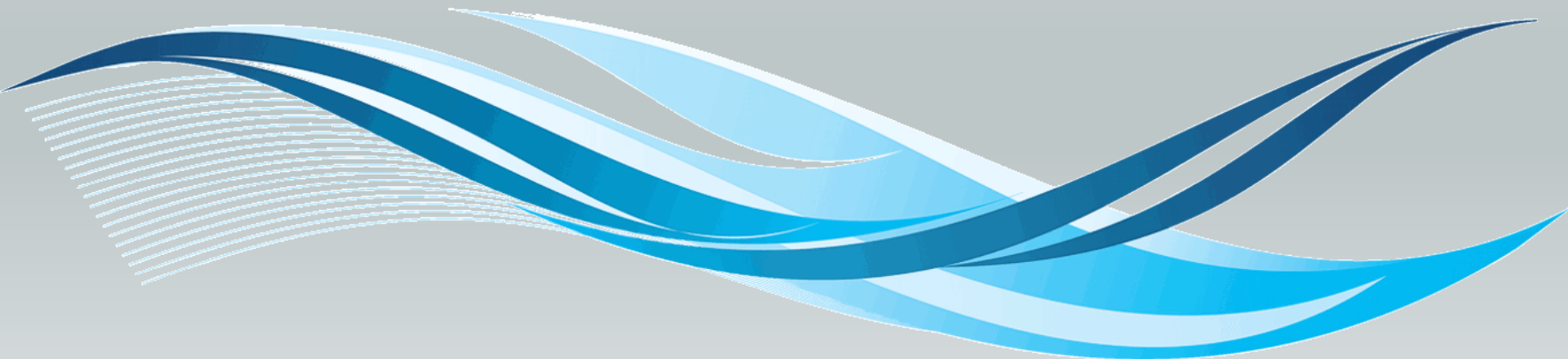
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Advancing Lake Watershed Management

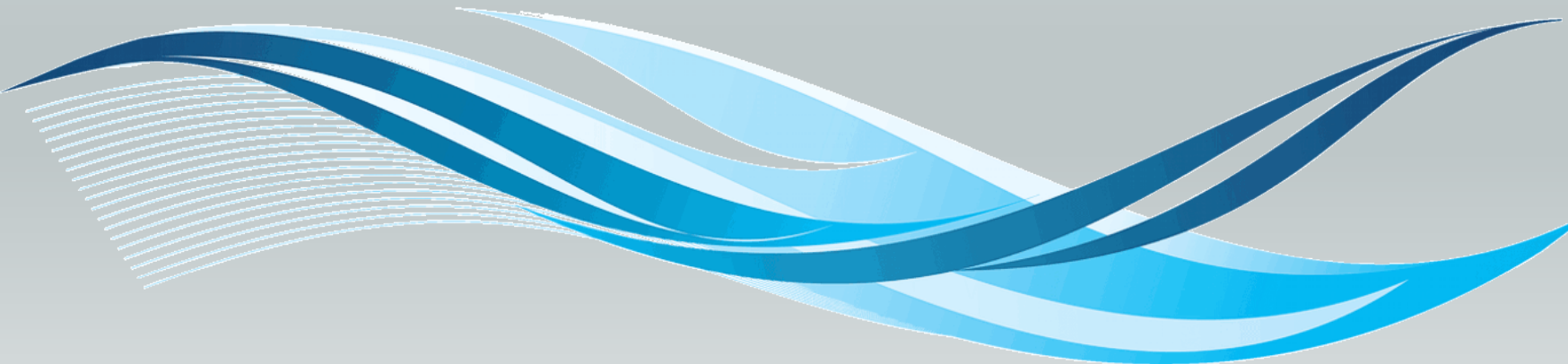
- Comprehensive approach with 5 building blocks and 12 recommendations all interconnected.
- Need to be implemented as a whole if the proposed approach is to be effective.
- Intended for lakes and reservoirs recognizing the main purpose of reservoirs may be to supply water for irrigation, hydropower, recreation or drinking water.





Strategic Direction for a Policy

- Create an aspirational vision, goals and objectives and adopt a watershed approach.
- Define roles and responsibilities of major groups.
- Clarify provincial processes for monitoring and research, prioritizing resources and integrating lake watershed planning into various scales and decision-making.



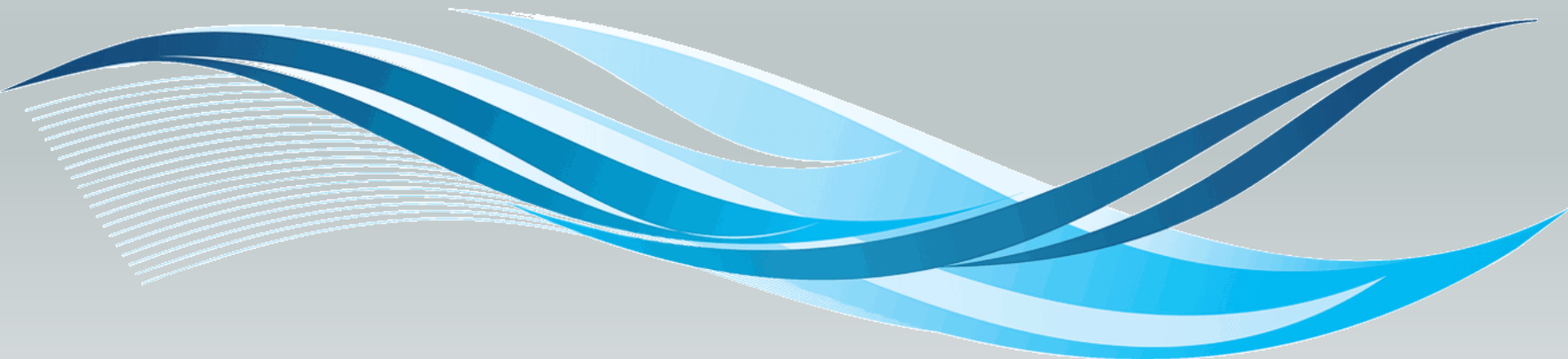
Science and Knowledge

- Develop a GIS-based, publicly available data layer of lakes and their watersheds.
- Continue developing a knowledge portal that provides one-window access to information and products.
- Identify criteria and indicators of lake watershed health, assess lake health and identify research and monitoring gaps.



Lake Watershed Management Planning

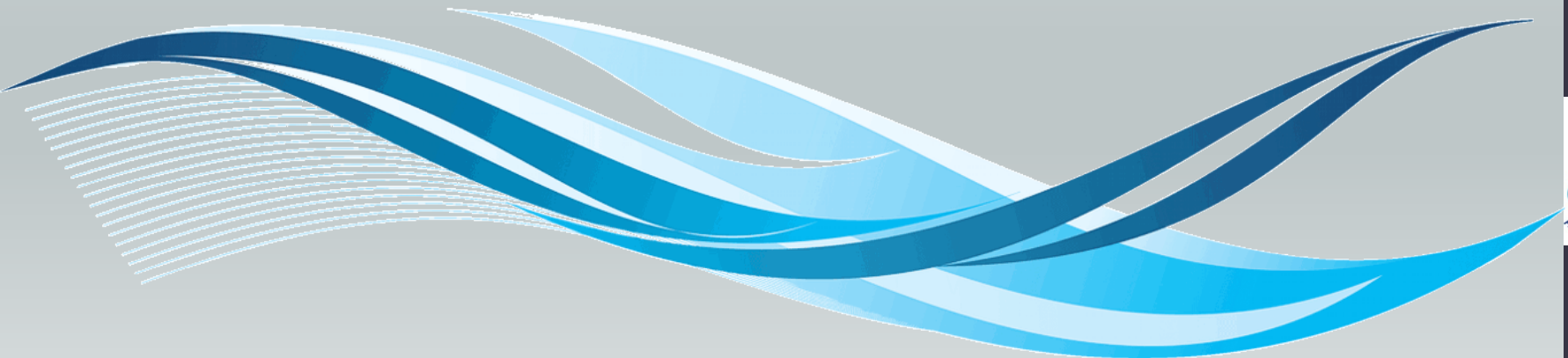
- Identify a process for all levels of government to engage and support multi-stakeholder planning and incorporate plans into land use planning and decision-making.
- Develop a process using environmental, social and economic criteria to prioritize lake watershed management actions.
- Designate a local lead to facilitate planning.





Tools for Managing the Uplands

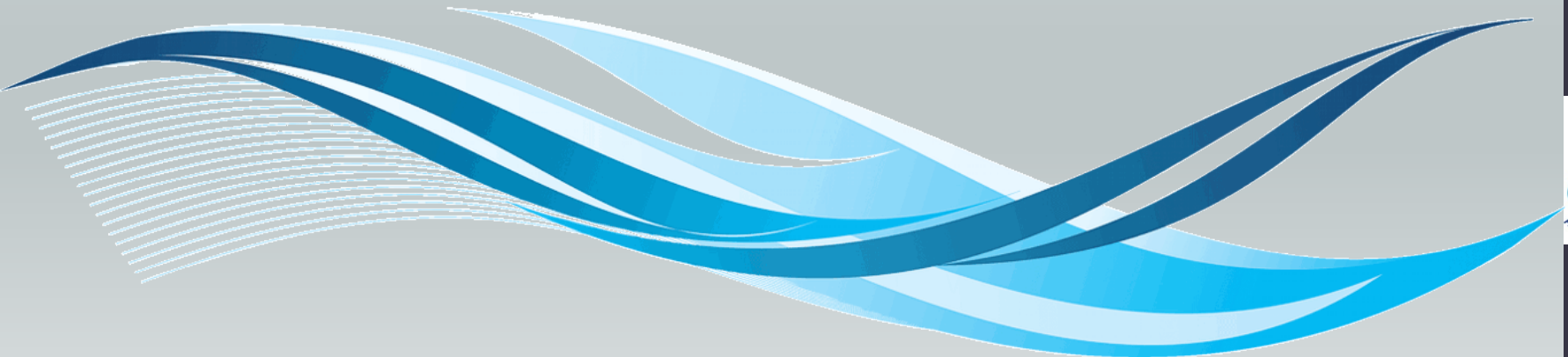
- Seek alignment among existing legislation, *Water for Life* and the proposed lake policy and strengthen legislative tools.
- Identify existing gaps in tools and information and develop resources to fill these gaps.
- Continue promoting information, tools and guidance related to lake watershed management.





Tools for Managing the Uplands

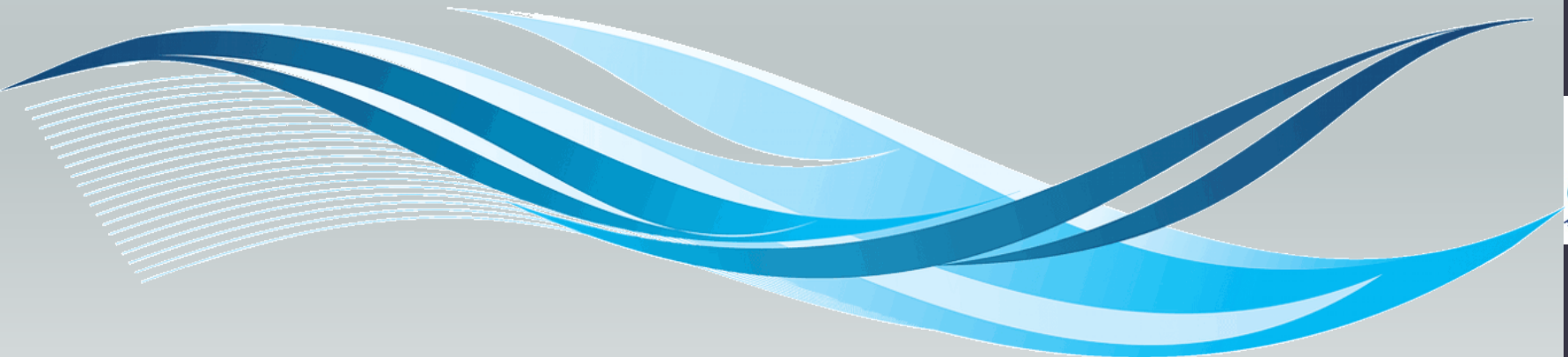
- Identify regulatory or operational gaps relative to activities on and surrounding lakes--develop and implement strategies to address them.
- Align and enhance beneficial management practices incentive programs in lake watersheds where non-point source management actions have been identified for lake watersheds.





Access to Tools and Education

- Coordinate lake education and outreach through the Respect our Lakes program.
- Identify target audiences, develop consistent messaging and ensure access to information, tools and resources.



Conclusions

- Lake watershed management is a complex task, with many groups, multiple planning and decision-making.
- Volunteers, lake groups, municipalities and others have spurred work happening in watersheds.
- Increased provincial coordination is needed to ensure that planning can lead to successful implementation of management decisions at all scales.

What's happening now?

- Team's report was approved by the AWC board in March 2017!
- Publicly released on Monday 25 September.
- Possible press conference with the Minister of Environment and Parks.



Next steps

- The Government of Alberta will continue using these findings to inform the development of a provincial lake policy.
- Progress on the implementation of recommendations are tracked and reported annually by the AWC.

Thank you for listening!



Questions or comments?

