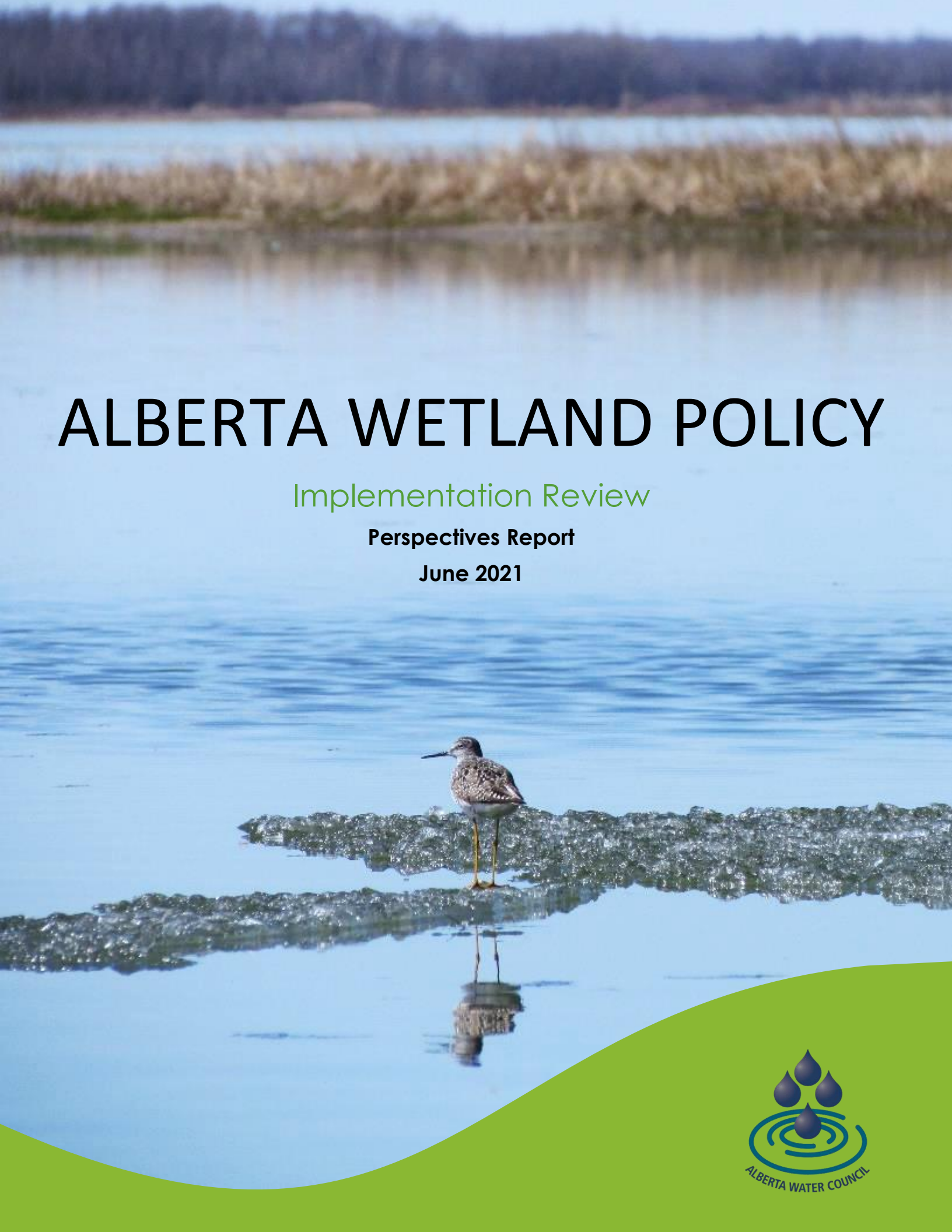


ALBERTA WETLAND POLICY

Implementation Review

Perspectives Report

June 2021

ALBERTA WATER COUNCIL

About the Alberta Water Council

The Alberta Water Council (AWC) is a collaborative partnership that provides leadership, expertise, and sector knowledge and perspectives to help governments, Indigenous peoples, industry, and non-governmental organizations to advance the outcomes of *Water for Life*.

The AWC is one of three partnerships established under the *Water for Life* strategy: the others are Watershed Planning and Advisory Councils and Watershed Stewardship Groups.

The AWC regularly reviews the implementation progress of the *Water for Life* strategy and champions the achievement of the strategy's goals. The AWC may advise on government policy and legislation in some instances. However, the Government of Alberta (GoA) remains accountable for implementing *Water for Life* and continues to administer water and watershed management activities throughout the province.

Alberta Water Council
14th Floor, Petroleum Plaza South Tower
9915-108 Street
Edmonton, AB T5K 2G8
Telephone: 780-644-7380
Email: info@awc-casa.ca
Web: www.awchome.ca

© June 2021

List of Tables

Table 1: Survey Participants 10
Table 2: Respondents' Understanding of Policy Terminology 14
Table 3: Policy Outcomes by Potential Performance Measure 16

List of Figures

Figure 1: Respondents' clarity ratings by policy outcome..... 12
Figure 2: Respondents' clarity ratings by strategic direction..... 13

Acronyms

ABWRET	Alberta Wetland Rapid Evaluation Tool
AWC	Alberta Water Council
BMP	Best management practice
GoA	Government of Alberta
WPAC	Watershed Planning and Advisory Council
WSG	Watershed Stewardship Group

Executive summary

In 2020, the Alberta Water Council (AWC) identified the need to review the implementation of the *Alberta Wetland Policy (the policy)*. This review would support improving and public reporting on the efficiency and effectiveness of implementing the policy by the Government of Alberta (GoA) and Albertans.

The AWC established a project team to create a common understanding of the policy's terms, characterize successful implementation, and identify potential performance measures for the goal, outcomes, and strategic directions of the policy. Additionally, the team was tasked with describing the challenges, opportunities, or unintended consequences experienced by AWC sectors and other partners when implementing the policy.

The project team distributed a survey to document the perspectives of the sectors and other partners potential performance measures, challenges, opportunities, and unintended consequences they have observed when working with the policy. Using the survey results, together with the expertise of the team, their respective sectors (where applicable), and other Albertans, major themes were identified.

Key findings from this work revealed the following:

- **Common Understanding** – when implementing the policy, survey respondents were asked to rate if the outcome, strategic direction statements, and supporting documents were sufficient explicit guidance. Survey results were divided but showed that the outcome statement "*Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value*"[1] and the strategic direction statement "*Enable flexible wetland management*"[2] warrant further definitions and supporting education materials.

- **Performance Measures** – five potential performance measures were identified:
    - **Area, number, and class of wetlands with a protective designation** - wetlands with a legal protective designation (e.g., wetlands in

[1] [2] Government of Alberta, 2013. *Alberta Wetland Policy*. Available online: https://open.alberta.ca/dataset/5250f98b-2e1e-43e7-947f-62c14747e3b3/resource/43677a60-3503-4509-acfd-6918e8b8ec0a/download/6249018-2013-alberta-wetland-policy-2013-09.pdf. Accessed May 2021.

provincial parks, environmental reserves, conservation easements, other protective measures).

- **Area, number, and class of wetlands lost** – wetlands permanently lost since policy implementation because of development.
- **Area, number, and class of wetlands replaced** – wetlands added to the landscape through wetland restoration or construction.
- **Wetland replacement funds collected and spent** – funds to restore and replace lost wetland area and value in the Green and White areas[3], with the average cost per hectare of replaced wetlands and allocation by replaced wetland.
- **Timelines for regulatory review** – turnaround time from application to final decision.

- **Successes and Challenges** – several successes and challenges encountered by survey respondents when implementing the policy were highlighted.
  - **Successes:**
    - An approved policy – the policy has supported tools and a platform for managing wetlands provincially to be developed.
    - Operational mitigation and restoration programs – these programs support the policy's outcomes by providing compensation for approved loss and funding for restoration at scale.
    - Improved dialogue and education – the policy's rollout has led to new conversations and more education about conserving and restoring wetlands.
  - **Challenges:**
    - Complex regulatory system – the system's process and guidance information are challenging to navigate.
    - Regulatory efficiency – there are significant opportunities to improve the efficiency and cost effectiveness of the regulatory process.

[3] Government of Alberta., 2015 *Sustainable Forest Management: General Boundary Information.* Available online: https://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/formain15744/$FILE/2015-General-Boundary-Information.pdf. Accessed May 2021.

        - Assessment tools – existing tools are not transparent, poorly understood, and do not consider the ecological aspects of wetlands.
        - Transparency and reporting – there is inadequate progress reporting, and consequently a diminished trust in the policy and its tools among the public.
        - Insufficient education and stewardship – because of inadequate education and stewardship efforts, valuable partner-specific support are not being leveraged.

- **Opportunities to Improve** – various opportunities to improve the policy's effectiveness were examined:
    - Clarify implementation requirements – improve clarity and transparency so that the process is less reliant on expertise and more accessible to non-wetland experts.
    - Ensure Indigenous dialogue – facilitate ongoing, open, and meaningful dialogue with Indigenous peoples in decision making.
    - Bolster education programs – expand programs to consider the needs of Indigenous peoples, organizations, and partners and their accessibility to information.
    - Improve public reporting – provide periodic updates on policy progress to the public.

This report presents several performance measures, challenges, opportunities, and unintended consequences that are being experienced by sectors along with a rationale. The AWC was not tasked with making policy recommendations for prospective solutions. Instead, their scope of work focused on areas that the GoA can consider when improving how the policy is implemented and reporting on its progress publicly.

Table of Contents

1.0 Introduction 8

1.1 Background 8

1.2. Purpose and outcomes 9

1.3. Methodology 9

2.0 Common Understanding of Terminology 11

2.1 Overall clarity 11

2.2 Policy Terminology 14

3.0 Measuring the Performance of Policy Outcomes 16

3.1 Area, number, and class of wetlands with a protective designation 17

3.2 Area, number, and class of wetlands lost 18

3.3 Area, number, and class of wetlands replaced 19

3.4 Wetland in-lieu fee payments (replacement fees) collected and spent ... 20

3.5 Timelines for regulatory review 21

3.6 Additional reporting parameters 22

4.0 Successes and Challenges with Implementing the *Alberta Wetland Policy* .. 25

4.1 Successes 25

4.2 Challenges 26

5.0 Opportunities for Improving the Policy 29

5.1 Clarify Policy Requirements 29

5.2 Indigenous Dialogue and Perspectives 29

5.3 Enhance Education and Stewardship 30

5.4 Improved Public Reporting 30
Appendix A- Terms of Reference 31
Appendix B- Acknowledgements 34

1.0 Introduction

Wetlands are indispensable. They provide countless benefits or ecosystem services for humanity, ranging from freshwater supply, food and building materials, and biodiversity to flood control, groundwater recharge, and climate change mitigation.[4] Moreover, wetlands support a variety of human activities such as bird watching, hunting, conservation, and horticulture. They also play a pivotal role in several cultural and traditional practices of Indigenous peoples.[5]

The historic and ongoing loss of wetlands is a significant issue. "The scale of wetland loss across Alberta is only partially understood, but is estimated to be significant, with 64 per cent of wetlands lost to date in the White area, and current annual loss estimated at between 0.3 percent and 0.5 percent of remaining wetland area. According to AWC past research, the scale of wetland loss or impacts in the Green area is unknown but has likely increased due to development."[6]

1.1 Background

Albertans have long acknowledged the importance of wetlands and the need to rigorously protect them. Since its inception in 2013, the *Alberta Wetland Policy* has provided strategic direction and tools to support partners as they conserve, restore, protect, and manage wetlands. Despite this, population growth combined with various types of development continue to cause wetland loss. To prevent further loss, work is required to improve implementation of the policy.

At the June 2020 AWC board meeting, members identified the need to determine if the *Alberta Wetland Policy*, introduced in 2013, was achieving its desired outcomes. A better understanding of this issue would allow AWC's member to strategically advise the GoA and others on areas of success and areas for improvement. Subsequently, the AWC established an ad hoc group to determine if a project idea existed. The ad hoc group determined that there was a project idea, and with board approval this idea evolved into a working group and subsequently a project team.

---

[4] Ramsar, 2014. *The Importance of Wetlands*. Available online: https://www.ramsar.org/about/the-importance-of-wetlands. Accessed February 2021.
[5] Government of Alberta, 2013. *Alberta Wetland Policy*. Available online: https://open.alberta.ca/dataset/5250f98b-2e1e-43e7-947f-62c14747e3b3/resource/43677a60-3503-4509-acfd-6918e8b8ec0a/download/6249018-2013-alberta-wetland-policy-2013-09.pdf. Accessed February 2021.
[6] Alberta Water Council, 2008. *Recommendations for a new Alberta Wetland Policy*. Available online: https://www.awchome.ca/_projectdocs/?file=3f71924d41ee58de. Accessed May 2021.

1.2. Purpose and outcomes

The AWC approved terms of reference (Appendix A) for a project team to develop a common understanding of *Alberta Wetland Policy's* terms, characterize successful implementation, and identify potential performance measures for the goal, outcomes, and strategic directions of the policy. Given the short timeframe for this opportunity, the AWC piloted an expedited project team process. The project's objectives were as follows:

- Preliminary review – determine the potential performance measures, challenges, opportunities, and unintended consequences for the policy goal, outcomes, and directions.
- Cross-sector input – seek cross-sector perspectives on the proposed performance measures and on implementation challenges, opportunities, and unintended consequences to supplement project team perspectives.
- Finalize review and report – describe a select few performance measures for the policy goal, outcomes, and directions and prioritize across sector perspectives to identify potential priorities.

1.3. Methodology

Over the course of the project's duration, the team met virtually 15 times for an estimated time of 435 hours, and in-kind support (e.g., co-chair time, sub-group meetings, and in-between meeting work) of approximately 350 hours was provided. A visual platform called MIRO was employed to support team brainstorms and other activities.

A survey was used to collect feedback from AWC sectors, Indigenous peoples, and Albertans. Responses were accepted from December 9, 2020 to January 29, 2021. Fifty-eight responses were collected from several groups as shown in Table 1.

This report was prepared from group discussions among the project team, complemented by survey results. The survey provided a snapshot of perspectives on this topic and is not a rigorous quantitative analysis. Together these strategies helped the AWC to characterize current trends and identify potential performances measures, successes, challenges, and opportunities.

Table 1:Survey Participants

Category	Groups
Government	Rural
	Small Urban
	Large Urban
Government of Alberta and Provincial Authorities	Agriculture and Forestry
	Economic Development
Industry	Cropping
	Forestry
	Irrigation
	Oil and Gas
Non-Government Organizations	Environmental
	Lake Environment Conservation
	Watershed Planning and Advisory Councils
	Wetland Conservation
Other	Environmental Consulting Professionals
	Individuals Landowners

2.0 Common Understanding of Terminology

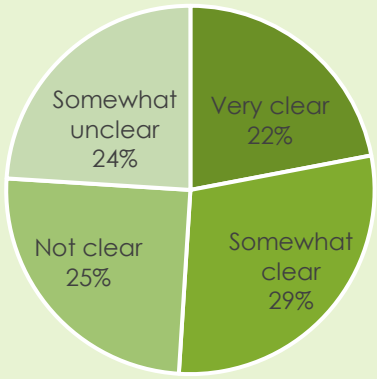
A key element of implementing the *Alberta Wetland Policy* is the degree to which its terminology is understood. Policy outcomes are not commonly understood or defined by implementers. Some terms such as protection, conservation, and highest value wetlands are not defined and therefore subject to interpretation.

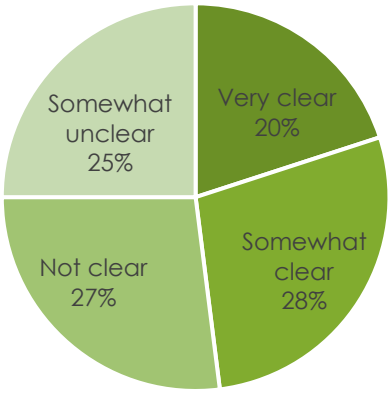
2.1 Overall clarity

The survey posed the question "Is each policy outcome and direction, taken together with the policy's supporting documents, clear enough to guide implementation?", and asked respondents to rate the clarity of policy outcomes and strategic directions. Figure 1 illustrates that survey respondents were divided in their ratings regarding the clarity of policy outcomes.

Outcomes

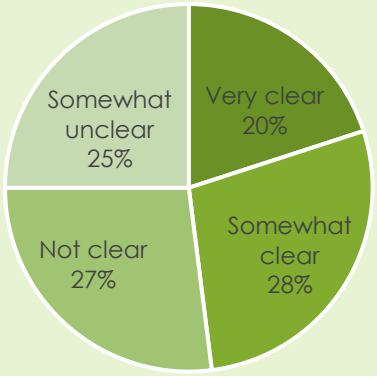
Wetlands of the highest value are protected for the long-term benefit of Albertans.

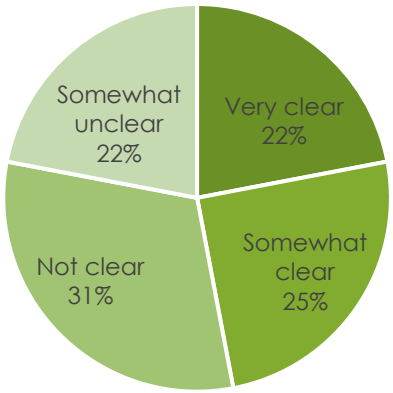




Wetlands and their benefits are conserved and restored in areas where losses have been high.

Wetlands are managed by avoiding and minimizing, and if necessary, replacing lost wetland value.





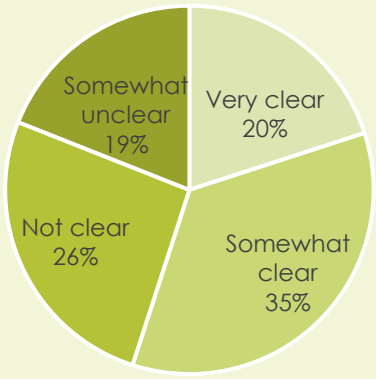
Wetland management considers regional context.

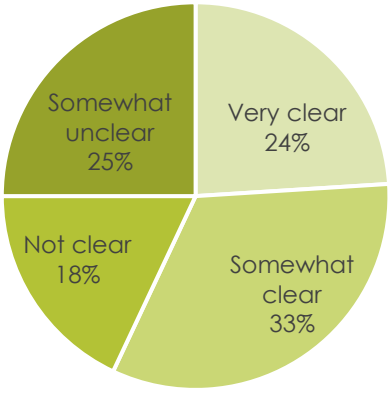
Figure 1: Respondents' Clarity Ratings by Policy Outcome

Figure 2 on page 10 illustrated that survey respondents were also divided in their ratings regarding the clarity of strategic directions. These findings highlight that additional definitions and education materials might be required to improve clarity and consistency for Albertans.

Strategic Directions

Enable flexible wetland management.





Build effective tools, knowledge, and capacity.

Encourage conservation of wetlands and voluntary stewardship.

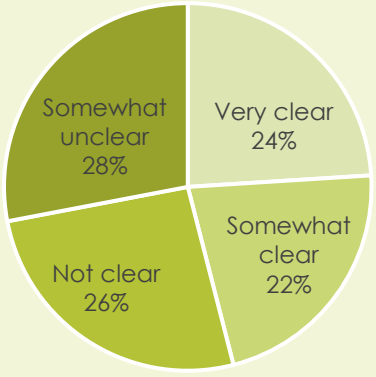


Figure 2: Respondents' Clarity Ratings by Strategic Direction

2.2 Policy Terminology

Survey respondents were asked to share their thoughts and understanding on a several important terms from the *Alberta Wetland Policy*. A summary of their responses is provided in Table 2.

Table 2: Respondents' Understanding of Policy Terminology

Terminology	Observations
Wetlands of the highest value	• Responses varied. • Most respondents attributed wetland value to environmental characteristics. • Cultural, social, and economic value characteristics were less prominent when assessing high value. • Many respondents did not equate wetlands classified as A-value as being of high value.
Wetlands and their benefits	• Many respondents referred to ecological goods and services when describing wetland benefits. • Fewer respondents referred to the economic, recreational, and cultural benefits of wetlands.
Where losses have been high	• The term was linked by many to areas of high historic loss (e.g., White area). • Some respondents thought that wetlands were valuable while others described aspects of their degrading functions (e.g., inability to provide ecosystem services). • Losses were attributed to human disturbance (e.g., urban, agriculture, mining, peat harvesting, housing and infrastructure projects). • Some respondents felt that losses should be considered from a local or regional scale.
Considers regional context	• Many respondents thought that regional context was not well defined or described in the policy. • Most respondents described regional boundaries from the *Land-use Framework*, municipal, ecoregion, or watershed boundaries.
Flexible wetland management	• This term was generally considered to be used within a regional context (i.e., management approaches by region is unique and varies). • Decision making should consider local perspectives and knowledge. • Some respondents mentioned the importance of balancing economic, social, and environmental benefits with flexible management. • Some respondents thought there was a need for a more strategic approach so that education and awareness were included in management.

Voluntary stewardship	• This term was understood to mean activities that conserve wetlands and are not regulated (e.g., communities, industry, or landowners without a prescribed mandate). • In general, voluntary stewardship was seen to be achieved by landowners using best management practices. • Most respondents thought that voluntary stewardship should be acknowledged in the policy.

3.0 Measuring the Performance of Policy Outcomes

Based on survey responses and group discussions, the AWC put forward several performance measures (Table 3) and reporting elements to be considered by the GoA. They are intended to inform developing a suite of performance measures and improve how the policy is implemented and measured. Tracking and reporting mechanisms for these measures would improve transparency and public accessibility to information.

Table 3: Policy Outcomes by Potential Performance Measure

Performance Measure	**Outcome***				**Strategic Direction****		
	1	**2**	**3**	**4**	**1**	**2**	**3**
1. Area, number, and class of wetlands with a protective designation	✓						
2. Area, number, and class of wetlands lost		✓	✓	✓			
3. Area, number, and class of wetlands replaced		✓	✓	✓			
4. Wetland in-lieu fee (replacement fees) collected and spent			✓			✓	
5. Timelines for regulatory review						✓	
Additional Reporting							
1. Wetland inventory with area, number, and class of wetlands in Alberta	✓	✓	✓	✓			
2. Regular multi-stakeholder review of regulatory application requirements						✓	
3. Periodic inventory of BMPs for wetlands							✓
4. Periodic inventory of wetland education and stewardship programming							✓

*** Outcome 1 - Wetlands of the highest value are protected for the long-term benefit of Albertans**

Outcome 2 - Wetlands and their benefits are conserved and restored in areas where losses have been high

Outcome 3 - Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value

Outcome 4 - Wetland management considers regional context

**** Strategic Direction 1 – Enable flexible wetland management**

Strategic Direction 2 – Build effective tools, knowledge, and capacity

Strategic Direction 3 – Encourage conservation of wetlands and voluntary stewardship

3.1 Area, number, and class of wetlands with a protective designation.

Outcome supported:

1 - Wetlands of the highest value are protected for the long-term benefit of Albertans.

Description

- The area and number of wetlands with a legal protective designation (e.g., provincial parks, environmental reserves, conservation easements, other protective measures) could be considered.
- The overall area of wetlands with a protective designation could be reported at the provincial scale using various approaches:
    - In the White area, the number and area of wetlands with a protective designation.
    - In the Green area, the overall area of wetlands with a protective designation.
    - At various scales (e.g., regional, watershed, sub-watershed, municipality).
    - Could include both status (i.e., area and number of wetlands for the reporting period) and trend (i.e., trajectory of area and number of wetlands over time).
    - A comparison of status and trends against provincial and regional targets for the number and area of protected wetlands.
    - Alberta Wetland Classification System[7] wetland class.
- The timeframe to establish this measure is short term (one to three years) for reporting using the existing merged wetland inventory and medium term (three to six years) for incorporating information from land trusts, conservation agencies, and municipalities.

Rationale

- The area of wetlands with a protective designation is an overall measure of performance.
- The number of wetlands in the White area is important because small wetlands provide substantial benefit to areas subject to significant wetland loss. Reporting the number of wetlands in the White area with a

[7] Alberta Wetland Classification System. 2015. Available online: https://open.alberta.ca/dataset/92fbfbf5-62e1-49c7-aa13-8970a099f97d/resource/1e4372ca-b99c-4990-b4f5-dbac23424e3a/download/2015-alberta-wetland-classification-system-june-01-2015.pdf. Accessed May 2021.

protective designation could provide a complete picture of protection that may be masked by an area-only metric.

- Protecting and conserving wetlands is beneficial to the health of Alberta's ecosystems and can prevent the long-term loss of wetlands.
- Protection refers to the long-term prevention of loss and harmful impacts of disturbance to wetland function and value.
- Protection can occur across levels of government (e.g., municipal, provincial, Indigenous, and federal) and through private and corporate interests. This may include tools such as land-use designations (e.g., reserves, parks) and legal instruments (e.g., protective covenant, easements).

3.2 Area, number, and class of wetlands lost.

Outcomes supported:
2 - Wetlands and their benefits are conserved and restored in areas where losses have been high.
3 - Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value.
4 - Wetland management considers regional context.

Description

- A tally of the area and number of wetlands that have been permanently lost because of development could be used.
- Provincially, the overall area of wetlands that has been permanently lost could be reported using several approaches:
    - In the White area, the number and area of wetlands lost.
    - In the Green area, the overall area of wetlands lost.
    - The size of wetlands would supplement reporting on the number of wetlands lost in the White area.[8]
    - Regional targets for this could be developed to account for historical and current baseline status of wetland area and number.[9]
    - At various scales (e.g., regional, watershed, sub-watershed, municipality, natural regions).
    - Alberta Wetland Classification System wetland class.

[8] This descriptor could be considered to support future reporting, recognizing it may take time to develop this part of the metric.
[9] For example, targets in the White Area where wetland loss is high could focus on wetland numbers and area, while targets in the Green Area could focus on maintenance of wetland functions.

    - Potential interim measure could assess loss of wetland area and number tracked through regulatory approvals under the *Water Act*[10]. It can also use existing available inventories and overlaying changes detected by the Alberta Biodiversity Monitoring Institute Human Footprint layer.[11]
- The most accurate means of measuring is likely a repeatable, standardized inventory of wetlands on the landscape, which likely necessitates a medium (three to six years) to long-term (six to nine years) implementation horizon. Some other aspects to consider:
    - Advisable to prioritize priority replacement areas as these areas would have the highest recorded wetland losses.
    - Some forest management plans identify areas of various wetland classes in the Green Area which may advance inventory efforts.

Rationale

- Area of wetlands lost since policy implementation provides an overall measure of performance.
- The number of wetlands in the White area is important to consider because small wetlands provide significant benefit to an area already subject to substantial wetland loss.[12]
- Increasing wetland loss over time may indicate that mitigation efforts are not successful.
- Monitoring wetlands lost by Relative Wetland Value Assessment Units[13] may suggest areas for improving efforts.

3.3 Area, number, and class of wetlands replaced.

Outcomes supported:
2 - Wetlands and their benefits are conserved and restored in areas where losses have been high.
3 - Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value.
4 - Wetland management considers regional context.

[10] For more information about Alberta's *Water Act*, see https://www.qp.alberta.ca/documents/Acts/w03.pdf
[11] This measure could potentially be implemented in the short term (1 to 3 years), recognizing that it would not quantify wetland loss due to non-compliance with regulatory requirements.
[12] Reporting number of wetlands lost in the White area provides a more complete picture of loss that may be masked by an area-only metric.
[13] These units were defined using a combination of ecological and hydrologic parameters. The 21 units were delineated using the Hydrologic Unit Code Watersheds of Alberta and the Natural Regions and Subregions of Alberta 2005 datasets.

Description

- A tally of the area and number of wetlands added to the landscape by various activities. Tracking and reporting of area and number of wetland enhancement may be a potential future addition to this measure.
- Overall area and number of wetlands meeting the requirements would be reported provincially (i.e., a single number reported for Alberta). Report from multiple geographic scales (e.g., White, or Green area, regional, watershed, sub-watershed, municipality) as these offer a better understanding of policy efforts and results.
- Alberta Wetland Classification System wetland class.
- Timeline to establish this measure could be short term (one to three years), recognizing that the Wetland Replacement Program has just been initiated and the *Code of Practice for Wetland Replacement Works* took effect in December 2020.

Rationale

- This could measure how many wetlands are being restored and replaced on the landscape and serve as a counterpoint to the measure of their loss.
- This measure could highlight areas of the province where replacement activities could be accelerated.

3.4 Wetland in-lieu fee payments (replacement fees) collected and spent.

Outcome and Strategic Direction supported:
Outcome 3 - Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value.
Strategic Direction 2 – Build effective tools, knowledge, and capacity.

Description

- This measure includes the following:
    - Total amount of wetland in-lieu fee payments collected each year in White and Green areas.
    - Total amount spent to replace lost wetlands in White and Green areas.
    - Average cost per hectare of replacement wetlands and funds allocated for replacing each class of wetland.
- Could be implemented in the short term (one to three years).

Rationale

- Promotes transparency for any funds collected under the policy's mitigation approach.
- Monitoring the average cost of replacement wetlands allows compensation rates to be adjusted. This would ensure funds collected match monies needed for replacing wetlands.

3.5 Timelines for regulatory review.

Strategic Direction supported:
2 – Build effective tools, knowledge, and capacity.

Description

- Average time taken by the regulatory system to turnaround an application from submission to decision. Reporting could be differentiated for simple and complex applications, and by organization.
- Could be implemented in the short term (one to three years).

Rationale

- Regulatory efficiency is a goal of the application system and would improve the effectiveness of the policy.

3.6 Additional reporting parameters

The AWC outlined additional reporting parameters that would complement the aforementioned performance measures and their reporting.

3.6.1 Wetland inventory including area, number and class of wetlands in Alberta

Outcomes supported:
1 - Wetlands of the highest value are protected for the long-term benefit of Albertans.
2 - Wetlands and their benefits are conserved and restored in areas where losses have been high.
3 - Wetlands are managed by avoiding, minimizing, and if necessary, replacing lost wetland value.
4 - Wetland management considers regional context.

Description

- The overall area of wetlands could be reported provincially:
    - In the White area, the number, area, and type of wetlands.
    - In the Green area, the overall area of wetlands.
- Alberta Wetland Classification System wetland class.
- At various geographic scales (e.g., White area, Green area, regional, watershed, sub-watershed, municipality).
- Timeframe to establish this measure is short term (one to three years) for reporting using the existing merged wetland inventory and medium (thre to six years) to incorporate information from land trusts, conservation agencies, municipalities.

Rationale

- This measure could provide an overarching context to understand other potential measures being used to protect, replace, and prevent wetland loss.

3.6.2 Regular multi-stakeholder review of regulatory application requirements

Strategic Direction supported:
2 – Build effective tools, knowledge, and capacity

Description

- Assessing and reviewing the regulatory application requirements intermittently, that are fulfilled by proponents seeking an approval for impacts to wetlands under the *Water Act*.

- Would identify and promote improved approaches and tools to support proponents in the application process.
- Reviews could be conducted every 10 years.

Rationale

- This measure reflects the importance of overall regulatory efficiency and timelines, including both pre-regulatory (i.e., proponent application) and regulatory (i.e., regulatory review and decision) phases of the process.

3.6.3 Periodic inventory of BMPs for wetlands

Strategic Direction supported:
3 – Encourage conservation of wetlands and voluntary stewardship

Description

- A periodic[14] inventory of BMPs created by Indigenous peoples, municipalities, industry, and other groups.
- Highlight voluntary actions that conserve wetlands and support implementing the *Alberta Wetland Policy*.
- As part of performance reporting, could be completed by the GoA or another partner (e.g., AWC, Ducks Unlimited Canada (DUC)).

Rationale

- This measure reflects which various groups are voluntarily supporting their members to implement effective practices.

3.6.7 Periodic inventory of wetland education and stewardship programming

Strategic Direction supported:
3 – Encourage conservation of wetlands and voluntary stewardship

Description

- A periodic[15] inventory of education and stewardship programs delivered by groups.
- Highlight education and stewardship activities being used to increase awareness about wetlands, their values, and promote conservation.
- As part of performance reporting, could be completed by the GoA or another partner (e.g., AWC, Ducks Unlimited Canada).

[14] Could be undertaken every five years.
[15] Could be conducted every two- four years.

Rationale

- Education is a critical element of understanding and conserving wetlands, promoting stewardship, and implementing the policy.
- Reporting on these initiatives recognizes efforts made and provides a more complete narrative to support performance reporting.

4.0 Successes and Challenges with Implementing the *Alberta Wetland Policy*

When assessing the implementation of the *Alberta Wetland Policy*, the AWC examined the successes and challenges encountered by implementers[16] to date. The observations provided here are intended to help improve the policy's effectiveness. This section focuses on areas of advancements, further work, and opportunities.

4.1 Successes

4.1.1 An Approved Policy

The *Alberta Wetland Policy* was approved in 2013, implemented in the White area in 2015 and subsequently in the Green area in 2016. This policy is incredibly important because it emphasizes the importance of managing wetlands. Additionally, the policy has resulted in tools and a platform to safeguard wetlands provincially. More tools and approaches are being developed at the same time that existing tools are being refined. For example, the recent release of the *Code of Practice for Wetland Replacement Works* is a step forward to making the regulatory process more efficient. This code will enable swifter restoration of lost wetlands and constructions of new ones.

4.1.2 Operational Mitigation and Restoration Programs

Mitigation provisions in the policy allow for collecting payment as a way of replacing wetlands, which, in turn, has led to funds being available to restore wetlands. Since the policy implementation in 2015, more than $35 million in dedicated wetland replacement funding has been collected for the approved loss of over 1,000 hectares of wetland. These funds will be used to replace more than 2,000 hectares (estimated) of wetland. Until 2020, wetland replacement and restoration activities occurred as part of a previous interim policy. Under the *Alberta Wetland Policy,* the Wetland Replacement Program launched in 2020 with 10 municipalities and DUC established as restoration agencies so far. Work in the inaugural year included replacing 158 hectares of wetlands using more than $3.7 million from the wetland restoration funding.

4.1.3 Improved Dialogue and Education

Implementing the policy has stimulated discussions about conserving and restoring wetlands. Technical policy guidance has been developed. BMP guides have been developed with forestry and energy industry companies. Policy

[16] Implementers here refer to land and water resource managers, developers, landowners, land users, and stewards.

outreach workshops have been delivered to landowners. By engaging in conserving and restoring wetlands, municipalities have forged new relationships with industry, developers, and stewards. Further partnership opportunities will emerge as the policy continues to be implemented. There are not many wetland education programs; however, the existing ones educate people and help support policy implementation. Improving dialogue and education will help foster greater compliance with the policy and reduce unmitigated wetlands loss.

4.2 Challenges

4.2.1 Complex Regulatory System

As a public policy, it applies to wetlands in Alberta on private and public lands. The legislative basis for establishing the policy is the *Water Act* which requires compliance from Albertans who want to conduct work that can impact wetlands, including developers, landowners, land users, stewards, and land managers.

A reoccurring concern is the difficulty Albertans encounter when implementing the policy. The AWC's review revealed that despite guidance and outreach efforts, many Albertans find the process and supporting information convoluted. Complexity can hinder effective communication of the policy's requirements (e.g., between proponents and landowners) and can lead to non-compliance. The complexity is frustrating for those who cannot navigate the system and depend on experts to navigate the regulatory system.

Albertans differ in their ability to implement the policy, thus adding to this challenge. Often the GoA's response is to provide more support or education for Albertans. However, this response does not address the core complexities driving some of these challenges.

4.2.2 Regulatory Efficiency

Regulatory efficiency refers to how efficient the system is for Albertans who want to navigate it. Albertans regularly engaging with the system have noted significant opportunities to improve efficiency and cost effectiveness.

Wetland-related *Water Act* approval conditions vary among regions and sectors. This variability provides an opportunity to promote further consistency, recognizing the desirability of intended regional place-based outcomes. It has also been suggested that implementing the policy should be integrated with parallel processes (e.g., Indigenous consultation).

4.2.3 Tools for Assessing Wetlands

Under the policy, managing wetlands require assessing and categorizing them based on a suite of environmental functions. Categorization allows specific management and regulatory actions to be applied. Assessing wetlands can be undertaken by qualified professionals[17] who undertake the following:

- Identify the wetland and determine its class using the Alberta Wetland Classification System.[18]
- Delineate wetland boundaries using the *Alberta Wetland Identification and Delineation Directive*.[19]
- Submit their assessment to the GoA who then evaluates wetland relative value using the Alberta Wetland Rapid Evaluation Tool (ABWRET).[20]

Some Albertans do not have confidence in ABWRET results because of a perceived lack of transparency. Increased transparency would allow Albertans to better understand how wetland value is determined. Despite understanding that wetland abundance in a regional context may affect its value, there is distrust that abundance is used to demote these wetlands to a lower value.

Tools for assessing wetlands strive to characterize functions related to hydrology, water quality improvement, ecological health, and some human values. Nevertheless, these tools may not capture other elements of wetland value. To better inform management and decision making, assessing wetlands should include more than the ecological function. The importance of a wetland to Indigenous peoples is a critical aspect of wetland value because Indigenous peoples have several traditional practices linked to wetlands (e.g., gathering medicines).

Social and economic factors should also be considered when assessing wetland value specifically within the regional context or place-based aspects of the policy. Implementing the policy has precluded dialogue about regional priorities that would bring important cultural, social, and economic drivers into the process.

---

[17] See *Professional Responsibilities in Completion and Assurance of Wetland Science, Design and Engineering Work in Alberta*

[18] Government of Alberta, 2015. *Alberta Wetland Classification System.* Available online: https://open.alberta.ca/dataset/92fbfbf5-62e1-49c7-aa13-8970a099f97d/resource/1e4372ca-b99c-4990-b4f5-dbac23424e3a/download/2015-alberta-wetland-classification-system-june-01-2015.pdf. Accessed May 2021.

[19] Government of Alberta, 2015. *Alberta Wetland Identification and Delineation Directive.* Available online: https://open.alberta.ca/publications/9781460123638. Accessed May 2021.

[20] Government of Alberta, 2015. *Alberta Wetland Rapid Evaluation Too*l. Available online: https://open.alberta.ca/publications/9781460123652. Accessed May 2021.

4.2.4 Transparency and Reporting

Despite improving control procedures for collecting wetland compensation funds, there has been minimal public reporting on how the policy is being implemented. Many respondents were unclear if the policy is trending toward or away from achieving its outcomes. The absence of reporting undermines public trust in the policy and its supporting tools.

Rates of wetland loss or gain across the province are not reported leaving Albertans reliant on what they see happening in their local area. What they witness and remember is wetland drainage and removal, leading to them feeling that there is inadequate implementation. For example, the GoA has been investigating and enforcing potential *Water Act* infractions involving wetlands. Many respondents, however, thought that there was minimal to no enforcement occurring. This example demonstrates the need for public reporting on compliance activities.

4.2.4 Sufficient Education and Stewardship

Education and stewardship were considered one of the policy's successes because they address some of the unique information needs of Indigenous peoples and organizations. Nonetheless, survey respondents wanted more of these programs and more sector-specific materials in order to support various aspects of implementing the policy.

The AWC's *Recommendation to Improve Water Literacy in Alberta*[21] found that while many organizations might deliver wetland education, a more coordinated approach to delivery is required. Education materials could enhance the implementation of the *Alberta Wetland Policy* outcomes and strategic directions. These materials could achieve the following:

- increase awareness and understanding of desired goals and how to achieve them
- inform efforts to implement the policy because feedback from Albertans can highlight areas of difficulty or misunderstanding
- encourage compliance with the policy and reduce unmitigated wetland losses

[21] Alberta Water Council, 2016. *Recommendations to Improve Water Literacy in Alberta.* Available online: https://www.awchome.ca/_projectdocs/?file=58cdb88a81635321. Accessed May 2021.

5.0 Opportunities for Improving the Policy

Several opportunities were identified by the AWC for improving how the *Alberta Wetland Policy* is implemented.

5.1 Clarify Policy Requirements

There is a significant opportunity to improve the clarity and transparency when implementing the *Alberta Wetland Policy* so that it is less reliant on expertise and more accessible to non-wetland experts. This would align with ongoing efforts to increase regulatory efficiency.

5.2 Indigenous Dialogue and Perspectives

Another important opportunity comes from facilitating an open, meaningful, and ongoing dialogue with Indigenous peoples. This could result in the following:

- Better understanding about the significance of wetlands to Indigenous peoples
- tools to support Indigenous-led wetland management and stewardship efforts

- awareness about the value provided by Alberta's wetlands to Indigenous traditions

5.3 Enhance Education and Stewardship

There is an opportunity to expand education programs (e.g., school curricula, workshops, training) to include the specific needs of Indigenous peoples and organizations. Moreover, these programs can support the policy's outcomes, promote awareness and stewardship, and improve accessibility for Albertans.

Engaging municipalities and encouraging other types of partnerships will be foster confidence in policy implementation. Wetland loss in densely populated and developed areas is a critical consideration. Wetland retention could be a prominent element when discussing future water security scenarios.

5.4 Improved Public Reporting

Albertans could better understand the policy implementation if public reporting were improved. Strengthening the provincial narrative about work currently under way and progress to date is an important step in this direction.

Appendix A- Terms of Reference

Wetland Policy Implementation Review

Approved by the Alberta Water Council (AWC) in November 2020.

Context

The Alberta Water Council (AWC) approved forming an ad hoc discussion group to review the implementation of the *Alberta Wetland Policy*. The *ad hoc* group transitioned to a standard AWC working group and proposed this Terms of Reference for AWC consideration.

The project team will operate in a manner that is consistent with the rules, policies and procedures adopted by the Alberta Water Council, including the use of consensus to make decisions in a multi-stakeholder process.

Strategic intent (goal)

The purpose of the Wetland Policy Implementation Review (Wetland Review) is to:

1. Identify potential performance measures[22] for the goal, outcomes, and strategic directions[23] of the Alberta Wetland Policy
2. Describe the challenges, opportunities, or unintended consequences experienced by sectors in the implementation of the Alberta Wetland Policy

Alberta Wetland Policy (2013)

Policy Goal:

Conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society, and the economy.

Outcomes:

1. Wetlands of the highest value are protected for the long-term benefit of Albertans
2. Wetlands and their benefits are conserved and restored in areas where losses have been high
3. Wetlands are managed by avoiding, minimizing and if necessary, replacing lost wetland value
4. Wetland Management considers regional context

Strategic Directions

1. Enable flexible wetland management
2. Build effective tools, knowledge, and capacity
3. Encourage conservation of wetlands and voluntary stewardship

[22] The working group noted that performance measures would reflect the most relevant spatial scale for effective assessment of policy performance (e.g., White area and Green area, regions or subregions, watersheds or sub-watersheds, etc.).

[23] The project is intentionally focused on the policy goal, outcome, and strategic direction statements, because the working group directed that the implementation review remains at a strategic level.

The Wetland Review project is intended to support continuous improvement and public reporting on the efficiency and effectiveness of *Alberta Wetland Policy* implementation.

Objectives

The Wetland Review project has three objectives:

1. Preliminary Review: Determine the potential performance measures, challenges, opportunities, and unintended consequences for the policy goal, outcomes, and directions.
2. Cross-Sector Input: Seek cross-sector perspectives on the proposed performance measures and on implementation challenges, opportunities, and unintended consequences to supplement project team perspectives.
3. Finalize Review and Report: Describe a select few performance measures for the policy goal, outcomes, and directions, and prioritize across sector perspectives to identify potential priority.

Key tasks

1. **Preliminary Review**
    - Develop a common understanding of policy terms and characterize successful policy implementation
    - Understand current performance measures being used by the Government of Alberta
    - Describe potential performance measures by goal, outcome, and direction
    - Describe top challenges, opportunities, and unintended consequences experienced through implementation to date
    - Create draft perspectives report for cross-sector input
2. **Cross-Sector Input**
    - Design engagement for effective and timely input and review by sectors
    - Engage with sectors and gather perspectives on top challenges, opportunities, and unintended consequences experienced through implementation to date
3. **Finalize Review and Report**
    - Identify a select few performance measures with rationale
    - Identify a select few high-impact challenges, opportunities, and unintended consequences experienced across sectors with rationale

- Draft the final perspectives report for AWC approval and submission to the Government of Alberta

Timelines and deliverables

The project team will provide the following deliverables to the AWC:

- Approval of the Wetland Review Project terms of reference……Nov 2020
- Preliminary Review……..Nov 2020 – Dec 2020
- Cross-Sector Input……..……Jan 2021 – Feb 2021
- Finalize Review and Report……Feb 2021 – Mar 2021
- Submit Final Report……..……...Mar 2021

Membership

The project team is expected to encompass membership from the Industry, Non-Government Organizations, other Governments, and the Government of Alberta and Provincial Authorities. The working group membership is expected to transition into the project team membership, allowing for additional members to join if interested.

Budget

The working group anticipates that the Wetland Policy Review project can be completed using an estimated $18,000 of AWC core funds identified to support project teamwork. No additional project-specific funding is required at this time.

Type	Amount
Stakeholder support	$ 8,000
Hosting (i.e., meetings and workshop support)	$ 2,000
Communications (design, layout, printing)	$ 8,000
Total	**$ 18,000**

Appendix B- Acknowledgements

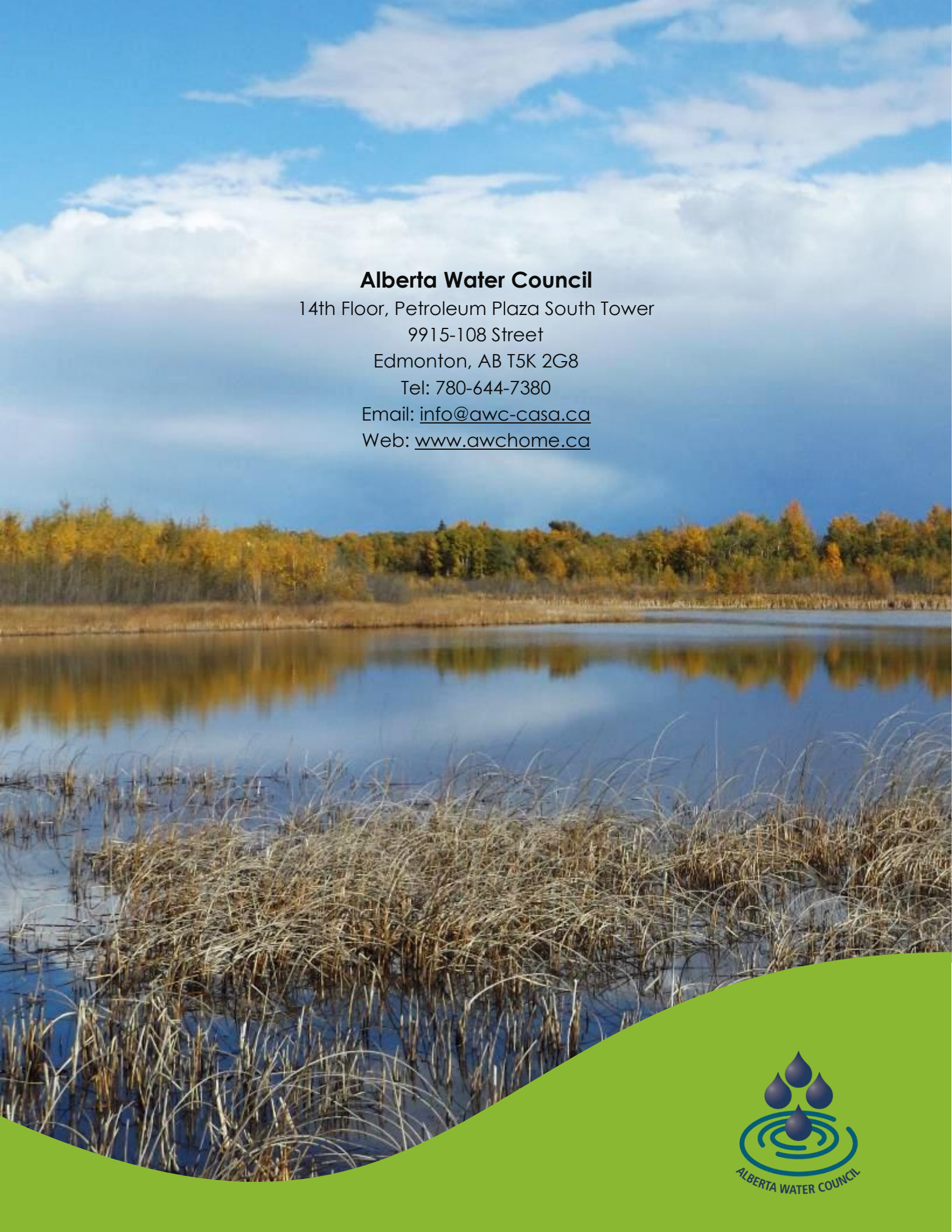
The AWC acknowledges the contributions of ad hoc group participants, working group, project team members, and their organizations who volunteered their time, resources, and expertise to this project.

Members	**Representing**
Achyut Adhikari	Large Urban
Alain Richard	Wetlands Conservation
Carolyn Campbell	Environmental
Dewly Nelson	Small Urban
Fiona Briody	Crop Sector Working Group
Greg Hale	Alberta North American Waterfowl Management Plan
Harpreet Sandhu*	Large Urban
Jay White	Lake Environment Conservation
Jeremy Reid	Oil and Gas
Kaylyn Buffalo	Nipi Committee, Samson Cree Nation, Treaty 6
Keith Murray (co-chair)	Forestry
Kristen Lorenz	Alberta Agriculture and Forestry
Latiya Northwest	Nipi Committee, Samson Cree Nation, Treaty 6
Lori Neufeld	Mining
Margo Jarvis Redelback	Irrigation
Marilou Montemayor	Watershed Planning and Advisory Councils
Marsha Trites-Russell	Alberta Environment and Parks
Matthew Wilson	Alberta Environment and Parks
Michelle Morris	Alberta Environment and Parks
Nissa Petterson (co-chair)	Environmental
Roxane Bretzlaff	Watershed Planning and Advisory Councils
Steve Wallace	Alberta Environment and Parks
Tara Payment*	Oil and Gas
Tim Walls	Large Urban
Tracy Scott	Wetlands Conservation
Zahidul Islam	Alberta Environment and Parks

Project managers: Scott Millar and Anuja Hoddinott
*Indicates participants of the ad hoc and working group phases only.

Photo credits

Front cover – Susan Sly
Page 1 – Dave Rushford
Page 2 – Susan Sly
Page 6 – Marie-Claire St-Jacques
Page 7 – Anuja Hoddinott
Page 10 – Lori Wagner
Page 15 – Susan Sly
Page 21 – Alesha Hill
Page 24 – Susan Sly
Page 29 – Lori Wagner
Page 35 – Jay White
Back cover – Marie-Claire St-Jacques



Alberta Water Council
14th Floor, Petroleum Plaza South Tower
9915-108 Street
Edmonton, AB T5K 2G8
Tel: 780-644-7380
Email: info@awc-casa.ca
Web: www.awchome.ca

ALBERTA WATER COUNCIL