

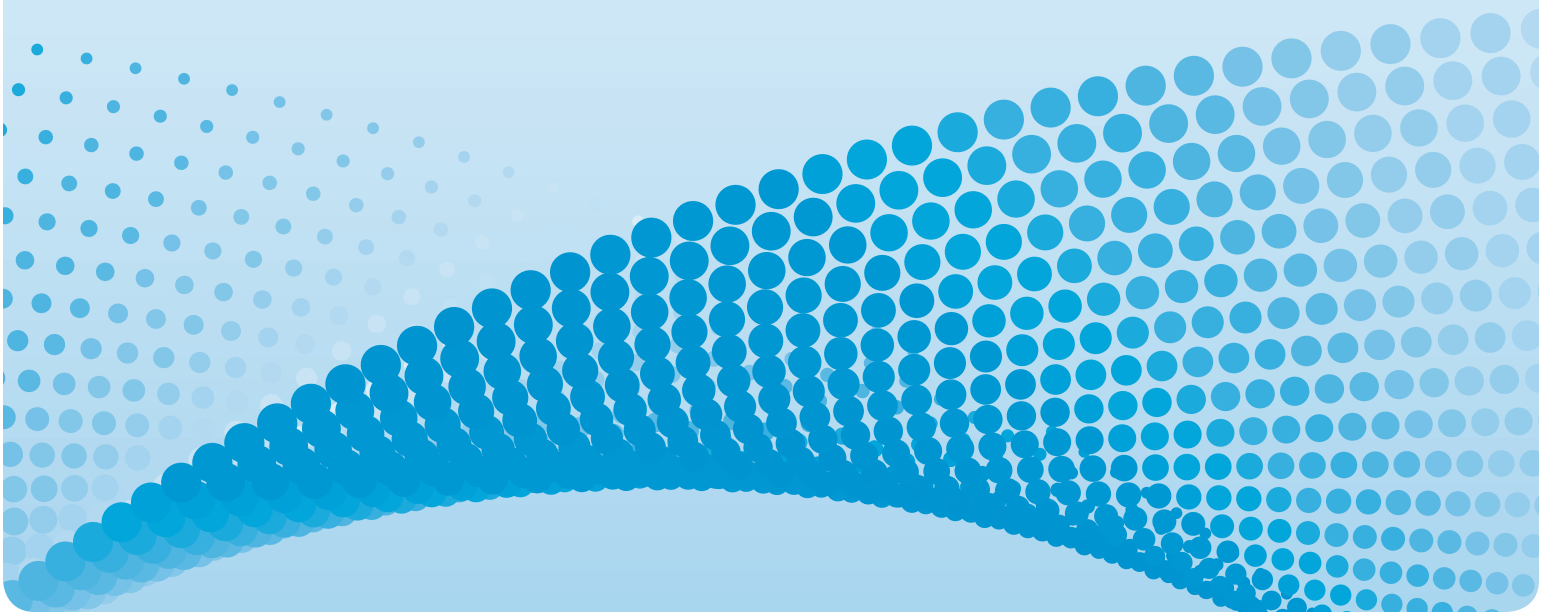


# ALBERTA WATER COUNCIL



## recommendations for a New Alberta Wetland Policy

SEPTEMBER 16, 2008





# Executive Summary

## Background

Wetlands represent a significant component of healthy aquatic ecosystems, contributing numerous benefits to watersheds, communities and economies. The complex physical, chemical and biological interactions that occur within wetlands perform important ecological functions related to water quality and supply. Wetlands are integral to watershed health in Alberta and to achievement of all three goals of *Water for Life: Alberta's Strategy for Sustainability*:

- Safe, secure drinking water
- Healthy aquatic ecosystems
- Reliable, quality water supplies for a sustainable economy

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 per cent and 0.5 per cent of remaining wetland area. The scale of wetland loss or impacts in the Green Area is unknown, but has likely increased due to development.

In implementing the *Water for Life* strategy, the Alberta Water Council established the Wetland Policy Project Team to examine the wetlands issue in Alberta, asking the team to provide direction on sustaining the province's wetland resource. The team was asked to develop a new provincial wetland policy that the Council could recommend to the Government of Alberta (GOA), and to create a companion Wetland Implementation Plan setting out actions to help achieve the policy's goal, strategic directions and outcomes.

This document contains the Alberta Water Council's recommended Alberta Wetland Policy. This policy document is accompanied by the recommended Wetland Policy Implementation Plan, the companion document to the policy. The two are complementary integrated documents, and it is the intent of the Alberta Water Council that they be used consistently in that manner in future watershed and land use planning in the province.

## Policy Purpose, Goal and Scope

1. The purpose of the Alberta Wetland Policy is to provide direction and a framework for protecting, conserving and restoring Alberta's wetlands.
2. The goal of the Alberta Wetland Policy is to maintain wetland area in Alberta such that the ecological, social, and economic benefits that wetlands provide are maintained, thereby helping to ensure Albertans have healthy watersheds that provide safe and secure drinking water supplies, healthy aquatic ecosystems, and reliable, quality water supplies for a sustainable economy. In recognition of the high rates of wetland loss in some watersheds, this policy also encourages Albertans to be proactive in increasing wetland area.
3. The primary legislative basis for the Alberta Wetland Policy and its companion Implementation Plan is the province's *Water Act*.
4. The policy is intended to act as a single comprehensive policy for the entire province including both the White and Green Areas.
5. The Alberta Wetland Policy is a go-forward policy, with recommendations being implemented only from the date the GOA approves the policy. Neither the Alberta Wetland Policy nor its companion Implementation Plan apply retroactively to *Water Act* approvals received prior to the policy approval date.
6. The policy covers:
  - all natural wetlands described in the Canadian Wetland Classification System including bogs; fens; swamps; marshes; and shallow open water;
  - Types 1 through 7 of the Stewart and Kantrud Wetland Classification System, including ephemeral waterbodies; temporary ponds; seasonal ponds and lakes; semi-permanent ponds and lakes; permanent ponds and lakes; alkali ponds and lakes; and fen ponds; and
  - all restored natural wetlands, as well as wetlands constructed and enhanced for the purposes of wetland mitigation.
7. Since it is not yet possible to fully measure, and replicate, the complexity of natural wetland ecosystems, the Alberta Wetland Policy currently uses area as a proxy to maintain wetland benefits, including their functions and values. Accordingly, until such time as a practical and scientifically sound function-based approach is available, the objective of compensation under the current Wetland Mitigation Decision Framework is to replace the area of wetland lost and the associated wetland functions.

8. Activities impacting ephemeral waterbodies, as for all other types of waterbodies in Alberta, are subject to the *Water Act*. At this time, however, ephemeral waterbodies are not subject to the Wetland Mitigation Decision Framework because of the current challenges in delineating and inventorying them.

## **Strategic Directions**

To achieve the Alberta Wetland Policy goal, the Alberta Water Council recommends five strategic directions:

### **1. Manage impacts to wetlands.**

- From a regulatory perspective, this will be achieved through use of the Wetland Mitigation Decision Framework.

### **2. Be proactive by setting wetland objectives and by integrating policy and planning.**

- This will be achieved by developing a multi-stakeholder process for establishing watershed and regional wetland objectives that consider ecological, social and economic values; integrating the objectives into planning, policy and management processes; using performance measurement, monitoring and reporting to determine whether objectives are met; and responding adaptively.

### **3. Encourage voluntary stewardship.**

- All Albertans are encouraged to increase wetland area through voluntary stewardship. The GOA and its partners will also work with willing landowners on wetland restoration, construction and enhancement. Further, the GOA and its partners will develop tools that facilitate stewardship to increase wetland area, as well as tools that facilitate working with willing landowners on wetland restoration, construction and enhancement. These tools may include initiatives such as education and awareness, and voluntary programs and/or incentives that encourage wetland protection, conservation and restoration activities. It will be essential to recognize ongoing good works by stewardship groups, municipalities, industry and other stakeholders.

#### 4. Build knowledge and capacity.

- This will be achieved by collaborative partnership, coordination, provision of infrastructure, and financial and human capacity. Policy implementation must occur across many decision-making levels, with enhanced cooperation between individuals, local municipalities, First Nations, Métis Settlements and other Aboriginal communities and individuals, and provincial government departments. Inter-sectoral involvement and linkages will be essential in building knowledge and capacity.

#### 5. Protect wetlands of exceptional value.

- This will be achieved by developing a process, criteria and tools to identify and protect Alberta wetlands that are locally, regionally, provincially, nationally or internationally exceptional.

### *The Wetland Mitigation Decision Framework*

When development is proposed that affects a wetland, the Government of Alberta, through the *Water Act* approval process, will require the regulator and proponent to use the following in descending order of preference, considering watershed and regional wetland objectives where they exist:

- Avoid loss or degradation of wetlands.
- Minimize loss or degradation, where avoidance is not fully achieved. The proponent must make a reasonable case to the regulator why the proponent cannot achieve avoidance.
- Compensate, as a last resort, for loss of wetland area or for wetland degradation. Compensation, as assessed by the regulator, refers to a suite of options to replace lost wetland area through science-based actions that are consistent with watershed and regional wetland objectives, where they exist.

Listed in descending order of preference, the suite of compensation options is as follows:

- i. Restoration of wetlands, where they existed previously.
- ii. Construction of wetlands, where they did not exist previously or where their form has been removed through development activities.

iii. Enhancement of existing wetlands.

Additional compensation options such as securement of existing wetlands and research for wetland reestablishment may be considered as partial compensation by the regulator if an equal area of wetland is replaced and the combination of these options contributes to the policy goal.

The policy establishes a number of principles that will be considered when determining compensation, including replacing the highest priority wetland functions; replacing wetlands in the area where the loss has occurred, where achievable; and replacing wetland type-for-type.

### *Finding the Right Balance*

Wetlands have value and provide many benefits to Albertans. They are an integral component of Alberta's watersheds and contribute to the achievement of healthy aquatic ecosystems as identified in Alberta's *Water for Life* strategy. Wetland values need to be considered in the context of other ecological, social and economic values, and integrated into other sustainable resource and environmental management strategies and plans. Sound science that supports policy implementation should be sought and encouraged, but the lack of it should not hinder management action. A balance of science and traditional knowledge is essential to understanding appropriate management actions. Wetlands are diverse, and the natural and working landscapes in which they are found are varied. This diversity and variation must be recognized for wetland protection, conservation and restoration to be implemented successfully.

Albertans indicated during the wetland consultation process that indefinite loss of wetlands and the benefits they provide on the landscape is no longer acceptable. Since society derives and values many benefits provided by wetlands, it is important to ensure that this resource, like other natural resources in the province, is sustained for future generations. The challenge for Albertans is to balance growth and economic development while safeguarding the environment, including wetlands. Ultimately, choices must be made. It is intended that the new Alberta Wetland Policy and Implementation Plan provide the strategic direction and tools required to make these types of management choices wisely.

## Acknowledgements

The Wetland Policy Project Team members express sincere thanks to our sectors and to the Alberta Water Council (AWC) for providing the team with this opportunity to work on a significant piece of Alberta's water policy framework.

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Special thanks go to Peter Watson in his role as former President of the AWC. Last but not least, we thank Ian Rudland, now retired from Alberta Environment, for his many contributions to this project and to wetland conservation over many years of service. Ian served as co-chair of the team alongside Jonathan Thompson, to whom we also express our appreciation for his guidance throughout the policy development process.



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# Introduction

## *Water for Life*

In 2003, after public consultation on water management in the province, the Government of Alberta (GOA) released *Water for Life: Alberta's Strategy for Sustainability*.<sup>1</sup> At the core of the *Water for Life* strategy are three goals:

- Safe, secure drinking water
- Healthy aquatic ecosystems
- Reliable, quality water supplies for a sustainable economy

To achieve these goals, the *Water for Life* strategy called for a number of actions, including the development of a new provincial wetland policy and supporting implementation plan. Since wetlands represent a significant element of healthy aquatic ecosystems and provide numerous ecological functions that contribute to water quality and supply, they are integral to watershed health and to achieving all three *Water for Life* goals.

The Alberta Water Council (AWC), a multi-stakeholder organization established in 2004 to provide direction and advice on implementation of the *Water for Life* strategy, was asked to recommend a new Alberta Wetland Policy and Implementation Plan to the GOA to improve efforts to sustain the province's wetland resource. To undertake this work, the AWC in turn formed the Wetland Policy Project Team (WPPT), composed of governments, industries and environmental organizations. Guided by its Terms of Reference, the WPPT began to examine the wetlands issue.

## *The Project Team's Task*

The WPPT's task was to develop and recommend to the AWC a new Alberta Wetland Policy, including clear regulatory and aspirational policy goals. This document sets out the recommended policy.

Throughout 2005-2006, the WPPT met with various stakeholders, including individuals, organizations, First Nations, Métis Settlements and other Aboriginal communities and individuals, to discuss the opportunities and challenges surrounding the wetland resource in Alberta. Many of the ideas discussed were used to develop a consultation workbook that was made

<sup>1</sup> See [www.waterforlife.gov.ab.ca](http://www.waterforlife.gov.ab.ca) for more information.

available for completion on-line, and at seven stakeholder workshops held across the province in 2007. Input was received from approximately 300 workshop participants, and from 600 individuals, agencies, governments and organizations who submitted workbooks, letters and emails. This input was used to inform the recommended Alberta Wetland Policy.

The WPPT heard repeatedly from stakeholders that the time for a new approach to wetland protection, conservation and restoration is now. Past failures to deal with continuing loss, cumulative effects and emerging concerns like accelerated rates of growth and development, as well as climate change, now make looking after the wetland resource even more challenging. Current initiatives including the Renewed *Water for Life* strategy; Shared Governance and Framework for Watershed Management Planning; the Land-Use Framework; and the Cumulative Effects Management Framework, all help provide opportunities for greater effectiveness in managing impacts to wetlands. Further, the vibrant debate about the actions needed to protect, conserve and restore wetlands suggests that Albertans are ready, willing, and able to engage in a new approach to wetlands that recognize them as a valuable component of the province's watersheds.

As one stakeholder stressed during the consultation process, for a new wetland policy to be successful, it is essential to provide meaningful implementation tools. Accordingly, the WPPT has also developed a Wetland Policy Implementation Plan. It is a necessary companion to the Alberta Wetland Policy, moving beyond policy recommendations. While not exhaustive, the Implementation Plan begins to build a foundation of strategic directions, outcomes and actions required to achieve the Alberta Wetland Policy goal. The Implementation Plan should always be used in conjunction with the policy.

## Guiding Principles

These are the guiding principles of the recommended Alberta Wetland Policy:

- Wetlands have value and provide many benefits to Albertans.
- Wetlands are an integral component of Alberta's watersheds and contribute to the achievement of healthy aquatic ecosystems as identified in Alberta's Water for Life strategy.
- Wetland values need to be considered in the context of ecological, social and economic values, and integrated into other sustainable resource and environmental management strategies and plans.
- Sound science that supports policy implementation should be sought and encouraged, but the lack of it should not hinder management actions.
- Wetlands and the natural and working landscapes in which they are found are diverse. This diversity must be recognized for wetland protection, conservation and restoration to be implemented successfully.

The WPPT has worked to ensure that the following essential characteristics are reflected in the Alberta Wetland Policy and its companion Implementation Plan:

- Keep it simple and implementable.
- Incorporate both regulatory and aspirational aspects into the policy goal.
- Include recognition of future watershed and regional objectives that will be developed.
- Include workable mitigation processes that are implementable.
- Ensure that knowledge and innovation continue to provide the foundations for the policy.
- Continue to incorporate and recognize ongoing good works by stewardship groups, municipalities, industry and other stakeholders in protecting, conserving and restoring wetlands.

# Understanding Wetlands

## Wetlands in Alberta

A wetland is defined as land having water at, near, or above the land surface, or which is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained (hydric) soils, hydrophytic vegetation, and various kinds of biological activity that are adapted to the wet environment.<sup>2</sup>

Wetlands can take many forms. Some have permanent year-round water cover, whereas others may at times be dry. Alberta's wetlands fall into two broad categories: peatlands and non-peatlands. Peatlands (Figure 2) are wetlands such as bogs and fens, with organic, peat-based soils. Non-peatlands (Figure 3) have mineral-based soils and include marshes, swamps, and shallow open water. While both types of wetlands occur throughout the province,<sup>3</sup> peatlands tend to dominate in Alberta's Boreal ecoregion (Green Area), while most non-peatlands are found in the Parkland and Prairie ecoregions (White Area) (Figure 4).

Other wetland classification systems, such as the Stewart and Kantrud Wetland Classification System<sup>4</sup>, subcategorize Alberta's wetland types based on factors such as the length of time water is present, water depth and common vegetation. The Stewart and Kantrud system includes ephemeral waterbodies; temporary ponds; seasonal ponds and lakes; semi-permanent ponds and lakes; permanent ponds and lakes; alkali ponds and lakes; and fen ponds.

No single wetland classification system is used comprehensively across Alberta at this time.

2 Tarnocai, C. 1979. Canadian Wetland Registry in Proceedings of a Workshop on Canadian Wetlands Environment. C.D.A Rubec and F.C. Pollett, eds. Canada Land Directorate, Ecological Land Classification Series No. 12.

3 For land management purposes, Alberta is divided into the White Area and the Green Area. The area suitable for agriculture and settlement (the White Area) occurs predominately in the Prairie and Parkland ecoregions. The area of forested lands (the Green Area), important for forest management planning and upper watershed protection, is found in the northern Boreal Forest and Foothills ecoregions. The White and Green Areas are also sometimes referred to as Settled and Non-settled areas, respectively. While the White Area is predominantly privately-owned land and the Green Area is predominantly Crown land, both privately-owned and Crown land occur throughout Alberta.

4 Stewart, R.E. and H.A. Kantrud. 1971. Classification of Natural Ponds and Lakes in the Glaciated Prairie Region. Resource Publication 92. Bureau of Sport Fisheries and Wildlife, United States Fish and Wildlife Service. Washington, D.C.



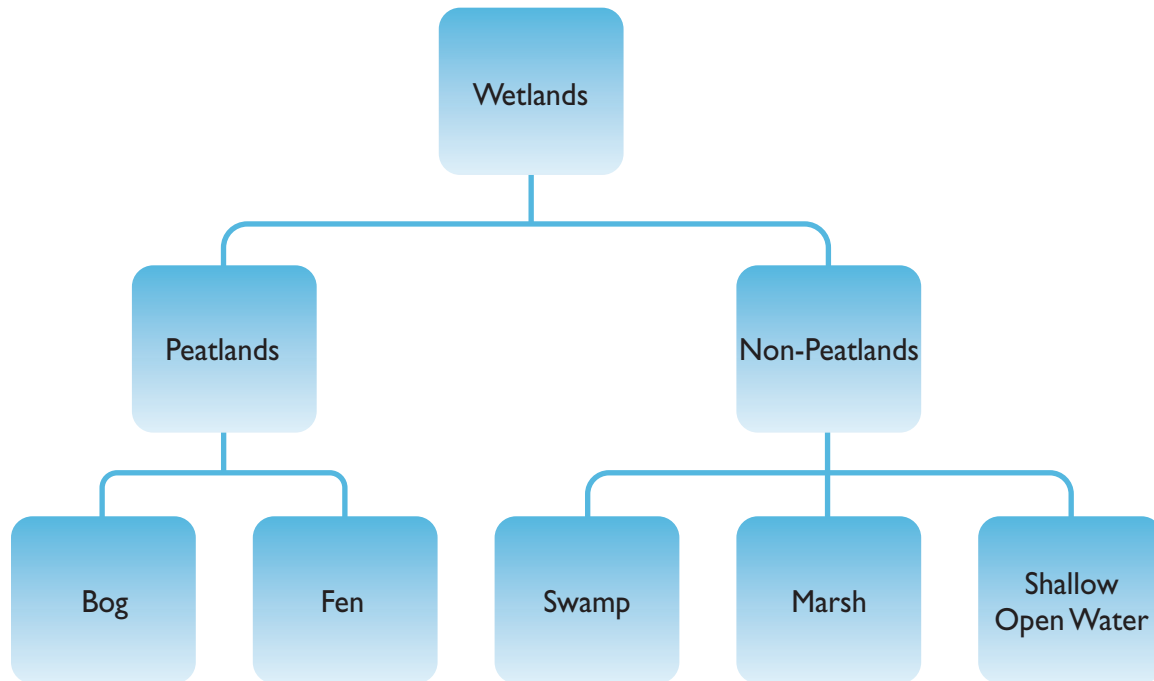


Figure 1  
Canadian Wetland Classification System

Wetlands cover 117,400 km<sup>2</sup> (18%) of Alberta's landbase. Peatlands account for 90% of this wetland area, covering 103,200 km<sup>2</sup>, or about 16% of the provincial landbase. The percentage of landbase covered by wetlands increases as a gradient moving from the southeast to the northwest of the province, where wetlands may cover as much as 65% of the landbase. Current gaps in knowledge about the status and extent of the province's wetlands have led to a number of initiatives, including the Alberta Wetland Inventory Project, now underway. Other initiatives to improve inventory and delineation techniques, classification systems, and health assessments are required to provide a more solid knowledge base to inform decision-making about managing impacts to the province's wetlands.

Bog



Fen



Figure 2  
Peatland Wetland Types

Swamp



Marsh



Shallow  
Open Water



Figure 3  
Non-Peatland Wetland Types

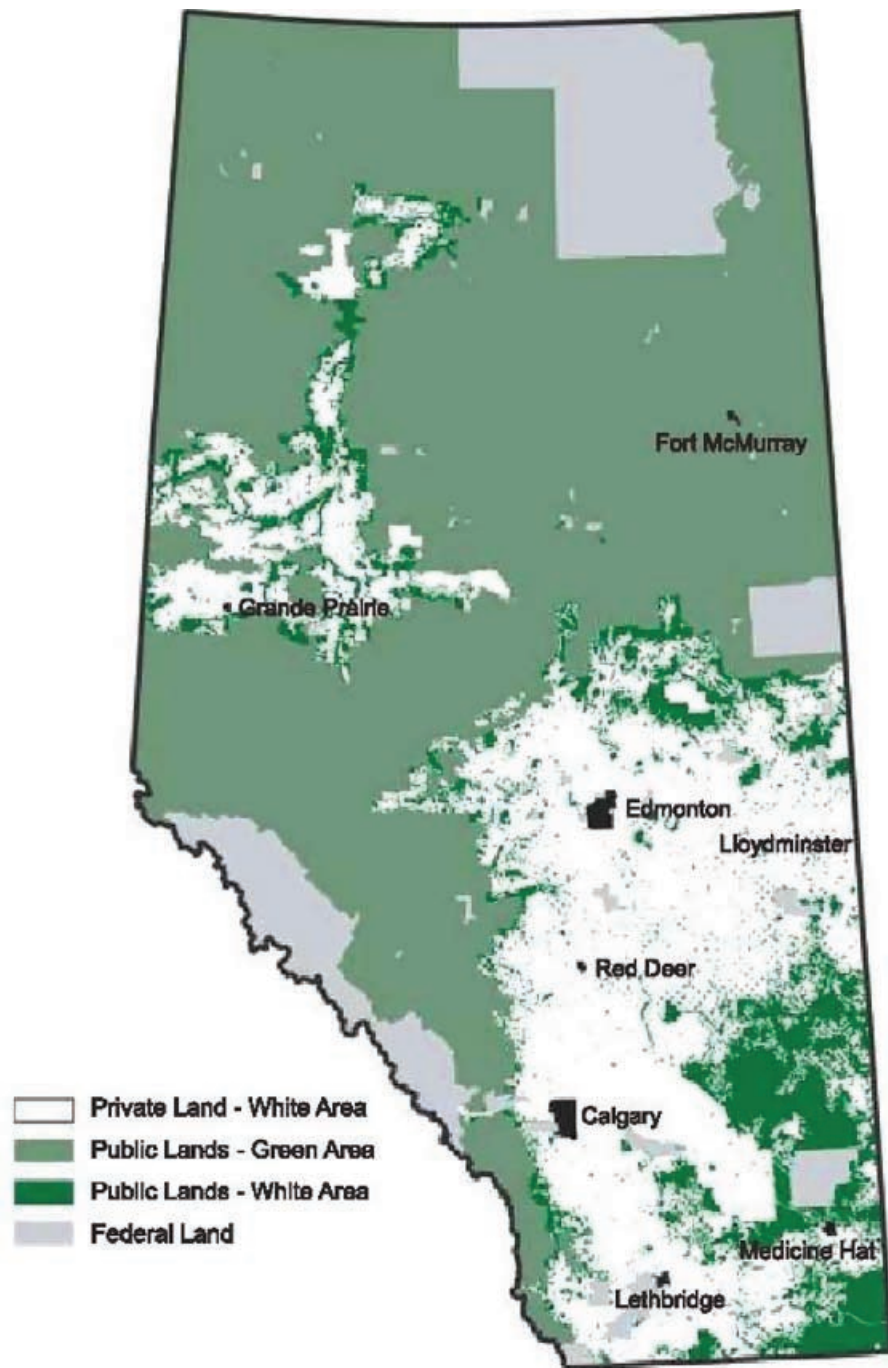


Figure 4  
Alberta's White and Green Areas

## Importance of Wetland Functions and Values

Wetlands provide many benefits that support the three core goals of Alberta's *Water for Life* strategy. To recap, those core goals are as follows:

- Safe, secure drinking water
- Healthy aquatic ecosystems
- Reliable, quality water supplies for a sustainable economy

The benefits of wetlands are represented by the functions and values they provide.

- Wetland functions include the physical, chemical, and biological interactions that occur within wetlands.
- Wetland values are the characteristics of wetlands that benefit society.

Numerous studies detail the functions and values of wetlands. These studies indicate that wetlands are an integral component of Alberta's mosaic landscape, and that they play an important role in sustaining healthy watersheds by protecting water quality, providing water storage and infiltration, as well as other ecological goods and services that benefit everyone.

Maintaining these wetland benefits helps achieve the three *Water for Life* strategy core goals. The following table identifies some of these important benefits.

Wetland Functions and Values	
<i>Ecological</i>	
Biodiversity	Wetlands serve as a substantial source of biodiversity by increasing the complexity of landscapes.
Buffer Shorelines	Wetlands can protect shorelines against excessive erosion if their riparian vegetation is left intact.
Carbon Sequestration	Many wetlands can store atmospheric carbon in their vegetation and soils.
Climate Stabilization	Wetlands provide a source of atmospheric water and oxygen and consequently can help moderate variation in climatic conditions.
Fish Habitat	Wetlands can provide critical nursery habitat for many species of fish.
Flood Reduction and Erosion Control	Wetlands store and gradually release water reducing flooding and soil erosion.
Groundwater Recharge	Many wetlands serve as a source of water to maintain local and regional groundwater supplies.

**Wetland Functions and Values**

Improve Water Quality	Wetlands can improve water quality by reducing sedimentation and removing, and storing nutrients and other pollutants.
Nutrient Source	Wetlands provide nutrients that fuel trophic webs in many freshwater systems.
Regulate Soil Salinity	Wetlands can help moderate movement of salts as long as their riparian vegetation is left intact.
Wildlife Habitat	Wetlands provide habitat for a wide diversity of animal and plant species including many threatened and endangered species.

**Social and Economic**

Aesthetics	Wetlands provide complex natural areas with high biodiversity that enhance our appreciation for the natural world.
Agricultural Production	Temporary and seasonal wetlands can be used as a source of hay or forage for livestock.
Cultural Heritage Areas	Because of their importance to humans, many wetlands are key historical or archeological sites.
Drought Buffering	Wetlands can provide a valuable source of water and livestock forage during drought conditions.
Educational Opportunities	Wetlands can provide enhanced educational and scientific research opportunities because of their high biodiversity.
Flood Attenuation	Wetlands reduce the intensity of flooding by storing and slowly releasing water to their watershed, thereby reducing the need to construct flood control works.
Recreational Opportunities	Wetlands can provide numerous opportunities for tourism, boating, bird watching, nature photography, hunting, fishing and other activities.
Temperature Moderation	Wetlands can help moderate temperatures through their high thermal inertias (i.e. they slowly heat up or cool down).
Water Quality	Wetlands serve as natural filters removing and storing suspended solids, nutrients, and other pollutants from water.
Water Source	Wetlands provide an easily accessible source of surface water for domestic and industrial use, and serve to recharge groundwater supplies.

## Importance in Aboriginal Cultures

In addition to helping achieve the *Water for Life* goals, wetlands provide a wide range of economic, cultural, social, and aesthetic benefits to First Nations, Métis Settlements and other Aboriginal communities and individuals.

Plants and animals associated with wetlands have played a key role in sustaining traditional Aboriginal cultures for millennia. Aboriginal community members have indicated that healthy wetlands support the following important values in their society and economy:

- Showing honour and respect for the natural world
- Improving understanding among young people about the importance of wetlands to both wildlife and humans as it affects the chain and circle of life
- Maintaining their rights

It is essential to use both traditional and scientific knowledge to improve wetland protection, conservation and restoration in Alberta.

## Past Drainage and Threats to Wetlands

Over the past 100 years, the population and economy of Alberta have grown substantially. Human activity has created many benefits, but population growth, droughts, industrial development, land use changes and some management practices and policies during that period of time had, and continue to result in, a cumulative loss of the province's wetlands and, consequently, has had negative effect on watersheds.

About two-thirds (64 per cent) of the wetlands in the White Area of Alberta are estimated to have been lost, due largely to draining and infilling associated with agricultural, industrial, commercial, and residential development.<sup>5</sup> The current estimated annual loss of wetlands in the White Area is 0.3 per cent to 0.5 per cent of remaining wetland area. The scale of wetland loss or impacts in the Green Area of the province is unknown, but has likely increased due to development.

<sup>5</sup> Strong, W.L., B.K. Calverley, A.J. Richard and G.R. Stewart. 1993. Characterization of Wetlands in the Settled Areas of Alberta. Alberta Environmental Protection.

## Governing Agreements, Policies and Legislation

Many agreements, policies and pieces of legislation govern wetland conservation internationally, nationally, provincially and regionally.

### International

The importance of wetlands is recognized around the world under the 1971 Ramsar Convention on Wetlands, on which Canada is a signatory. It is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Three Ramsar sites are recognized within Alberta, at Beaverhill Lake, at the Peace-Athabasca Delta, and at Hay-Zama Lakes. A fourth site, the Whooping Crane Summer Range, straddles the Alberta-NWT border within Wood Buffalo National Park.

Other international agreements for the conservation of migratory birds and management of waterfowl, and that support wetland conservation in Alberta, include the Migratory Birds Convention Treaty, and the North American Waterfowl Management Plan (NAWMP). This latter agreement is delivered regionally by the Prairie Habitat Joint Venture and provincially through the Alberta NAWMP Partnership.

### Federal

Canada has a national wetland policy, *The Federal Policy on Wetland Conservation (1991)*. The objective of the federal policy is to “promote the conservation of Canada’s wetlands to sustain their ecological and socio-economic functions, now and in the future.” This policy commits all federal departments to the goal of no net loss of wetland functions on federal lands.<sup>6</sup> The goal of no net loss also applies in areas affected by the implementation of federal programs where the continuing loss or degradation of wetlands has reached critical levels, and where federal activities affect wetlands designated as ecologically, socially or economically important to a region. Other federal legislation and commitments, such as the *Canadian Environmental Assessment Act*, the *Species At Risk Act*, the *Fisheries Act*, the *Migratory Birds Convention Act*, the *Navigable Waters Protection Act*, and the Convention on Biological Diversity, could have implications for projects affecting wetlands or wetland species in Alberta, and for Alberta wetlands in general.

<sup>6</sup> Federal lands occupy about 11% of the Alberta landbase and include areas such as First Nations reserves, Canadian Forces Bases and National Parks.



## Provincial

All wetlands in Alberta, except those on federal lands, fall under provincial regulatory authority. To address wetland loss in the province, an Interim Wetland Policy was developed in 1993, for use in the White Area. “*Beyond Prairie Potholes — A Draft Policy for Managing Alberta’s Peatlands and Non-settled Area Wetlands*” (1993) was drafted for the Green Area but was not implemented.

There are several pieces of provincial legislation that are relevant to wetlands, including but not limited to the following:

- **Water Act**

This Act states that all water in wetlands belongs to the Province and is a public resource. It prohibits anyone from draining, altering or infilling wetlands on private or public land unless authorized to do so by the Province through an approval under the provisions of the Act.

- **Environmental Protection and Enhancement Act**

This Act supports and promotes the protection, enhancement and wise use of the environment. The Act’s individual regulations cover a wide range of activities relevant to wetlands, including environmental assessment, reclamation, conservation easements, wastewater and storm drainage, and substance release.

- **Municipal Government Act**

This Act requires that statutory plans, land use bylaws and actions undertaken by municipalities be consistent with the provincial land use policies established under the Act. These land use policies include natural environment and water resource goals to contribute to the maintenance and enhancement of a healthy natural environment, including wetlands. Wetlands meet the definition of an Environmental Reserve in the Act. Municipal land-use zoning, planning and development tools within the Act can be used to prohibit or regulate developments that may negatively affect wetlands.

- **Public Lands Act**

This Act states that, except in certain cases, the Crown in right of Alberta owns the beds and shores of all permanent and naturally occurring bodies of water including wetlands in the White Area, and all the land in the Green Area, including its wetlands. The Crown’s ownership and title to this land is inherent, whether the wetland bed and shore is located on Crown, municipal or private land, unless the title has been specifically granted to a private landowner. The GOA may grant individuals, companies and municipalities the right to use Crown land for conservation, grazing, peat harvesting, or timber harvesting, but land ownership remains with the Province. The Act prohibits certain activities being carried out on any public land including, but not limited to, injuriously affecting watershed capacity, and causing injury to the bed and shore of any waterbody.

## Policy Purpose and Goal

The purpose of the wetland policy is to provide direction and a framework for protecting, conserving and restoring Alberta’s wetlands. The policy goal toward which wetland efforts will be directed is set out below.

***The Alberta Wetland Policy Goal***

*The goal of the Alberta Wetland Policy is to maintain wetland area in Alberta such that the ecological, social, and economic benefits that wetlands provide are maintained, thereby helping to ensure Albertans have healthy watersheds that provide safe and secure drinking water supplies, healthy aquatic ecosystems, and reliable, quality water supplies for a sustainable economy. In recognition of the high rates of wetland loss in some watersheds, this policy also encourages Albertans to be proactive in increasing wetland area.*

<b>Definitions</b>	
Conservation	The planned management and wise use of wetlands to ensure they are available for future generations.
Maintain	To protect, conserve or restore wetland area such that wetland benefits are retained.
Protection	Keeping a wetland in a natural state by preventing any activity that would affect it, through the use of incentives, tenure, securement, formal agreement, policy or legislation.
Restoration	The re-establishment of a wetland with a functioning natural ecosystem whose characteristics are as close as possible to pre-disturbance conditions.
Wetland	Land having water at, near, or above the land surface, or which is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained hydric soils, hydrophytic vegetation, and various kinds of biological activity that are adapted to the wet environment.

# Strategic Directions and Outcomes

The GOA intends to achieve the policy goal by working with Albertans on five strategic directions.

## I. Manage Impacts to Wetlands

In managing impacts to wetlands, the GOA will use the Wetland Mitigation Decision Framework to achieve the policy goal of maintaining wetland area in Alberta such that the ecological, social and economic benefits that wetlands provide are maintained.

### *The Wetland Mitigation Decision Framework*

When development is proposed that affects a wetland, the GOA, through the *Water Act* approval process, will require the regulator and proponent to use the following in descending order of preference, considering watershed and regional wetland objectives where they exist:

- Avoid loss or degradation of wetlands
- Minimize loss or degradation, where avoidance is not fully achieved. The proponent must make a reasonable case to the regulator why the proponent cannot achieve avoidance
- Compensate, as a last resort, for loss of wetland area or for wetland degradation. Compensation, as assessed by the regulator, refers to a suite of options to replace lost wetland area through science-based actions that are consistent with watershed and regional wetland objectives, where they exist

Listed in descending order of preference, the suite of compensation options is as follows:

- i. Restoration of wetlands, where they existed previously.
- ii. Construction of wetlands, where they did not exist previously or where their form has been removed through development activities.
- iii. Enhancement of existing wetlands.

Additional compensation options such as securement of existing wetlands and research for wetland reestablishment may be considered as partial compensation by the regulator if an equal area of wetland is replaced and the combination of these options contributes to the policy goal.

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**Outcome 1** The Wetland Mitigation Decision Framework is followed where development affects wetlands, ensuring that the policy goal is achieved of maintaining wetland area in Alberta such that the ecological, social, and economic benefits that wetlands provide are maintained.

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## 2. Be Proactive by Setting Wetland Objectives and By Integrating Policy and Planning

There is a considerable variation in the wetlands of Alberta, including differences in their loss, abundance and type. There is also great variation in the province's landscapes and land uses. To achieve the policy goal, and to address potential tradeoffs among land and water uses, the GOA, working with stakeholders and incorporating watershed and regional diversity, will take an outcome-based, place-based, and adaptive management approach that includes all of the following:

- Developing a framework for setting watershed and regional wetland objectives in a multi-stakeholder process that considers ecological, social and economic values
- Integrating wetland objectives into watershed and land use planning, policy and management processes
- Using performance measurement, monitoring and reporting to determine whether wetland objectives are being met

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**Outcome 2** Watershed and regional wetland objectives are developed and implemented through watershed and land use planning processes across Alberta.

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**Outcome 3** The Alberta Wetland Policy is successfully integrated into the legislation, policies, planning and programs of the GOA and its partners.

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### 3. Encourage Voluntary Stewardship

In addition to using the Wetland Mitigation Decision Framework to maintain wetland area and the benefits wetlands provide, the GOA encourages Albertans to increase wetland area through voluntary stewardship. Further, the GOA and its partners will work with willing landowners on wetland restoration, construction and enhancement. The GOA and its partners will develop tools that facilitate stewardship to increase wetland area, as well as tools that facilitate working with willing landowners on wetland restoration, construction and enhancement. These tools may include initiatives such as education and awareness, and voluntary programs and/or incentives that encourage wetland protection, conservation and restoration activities.

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**Outcome 4** Albertans are aware of, and value, the functions and benefits that wetlands provide.

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**Outcome 5** Appropriate tools including incentives are available to promote wetland protection, conservation, and restoration, and disincentives are removed.

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### 4. Build Knowledge and Capacity

To support the achievement of the Alberta Wetland Policy goal, the GOA will work with its partners to undertake research, fill information gaps, and develop the tools and capacity required to ensure a sustainable wetland resource is available to Albertans, now and in the future.

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**Outcome 6** Albertans have the information, tools, and programs to effectively protect, conserve, and restore wetlands.

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### 5. Protect Wetlands of Exceptional Value

The GOA will develop a Wetland Protection Process to protect wetlands of exceptional value.

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**Outcome 7** The process, criteria and tools are in place to identify and protect Alberta wetlands that are locally, regionally, provincially, nationally or internationally exceptional.

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# Scope and Application of the Policy

## Scope

The WPPT found that there is a need to unify and integrate direction to ensure Alberta's wetland resource is sustained. The new Alberta Wetland Policy is intended to provide this direction while strengthening existing initiatives. The objective is a collaborative approach in which all Albertans are aware of and have the knowledge and tools to protect, conserve and restore the province's wetland resource through actions that support the core goals of the *Water for Life* strategy.

There is a considerable variation in the wetlands of Alberta, including differences in their loss, abundance and type. There is also large variation in the province's landscapes and land uses. To address this wide range of variation, new methods, programs and initiatives are needed to help implement the new wetland policy. Developing these new tools will require time, partnerships and the commitment of governments and stakeholders. Development of new tools should be pursued proactively, but use of existing tools remains essential and should not be delayed while new tools are developed. Ultimately, a comprehensive suite of existing and new tools is required to be in place to support the policy goal.

The recommended Alberta Wetland Policy is a go-forward policy, with recommendations implemented only from the date the GOA approves the policy. Neither the Alberta Wetland Policy nor its companion Implementation Plan apply retroactively to *Water Act* approvals received prior to the policy approval date. Plans and requirements set out under existing approvals will not be superseded by the implementation of the new policy or plan but, as existing licenses or approvals are negotiated for renewal, the regulator and proponent will negotiate the conditions of renewal, informed by the Alberta Wetland Policy.

Upon approval by the GOA, the Alberta Wetland Policy will do the following:

- Replace the 1993 interim policy, *Wetland Management in the Settled Area — An Interim Policy*

- Replace *Beyond Prairie Potholes — A Draft Policy for Managing Alberta's Peatland and Non-Settled Area Wetlands*
- Provide a comprehensive wetland policy for the entire province including the White and Green Areas<sup>7</sup>
- Include all natural wetlands described in the Canadian Wetland Classification System including bogs; fens; swamps; marshes; and shallow open water
- Include Types 1 through 7 of the Stewart and Kantrud Wetland Classification System including ephemeral waterbodies; temporary ponds; seasonal ponds and lakes; semi-permanent ponds and lakes; permanent ponds and lakes; alkali ponds and lakes; and fen ponds
- Include all restored natural wetlands, as well as wetlands constructed and enhanced for the purposes of wetland mitigation

### ***Finding the Right Balance***

Albertans have stated that indefinite loss of wetlands and their benefits on the landscape is no longer acceptable. Since society derives and values many benefits from wetlands, it is important to ensure that this resource, like other natural resources in the province, is sustained for future generations. The challenge for Albertans is to balance growth and economic development while safeguarding the environment, including wetlands. While retaining wetlands may provide Albertans with services such as groundwater recharge and water purification, it may also constrain other land use activities and values. For example, building a road improves transportation, but may result in the loss of a wetland that enhances local water quality.

The strategic directions set out in the Alberta Wetland Policy will achieve a balance to meet the ecological, social and economic needs of Albertans. Hence, objectives for wetlands may conflict with objectives for other land uses. Choosing one land use or value over another has many ecological, social and economic implications that must be analyzed carefully. Ultimately, choices must be made, and not every water and land use and objective may be achieved. It is intended that the new Alberta Wetland Policy and Implementation Plan provide the strategic direction and tools required to make these types of management choices wisely.

<sup>7</sup> The *Water Act* does not distinguish between wetlands in the White Area and those in the Green Area.

The policy goal for Alberta is to maintain wetland area such that the ecological, social and economic benefits that wetlands provide are maintained. However, wetland objectives may differ from place to place. In areas where high levels of loss or degradation have occurred, wetland objectives may be designed to ensure that there is a net gain of wetlands. In areas where current degradation or loss of wetlands has been demonstrated to be very low, wetland objectives may be designed to allow some loss at a regional and watershed scale, provided that a comparable wetland gain occurs elsewhere. Since not all wetlands are the same, it is important to protect, conserve and restore a variety of wetland types, based on best available science, for proper watershed functionality and sustainability on the landscape.

### *Ephemeral Waterbodies*

Activities impacting ephemeral waterbodies, as for all other types of waterbodies in Alberta, are subject to the *Water Act*. At this time, however, ephemeral waterbodies are not subject to the Wetland Mitigation Decision Framework because of the current challenges in delineating and inventorying them. Notwithstanding, all Albertans are encouraged to avoid or minimize their impacts on ephemeral waterbodies so as to maintain the important functions they provide, in particular those relating to groundwater recharge and wildlife habitat. The GOA will be proactive in educating Albertans about ephemeral waterbodies.

#### Definitions

##### Ephemeral Waterbody

An area that is periodically covered by standing or slow-moving water for less than three weeks in a year but usually just for a few days. The area is typically dominated by vegetation of the low prairie zone (i.e. not wetland vegetation), similar to the surrounding lands. Because of the porous condition of the soils, the rate of water seepage from these areas is very rapid. Surface water may be retained for only a brief period in early spring with rapid seepage occurring after the underlying frozen soil thaws. Water may be retained long enough to establish some wetland or aquatic processes.



Figure 5  
Ephemeral Waterbody



## Achieving the Policy Goal

### *Implementation Infrastructure and Capacity*

To achieve the policy goal, it is imperative that the GOA takes a leadership role in implementation. A number of collaborations must also be formed, strategies developed and action plans implemented. All of this will take coordination, infrastructure, and both financial and human capacity. To begin building the foundational blocks, a number of actions have been identified in the companion Implementation Plan. Additional planning work is needed to determine implementation timelines, project leads, partners, and resources required.

Stakeholders indicated throughout the consultation process that adequate capacity of the GOA and others is critical to successful uptake and implementation of an Alberta Wetland Policy. They also indicated that implementation needs to occur across many levels of decision-making, making education, communication and coordination within and between those levels critical. In particular, enhanced cooperation between individuals, local municipalities, Aboriginal communities, and provincial government departments must occur. Inter-sectoral linkages will be equally important to the cooperation necessary to achieve the policy goal.

### *Accountability, Linkages and Policy Review*

To ensure success in achieving the policy's goal, strategic directions, and outcomes, the actions identified in the Alberta Wetland Policy and its companion Implementation Plan recognize the need for partnerships among governments, industry, environmental and other non-governmental organizations, and private citizens. The Alberta Wetland Policy is intended to guide implementation of the approvals process required under the *Water Act*, to facilitate their actions to protect, conserve and restore the province's wetlands. The policy and implementation plan are also intended to help inform other water and land policies, planning processes and initiatives in their efforts to protect, conserve and restore Alberta's wetlands, including the Land-use Framework, the Cumulative Effects Management Framework, and the Biodiversity Action Plan.

The *Water Act* requires the GOA to manage and protect the aquatic environment, including wetlands. The GOA is responsible for coordinating and implementing the policy and for ensuring that the implementation plan is kept current and relevant.

### *Principles of Compensation*

The goal of the Alberta Wetland Policy is to maintain wetland area in Alberta such that the ecological, social, and economic benefits that wetlands provide are maintained. Where avoidance or minimization of wetland loss are not achievable, the objective of compensation will be to replace the area of wetland lost and the associated wetland functions.

The following principles will be considered when determining compensation under the Wetland Mitigation Decision Framework:

- Compensation will be balanced in the context of ecological, social and economic considerations.
- Compensation will strive to replace the highest priority wetland functions.
- Compensation must consider the wetland (natural area) policy objectives and plans that municipalities are trying to achieve.
- Where achievable, replacement will occur in the area where it is lost, but where replacement is not achievable in that area, wetlands will be constructed in other appropriate areas, with no penalty incurred for the distance from the area where loss occurred.
- Where achievable, wetlands will be replaced type-for-type and, where type-for-type is not achievable, lost wetlands will be replaced with a wetland type determined in the approval process.
- Compensation credit will be given for wetland reclamation and construction plans set out in *Environmental Protection and Enhancement Act* approvals.
- Where higher functioning wetlands are constructed or restored, an equivalent area of replacement may not be required, when supported by performance monitoring.
- Compensation will be based on the best available science.
- The administration of the Wetland Mitigation Decision Framework will be kept administratively efficient for both the regulator and the proponent.

### *Performance Measurement, Monitoring, and Reporting*

Performance measures must be developed and used to evaluate progress in achieving the policy goal and outcomes associated with the policy's strategic directions, and to ensure actions supporting wetland protection, conservation and restoration remain relevant. If evaluations find the policy or aspects of its implementation require modification, these must be adaptively managed in a timely manner. An annual report of actions taken towards achieving the policy goal must be incorporated into the annual reports of the *Water for Life* strategy. The Alberta Wetland Policy and Implementation Plan should be reviewed at least every five years to reflect the status of the province's wetlands, and to ensure that factors such as advances in wetland science are incorporated.

## CONCLUSION

Wetlands are valuable resources that merit a comprehensive Alberta Wetland Policy and Implementation Plan to ensure their protection, conservation and restoration.

While acknowledging the importance of protecting, conserving, and restoring wetlands for the benefits they provide to Albertans, it is also important to consider the social and economic impacts of doing so. The recommended Alberta Wetland Policy and Implementation Plan aim to find a workable balance between preserving the ecological integrity of Alberta's wetlands, and sustaining healthy communities and healthy economies. The policy and plan also aim to be fair, flexible and adaptive. While new challenges will arise over time, continuous improvement in wetland management, measurement, monitoring and reporting practices will help to meet those challenges.

This document provides recommendations on the direction a wetland policy for Alberta should take. While much more work is required to develop necessary detail associated with the recommended policy, current wetland tools and initiatives provide an excellent foundation for further efforts, and should not be deferred while the policy and plan are approved and implemented. Further, it is essential to recognize ongoing good works by stewardship groups, municipalities, industry and other stakeholders.

Implementation of the recommended Alberta Wetland Policy will help achieve the goals of Alberta's *Water for Life* strategy adopted as GOA policy in 2004. Further, the Alberta Wetland Policy will guide implementation of the *Water Act*, and provide necessary linkages and support to the Land-use Framework, the Cumulative Effects Management Framework, the Biodiversity Action Plan, and similar integrated watershed and land use management initiatives in Alberta.

In conclusion, this document fulfils a commitment in *Water for Life: Alberta's Strategy for Sustainability* to develop a provincial wetland policy and implementation plan. It also fulfills an objective of the Alberta Water Council Operational Plan. It supports and strengthens the commitments in the *Water for Life* strategy by taking a watershed and place-based approach; by recognizing the need for shared responsibility and partnerships to determine and achieve shared outcomes; and by recognizing that knowledge and research are key to achieving wetland protection, conservation and restoration.



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