

# Alberta NAWMP Partnership

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## 2016-2017 Progress Review

APRIL 2016 TO MARCH 2017



*North American Waterfowl  
Management Plan*



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## PREFACE: IF YOU WANT TO GO FAR, GO TOGETHER

While the North American Waterfowl Management Plan (NAWMP) marked the milestone of turning 30 in 2015-16, a key milestone for the Alberta NAWMP Partnership in 2016-17 was the retirement of Coordinator Michael Barr.

When Michael started as Coordinator in 2008, Alberta NAWMP's main focus was on administering direct program funding. That remains an important part of our wetland and waterfowl conservation picture for certain, but Michael had an expanded vision for Alberta NAWMP.

He recognized early in his position how much more Alberta NAWMP could accomplish by bringing together people who are passionate about wetlands to strive toward mutual goals. His outlook is captured in the African proverb he often quoted: "If you want to go fast, go alone. If you want to go far, go together."

Michael brought his collaborative vision to every Alberta NAWMP endeavour, and he inspired others to share that vision. He is one of the most optimistic people I've ever worked with, and his enthusiasm for wetlands, waterfowl and collaboration is contagious. He created relationships around the connections between organizational priorities and wetlands. He ensured that people understood that wetlands are about more than duck habitat. And he helped create a community of committees and working groups with focus and energy to tackle complex emerging challenges for wetlands and waterfowl in Alberta.

When I assumed the Chair for the Board of Directors from Ron Borge, Michael was instrumental in providing a smooth transition and identifying the strong connectedness of multiple agencies he has nourished through collaborative Alberta NAWMP activities. It is thanks to Michael's emphasis on collaboration, his facilitation skills and his ability to build trust that we have such robust engagement of the Alberta NAWMP partner organizations and external partners. He developed Alberta NAWMP's role as a non-partisan agency that could bring stakeholders together in an open, honest and trusted environment. As a result, Alberta NAWMP's forums, workshops, policy projects, and other activities have been able to grapple with complicated and contentious topics and generate some great ideas. And that has led to remarkable progress over the years.

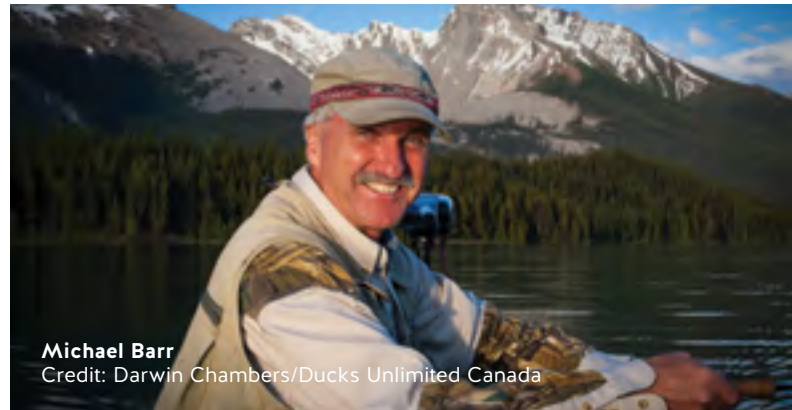
In other words, Michael really strengthened the "partnership" in the Alberta NAWMP Partnership.

We wish Michael the best as he focuses on fishing. And we welcome our new Coordinator, Terra Simieritsch. She has been involved with Alberta NAWMP for years and comes with a diverse background of policy experience, field work, research and facilitation.

In this *Progress Review*, we invite you to learn about what kept us busy over the past year.

In *Keeping Habitat Conservation on the Radar*, we look at Radar Meadows. Now protected in perpetuity, this property is a fantastic addition to an impressive mosaic of conservation properties in NAWMP's Pine Lake Priority Landscape.

Understanding possible climate change impacts is critical to effectively managing Alberta's wetlands. *Wetlands in a Changing Climate: What Does the Future Hold?* summarizes some key findings from an Alberta NAWMP-commissioned study on this issue.



**Michael Barr**  
Credit: Darwin Chambers/Ducks Unlimited Canada

*Empowering Municipalities in Wetland Conservation* outlines how Alberta NAWMP has acted as a catalyst to enhance the ability of Alberta municipalities to be true partners with the Province in implementing the Alberta Wetland Policy.

*A Win-Win-Win Forage Program* profiles a joint effort by Ducks Unlimited Canada and Crop Production Services, an agricultural input company. This program is celebrating a decade of improving upland waterfowl habitat while benefitting agricultural producers and their cattle.

And we highlight a new southern Alberta study in *Ducks and Beneficial Insects: Sharing Biodiversity Hotspots*. The study is increasing understanding of the value of Prairie habitats for beneficial insects like pollinators. This enhanced understanding could help increase support for protecting these habitats, which are crucial for waterfowl too.

On behalf of Alberta NAWMP, I am pleased to present the *Alberta NAWMP Partnership 2016-2017 Progress Review*. I thank everyone who contributed to this past year's success, and I look toward an exciting future as we continue to go far together.

**Travis Ripley**

Chair, Board of Directors, Alberta NAWMP Partnership



## NAWMP IN ALBERTA

Created in 1986, the North American Waterfowl Management Plan (NAWMP) is a landmark partnership between Canada, the United States and Mexico for habitat conservation to sustain continental waterfowl populations.

NAWMP defines and prioritizes geographic regions across the continent based on their biological values for waterfowl and other wetland-associated birds. Its initiatives address regional and continental priorities, using a collaborative approach at local, regional, national and international levels.

NAWMP achieves its goals through voluntary regional partnerships that implement local actions. The Prairie Habitat Joint Venture (PHJV) is the regional NAWMP partnership with responsibility for prairie, parkland and boreal landscapes in western Canada. This region includes some of the most productive areas for waterfowl in the world and is crucial to the maintenance and recovery of mid-continent waterfowl populations.

Since its inception in 1986, the PHJV has developed a series of science-based Habitat Implementation Plans to guide its activities. Its 2013-2020 Habitat Implementation Plan is aligned with the 2012 Revision of the international plan. The 2012 Revision continues NAWMP's ongoing focus on conserving waterfowl populations and their key habitats but adds a new emphasis on engagement with hunters, other conservationists and the general public.

The 2013-2020 plan also widens the PHJV's scope to formally include the Western Boreal Forest Region in all of the PHJV's work. And the plan increases the PHJV's attention on other bird groups, while maintaining its enduring commitment to waterfowl conservation.

The PHJV includes provincial NAWMP partnerships in Alberta, Saskatchewan and Manitoba. The Alberta component of the PHJV's 2013-2020 plan provides the framework and springboard for Alberta NAWMP's current activities.

Alberta NAWMP is a partnership of three government and two non-government organizations. It is directed by a Board of Directors and a Management Committee, which are advised by Policy and Communications committees. The members of these committees are drawn from the five partner agencies.

Alberta NAWMP coordinates joint projects, communications, planning and policy support, and it facilitates funding options among the partners. It supports the partners through technical and logistical assistance and by advancing innovative ideas.

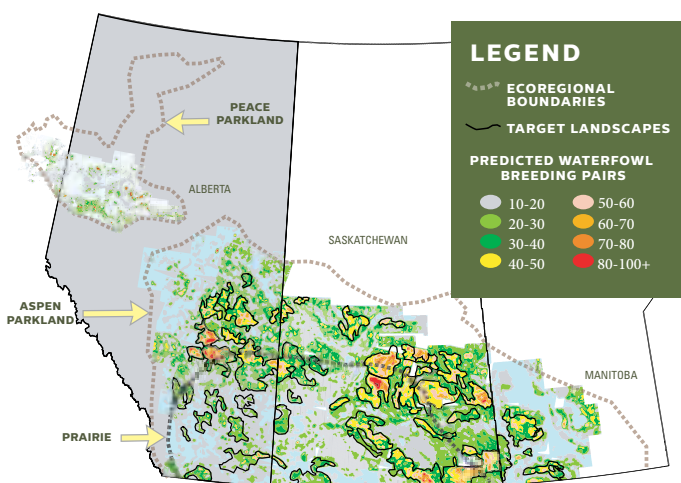
### ALBERTA NAWMP (PHJV) VISION

Healthy prairie, parkland and boreal landscapes that support sustainable bird populations and provide ecological and economic benefits to society.

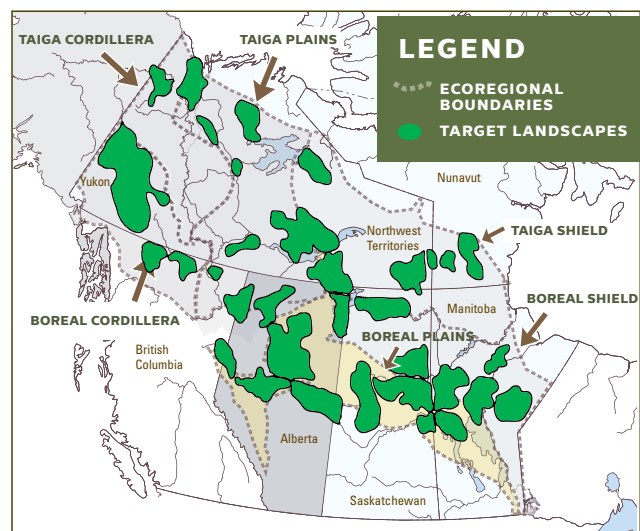
### ALBERTA NAWMP (PHJV) MISSION

Provide leadership to achieve healthy and diverse waterfowl and other bird populations through conservation partnerships. These partnerships strive for sustainable and responsible management of the landscape taking into account social, economic and environmental factors.

### PRAIRIE/PARKLAND TARGET LANDSCAPES



### WESTERN BOREAL FOREST TARGET LANDSCAPES



## WHO IS ALBERTA NAWMP?

Alberta NAWMP's creativity and success come from the synergy of working together. It is a partnership of one federal and two provincial government departments and two non-government agencies that all have a responsibility for Alberta's wetlands as part of their mandates. The five organizations continually seek opportunities to work with each other and with regional and municipal agencies and other stakeholders. These collaborative networks enhance existing wetland stewardship efforts and launch innovative initiatives that otherwise might not happen.

Together, the Alberta NAWMP partners and their collaborators are making exciting advances on shared conservation goals.

### HOW WETLAND LANDSCAPES RELATE TO EACH PARTNER AGENCY'S ROLES, OBJECTIVES AND RESPONSIBILITIES:

#### GOVERNMENT

**Alberta Environment and Parks**, as proud stewards of air, land, water and biodiversity, will lead the achievement of desired environmental outcomes and sustainable development of natural resources for Albertans.

The **Alberta Ministry of Agriculture and Forestry** includes the Department of Agriculture and Forestry and a number of agencies, boards and commissions. Among the ministry's core business activities are: providing the framework and services necessary for the protection, conservation and sustainable management of forests; and enabling environmentally responsible and economically competitive forestry, agriculture and agri-food industries in Alberta and its global marketplaces.

**Environment and Climate Change Canada** strives to preserve and enhance the quality of the natural environment, including water, air, soil, flora and fauna, conserve Canada's renewable resources, conserve and protect Canada's water resources, and coordinate environmental policies and programs for the federal government.

#### PRIVATE, NON-PROFIT

**Ducks Unlimited Canada** (DUC) is a registered charity that has almost 80 years of experience in wetland conservation and restoration. DUC partners with government, industry, non-profit organizations and landowners to conserve wetlands for the benefit of society, waterfowl, other wildlife, and the environment.

**Nature Conservancy of Canada**, in partnership with corporations, governments, individual donors and landowners, works to achieve the direct protection of Canada's most important wild spaces through property securement and long-term stewardship of these properties. This work maintains critical lands and waters for wildlife and ensures clean air and water for our future generations.

### ALBERTA NAWMP PARTNERSHIP COMMITTEES, 2016-17

#### BOARD OF DIRECTORS

**Ron Bennett**, Environment and Climate Change Canada  
**Bob Demulder**, Nature Conservancy of Canada  
**Len Kryzanowski**, Alberta Agriculture and Forestry  
**Perry McCormick/Barry Bishop**, Ducks Unlimited Canada  
**Travis Ripley** (Chair), Alberta Environment and Parks

#### MANAGEMENT COMMITTEE

**Michael Barr** (Chair), Alberta NAWMP Coordinator  
**Ron Bennett**, Environment and Climate Change Canada  
**Barry Bishop**, (Outgoing) Ducks Unlimited Canada (Prairies)  
**Roger Bryan**, Alberta Agriculture and Forestry  
**Jason Caswell**, Alberta Environment and Parks  
**Alain Richard**, Ducks Unlimited Canada (Boreal)  
**Tracy Scott**, (Incoming) Ducks Unlimited Canada (Prairies)  
**Marie Tremblay**, Nature Conservancy of Canada

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**Ken Calbick**, Alberta Environment and Parks  
**Jason Cathcart**, Alberta Agriculture and Forestry  
**Gerry Haekel** (Chair), Alberta Environment and Parks  
**Fred Hays**, Alberta Beef  
**Thorsten Hebben**, Alberta Environment and Parks  
**Glenn Mack**, Alberta Environment and Parks  
**Karen Raven**, Alberta Agriculture and Forestry  
**Tracy Scott**, Ducks Unlimited Canada  
**Chad Willms**, Alberta Environment and Parks

#### COMMUNICATIONS COMMITTEE

**Jaimée Dupont Morozoff**, Nature Conservancy of Canada  
**Glenn Gustafson** (Outgoing Chair), Alberta Environment and Parks  
**Caitlin Jackson/Sara Kelly**, Environment and Climate Change Canada  
**Paul Jungnitsch**, Alberta Agriculture and Forestry  
**Cathy MacKenzie**, Ducks Unlimited Canada  
**Dave Mussell** (Incoming Chair), Alberta Environment and Parks

#### COORDINATOR

**Michael Barr**

Credit: Darwin Chambers/Ducks Unlimited Canada



## KEEPING HABITAT CONSERVATION ON THE RADAR

The Radar Meadows conservation property is a fantastic addition to an already impressive block of protected prime waterfowl habitat near Red Deer, in NAWMP's Pine Lake Priority Landscape.

The hilly landscape is dotted with a profusion of wetlands. One of the hills in the area has given Radar Meadows its unusual name. Known as Radar Hill, this local landmark was home to one of the radar sites in NORAD's early-warning system, from about the early 1960s to the mid-1980s.

Back in 1960, most of the Radar Meadows property was covered with native parkland vegetation and intact wetlands. But over the following decades, the habitat was significantly altered. "People did a lot of brushing and clearing as well as consolidation of many of the wetlands, trying to make what they viewed as better agricultural land, mostly for grazing," explains Darwin Chambers with Ducks Unlimited Canada (DUC).



**Radar Meadows lies in NAWMP's Pine Lake Priority Landscape.**  
Credit: Darwin Chambers/Ducks Unlimited Canada

One of the motivations for DUC's purchase and protection of this property was the opportunity to restore the habitat. Securing the property also eliminates the risk of any future wetland drainage or upland habitat loss. As well, the Radar Meadows property adds seven more quarters to the mosaic of protected lands already in the area, including 23 quarters secured by DUC and other conservation groups and 15 quarters of Crown land. Chambers

notes, "This area has little development in terms of acreages, farmsteads and roads so the habitat is relatively intact. To find that kind of habitat block nowadays is getting pretty rare."

Radar Meadows consists of two land parcels totalling 1,118 acres. He says, "Parcel one is comprised of 304 acres of native upland habitat, 71 acres of intact wetlands, 43 acres of restored wetlands, and 60 acres of recently broken uplands that have now been seeded back to grassland. Parcel two is comprised of 572 acres of upland habitat, 59.5 acres of intact wetlands and 8.5 acres of restored wetlands."

DUC purchased Radar Meadows in 2015 under its Revolving Land Conservation Program (RLCP), a low-cost way to protect habitat forever. After purchasing the land, DUC staff began by carefully assessing the landscape, studying old air photos and conducting on-the-ground evaluations. They determined the historic pre-drainage levels of the wetland basins and then installed earth plugs to restore those levels.

"The property's 261 intact and restored wetland basins vary in size and permanency, providing all the necessities for exceptional waterfowl habitat," notes Chambers.

He says, "We sold the Radar Meadows land this past fall and spring in two separate transactions to two different landowners who were looking to expand their existing operations. The two parcels were sold with DUC's 'No Break, No Drain' conservation easements on the titles to protect the habitat in perpetuity."

The proceeds from the sale are set to be used to purchase another property and start the RLCP process again.

"Projects like this align very well with the needs of the beef community," he says. "Beef producers place a high value on water and perennial cover, plus they tend to get a discount on the land." The amount of discount often varies in relation to the market value and represents the cost of the conservation easement, for which DUC can be reimbursed under the U.S. North American Wetlands Conservation Act (NAWCA).

So Radar Meadows' habitat has been restored and permanently protected, the area now has a total of 7,200 acres of protected land, and DUC has funds from selling Radar Meadows to buy, restore, and protect more habitat for waterfowl and other wildlife.



## A WIN-WIN-WIN FORAGE PROGRAM

*May the forage be with you* – that’s the catchy slogan for a program to increase perennial forage cover on the Prairies, benefitting waterfowl, cattle producers and their cattle.

“More forage on the land means greater production for the beef industry and increased habitat for waterfowl,” notes Craig Bishop with Ducks Unlimited Canada (DUC). “Having more perennial cover on the landscape is directly correlated to higher waterfowl nest success.”

DUC and Crop Production Services (CPS), an agricultural input company, are collaborating on the program. “In 2007, we started with a pilot project in Alberta. Then we expanded in the second year to Saskatchewan and Manitoba. The program has been going strong ever since,” says Bishop.

The program offsets the cost of forage seed for producers who convert annually cropped land to hay or pasture. He explains, “It’s a really simple program. A landowner buys his forage seed from Crop Production Services at retail price and signs an agreement with us to keep that grass in place for a 10-year period. Then we give him a \$100 per bag rebate off his seed cost. We don’t dictate any haying or grazing conditions.”

CPS provides financial terms and agronomic support for the program. And it’s easy for producers to access the seed because CPS has retail outlets across western Canada. Bishop adds, “CPS is an industry leader with a name on the landscape. Any linkage we have to the agriculture sector is good for our brand and for waterfowl.”

“The program has really helped us connect with people that maybe we weren’t working with already or that were not familiar with our [forage seed] portfolio,” notes Perry Ross with CPS. Also, a partnership with a well-known conservation agency like DUC helps reinforce that CPS values sustainable agriculture practices.

“Taking care of the land is important to us because our producers depend on healthy soils for their yields,” says Ross. He explains that perennial forage cover can provide multiple benefits such as preventing soil erosion year-round, enhancing water infiltration, and reducing problems with nutrient losses to the environment.

“In 2016 alone, we had nearly 40,000 acres across the Prairie Provinces under this program. Since 2007, we have totalled about 97,258 acres for the Prairies, including 42,639 acres in Alberta,” notes Bishop.

The program is a great option for conservation-minded folks like Lee and Shawna Johnston, who are cattle producers north of Hanna. They signed up for 130 acres in 2013 and 70 acres in 2016. “It was a way to reduce costs on our forage input and to have a large piece of ground in forages for a number of years for wildlife,” says Lee. Shawna adds, “The program encourages landowners to think about putting their land back in forages and giving it a break.”

The program also provides an opportunity for DUC to open discussions with producers about other programs that DUC delivers under the NAWMP umbrella. In 2016, DUC approached the Johnstons about participating in the 10-Year Wetland Restoration Lease program, which provides financial incentives for wetland restoration.



**Forage cover benefits cattle and waterfowl.**  
Credit: Ducks Unlimited Canada

DUC determined that a large wetland in a natural area on the Johnstons’ property could provide better waterfowl habitat if DUC added a plug to the wetland’s outlet. Lee says, “It’s a really nice piece of ground for a lot of wildlife. We hunt it every year for deer, there is a lot of sharp-tailed grouse and partridge, and geese stop by in the spring and fall to feed on nearby cropland. But the water [in the wetland] would recede in late spring so the area didn’t attract ducks.”

The Johnstons are long-time DUC supporters and Shawna works for Fish and Wildlife, so they were excited to participate and further enhance waterfowl habitat in their area. “Attracting more waterfowl is good for the local economy. It helps people see Hanna as one of the hunting hubs for ducks and geese,” notes Lee. “And I don’t have to go that far from home to go hunting!”

## EMPOWERING MUNICIPALITIES IN WETLAND CONSERVATION

Municipalities can play a key part in wetland stewardship in Alberta. But many municipalities, especially smaller ones, need help in terms of information, expertise and capacity to tackle this complex issue. So Alberta NAWMP has been a catalyst for advancing municipal empowerment on wetland conservation.

This effort had its beginnings at a 2015 Alberta NAWMP forum where participants identified the vital importance of municipal engagement on wetland stewardship. Alberta NAWMP followed up by establishing and supporting a multi-stakeholder working group to look at how to support municipalities in this growing role.

At that time, wetland conservation was already a priority for the Alberta Urban Municipalities Association (AUMA) and the Alberta Association of Municipal Districts and Counties (AAMDC). For instance, AUMA developed a municipal wetland policy in 2013, which included a framework identifying the factors needed to help municipalities play a greater role in conserving wetlands. So AUMA's Rachel de Vos and AAMDC's Tasha Blumenthal were part of the Alberta NAWMP municipal working group from the start and helped Michael Barr, who was the Alberta NAWMP Coordinator, to shape the group's mandate.

The group included representatives of municipalities with wetland conservation experience, as well as provincial government departments, developers and non-governmental organizations. They identified the information and resources needed to allow municipalities to be true partners with the Province in implementing the Alberta Wetland Policy.

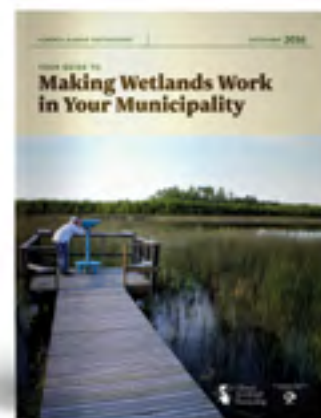
As part of their work, they combined all the essential information on wetland conservation needed by Alberta municipalities into a single, handy publication called *Your Guide to Making Wetlands Work in Your Municipality*. The guide is available for downloading on Alberta NAWMP's website ([abnawmp.ca](http://abnawmp.ca)). It is intended for all municipalities whether they are new to wetland conservation or old pros. While it is not a comprehensive manual, it provides an excellent overview of the major considerations, and if users need to go deeper, the guide points them to further resources. Also, leaders in wetland conservation, like Strathcona County, share their examples and experiences in the guide.

"Municipalities can use the various sections of the guide that are most applicable to their own needs or challenges," says Blumenthal. "The guide is very informative and includes diverse information that will help increase municipal capacity and access to information. It also highlights opportunities that municipalities can learn from and consider in identifying solutions to support wetland conservation."

The guide was well received when launched at an Alberta NAWMP forum in March 2017. The forum was called *The Role of Municipalities in Wetland Conservation: Opportunities, Resources and Partnerships*.

This forum was another way to build municipal capacity on wetland issues, providing inspiring examples, increasing knowledge of roles and responsibilities, and highlighting partnership opportunities. Nearly 70 participants attended, including people from municipal and provincial governments, industry, agriculture, professional organizations, NGOs and watershed agencies.

"The forum provided a great opportunity to hear directly from municipal representatives and other key stakeholders about their experiences in wetland conservation," says Blumenthal. "Having the Government of Alberta on hand was helpful to provide information on policy guiding wetland conservation and on the programs available. The structure of the forum encouraged discussion and information sharing."



Jocelyn Thrasher-Haug with Strathcona County was a municipal working group member and a presenter at the 2017 forum. She says, "I feel the Alberta NAWMP forums are important in establishing connections and building networks between municipal representatives." Such networks could help municipalities in working more effectively with the Province and with landowners, developers and industry on wetland conservation and land development issues.

Looking back over the past two years, Blumenthal notes, "Alberta NAWMP has been integral in pulling together multiple stakeholders to foster discussions regarding wetlands in the municipal context. This has provided an opportunity for engagement, dialogue and relationship-building to identify areas of common interest or concern. This engagement has helped in creating a network of municipal resources and contacts to support further engagement as municipalities work with the Alberta Wetland Policy and the new requirements identified under the Municipal Government Act."

Municipalities have the potential to be significant players in wetland conservation. The working group, guide and forum have created a strong foundation for moving forward. But there are still challenges. Alberta NAWMP hopes to continue to engage municipalities and other stakeholders, encourage partnerships, and facilitate solutions that advance wetland conservation in Alberta.



## WETLANDS IN A CHANGING CLIMATE: WHAT DOES THE FUTURE HOLD?

“Wetlands are vulnerable to even small climate shifts. Understanding how climate change could affect Alberta’s wetlands is critical to effectively managing our wetlands now and in the future,” says Michael Barr, who was the Alberta NAWMP Coordinator. So Alberta NAWMP commissioned a study to determine the potential impacts on Alberta wetlands predicted by different climate change scenarios, and to see what options exist for assessing wetland vulnerability under these scenarios.

Dr. Shari Clare with Fiera Biological Consulting led this study, which was completed in 2017. Clare and her team considered medium-term (2020s) and long-term (2050s and 2080s) climate change projections using two scenarios: an optimistic one where carbon emissions peak mid-century and then slowly decline; and a ‘worst-case’ scenario, where emissions continue to increase over the next century.

“Climate change projections for Alberta consistently predict an increase in temperature and a general trend towards drying over the short-, medium-, and long-term. As a result, a certain amount of functional wetland loss due to climate change is likely unavoidable, and in fact, has already occurred,” says Clare. “Because of the strong dependency of wetlands on the quantity and quality of their water supply, any changes to temperature and precipitation can be expected to alter wetland hydrology and hydrological regimes and, ultimately, affect a wetland’s form, function and role in the ecosystem.”

The researchers analyzed temperature, humidity and heat-moisture indices to characterize the anticipated risk to wetlands in Alberta’s Boreal and Prairie regions.

“For the Prairie region, changes like earlier spring snowmelt, greater evaporation and warmer growing conditions would reduce the water volume in wetlands and shorten the annual flooding cycle. Temporary and seasonal wetlands would dry up earlier in the year or disappear. Water levels in semi-permanent wetlands are expected to drop, and with little or no open water, these wetlands will become dominated by dense emergent vegetation, such as bulrushes and cattails. A highly productive wetland type, called hemi-marsh, could become rare or non-existent in some areas. In contrast, some larger semi-permanent or permanent wetlands may receive more runoff than is typical, as nearby small wetlands disappear and their waters move to these large wetlands. The water in these wetlands will become over-stabilized with little seasonal draw-down, resulting in a loss of emergent vegetation cover and overall lower waterfowl productivity,” she says.

“For the Boreal Plains, projections generally predict greater temperature increases than in the south, and evaporation is expected to exceed precipitation. The long-term impacts of these changes include gradual thawing of permafrost and drying of peatlands. The Boreal Plains may be more sensitive to climate change than other regions, but predictions differ. The Foothills



Credit: Darwin Chambers/Ducks Unlimited Canada

region may be somewhat buffered compared to the rest of the Boreal Plains. The wetland response in the southern Boreal Plains will likely be similar to the response in the Prairie region.”

Fiera’s report on the study identifies a range of tools and strategies to help prioritize regions, watersheds and wetlands for management moving forward.

“This report presents a bold first step in assessing uncertainty for Alberta’s wetlands posed by climate change and what options exist in response,” says Barr.

Effective wetland conservation and restoration are especially important in this context because healthy wetlands are an integral part of resilience and adaptation to climate change. “This report helps us understand short- and medium-term implications for wetlands and will inform future strategy in their conservation and restoration,” notes Tracy Scott with Ducks Unlimited Canada (DUC), who is a member of the Alberta NAWMP Policy and Management Committees. “It also helps us better understand wetlands’ reciprocal effect on climate change outcomes and the important role wetlands can play in resilience and adaptation responses.”

DUC and Alberta NAWMP are continuing to work on this crucial issue in 2017-18.

## DUCKS & BENEFICIAL INSECTS: SHARING BIODIVERSITY HOTSPOTS

A southern Alberta study on beneficial insects is contributing to a major effort to learn more about the value of crucial habitats that waterfowl share with many other species.

“At Ducks Unlimited, we have really been building up our understanding of the ecological services that wetlands and other remaining habitats within Prairie Canada and elsewhere provide to society. People aren’t necessarily as interested in ducks as we are, but the habitats that ducks depend on – the habitats that Ducks Unlimited really concentrates on preserving – also support a whole range of biodiversity and ecological services. Beneficial insects are one component of that,” explains Dr. Jim Devries with Ducks Unlimited Canada (DUC), who is collaborating on the study. “And the more that we understand the role these habitats play, the more interest and support that we will gather for protecting these habitats.”

Beneficial insects are ecologically and economically important, playing a key part in sustainable food production. Some are pollinators, such as bees, hover flies, moths and butterflies. They are essential for the production of many fruit and vegetable crops as well as some field crops like canola. Other beneficial insects, like lady bugs, rove beetles and lacewings, prey on crop pests. And still others, such as parasitic wasps and flesh flies, parasitize crop pests.

Dr. Paul Galpern from the University of Calgary is leading the beneficial insect study. Alberta NAWMP, DUC, the Alberta Conservation Association (ACA) and the Canola Council of Canada (CCC) funded this research in 2016, the first year of the four-year study.

The study’s aim is to determine the number and diversity of beneficial insects in remaining natural habitat areas and to quantify how the insects’ abundance and diversity change as the distance from those habitats increases. The resulting information could help towards predicting the effects of habitat loss and of habitat conservation activities on beneficial insect populations.

In 2016, the researchers focused on pollinators, in part because of the serious worldwide issue of pollinator population declines. These declines have been attributed to such factors as environmental pollution, pesticide use, disease, climate change and habitat loss.

Like many other beneficial insects, a lot of wild pollinators need some undisturbed habitat. For example, many native bees on the Prairies burrow into the soil to nest so they need undisturbed soil.

“Some of the remaining undisturbed habitats occur in crop fields around wetlands and patches of grassland and non-cropland habitats adjacent to croplands,” says Devries. “Those areas also provide good nesting habitat for waterfowl. And those same areas are under threat in Prairie Canada; they are being lost all the time.”

The 2016 fieldwork targeted the undisturbed lands immediately next to wetlands, looking at wetlands within three agricultural contexts: canola fields, spring-seeded cereal fields, and native grasslands. At each study location, Galpern and his research team collected insects in the wetland margin and at 25 and 75 metres from the margin into the surrounding field.

Wetlands are biodiversity hotspots within the Prairie landscape, and the research team collected over 14,000 bees representing many different species. After many hours of lab work to identify all the species, the

researchers are now analyzing the trends in the 2016 data. Devries says, “There are definite patterns of declining abundance and diversity with increasing distance from the wetland margin, as we expected, and additional analysis is still ongoing.”

The research is continuing to 2019 with support from ACA, CCC, DUC and a private donor. Over the next three years, the researchers will be expanding the sampling to also include some predatory species, such as ground beetles and spiders, and other semi-natural habitats, like grassed field edges.



**Galpern's team collected over 14,000 bees during the 2016 fieldwork.**

Credit: Jim Devries/Ducks Unlimited Canada

# COMMITTEE REPORTS, 2016-17

## BOARD OF DIRECTORS

*Members are director-level executives from each partner agency. They are responsible for: defining Alberta NAWMP's vision, mission, goals and strategies; directing medium-term implementation plans; approving annual work plans and budgets; and ensuring accountability for work plans and budgets. They also facilitate information exchange and engagement opportunities between their own agency and Alberta NAWMP.*

The Board of Directors held conference calls in April and December 2016 and met in person in March 2017. On the April conference calls, they reviewed and approved the 2016-17 (FY17) Work Plan and Budget including a reduction in the overall Alberta NAWMP budget due to reduced funding capacity. During the December call, they endorsed hiring the new Alberta NAWMP Coordinator, Terra Simieritsch, to replace Michael Barr upon retirement on March 31, 2017. A special March 2017 meeting of the Board was called to enable timely review and approval of the FY18 Work Plan and Budget while both outgoing and incoming coordinators could be present. The Board also endorsed an increased role of the Communications Committee in support of expanded Alberta NAWMP communications activity.

## MANAGEMENT COMMITTEE

*Members are senior managers from each partner agency who facilitate integration of operational opportunities between their own agency and Alberta NAWMP. This Committee shares responsibility with the Alberta NAWMP Coordinator for project-based decision-making and expenditures established in annual work plans and medium-term implementation plans.*

The Management Committee met twice during FY17 and held one interim conference call. At the April 2016 meeting, the Committee reviewed the FY17 preliminary Work Plan and Budget and made recommendations for approval by the Board of Directors. In July 2016, the Management Committee reviewed and endorsed a proposal for a Wetland Education Network pilot and the hiring of a coordinator for the pilot. The Committee's final FY17 meeting was in March 2017 where they reviewed the FY18 Work Plan and Budget including two carryover projects: one about climate change and the other on ecosystem services. The Committee also reviewed alignment of Alberta NAWMP commitments relative to the Prairie Habitat Joint Venture (PHJV) Implementation Plan at this meeting.

Tracy Scott (Ducks Unlimited Canada) joined the Management Committee during 2016-17.



Credit: Darwin Chambers/  
Ducks Unlimited Canada

## COMMUNICATIONS COMMITTEE

*The Communications Committee leads information sharing, event hosting and promotion among Alberta NAWMP partner agencies and beyond. Members are typically communication experts from each partner agency.*

The Communications Committee met three times over the course of 2016-17 and continued their role overseeing multiple Alberta NAWMP working groups. The Committee met in May 2016 to discuss their priorities for the year and provide input into the FY17 Work Plan and Budget. The emergence of the Wetland Education Network pilot was a significant development in addition to monitoring working groups. The Committee met in December and February to continue project monitoring and to plan the March 2017 Alberta NAWMP forum, called *The Role of Municipalities in Wetland Conservation: Opportunities, Resources and Partnerships* (see *Empowering Municipalities in Wetland Conservation* in this report).

Dave Mussell (Alberta Environment and Parks) joined the Communications Committee in 2016-17.

## POLICY COMMITTEE

*The Policy Committee members monitor relevant policy, planning and program developments in their agencies and advise on opportunities for Alberta NAWMP support. Members are usually senior policy specialists within the partner agencies.*

The Policy Committee met four times in FY17. An April 2016 meeting allowed the Committee to discuss their priorities and provide input into the FY17 Work Plan and Budget. In October and December 2016, the Committee met to review ongoing policy project work and receive updates on related Communications Committee-led projects. The December meeting also included initiating work on two policy projects: Wetland Best Management; and Climate Change Implications for Alberta Wetlands (see *Wetlands in a Changing Climate: What Does the Future Hold?*). In February 2017, the Policy Committee addressed multiple tasks: they reviewed outputs from Communications Committee-led working groups (e.g. municipal wetland guide (see *Empowering Municipalities in Wetland Conservation*)), reviewed alignment of Alberta NAWMP policy commitments relative to the PHJV Implementation Plan, and provided input into the FY18 Work Plan and Budget.

Karen Raven (Alberta Agriculture and Forestry) joined the Policy Committee in 2016-17.



## CONTRIBUTIONS TO NAWMP IN ALBERTA, 2016-17 AND 1986-2017

AGENCY TYPE	AGENCY	2016-17 <sup>a</sup> TOTAL	1986-2017 <sup>a</sup> CUM. TOTAL
CANADIAN CORPORATIONS		\$694,866	\$20,428,744
CANADIAN EDUCATION INSTITUTIONS			\$300,279
CANADIAN FEDERAL GOVERNMENT	Agriculture and Agri-Food Canada		\$38,532,523
	Canadian federal - unspecified		\$484
	Environment and Climate Change Canada - Canadian Wildlife Service	\$447,517	\$39,114,449
	Environment Canada - EcoAction 2000		\$8,276
	Environment Canada - Habitat Stewardship Program		\$3,655,828
	Environment and Climate Change Canada - Natural Areas Conservation Program	\$2,822,696	\$28,529,651
	Fisheries and Oceans Canada		\$3,000
	Human Resources and Skills Development Canada		\$18,761
	Millennium Bureau of Canada		\$1,120,100
	Natural Sciences and Engineering Research Council of Canada		\$194,736
	Parks Canada		\$54,660
	Public Works and Government Services Canada		\$500
		\$3,270,213	\$111,232,968
CANADIAN NOT FOR PROFIT	Agriculture and Food Council of Alberta		\$275,000
	Alberta Beef Producers		\$954,531
	Alberta Conservation Association	\$16,875	\$4,322,963
	Alberta Conservation Tillage Society		\$125
	Alberta Ecotrust Foundation		\$22,542
	Alberta Environmental Farm Plan Company		\$240
	Alberta Fish and Game Association	\$23,062	\$1,506,348
	Alberta Native Plant Council		\$600
	Alberta Research Council		\$5,000
	Alberta Sport, Recreation, Parks & Wildlife Foundation		\$132,264
	Antelope Creek Habitat Development		\$5,000
	Canada Trust Friends of the Environment Foundation		\$5,500
	Canadian Circumpolar Institute		\$3,500
	Canadian Nature Federation		\$1,800
	Canadian non-government organizations - unspecified		\$180,264
	Climate Change Central		\$5,000
	Cropmasters		\$46,300
	Ducks Unlimited Canada		\$3,375,226
	Eastern Irrigation District		\$75,085
	Edmonton Community Foundation	\$10,000	\$28,013
	Edmonton Springer Spaniel Club		\$200
	Federation of Alberta Naturalists		\$15,000
	George Cedric Metcalf Foundation		\$50,000
	Imperial Oil Charitable Foundation		\$5,818
	Institute for Wetland and Waterfowl Research		\$5,500
	Izaak Walton Killam Memorial Scholarship		\$2,000
	James L. Baillie Memorial Fund		\$2,000
	Lakeland Industry & Community Association		\$14,051
	Land Stewardship Centre of Canada		\$18,000
	Nature Canada		\$1,128,000
	Nature Conservancy of Canada	\$6,865,846	\$12,048,627
	Peace Parkland Naturalists		\$600
	Project Second Life Society		\$6,000
	Richard H. G. Bonnycastle Graduate Fellowship		\$15,000
	Richardson Foundation Inc.	\$10,000	\$372,282
	Rocky Mountain Elk Foundation – Canada		\$4,500
	Samuel Hanen Society for Resource Conservation		\$350
	Shell Conservation Internship Program		\$7,296
	Shell Environmental Fund		\$25,123
	Soil Conservation Council of Canada*	\$1,750	\$1,750
	Southern Alberta Land Trust Society		\$613,119
	Sustainable Forest Management Network		\$20,000

CONTRIBUTIONS TO NAWMP IN ALBERTA, 2016-17 AND 1986-2017			
AGENCY TYPE	AGENCY	2016-17 <sup>a</sup> TOTAL	1986-2017 <sup>a</sup> CUM. TOTAL
CANADIAN NOT FOR PROFIT	The Calgary Foundation		\$3,943
	The Flanagan Foundation		\$29,049
	The J.W. McConnell Family Foundation		\$6,999
	The Kahanoff Foundation		\$701
	The W. Garfield Weston Foundation		\$1,534
	United Farmers of Alberta		\$18,447
	Western Irrigation District		\$673,433
	Wildlife Habitat Canada	\$80,000	\$3,622,353
	World Wildlife Fund Canada		\$36,000
		\$7,007,533	\$29,692,976
CANADIAN PROVINCIAL & TERRITORIAL GOVERNMENTS	Agriculture Financial Services Corporation		\$446,527
	Alberta Agriculture and Forestry		\$10,570,726
	Alberta Culture and Community Spirit		\$8,000
	Alberta Energy and Utilities Board		\$8,300
	Alberta Environment and Parks	\$2,690,205	\$30,464,677
	Alberta Transportation		\$9,246
	Alberta Treasury	\$634	\$687,985
	Manitoba Habitat Heritage Corporation		\$45,317
	Saskatchewan Water Security Agency		\$10,000
		\$2,690,839	\$42,250,778
CANADIAN REGIONAL & LOCAL GOVERNMENTS	Big Hay Lake Drainage District		(\$34,639)
	Bonnyville (Municipality of)		\$22,653
	Calgary (City of)		\$269,669
	Camrose County		\$14,907
	Carstairs (Town of)		\$96,000
	Edmonton (City of)		\$166,545
	Flagstaff County	\$26,968	\$41,337
	Grande Prairie (City of)		\$7,832
	Grande Prairie County		\$2,022
	Greenview (Municipal District of)		\$6,962
	Lakeland (County of)		\$2,800
	Lamont County	\$6,701	\$30,425
	Manawan Drainage District		\$34,750
	Medicine Hat (City of)		\$8,005
	Minburn County	\$14,889	\$78,080
	Newell County		\$28,750
	Ponoka County		\$2,310
	Red Deer County		\$1,811
	Rocky View County		\$345,566
	Special Areas Board		\$325
	St. Albert (City of)		\$17,820
	St. Paul County	\$5,507	\$19,287
	Stettler County		\$2,780
	Strathcona County	\$172	\$87,629
	Strathmore (Town of)		\$198,627
	Sturgeon County		\$68,085
	Sylvan Lake (Town of)		\$30,000
	Wheatland County		\$3,200
		\$54,237	\$1,553,538
CANADIAN OTHER	Canadian – unspecified	\$1,037,851	\$35,060,989
UNITED STATES – ALL SOURCES	U.S. Fish and Wildlife Service, U.S. state governments, Ducks Unlimited Inc., Anonymous Foundation, other	\$7,346,575	\$274,975,986
INTERNATIONAL	Conservation International Bahamas		\$59,744
GRAND TOTAL		\$22,102,114	\$515,556,002

a. Includes data from Prairie Habitat Joint Venture - Alberta (Source: NAWMP National Tracking System).

\* New contributor in 2016-17

## ACTIVITY EXPENDITURES AND HABITAT ACCOMPLISHMENTS, 2016-17 AND 1986-2017

AGENCY	ACTIVITY	EXPENDITURES 2016-17	HABITAT ACRES 2016-17	NET HABITAT ACRES 1986-2017
<b>ALBERTA AGRICULTURE AND FORESTRY</b> (includes Agriculture and Agri-Food Canada, a former Alberta NAWMP partner)	Securement			425,195
<b>ALBERTA ENVIRONMENT AND PARKS</b>	Securement			10,507
<b>DUCKS UNLIMITED CANADA</b>	Communication and education	\$143,808		
	Conservation planning	\$1,573,910		
	Habitat restoration	\$1,127,521	16,632	1,094,660
	Habitat Joint Venture science	\$494,040		
	Management (habitat assets)	\$5,472,453		2,561,089
	Land and water policy support	\$102,819		
	Habitat retention (≥10 years through permanent)	\$3,677,807	8,075	2,324,574
	Habitat retention (<10 years)	\$523,492	130,173	96,602
DUC Total Expenditures		\$13,115,850		
<b>ENVIRONMENT AND CLIMATE CHANGE CANADA – CANADIAN WILDLIFE SERVICE</b>	Communication and education	\$5,000		
	Conservation planning	\$8,333		
	Habitat Joint Venture science	\$55,850		
	Land and water policy support	\$8,333		
<b>ECCC TOTAL EXPENDITURES</b>		\$77,516		
<b>NATURE CONSERVANCY OF CANADA</b>	Conservation planning	\$932,104		
	Habitat restoration			73,107
	Management (habitat assets)	\$430,527	115,575	1,333,367
	Habitat retention (≥10 years through permanent)	\$9,665,036	2,511	51,558
NCC Total Expenditures		\$11,027,667		
<b>OTHER AGENCIES</b>	Communication and education, Habitat Joint Venture science	\$80,000		
<b>TOTAL EXPENDITURES, 2016-17</b>		<b>\$24,301,033</b>		
<b>TOTAL HABITAT RETENTION ACRES (≥10 YEARS THROUGH PERMANENT), 2016-17 AND 1986-2017</b>			<b>10,586</b>	<b>2,811,834</b>

## Notes

This table shows expenditures and habitat activities for the Alberta Prairie and Parkland eco-regions (Source: NAWMP National Tracking System). Variable timing of funds both contributed and received under NAWMP may result in differences between total funds received versus expended by partners each fiscal year. Related habitat retention or restoration acres are similarly affected.

## Activities:

- Communication and education: communications specific to activities in approved proposals under the North American Wetlands Conservation Act (NAWCA). NOTE: all other communication activities are not eligible for NAWCA funds.
- Conservation planning: biological, agrological and engineering planning and targeting activities that occur prior to actual program delivery.
- Habitat restoration: actions to increase carrying capacity for wetland-associated migratory birds and other wildlife.
- Habitat Joint Venture science: activities that evaluate the effects and inform future improvement of the NAWCA program throughout the Prairie Habitat Joint Venture.

- Management (habitat assets): actions to maintain carrying capacity for wetland-associated migratory birds and other wildlife on habitat retained for ≥10 years through permanent.
- Land and water policy support: activities that identify or support development of policies benefiting wetlands or associated uplands. NOTE: these activities are not eligible for NAWCA funds.
- Habitat retention (≥10 years through permanent): protection of wetland and/or upland habitat through land title transfer or binding long-term conservation agreements with landowners.
- Habitat retention (<10 years): activities that promote or directly result in the sustainable use of land for the purpose of conserving wetland-dependent birds and their habitats.

## Habitat Acres:

- Habitat Acres, 2016-17: habitat acres retained, restored or managed between April 1, 2016 and March 31, 2017. NOTE: total acres are not cumulative.
- Net Habitat Acres, 1986-2017: cumulative total of habitat acres since 1986, less expired agreements.



# COOPERATORS

101105170 Saskatchewan Ltd.	Apache Canada Ltd.	Cabre Exploration Ltd.
1187397 Alberta Ltd.	ARC Resources Ltd.	Cabrerra Resources Limited
Access Land Services Ltd.	Arctos Land Corporation	Calgary (City of)
Access Pipeline Inc.	Argent Energy Inc.	California Department of Fish and Game
Acquired Land Management Inc.	Arizona (State of)	California (State of)
Action Energy Inc.	Armett & Burgess Oilfield Construction Ltd.	Cameron Development Corporation
Action Land Consultants (2001) Ltd.	Artek Exploration Ltd.	Camrose County
Advance Land Services	Artemis Energy	Canada Capital Energy Corporation
Advantage Oil & Gas Ltd.	Artemis Exploration Inc.	Canada Malting Co. Ltd.
Agricore United	Aspen Endeavour Resources Inc.	Canada private - unspecified
Agriculture and Agri-Food Canada	Assiniboine Watershed Stewardship Association	Canada Trust Friends of the Environment Foundation
Agriculture and Agri-Food Canada - Prairie Farm Rehabilitation Administration	ATB Financial*	Canada West Land Services Ltd.
Agriculture and Food Council of Alberta	ATCO Electric Ltd.	Canadian Cattlemen's Association
Agriculture Financial Services Corporation	ATCO Gas	Canadian Circumpolar Institute
Aguila Exploration Consultants Ltd.	ATCO Structures & Logistics Ltd.	Canadian federal - unspecified
Ainsworth Lumber Company Ltd.	Atlas Land Consultants Ltd.	Canadian Forest Products
Alberta Agriculture and Forestry	Aurora Land Consulting Ltd.	Canadian Landmasters Resource Services Ltd.
Alberta Association of Municipal Districts and Counties	Avalanche Energy Limited	Canadian National Railway
Alberta Beef Producers	Avid Oil & Gas Ltd.	Canadian Natural Resources Ltd.
Alberta Community Development	B P Canada Energy Company	Canadian Nature Federation
Alberta Conservation Association	Barbeejay Supplies Ltd.	Canadian non-government organizations - unspecified
Alberta Conservation Tillage Society	BASF Canada Inc.	Canadian Pacific
Alberta Culture and Community Spirit	Battle River Credit Union Ltd.	Canadian provincial - unspecified
Alberta Ecotrust Foundation	Bayer CropScience Canada	Canadian Superior Energy Inc.
Alberta Energy and Utilities Board	Bayer CropScience Inc.	Canadian - unspecified
Alberta Environment and Parks	Baytex Energy Ltd.	Canadian Water Resources Association
Alberta Environmental Farm Plan Company	Beaver County	Canetic Resources Trust
Alberta Fish and Game Association	Beaverbrook Development Inc.	Cannat Resources Inc.
Alberta Land and Lease Limited	Beaverhill Lake Nature Centre	Capitol Energy Resources Ltd.
Alberta Municipal Affairs	Ben's Trucking and Landscaping	Cargill Inc.
Alberta Native Plant Council	Big Country Energy Services LP	Caribou Land Services
Alberta Research Council	Big Hay Lake Drainage District	Carlton 142 Inc.
Alberta Reduced Tillage LINKAGES	Big Lake Environment Support Society	Carriage Lane Estates Inc.
Alberta Sport, Recreation, Parks and Wildlife Foundation	Bighorn Land & Field Service Ltd.	Carstairs (Town of)
Alberta Transportation	Birchcliff Energy Ltd.	Cavalier Land Ltd.
Alberta Treasury	Bonavista Energy Trust Ltd.	Celtic Exploration Ltd.
Alberta-Pacific Forest Industries Inc.	Bonavista Petroleum Ltd.	Cenovus Energy Inc.
Alliance Pipeline Limited Partnership	Bonnyville (Municipality of)	Central Alberta Rural Electrification Association
Alonsa Conservation District	Bow River Irrigation District	Central Global Resources, ULC
Alta Canada Energy Corporation	Bowest Consulting Ltd.	Centrica Canada Limited
Alta Energy Corporation	Bowood Energy Corp.	Challenger Development Corporation
AltaGas Services Inc.	Boyd Petro Search	Chamaelo Energy
Amar Developments Ltd.	Brigus Resources Ltd.	Choice Resources Corp.
Anadarko Canada Corporation	British Petroleum Canada	Circle E Grazing Association
Anderson Exploration Ltd.	Britt Resources Ltd.	Clear Environmental Solutions Inc.
Anonymous Foundation	Buffalo Resources Corp.	Climate Change Central
Antelope Creek Habitat Development	Burlington Resources Inc.	Coal Valley Resources Inc.
Antelope Land Services Ltd.	Byrne's Agri Service Ltd.	Coastal Resources Ltd.

\*New cooperator in 2016-17

Cochin Pipe Lines Ltd.	EnerMark Inc.	HMA Land Services Ltd.
Colonsay No. 342 (Rural Municipality of)	Enterra Energy Corp.	Hopewell Development Corporation
Colorado (State of)	Environment and Climate Change Canada - Canadian Wildlife Service	Horizon Land Services Ltd.
Commonwealth Construction Company Ltd.	Environment Canada - EcoAction 2000	Horseshoe Land Ltd.
Compara Energy Services Inc.	Environment Canada - Habitat Stewardship Program	Hughes Oilfield Construction Ltd.
Complete Exploration Services Ltd.	Environment and Climate Change Canada - Natural Areas Conservation Program	Human Resources and Skills Development Canada
Complete Land Services Ltd.	Environmental Law Centre	Husky Group of Companies
Compton Petroleum Corporation	EOG Resources, Inc.	Husky Oil Operations Ltd.
Conoco Phillips Canada	Equatorial Energy Inc.	Impact 2000 Inc.
Conservation International Bahamas	Esprit Exploration Ltd.	Imperial Oil Charitable Foundation
Cordero Energy Inc.	Evolve Surface Strategies Inc.	Imperial Oil Resources Ltd.
Cornerstone Agri-Environmental Group Plan	Exalta Energy Inc.	Indian and Northern Affairs Canada
Cossack Land Services Ltd.	ExxonMobil Canada Energy	Inglewood Bird Sanctuary
Cowie Cattle Company Ltd.	Fairmount Energy Inc.	Inland Cement Ltd.
Crescent Point Resources Limited Partnership	Federation of Alberta Naturalists	Institute for Wetland and Waterfowl Research
Crew Energy Inc.	Federation of Saskatchewan Indian Nations	Integrated Geophysical Consultants Ltd.
Crispin Energy Inc.	Feed-Rite Ltd.	Integrity Land Inc.
Cropmasters	First National Properties Group	Inter Pipeline Fund
CrossAlta Gas Storage & Services Ltd.	Fisheries and Oceans Canada	Interlake Grasslands Society
Crystal Landing Corporation	Flagstaff County	International Association of Fish & Wildlife Agencies
Culane Energy Corporation	Flanagan Foundation	Invermay (Rural Municipality of)
Cygnets Lake Drainage District	Fletcher Challenge Canada Ltd.	IPSCO Inc.
D.J. Old Ltd.	Flexi-Coil	Irene W. and C.B. Pennington Foundation
Data Trek Exploration (1986) Ltd.	Foothills Pipe Lines Ltd.	Izaak Walton Killam Memorial Scholarship
Davis LLP	Forest Products Association of Canada	Jacqui Shumiatcher S.O.M., L.L.D.
Daylight Energy Ltd.	Fortis Alberta Inc.	Jaffer Real Estate Limited Partnership III Inc.
Decker Petroleum Ltd.	FRC Alberta Properties, Inc.	James L. Baillie Memorial Fund
Delphi Energy Corp.	Friends of the Nature Conservancy of Canada	James Richardson International
Delta Waterfowl Foundation	Galfour Development Corporation	JED Oil Inc.
Desmarais Energy Corporation	Galleon Energy Inc.	Kanover Ltd.
Devon Canada Corporation	Genstar Development Partnership	Kelkyd Holdings Ltd.
Dirham Construction Ltd.	Gentry Resources Ltd.	Kellross No. 247 (Rural Municipality of)
Dominion Energy Canada Ltd.	Geoid Exploration Ltd.	Keyera Energy Facilities Limited
Dow AgroSciences	George Cedric Metcalf Foundation	KeyWest Energy Corporation
Dox Investments Inc.	GeoTir Inc.	Kinder Morgan, Inc.
Ducks Unlimited Canada	Grand Petroleum Inc.	Kinsmen Club of Yorkton
Ducks Unlimited Inc.	Grande Prairie (City of)	Krang Energy Inc.
E-Bay Oilfield Contracting Inc.	Grande Prairie County	L. Griffin Management Inc.
Eastern Irrigation District	Grandir Resources Ltd.	Lac La Biche Feed Mill & Farm Supply Ltd.
Echoex Ltd.	Gray Diamond Construction	Lacombe County
Edmonton (City of)	Green Drop Ltd.	Lakeland (County of)
Edmonton Community Foundation	Green-Con Lands Ltd.	Lakeland Industry & Community Association
Edmonton Springer Spaniel Club	Greenview (Municipal District of)	Lamco Gas Co-op Ltd.
Edwards Land (Calgary) Ltd.	Habitat Conservation Trust Fund	Lamont County
Elfros No. 307 (Rural Municipality of)	Habitat For Humanity	Lamont Gas Co-op Ltd.
Emerald No. 277 (Rural Municipality of)	Harbinger Exploration Inc.	Land Solutions Inc.
Enbridge Inc.	Harvest Energy	Land Stewardship Centre of Canada
Enbridge Pipelines Inc.	Hasco Development Corporation	Landquest Services Ltd.
EnCana Corporation	Heritage Surface Solutions Ltd.	Landwest Resource Services Ltd.
ENDEV Resources Partnership		Lane Land Services Ltd.

Little Saskatchewan River Conservation District	Nature Canada	Poplar Hill Resources Ltd.
Lockhorn Exploration Ltd.	Nature Conservancy of Canada	PotashCorp
Logistex Land Services Ltd.	Nature Saskatchewan	Prairie Land & Investment Services Ltd.
Longstaff Land Surveying Ltd.	Navigo Energy Partnership	Prairie Land Consultants Inc.
Loose Foot Computing Limited	Newell County	Prairie Land Service Ltd.
Lower Souris River Watershed Committee Inc.	Newport Petroleum Corporation	Prairie Mines and Royalty Ltd.
Lucas Bowker & White	Nexen Inc.	Prairie Plantation Inc.
Luscar Ltd.	Nicholson Land Service Ltd.	Prairie Roadbuilders Limited
LXL Consulting Ltd.	Niven & Associates Inc.	Price Waterhouse Coopers
Majestic Land Services Ltd.	Norcana Resource Services (1991) Ltd.	Prime Seismic Data
Mamba Production Partnership	Nordic Pressure Services Inc.	Prime West Energy Inc.
Manawan Drainage District	North West Upgrading Inc.	Priority Printing
Mancal Corporation	Northpoint Development L.P.	Progress Energy Ltd.
Manitoba Agriculture, Food and Rural Initiatives	Northrock Resources Ltd. (Canada)	Progress Land Services Ltd.
Manitoba Conservation	NWT Resources, Wildlife and Economic Development	Progressive Exploration Services
Manitoba Finance	OH Ranch Ltd.	Project Second Life Society
Manitoba Forage Council	Oil-Expo Investments Ltd.	Prospect Land Services (Alta) Ltd.
Manitoba Habitat Heritage Corporation	Olds College	Prospect Oil and Gas Management Ltd.
Manitoba Hydro	Omera Resources Limited	Public Works and Government Services Canada
Manitoba Transportation and Government Services	Omers Energy Inc.	Qualico Developments
Manitoba Water Stewardship	Oregon (State of)	Ranger Land Services Ltd.
Manitoba Wildlife Federation Habitat Foundation	Outlook Energy Corporation	Ravenswood Developments Inc.
Manitok Exploration Inc.	OutSource Seismic Consultants Inc.	RBC Royal Bank
Maverick Land Consultants Inc.	Pan Canadian Petroleum Limited	Real Resources Inc.
Maxi Services Ltd.	Pangea Land Ltd.	Red Deer County
McNally Land Services Ltd.	Paramount Energy Trust	Remington Development Corporation
MEC Operating Company	Park Paving Ltd.	Renton Land Services (1983) Ltd.
Medicine Hat (City of)	Park Ridge Homes Ltd.	Repsol Oil & Gas Canada Inc.*
Meewasin Valley Authority	Parkland Conservation Farm	Resolution Land Services Ltd.
Meighen Haddad & Co.	Parkland County	Richard H. G. Bonnycastle Graduate Fellowship
Melcor Developments Ltd.	Parks Canada	Richardson Foundation Inc.
Melfort (City of)	Parks Canada - Elk Island National Park	Richland Petroleum Corporation
MGV Energy Inc.	Partners in Habitat Conservation (EID)	Rife Resources Ltd.
Millennium Bureau of Canada	PB Industries Ltd.	Rival Energy Ltd.
Minburn County	PCL Construction Management Inc.	Road Runner Land Group Ltd.
Minco Gas Co-op Ltd.	Peace Parkland Native Stewardship Program	Rocky Mountain Elk Foundation – Canada
Ministry of Sustainable Resource Management	Peace Parkland Naturalists	Rocky Mountain Property, Inc.
Monsanto Canada	Pengrowth Corporation	Rocky View County
Montana (State of)	Penn West Petroleum Ltd.	Rockyview Energy Partnership
Montane Resources Ltd.	Petro Line Upgrade Services Ltd.	Rockyview Gas Co-op Ltd.
Moose Mountain Buffalo Ranch	Petro-Canada	Roger Hagen Construction Inc.
Mor-West Ventures Inc.	Petrofund Corporation	Rosevear Land Services Ltd.
Mountain Equipment Co-op	Petroland Services Ltd.	Roy Northern Land Service Ltd.
MSL Land Services Ltd.	Petrolane Consulting Ltd.	Royal Oaks II Joint Venture
Murphy Oil Company, Ltd.	PEW Charitable Trusts	Sabretooth Energy Ltd.
NAL Oil & Gas Trust	Pheasants Forever	Samuel Hanen Society for Resource Conservation
NAL Resources Limited	Pickseed Canada Inc.	Saskatchewan Agriculture, Food and Rural Revitalization
National Fish and Wildlife Foundation	Pioneer Land Services Ltd.	Saskatchewan Conservationist
Native Plant Society of Saskatchewan	Pioneer Professional Services Group	Saskatchewan Council for Community Development
Natural Sciences and Engineering Research Council of Canada	Ponoka County	Saskatchewan Crop Insurance Corporation

\*New cooperator in 2016-17



Saskatchewan Environment	Suncor Energy Inc.	United Grain Growers
Saskatchewan Environmental Protection Fund	Sundance Forest Industries Inc.	United States Department of Agriculture – Forest Service
Saskatchewan Finance	Sundance Land Services Ltd.	United States Fish and Wildlife Service
Saskatchewan Fish and Wildlife Development Fund	Sunwest Canada Energy Limited	United States state governments – unspecified
Saskatchewan Government Relations and Rural Affairs	Sustainable Forest Management Network	United States – other
Saskatchewan Minerals	Sylvan Lake (Town of)	University of Alberta
Saskatchewan Stock Growers Association	Synergy Land Services Ltd.	University of Calgary
Saskatchewan Water Security Agency	Syngenta Crop Protection Inc.	University of Lethbridge
Saskatchewan Wetland Conservation Corporation	Synterra Technologies Ltd.	University of Regina
Saskatchewan Wildlife Federation	Takota Land Ltd.	Univex Land Services
Saskatoon (City of)	Talisman Energy Inc.	Upper Assiniboine River Conservation District
SaskEnergy Incorporated	Tappit Resources	Val Vista Energy Ltd.
SaskPower	Tasman Exploration Ltd.	Venturion Natural Resources Limited
SaskTel	TD Canada Trust	Vermilion Energy Trust
SBW Cattle Company Ltd.	TD Friends of the Environment Foundation	Vermilion Resources
Scott Land and Lease Ltd.	Tempest Energy Corporation	Vermilion River (County of)
Seamac Land Services Ltd.	TERA Environmental Consultants	Viterra
Search Energy Corp.	Terra-Sine Resources Ltd.	Vonda (Town of)
SeCan	Tervita	VSD Developments Corporation
Seisland Surveys Ltd.	The Calgary Foundation	Vulcan County
Serrano Energy Ltd.	The Donner Canadian Foundation	Wainwright (Municipal District of)
Shell Canada Products Ltd.	The J.W. McConnell Family Foundation	WAM Development Group
Shell Conservation Internship Program	The Kahanoff Foundation	Wave Energy Ltd.
Shell Environmental Fund	The Nature Conservancy	Wayco Land Services
Shepard Limited Partnership	The W. Garfield Weston Foundation	Western Feedlots
Shiningbank Energy Income Fund	The Woodcock Foundation	Western Irrigation District
Sierra Vista Energy Ltd.	Thompson & Associates, Inc.	Westfire Energy Ltd.
Signalta Resources Limited	Thunder Energy Inc.	Weyerhaeuser
Silverado Properties Ltd.	TNC Wilson Challenge Fund	Wheatland County
Sims and Company	Tofield (Town of)	Wheatland Industrial Park Inc.
Skana Exploration Ltd.	Touchdown Land Consultants Ltd.	Wilburforce Foundation
Skelton and Company Law Office	Tourism for Tofield Foundation	Wildlife Habitat Canada
Slave Lake Pulp Corporation	Tournament Exploration Ltd.	William H. Donner Foundation
Soil Conservation Council of Canada	TransAlta Corporation	Winnipeg (City of)
South Peace Wilderness Society	TransCanada Corporation	World Wildlife Fund Canada
Southern Alberta Land Trust Society	Transfeeder Inc.	Wyoming (State of)
Special Areas Board	TransGas Limited	Yorkton Wildlife Federation
Spur Resources Ltd.	Traverse Landgroup Ltd.	Yukon Department of Energy, Mines and Resources
Spy Hill (Regional Municipality of)	Trident Exploration Corp.	Zahmol Properties Ltd.
St. Albert (City of)	Trilogy Energy Corp.	Zapata Energy Corporation
St. Mary River Irrigation District	TriStar Oil & Gas Ltd.	Zargon Energy Trust
St. Paul County	Triton Energy Corporation	Zargon Oil & Gas Ltd.
Standard Land Company Inc.	True Energy Inc.	
Star Oil & Gas	Tudor Corporation Ltd.	
Starboard Gas Ltd.	Tundra Oil and Gas, Limited	
Stettler County	Turtle Mountain Conservation District	
Strategic Land Services Inc.	Twin Butte Energy Ltd.	
Strathcona County	Two Hills (County of)	
Strathmore (Town of)	Union Pacific Resources Ltd.	
Sturgeon County	United Farmers of Alberta	







North American  
Wetlands  
Conservation Act



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada



FOR MORE INFORMATION ABOUT THE  
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