

Alberta NAWMP Partnership

2018-2019 Progress Review

APRIL 2018 TO MARCH 2019



*North American Waterfowl
Management Plan*





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DUC

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PREFACE: REFLECTIONS FROM AN ALBERTA NAWMP COORDINATOR

For the past two years, I have been fortunate enough to work with all the great people involved in the Alberta NAWMP Partnership, which implements the North American Waterfowl Management Plan in this province. As I move on to a completely different career in art, it has been satisfying to reflect on what we have accomplished during my term as Coordinator.

When I took over from Michael Barr in 2017, I was a bit anxious as to whether or not I could carry on the legacy of the previous Coordinators. After all, there were some big shoes to fill! However, I soon realized that I had no need to worry: the Alberta NAWMP community, particularly the committees and Board, continued to be just as dedicated and passionate as ever about advancing wetland and waterfowl conservation. In fact, over my two years, the scope of the work undertaken by Alberta NAWMP and the five Partner agencies has grown as we saw more need to connect with the public and a broader stakeholder audience, and to become closely involved with the communications around wetland conservation and the Alberta Wetland Policy implementation.

TERRA SIMIERITSCH



One of the projects that really stands out for me is the initiation of the Wetland Education Network after a successful pilot in 2016-17. We have brought together people from many sectors to create and share wetland education resources suited to their particular target audiences. Not so long ago, we needed to focus our communications around “what is a wetland?” and “why are wetlands important?” Now, we are attracting eager stakeholders to participate in creating resources about wetland sustainability practices and in discussing the complexities around wetland policies. This informed enthusiasm holds a lot of promise for wetland conservation in Alberta.

In this *Progress Review*, we highlight another communications project: our complete overhaul of the Alberta NAWMP website. You can read about the website’s exciting upgrades in *Revamping Our Website*.

Perspectives on Wetland Economics showcases the 2018 Alberta NAWMP Forum. The Dollars and Cents of Wetlands Forum afforded a unique opportunity for participants to consider diverse outlooks on this complex issue, such as the economic challenges for different stakeholders in retaining wetlands and the economic benefits and incentives available for wetland conservation.

Water for Cattle, Water for Ducks looks at a wonderful example of a farmer-initiated wetland restoration project in central Alberta. This Ducks Unlimited Canada project is a win-win for the farm family and for waterfowl.

In *A Tool to Help Protect Watershed Health*, we learn about a collaborative project to develop a map identifying the parts of the Bow River Watershed that most need protection to ensure the watershed’s hydrological health. This mapping product can help inform decisions around land use planning and conservation priorities in the watershed.



“THE ALBERTA NAWMP COMMUNITY WAS AS DEDICATED AND PASSIONATE AS EVER ABOUT ADVANCING WETLAND AND WATERFOWL CONSERVATION.”

And *Revealing Yellow Rail Secrets* features a research project about an elusive marsh bird. This bioacoustic study in northeastern Alberta is generating new insights that have significant implications for conserving yellow rails as oilsands development continues.

Handing off the Coordination tasks to Greg Hale, the incoming Coordinator, is providing me with a lively reminder of just how many fascinating activities we are involved with at Alberta NAWMP. I will be following the new website with interest to see what this community of committed, innovative people will do next to strengthen wetland conservation in Alberta.

I extend a huge thanks to each and every person in Alberta NAWMP that I’ve had the joy of working with over the past few years.

On behalf of Alberta NAWMP, I am pleased to present the *Alberta NAWMP Partnership 2018-2019 Progress Review*.

Terra Simieritsch
Outgoing Coordinator
Alberta NAWMP Partnership

NAWMP IN ALBERTA

Created over 30 years ago, 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 contains some of the most productive areas for waterfowl in the world. It 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. The PHJV's 2013-2020 plan is aligned with NAWMP's 2012 Revision, the most recent update of the international plan.

The 2012 Revision continues NAWMP's focus on conserving waterfowl populations and their key habitats but adds a heightened emphasis on engagement with hunters, other conservationists and the general public.

The 2013-2020 plan also formally adds the Western Boreal Forest Region to the PHJV's longstanding geographic focus on the Prairie and Parkland regions. And the plan increases the PHJV's attention on other types of birds, 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 foundation for Alberta NAWMP's current activities.

The Alberta NAWMP Partnership is composed 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 the Board and the committees are mainly 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 Partner activities through technical and logistical assistance and by advancing innovative ideas through facilitation, funding support and capacity building.

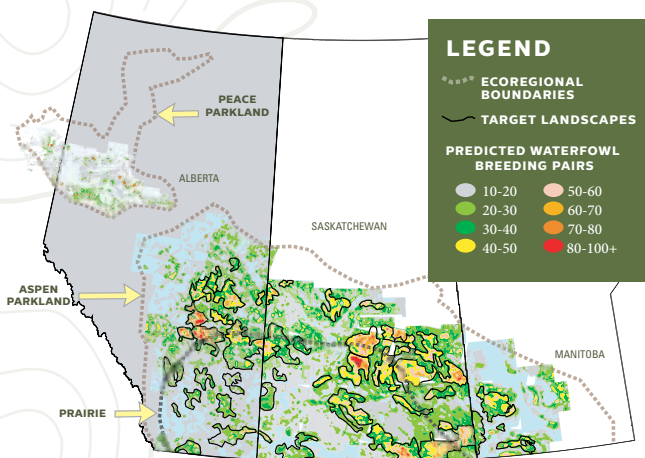
ALBERTA NAWMP (PHJV) VISION

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

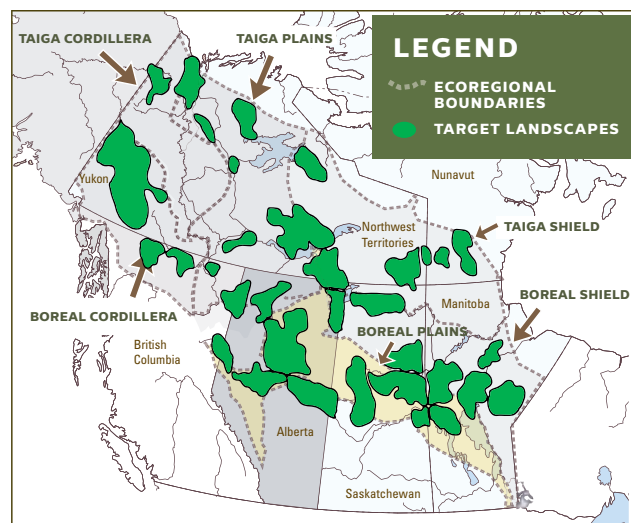
ALBERTA NAWMP (PHJV) MISSION

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?

Advancing conservation together: that sums up what Alberta NAWMP is all about. Its successes in wetland and waterfowl conservation spring from the synergy of working together. Alberta NAWMP is a partnership of one federal and two provincial government departments and two non-government organizations that all have a responsibility for Alberta's wetlands as part of their mandates.

The five Alberta NAWMP Partners continually seek opportunities to work with each other and with regional and municipal organizations and other stakeholders. These collaborative networks enhance existing wetland stewardship efforts, launch innovative initiatives that otherwise might not happen, and build interest in and capacity for wetland conservation.

Together, the Partners and their collaborators are making exciting progress on shared conservation goals.

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

GOVERNMENT

Alberta Environment and Parks (AEP) is the lead provincial agency responsible for the stewardship of Alberta's air, land, water and biodiversity. AEP administers the Alberta Wetland Policy, the objective of which is to conserve, restore, protect and manage Alberta's wetlands to sustain the benefits they provide to the environment, society and economy.

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 over 80 years of experience in wetland conservation and restoration. DUC partners with government, landowners, industry, Indigenous peoples and non-profit organizations 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, 2018-19

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Ron Maher, Ducks Unlimited Canada
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Raina Mithrush, Ducks Unlimited Canada (Boreal)
Dave Mussell (Chair), Alberta Environment and Parks
Carys Richards, Nature Conservancy of Canada
Nena Snyder/Joy Aguilar, Environment and Climate Change Canada

COORDINATOR

Terra Simieritsch

WATER FOR CATTLE, WATER FOR DUCKS

A few years ago, Randy Radau approached Ducks Unlimited Canada (DUC) about his idea for a wetland project on his family's land. Today, he has more water for his cattle and for ducks.

"I thought I had probably an ideal spot for a Ducks Unlimited project on our land. It was a wetland area that had been partially drained by the earlier owners of the farmland. We had seen that wetland go dry in previous drought years, and the area just turned to weeds," he explains. "I wanted to try to prevent that from happening again, and to provide a bit more duck habitat, which we have enjoyed seeing on the place, and a little better water for our cattle."

The Radau family has been farming at Coulee Crest Farms near Bowden for over 90 years. Randy and his wife Sandra, who have a mixed grain and cattle operation, have a strong interest in nature and a healthy landscape. In fact, they recently won Alberta Beef Producers' 2019 Environmental Stewardship Award.

"I REALLY THINK IT HAS BEEN A WIN-WIN PROJECT."

"The Radau farm, like most of central Alberta, is part of Canada's Prairie Pothole Region, which is very important breeding habitat for waterfowl," notes DUC's Aaron Everingham. Although it is normal for wetland water levels to rise and fall with changing weather conditions, the tendency of the Radau wetland to dry up was exacerbated by the partial drainage. Radau's idea to restore the wetland to its natural water levels was a great fit with DUC's Wetland Restoration Lease Program.

This program's aim is to restore wetlands that were drained in the past. Everingham explains, "We look to see if there has been a manmade activity like a ditch to drain the wetland. If there has, then we can plug that ditch, usually simply with an earthen plug."

Under this program, DUC and the landowner jointly develop a project plan that will work for both parties. If the landowner and DUC decide to go ahead with the project, they sign a 10-year agreement. Under the agreement, DUC takes care of all the work and all the costs related to restoring the wetland. DUC also pays the landowner 100% of the fair market value for the area covered by the restored wetland. Everingham explains, "We pay 50% up front and then the other 50% is divided into 10 equal payments that are made over the course of the agreement."

The only land use restrictions under these agreements are that the landowner isn't allowed to remove the plug or break the land within the wetland's boundary. So the landowner can still graze or hay the area if the restored wetland partially or completely dries up during the summer.

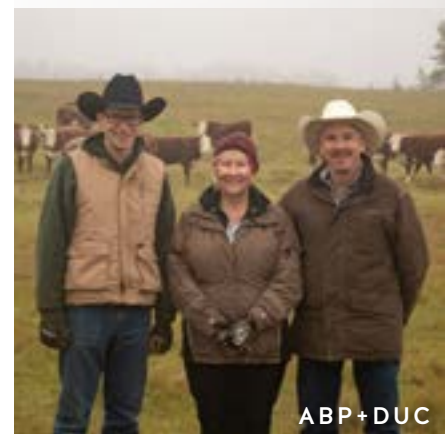
"We at Ducks Unlimited understand that for ranchers and farmers, their land is how they make their living, so a wetland restoration is a business decision. But in a lot of cases, drained wetland areas really aren't the most productive spots on a farm because they are always going to be wet spots," says Everingham. "Then when you add the fact that we compensate the landowner for that land, the decision to restore the wetland becomes much easier."

For the Radaus' project, DUC installed a ditch plug in 2017 to bring the wetland's depth back up to the pre-drainage level. The plug is designed to withstand a one-in-100-year flood, which was a very good thing considering what happened the following spring.

"In 2018, we had a big snowfall year, as much snow as we would ever get, and a huge, late spring runoff. The berm withstood the flow of water, and the wetland captured a lot of that runoff. Then we had an extremely dry summer, but the wetland maintained its water level. The last time the weather had been that dry, the wetland had gone completely dry," says Radau.

"So, it couldn't have been a better year to see the benefit of the project right off the bat. Instead of shallow, algae-filled water, we had really nice, deeper, fresher water – cattle do better on fresher water. And the ducks had their nesting habitat around it, and migrating ducks and geese had a place to rest. I really think it has been a win-win project."

SON LUKE WITH SANDRA AND RANDY RADAU



A TOOL TO HELP PROTECT WATERSHED HEALTH

With some help from Alberta NAWMP, several groups involved in landscape stewardship in southern Alberta have created a mapping product that identifies the parts of the Bow River Watershed that most need protection to ensure the watershed's long-term hydrological health.

This tool provides an excellent resource to help inform decisions around land use planning, conservation priorities, and riparian stewardship efforts in the watershed.

About three years ago, Craig Harding with the Nature Conservancy of Canada (NCC) and Justin Thompson with the Southern Alberta Land Trust Society (SALTS) came up with the idea for what has become the Bow River Watershed Conservation Priority Mapping project. "At the time, we had no tool for evaluating which areas of the watershed offer the greatest value for specific ecosystem services like enhancing drought resiliency, reducing flooding, protecting water quality, and maintaining habitat," explains Harding.

"We wanted a way to think about hydrological systems that doesn't only identify things that are wet – the watercourses, wetlands and lakes – but also the surrounding areas that are key to sustaining hydrological functioning and watershed health."

AN EXCELLENT TOOL TO INFORM DECISIONS AROUND LAND USE PLANNING AND CONSERVATION PRIORITIES

To bring this idea into reality, NCC and SALTS tasked Suzanne Marechal, a Southern Alberta Institute of Technology student, with developing a hydrological conservation priority map for a small part of the Bow Watershed.

After she graduated, Marechal joined Geo-Libre Inc. and was involved in a similar mapping project for the Oldman River Watershed. Then NCC hired Marechal as a full-time staff member, and in 2018, she created a map of the rest of the Bow Watershed.

This mapping process involves multiple data layers, including maps of precipitation amounts, proximity to water, groundwater vulnerability, land cover, slope and surficial geology. These are all factors affecting the value of a parcel of land for performing hydrological functions like slowing runoff, storing water and filtering water. The data layers are integrated to create an enormous dataset that generates the conservation priority map.

NCC, SALTS, the Bow River Basin Council, and the Western Sky Land Trust formed the core team that guided the 2018 Bow project. They got valuable input from other agencies such as Alberta Environment and Parks (AEP), the City of Calgary, Alberta NAWMP, and Ducks Unlimited Canada (DUC). The project's main financial contributors were Alberta NAWMP and the Land Stewardship Centre.

"While the Alberta NAWMP Science Fund usually funds academic projects, the Bow project was an opportunity to help create a tool that could engage various types of decision-makers," says Alberta NAWMP's Terra Simieritsch.

"We were also excited to participate beyond the role of funder. This allowed us to work with incredible stakeholder groups and create the opportunity for more partnerships to advance sound wetland and watershed conservation decision-making."

She notes, "Through the expertise of various Alberta NAWMP committee members [especially DUC members], we strengthened the wetland data available to the project, and we created a stronger case for the importance of wetlands in the larger watershed conservation picture." And of course three of the agencies involved in the project – NCC, AEP and DUC – are Alberta NAWMP Partners.

Harding hopes to have the Bow and Oldman mapping products freely available online in an easy-to-use format later in 2019.

From his perspective, one of the Bow project's biggest successes is that it ignited the interest of the Red Deer River Watershed Alliance in working with NCC and Marechal in 2019 to apply the same mapping approach to the Red Deer Watershed.

"With the Bow, Oldman and Red Deer watershed mapping products, we will have a continuous, standardized dataset that shows the hydrologic values throughout a huge swath of southern Alberta," he says. "Using the same type of mapping products reinforces shared stewardship values and enhances our abilities to work together across boundaries."

NCC is also hoping to interest the Alberta Government, municipalities and watershed groups in other parts of the province to employ this mapping approach, to help protect watershed health across Alberta.



PRIORITIZING HYDROLOGICALLY SIGNIFICANT AREAS

REVAMPING OUR WEBSITE

“The old Alberta NAWMP website was definitely due for a facelift. It was over 10 years old, and the biggest issue was the lack of capabilities,” explains Terra Simieritsch, the Alberta NAWMP Coordinator. For instance, with the old website, it was almost impossible to embed videos, difficult to organize and access documents, and hard to use with mobile devices.

So this past year, Simieritsch teamed up with Perpetual Notion Design and the Alberta NAWMP Communications Committee to give the website some much-needed upgrades and a fresh new look.

First of all, the website now functions much better on a technical level. “We’ve brought the new site up to the standards for the web right now. So it is user-friendly whether you’re looking at it on your phone or iPad or iPad Pro – it is built to withstand all of the current browsers,” notes Julie Kramer, Director of Perpetual Notion.

“It is also more secure. And because the text on the old website was not crafted with search engine optimization in mind, the text has been updated in areas that we felt could strengthen its ranking and searchability. As well, it is now much easier to keep the content current; we built it in a really user-friendly format and then provided tutorial videos so anyone in Alberta NAWMP can update it.”

“WE WANTED THE PUBLIC TO GET AN EYEFUL AS TO WHAT ALBERTA NAWMP IS ABOUT.”



Another important change is the website’s increased focus on communicating with the public. “One of the drivers for updating the website is that we are getting a lot more public traffic,” says Simieritsch. “Alberta NAWMP used to be very internal, but now we have a lot of pieces for public use. So we wanted the public to be able to find those resources more easily.”

Kramer says, “The new website has a friendly, approachable vibe, with natural, earthy tones. It is more visual, and it is easier to find the good information that you are looking for. For instance, we have picked some wonderful photos out of a treasure trove of beautiful photos from the Alberta NAWMP Partners and we’ve made sure those photos are really visible. And you can access publications just by clicking on their icons.” Also, since it’s now so simple to embed videos, there’s a new three-minute video about Alberta NAWMP on the website’s home page.

“We wanted the public to get an eyeful as to what Alberta NAWMP is about, what the Partnership has accomplished, who we are, and what value we bring to the whole wetland conservation question,” says Dave Mussell, Chair of the Communications Committee, and Community Engagement Lead with Alberta Environment and Parks.

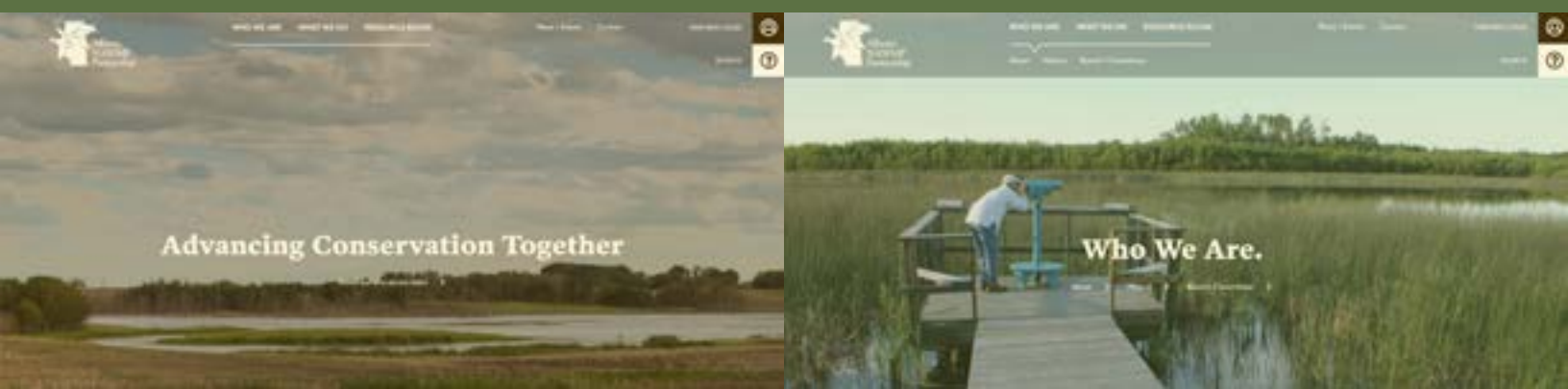
Mussell really likes the improved functionality of the website’s Partner Login section – the section for internal Alberta NAWMP users, which has meeting notes, agendas and project updates.

“In the Partner Login section, it is now much easier to archive documents and keep things organized,” says Simieritsch. “Also, when you login to access materials for your own committee work, you automatically have a view of some of the top-view pieces that other committees are working on. So it allows more connection among the different committees.”

What Simieritsch likes best about the revamp is the potential to do so much more. “It will be fantastic to provide information in a much more current and easier-to-access way. One focus of the Communications Committee will be to do a short video on a really pertinent topic every year. People are much more likely to watch a two-minute video than to scroll through a 30-page report!”

With all these improvements, this rejuvenated website is turning into the hub of all things Alberta NAWMP – keeping the Partners, stakeholders and the public informed, engaged and excited about wetland and waterfowl conservation in Alberta.

Have a look for yourself at abnawmp.ca!



PERSPECTIVES ON WETLAND ECONOMICS

Depending on your viewpoint, you may have different answers to questions like: How do we weigh the economic costs and benefits of retaining a wetland? Who pays those costs? Who receives those benefits? What are the best economic tools to encourage wetland retention?

Alberta NAWMP's 2018 Forum, *The Dollars and Cents of Wetlands*, brought together 50 wetland professionals and other stakeholders to gain a broader understanding of wetland economics and consider new outlooks on this sometimes-contentious topic. Nine speakers with diverse backgrounds talked about such issues as: determining monetary values for wetland ecosystem services; economic challenges for different stakeholders in retaining wetlands; and economic incentives for wetland conservation.

"IT'S ABOUT WORKING TOGETHER TO FIND SOLUTIONS THAT FIT THE LAND."

One of the complexities in wetland economics is how to assign financial values to wetlands. Dr. John Pattison-Williams tackled this issue in his presentation about his case study of wetland economics in the Smith Creek Watershed in southern Saskatchewan, a region with many drained wetlands.

Pattison-Williams is President of Pattison Resource Consulting and a Postdoctoral Researcher at the University of Alberta. His Smith Creek analysis targeted certain ecosystem benefits provided by wetlands: flood control, nutrient retention, carbon storage, and recreation.

He selected those benefits because they could be assessed based on biophysical evidence, like the number of tonnes of carbon dioxide equivalent withdrawn from the atmosphere, and that biophysical data could be tied to a market that sets a financial value on it, like the carbon credit market. He also determined wetland retention costs, such as the opportunity costs to farmers. And he calculated the financial values of the benefits and costs specifically for the Smith Creek Watershed so these values would be easier to communicate to the local people and easier for policy-makers to use in creating a program or policy acceptable to the local people.

His analysis showed that wetland retention provided an attractive social return on investment, while wetland restoration provided a lower return. "So, the main message is: keep the wetlands we have because they are providing a lot of value. If we drain them, we lose that value, and restoring them is costly."

In another thought-provoking presentation, Marissa Koop and Scott Fash outlined the many economic impacts of urban wetland retention on developers and municipalities. For instance, one serious cost consideration is that utilities can't follow an efficient grid pattern in a development with a wetland. "Wetlands don't follow a nice grid, and that turns into more kilometres of sewer pipes, water pipes, roadways. Those all have a cost to install, to maintain, and eventually to replace," says Koop, Environmental Planning Lead with B&A Planning Group.



From her perspective, the biggest challenge for developers in retaining urban wetlands is that wetland retention is actually the most difficult, costly and time-consuming option from a regulatory approvals standpoint.

For Koop, the forum was a good opportunity to share perspectives. "The truest thing I know as a professional is that we do way better when we work together. I think everyone wants to do the right thing, we want to save wetlands, but we don't always know how to get there. So, it's about working together to find solutions that fit the land because no one formula is always going to get us to the right end result."

According to Pattison-Williams, the forum allowed different voices to be respectfully heard. He adds, "This forum was a great start. I hope to see more from Alberta NAWMP on this, so these initial conversations can lead to tangible progress on the economic aspects of conserving wetland and upland habitat."



REVEALING YELLOW RAIL SECRETS

Research on a small, elusive marsh bird called the yellow rail is providing insights into its habitat needs and population status in the Lower Athabasca Region (LAR). These insights will have significant implications for conserving yellow rails as development continues in Alberta's oilsands country.

"Yellow rails are one of the most secretive bird species in North America. You almost never see them. They are nocturnal, they live in very remote wetlands, and within those wetlands they rarely fly; they usually run along the ground through dense vegetation," explains Dr. Richard Hedley, a University of Alberta Postdoctoral Researcher.

"They are listed under Canada's Species at Risk Act as a species of special concern because there is concern that they could become threatened or endangered. One of the main reasons for this designation is because we know so little about them."

Nevertheless, yellow rails are known to have a quite specific habitat requirement: "They like to live in wetlands with between 0 and 15 centimetres of standing water. That suggests they might be very sensitive to water level changes caused by human activity. So we need to figure out where yellow rails are living and how human activities will affect the wetlands they rely on, to help us better plan how to ensure their populations will persist," he says.

Hedley is a member of the Bioacoustic Unit (BU), a collaboration between the Alberta Biodiversity Monitoring Institute and Dr. Erin Bayne's lab at the university. The BU has been monitoring yellow rails in the LAR since 2012.

Acoustic recorders are great for monitoring these birds because the males vocalize loudly at night. So the researchers deploy recording units around the region's vast network of wetlands.

Alberta NAWMP contributed to this research by funding the 2018 fieldwork. Suncor provided helicopter services to transport the researchers to some of the more remote monitoring sites. Other funders include the Oil Sands Monitoring Program, Imperial Oil, Shell Oil, and Canadian Natural Resources Ltd.

One part of the 2018 fieldwork involved evaluating a yellow rail habitat suitability map developed by the BU. The map turned out to be very good at predicting where to find more yellow rails. Hedley says, "We visited about 50 high suitability wetlands that we hadn't visited before. We detected yellow rails at 12 of the wetlands and detected 23 yellow rail individuals." So the map could be useful, for example, in targeting monitoring locations to assess the effects of development on the birds.

The 2018 detections also helped Hedley and his colleagues in creating the first rigorous estimate of the species' population in the LAR. "Before our group started working on yellow rails, nothing concrete was known about the species' occurrence in this region. However, some previous estimates had suggested there might be about 500 pairs of yellow rails in the whole of Alberta," he notes.

"Putting together all of our data since 2012, we found slightly over 200 yellow rail males – which we think implies about 200 pairs of yellow rails – just at locations where we've surveyed. Using a model that we built, which extrapolates from our surveys to the whole LAR, we think there are probably at least 1,000 pairs of yellow rails just in this region."

"YELLOW RAILS ARE ONE OF THE MOST SECRETIVE BIRD SPECIES IN NORTH AMERICA."

Hedley explains, "This finding is a double-edged sword. On the one hand, there are more yellow rail individuals than we thought, which could mean they are less threatened. On the other hand, many of the individuals are predicted to be on or adjacent to industrial leases that are slated for development."

Another part of the 2018 fieldwork involved sound localization, an emerging technique for estimating the precise location of a bird within about a metre by using an array of recording units. Hedley is now analyzing the 2018 localization data. By pinpointing each bird's location, he will get a clearer picture of the species' exact habitat needs.

This innovative research is an important step forward in developing strategies to protect this enigmatic marsh bird.

YELLOW RAIL



LWK

WETLAND COMPLEX WHERE YELLOW RAILS DETECTED



NA

RECORDING UNIT



RH

COMMITTEE REPORTS, 2018-19

BOARD OF DIRECTORS

Members are director-level executives from each Alberta NAWMP 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 met in November 2018 and January 2019 and had a video conference call in March 2019. In November, they had a presentation from Marian Weber of InnoTech Alberta about her Alberta NAWMP-sponsored research project linking additionality and wetlands. The Board also received an update on the status of the Alberta NAWMP Work Plan and Budget for FY19 (fiscal year 2018-19). In January, the Board and the Management Committee held a joint strategic planning session for Alberta NAWMP. The March call included a review of the FY19 projects, planning of the transition of Alberta NAWMP Coordination, and approval of the FY20 Work Plan and Budget Report.

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 three times in 2018-19 and held two conference calls.

In the July call, the Committee created systems to incorporate evaluation protocols into specific projects and also weighed in on the Alberta NAWMP Forum. At the October meeting, the members got an update from the Nature Conservancy of Canada on a mapping project (see *A Tool to Help Protect Watershed Health*), decided on next steps for the Wetland Education Network (WEN) and were updated on the FY19 Work Plan and Budget. In January, they met with the Board to work on strategic planning. In February, the Committee reviewed applications for Alberta NAWMP science funding and decided which projects to fund. In March, they reviewed FY19 progress, examined the evaluation of the WEN project, discussed details around the Coordination transition, and worked through the FY20 Work Plan and Budget. Dave Stepnisky (Alberta Environment and Parks (AEP)) joined this Committee in 2018-19.

COMMUNICATIONS COMMITTEE

The Communications Committee leads information sharing, event hosting and promotion among the Partner agencies and beyond. Members are typically communication experts from each Partner agency.

The Communications Committee had three meetings during 2018-19. They met in June for an update on the WEN project from the WEN Coordinator, Christina Pickles. They also planned the re-design of the Alberta NAWMP website (see *Revamping Our Website*) and discussed the new video for the website. The Committee met in October to receive updates on the website and WEN projects.

At the March meeting, they finalized the website work and discussed communications opportunities for FY20. Joy Aguilar (Environment and Climate Change Canada) joined this Committee in 2018-19.

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 three times in FY19. At the June meeting, they received an in-depth presentation from Weber about her additionality project and discussed the implications of this research. In September, they received updates on Weber's project and planned for further projects to undertake in FY19. They also helped plan the Alberta NAWMP Forum (see *Perspectives on Wetland Economics*). In March, the Committee received an update on the Alberta Wetland Rapid Evaluation Tool (ABWRET) project by Fiera Biological Consulting, reviewed FY19 activities, and created the policy portion of the FY20 Work Plan and Budget. Janet Dietrich (Agri-Environmental Partnership of Alberta), Tom Lynch-Staunton (Alberta Beef Producers), Fiona Briody (Crop Sector Working Group) and Brendan Hemens (AEP) joined the Policy Committee in 2018-19, and Gerry Haekel (AEP) re-joined. Tracy Scott (Ducks Unlimited Canada) formally became the Committee's Chair in fall 2018.



CONTRIBUTIONS TO NAWMP IN ALBERTA, 2018-19 AND 1986-2019			
AGENCY TYPE	AGENCY	2018-19* TOTAL	1986-2019* CUM. TOTAL
CANADIAN CORPORATIONS		\$2,690,030	\$23,281,856
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	\$556,032	\$40,676,734
	Environment and Climate Change Canada - EcoAction	\$44,898	\$78,174
	Environment and Climate Change Canada - Habitat Stewardship Program		\$3,655,828
	Environment and Climate Change Canada - Natural Areas Conservation Program	\$54,746	\$28,599,754
	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
		\$655,676	\$112,935,263
CANADIAN NOT FOR PROFIT	Agriculture and Food Council of Alberta		\$275,000
	Alberta Beef Producers		\$954,531
	Alberta Conservation Association		\$4,322,963
	Alberta Conservation Tillage Society		\$125
	Alberta Ecotrust Foundation		\$22,542
	Alberta Environmental Farm Plan Company		\$240
	Alberta Fish and Game Association		\$1,506,348
	Alberta Native Plant Council		\$600
	Alberta Research Council		\$5,000
	Alberta Sport, Recreation, Parks & Wildlife Foundation	\$399,829	\$917,093
	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		\$28,013
	Edmonton Springer Spaniel Club		\$200
	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 Alberta		\$15,000
	Nature Canada		\$1,128,000
	Nature Conservancy of Canada	-\$1,235,356	\$10,428,016
	North Saskatchewan Watershed Alliance*	\$234,023	\$234,023
	Peace Parkland Naturalists		\$600
	Pheasants Forever		\$17,400
	Project Second Life Society		\$6,000
	Richard H. G. Bonnycastle Graduate Fellowship		\$15,000
	Richardson Foundation Inc.	\$2,506	\$374,788
	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		\$3,417

CONTRIBUTIONS TO NAWMP IN ALBERTA, 2018-19 AND 1986-2019			
AGENCY TYPE	AGENCY	2018-19 ^a TOTAL	1986-2019 ^a CUM. TOTAL
CANADIAN NOT FOR PROFIT	Southern Alberta Land Trust Society		\$613,119
	Sustainable Forest Management Network		\$20,000
	The Calgary Foundation	\$25,579	\$35,522
	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	\$130,333	\$3,922,411
	World Wildlife Fund Canada		\$36,000
		-\$443,086	\$29,444,427
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	\$1,232,941	\$36,013,013
	Alberta Transportation		\$9,246
	Alberta Treasury		\$693,685
	Manitoba Habitat Heritage Corporation		\$45,317
	Saskatchewan Water Security Agency		\$10,000
		\$1,232,941	\$47,804,814
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		\$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		\$30,425
	Manawan Drainage District		\$34,750
	Medicine Hat (City of)		\$8,005
	Minburn County		\$78,080
	Newell County		\$28,750
	Ponoka County		\$2,310
	Red Deer County		\$1,811
	Rocky View County		\$347,611
	Special Areas Board		\$325
	St. Albert (City of)		\$17,820
	St. Paul County		\$19,287
	Stettler County		\$2,780
	Strathcona County		\$87,629
	Strathmore (Town of)		\$198,627
	Sturgeon County		\$68,085
	Sylvan Lake (Town of)		\$30,000
	Wheatland County		\$3,200
		\$0	\$1,555,583
CANADIAN OTHER	Canadian – unspecified	\$3,943,913	\$41,443,328
UNITED STATES – ALL SOURCES	U.S. Fish and Wildlife Service, U.S. state governments, Ducks Unlimited Inc., Anonymous Foundation, other	\$8,953,118	\$293,219,926
INTERNATIONAL	Conservation International Bahamas		\$59,744
GRAND TOTAL		\$17,032,592	\$550,045,220

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

* New contributor in 2018-19

ACTIVITY EXPENDITURES AND HABITAT ACCOMPLISHMENTS, 2018-19 AND 1986-2019				
AGENCY	ACTIVITY	EXPENDITURES 2018-19	HABITAT ACRES 2018-19	NET HABITAT ACRES 1986-2019
ALBERTA AGRICULTURE AND FORESTRY (includes Agriculture and Agri-Food Canada, a former Alberta NAWMP partner)	Securement			425,195
ALBERTA ENVIRONMENT AND PARKS	Securement			10,507
DUCKS UNLIMITED CANADA	Communication and education	\$333,357		
	Conservation planning	\$1,456,624		
	Habitat Joint Venture science	\$8,333		
	Habitat restoration	\$4,279,644	111,573	1,088,057
	Habitat retention (≥10 years through permanent)	\$6,372,151	9,027	2,350,468
	Habitat retention (<10 years)	\$628,164		96,602
	Land and water policy support	\$118,401		175,320
	Management (habitat assets)	\$3,981,042	23	2,561,112
	Species Joint Venture science and research	\$314,217		
DUC Total Expenditures		\$17,491,933		
ENVIRONMENT AND CLIMATE CHANGE CANADA - CANADIAN WILDLIFE SERVICE	Communication and education	\$4,067		
	Conservation planning	\$4,933		
	Habitat Joint Venture science	\$65,867		
ECCC Total Expenditures		\$74,867		
NATURE CONSERVANCY OF CANADA	Conservation planning	\$40,441		
	Habitat restoration			73,017
	Habitat retention (≥10 years through permanent)	\$2,009,004	302,719	354,277
	Management (habitat assets)	\$629,509	302,719	356,389
NCC Total Expenditures		\$2,678,954		
OTHER AGENCIES	Communication and education, Habitat restoration, Habitat Joint Venture science, Management	\$122,000		4,141
TOTAL EXPENDITURES, 2018-19		\$20,367,754		
TOTAL HABITAT RETENTION ACRES (≥10 YEARS THROUGH PERMANENT), 2018-19 AND 1986-2019			311,746	3,140,447

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 Joint Venture science: activities that evaluate the effects and inform future improvement of the NAWCA program throughout the Prairie Habitat Joint Venture.
- Habitat restoration: actions to increase carrying capacity for wetland-associated migratory birds and other wildlife.
- 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 Joint Venture science: activities that evaluate the effects and inform future improvement of the NAWCA program throughout the Prairie Habitat Joint Venture.
- 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.
- Management (habitat assets): actions to maintain carrying capacity for wetland-associated migratory birds and other wildlife on habitat retained for ≥10 years through permanent.
- Species Joint Venture science and research: activities that evaluate the effects and inform future improvement of the NAWCA program throughout the Prairie Habitat Joint Venture.

Habitat Acres:

- Habitat Acres, 2018-19: habitat acres retained, restored or managed between April 1, 2018 and March 31, 2019. NOTE: total acres are not cumulative.
- Net Habitat Acres, 1986-2019: cumulative total of habitat acres since 1986, less expired agreements.

COOPERATORS

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



DC



DUC

Central Alberta Rural Electrification Association	Dominion Energy Canada Ltd.	Fortis Alberta Inc.
Central Global Resources, ULC	Dow AgroSciences	FRC Alberta Properties, Inc.
Centrica Canada Limited	Dox Investments Inc.	Friends of the Nature Conservancy of Canada
Challenger Development Corporation	Ducks Unlimited Canada	Galfour Development Corporation
Chamaelo Energy	Ducks Unlimited Inc.	Galleon Energy Inc.
Choice Resources Corp.	E-Bay Oilfield Contracting Inc.	Genstar Development Partnership
Circle E Grazing Association	Eastern Irrigation District	Gentry Resources Ltd.
Clear Environmental Solutions Inc.	Echoex Ltd.	Geoid Exploration Ltd.
Climate Change Central	Edmonton (City of)	George Cedric Metcalf Foundation
Coal Valley Resources Inc.	Edmonton Community Foundation	GeoTir Inc.
Coastal Resources Ltd.	Edmonton Springer Spaniel Club	Grand Petroleum Inc.
Cochin Pipe Lines Ltd.	Edwards Land (Calgary) Ltd.	Grande Prairie (City of)
Colonsay No. 342 (Rural Municipality of)	Elfros No. 307 (Rural Municipality of)	Grande Prairie County
Colorado (State of)	Emerald No. 277 (Rural Municipality of)	Grandir Resources Ltd.
Commonwealth Construction Company Ltd.	Enbridge Inc.	Gray Diamond Construction
Compara Energy Services Inc.	Enbridge Pipelines Inc.	Green Drop Ltd.
Complete Exploration Services Ltd.	EnCana Corporation	Green-Con Lands Ltd.
Complete Land Services Ltd.	ENDEV Resources Partnership	Greenview (Municipal District of)
Compton Petroleum Corporation	EnerMark Inc.	Habitat Conservation Trust Fund
Conoco Phillips Canada	Enterra Energy Corp.	Habitat For Humanity
Conservation International Bahamas	Environment and Climate Change Canada - Canadian Wildlife Service	Harbinger Exploration Inc.
Cordero Energy Inc.	Environment and Climate Change Canada - EcoAction	Harvest Energy
Cornerstone Agri-Environmental Group Plan	Environment and Climate Change Canada - Habitat Stewardship Program	Hasco Development Corporation
Cossack Land Services Ltd.	Environment and Climate Change Canada - Natural Areas Conservation Program	Heritage Surface Solutions Ltd.
Cowie Cattle Company Ltd.	Environmental Law Centre	HMA Land Services Ltd.
Crescent Point Resources Limited Partnership	EOG Resources, Inc.	Hopewell Development Corporation
Crew Energy Inc.	Equatorial Energy Inc.	Horizon Land Services Ltd.
Crispin Energy Inc.	Esprit Exploration Ltd.	Horseshoe Land Ltd.
Cropmasters	Evolve Surface Strategies Inc.	Hughes Oilfield Construction Ltd.
CrossAlta Gas Storage & Services Ltd.	Exalta Energy Inc.	Human Resources and Skills Development Canada
Crystal Landing Corporation	ExxonMobil Canada Energy	Husky Group of Companies
Culane Energy Corporation	Fairmount Energy Inc.	Husky Oil Operations Ltd.
Cygnets Lake Drainage District	Federation of Saskatchewan Indian Nations	Impact 2000 Inc.
D.J. Old Ltd.	Feed-Rite Ltd.	Imperial Oil Charitable Foundation
Data Trek Exploration (1986) Ltd.	First National Properties Group	Imperial Oil Resources Ltd.
Davis LLP	Fisheries and Oceans Canada	Indian and Northern Affairs Canada
Daylight Energy Ltd.	Flagstaff County	Inglewood Bird Sanctuary
Decker Petroleum Ltd.	Fletcher Challenge Canada Ltd.	Inland Cement Ltd.
Delphi Energy Corp.	Flexi-Coil	Institute for Wetland and Waterfowl Research
Delta Waterfowl Foundation	Foothills Pipe Lines Ltd.	Integrated Geophysical Consultants Ltd.
Desmarais Energy Corporation	Forest Products Association of Canada	Integrity Land Inc.
Devon Canada Corporation		Inter Pipeline Fund
Dirham Construction Ltd.		Interlake Grasslands Society



International Association of Fish & Wildlife Agencies
 Invermay (Rural Municipality of)
 IPSCO Inc.
 Irene W. and C.B. Pennington Foundation
 Izaak Walton Killam Memorial Scholarship
 Jacqui Shumiatcher S.O.M., LL.D.
 Jaffer Real Estate Limited Partnership III Inc.
 James L. Baillie Memorial Fund
 James Richardson International
 JED Oil Inc.
 Kanover Ltd.
 Kelkyd Holdings Ltd.
 Kellross No. 247 (Rural Municipality of)
 Keyera Energy Facilities Limited
 KeyWest Energy Corporation
 Kinder Morgan, Inc.
 Kinsmen Club of Yorkton
 Krang Energy Inc.
 L. Griffin Management Inc.
 Lac La Biche Feed Mill & Farm Supply Ltd.
 Lacombe County
 Lakeland (County of)
 Lakeland Industry & Community Association
 Lamco Gas Co-op Ltd.
 Lamont County
 Lamont Gas Co-op Ltd.
 Land Solutions Inc.
 Land Stewardship Centre of Canada
 Landquest Services Ltd.
 Landwest Resource Services Ltd.
 Lane Land Services Ltd.
 Little Saskatchewan River Conservation District
 Lockhorn Exploration Ltd.
 Logistex Land Services Ltd.
 Longstaff Land Surveying Ltd.
 Loose Foot Computing Limited
 Lower Souris River Watershed Committee Inc.
 Lucas Bowker & White
 Luscar Ltd.
 LXL Consulting Ltd.
 Majestic Land Services Ltd.
 Mamba Production Partnership
 Manawan Drainage District

Mancal Corporation
 Manitoba Agriculture, Food and Rural Initiatives
 Manitoba Conservation
 Manitoba Finance
 Manitoba Forage Council
 Manitoba Habitat Heritage Corporation
 Manitoba Hydro
 Manitoba Transportation and Government Services
 Manitoba Water Stewardship
 Manitoba Wildlife Federation Habitat Foundation
 Manitek Exploration Inc.
 Maverick Land Consultants Inc.
 Maxi Services Ltd.
 McNally Land Services Ltd.
 MEC Operating Company
 Medicine Hat (City of)
 Meewasin Valley Authority
 Meighen Haddad & Co.
 Melcor Developments Ltd.
 Melfort (City of)
 MG V Energy Inc.
 Millennium Bureau of Canada
 Minburn County
 Minco Gas Co-op Ltd.
 Ministry of Sustainable Resource Management
 Monsanto Canada
 Montana (State of)
 Montane Resources Ltd.
 Moose Mountain Buffalo Ranch
 Mor-West Ventures Inc.
 Mountain Equipment Co-op
 MSL Land Services Ltd.
 Murphy Oil Company, Ltd.
 NAL Oil & Gas Trust
 NAL Resources Limited
 National Fish and Wildlife Foundation
 Native Plant Society of Saskatchewan
 Natural Sciences and Engineering Research Council of Canada
 Nature Alberta
 Nature Canada
 Nature Conservancy of Canada
 Nature Saskatchewan

Navigo Energy Partnership
 Newell County
 Newport Petroleum Corporation
 Nexen Inc.
 Nicholson Land Service Ltd.
 Niven & Associates Inc.
 Norcana Resource Services (1991) Ltd.
 Nordic Pressure Services Inc.
 North Saskatchewan Watershed Alliance*
 North West Upgrading Inc.
 Northpoint Development L.P.
 Northrock Resources Ltd. (Canada)
 NWT Resources, Wildlife and Economic Development
 OH Ranch Ltd.
 Oil-Expo Investments Ltd.
 Olds College
 Omera Resources Limited
 Omers Energy Inc.
 Oregon (State of)
 Outlook Energy Corporation
 OutSource Seismic Consultants Inc.
 Pan Canadian Petroleum Limited
 Pangea Land Ltd.
 Paramount Energy Trust
 Park Paving Ltd.
 Park Ridge Homes Ltd.
 Parkland Conservation Farm
 Parkland County
 Parks Canada
 Parks Canada - Elk Island National Park
 Partners in Habitat Conservation (EID)
 PB Industries Ltd.
 PCL Construction Management Inc.
 Peace Parkland Native Stewardship Program
 Peace Parkland Naturalists
 Pengrowth Corporation
 Penn West Petroleum Ltd.
 Petro Line Upgrade Services Ltd.
 Petro-Canada
 Petrofund Corporation
 Petroland Services Ltd.
 Petrolane Consulting Ltd.
 PEW Charitable Trusts



Pheasants Forever	Rockyview Energy Partnership	Skelton and Company Law Office
Pickseed Canada Inc.	Rockyview Gas Co-op Ltd.	Slave Lake Pulp Corporation
Pioneer Land Services Ltd.	Roger Hagen Construction Inc.	Soil Conservation Council of Canada
Pioneer Professional Services Group	Rosevear Land Services Ltd.	South Peace Wilderness Society
Ponoka County	Roy Northern Land Service Ltd.	Southern Alberta Land Trust Society
Poplar Hill Resources Ltd.	Royal Oaks II Joint Venture	Special Areas Board
PotashCorp	Sabretooth Energy Ltd.	Spur Resources Ltd.
Prairie Land & Investment Services Ltd.	Samuel Hanen Society for Resource Conservation	Spy Hill (Regional Municipality of)
Prairie Land Consultants Inc.	Saskatchewan Agriculture, Food and Rural Revitalization	St. Albert (City of)
Prairie Land Service Ltd.	Saskatchewan Conservationist	St. Mary River Irrigation District
Prairie Mines and Royalty Ltd.	Saskatchewan Council for Community Development	St. Paul County
Prairie Plantation Inc.	Saskatchewan Crop Insurance Corporation	Standard Land Company Inc.
Prairie Roadbuilders Limited	Saskatchewan Environment	Star Oil & Gas
Price Waterhouse Coopers	Saskatchewan Environmental Protection Fund	Starboard Gas Ltd.
Prime Seismic Data	Saskatchewan Finance	Stettler County
Prime West Energy Inc.	Saskatchewan Fish and Wildlife Development Fund	Strategic Land Services Inc.
Priority Printing	Saskatchewan Government Relations and Rural Affairs	Strathcona County
Progress Energy Ltd.	Saskatchewan Minerals	Strathmore (Town of)
Progress Land Services Ltd.	Saskatchewan Stock Growers Association	Sturgeon County
Progressive Exploration Services	Saskatchewan Water Security Agency	Suncor Energy Inc.
Project Second Life Society	Saskatchewan Wetland Conservation Corporation	Sundance Forest Industries Inc.
Prospect Land Services (Alta) Ltd.	Saskatchewan Wildlife Federation	Sundance Land Services Ltd.
Prospect Oil and Gas Management Ltd.	Saskatoon (City of)	Sunwest Canada Energy Limited
Public Works and Government Services Canada	SaskEnergy Incorporated	Sustainable Forest Management Network
Qualico Developments	SaskPower	Sylvan Lake (Town of)
Ranger Land Services Ltd.	SaskTel	Syncrude Canada Ltd.*
Ravenswood Developments Inc.	SBW Cattle Company Ltd.	Synergy Land Services Ltd.
RBC Royal Bank	Scott Land and Lease Ltd.	Syngenta Crop Protection Inc.
Real Resources Inc.	Seamac Land Services Ltd.	Synterra Technologies Ltd.
Red Deer County	Search Energy Corp.	Takota Land Ltd.
Remington Development Corporation	SeCan	Talisman Energy Inc.
Renton Land Services (1983) Ltd.	Seisland Surveys Ltd.	Tappit Resources
Repsol Oil & Gas Canada Inc.	Serrano Energy Ltd.	Tasman Exploration Ltd.
Resolution Land Services Ltd.	Shell Canada Products Ltd.	TD Canada Trust
Richard H. G. Bonnycastle Graduate Fellowship	Shell Conservation Internship Program	TD Friends of the Environment Foundation
Richardson Foundation Inc.	Shell Environmental Fund	Tempest Energy Corporation
Richland Petroleum Corporation	Shepard Limited Partnership	TERA Environmental Consultants
Rife Resources Ltd.	Shiningbank Energy Income Fund	Terra-Sine Resources Ltd.
Rival Energy Ltd.	Sierra Vista Energy Ltd.	Tervita
Road Runner Land Group Ltd.	Signalta Resources Limited	The Calgary Foundation
Rocky Mountain Elk Foundation – Canada	Silverado Properties Ltd.	The Donner Canadian Foundation
Rocky Mountain Property, Inc.	Sims and Company	The Flanagan Foundation
Rocky View County	Skana Exploration Ltd.	The J.W. McConnell Family Foundation

The Kahanoff Foundation
 The Nature Conservancy
 The W. Garfield Weston Foundation
 The Woodcock Foundation
 Thompson & Associates, Inc.
 Thunder Energy Inc.
 TNC Wilson Challenge Fund
 Tofield (Town of)
 Touchdown Land Consultants Ltd.
 Tourism for Tofield Foundation
 Tournament Exploration Ltd.
 TransAlta Corporation
 TransCanada Corporation
 Transfeeder Inc.
 TransGas Limited
 Traverse Landgroup Ltd.
 Trident Exploration Corp.
 Trilogy Energy Corp.
 TriStar Oil & Gas Ltd.
 Triton Energy Corporation
 True Energy Inc.
 Tudor Corporation Ltd.
 Tundra Oil and Gas, Limited
 Turtle Mountain Conservation District
 Twin Butte Energy Ltd.
 Two Hills (County of)
 Union Pacific Resources Ltd.
 United Farmers of Alberta
 United Grain Growers
 United States Bureau of Reclamation
 United States Department of Agriculture – Forest Service
 United States Fish and Wildlife Service
 University of Alberta
 University of Calgary
 University of Lethbridge
 University of Regina
 Univex Land Services
 Upper Assiniboine River Conservation District
 Val Vista Energy Ltd.
 Venturion Natural Resources Limited
 Vermilion Energy Trust
 Vermilion Resources
 Vermilion River (County of)

Viterra
 Vonda (Town of)
 VSD Developments Corporation
 Vulcan County
 Wainwright (Municipal District of)
 WAM Development Group
 Waterfowl Research Foundation Inc.*
 Wave Energy Ltd.
 Wayco Land Services
 Western Feedlots
 Western Irrigation District
 Westfire Energy Ltd.
 Weyerhaeuser
 Wheatland County
 Wheatland Industrial Park Inc.
 Wilburforce Foundation
 Wildlife Habitat Canada
 William H. Donner Foundation
 Winnipeg (City of)
 World Wildlife Fund Canada
 Wyoming (State of)
 Yorkton Wildlife Federation
 Yukon Department of Energy, Mines and Resources
 Zahmol Properties Ltd.
 Zapata Energy Corporation
 Zargon Energy Trust
 Zargon Oil & Gas Ltd.

* New in 2018-19

PHOTO CREDITS

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DC



DUC



NCC

North American
Wetlands
Conservation Act



Environment and
Climate Change Canada

Environnement et
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