



Miistakis
Institute

ANNUAL REPORT / 2018

Introduction

This year marked the 20th anniversary of the Miistakis Institute – twenty years of applied research, conservation action and community engagement. Over the year we celebrated our past successes and highlighted our conservation contributions, and hosted a celebratory event at Mount Royal University in November. In 2017, we continued our environmental conservation efforts working with a diverse array of partners across our research focus areas.

Our research areas are dynamic and are continually refined to address current conservation challenges. Today, our research areas focus on themes that play a significant role in environmental conservation, and involve working with landowners, industry, citizens, municipalities, agencies, conservation partners, and academics. They also require a broad spectrum of methodologies including on-line mapping, jurisdictional scans, literature reviews, spatial analyses, modeling, facilitation, tool development, community engagement, policy analysis, and catalyzing community conservation action.

These are all areas in which Miistakis has developed significant expertise. Environmental conservation is complex. It requires engagement of a diversity of perspectives and stakeholders and a multitude of approaches to realize conservation success. Our approach to research at Miistakis embraces the complexity – and our track record shows the success in doing so.

In our 21st year of advancing conservation, Miistakis worked across 6 different research areas on over 26 conservation projects, secured over \$850,000 in project funding, and worked with over 55 partners.

Collaboration with Mount Royal University

As Mount Royal University's only affiliated research institute, Miistakis continues to explore opportunities to enhance MRU's environmental research capacity, and work with MRU faculty, staff and students to enhance our work.

In addition to our collegial relationships with various MRU faculty, two professors, Brian Traynor, Associate Professor of Information Design and Sonya Jakubec, Associate Professor School of Nursing and Midwifery, sits on the Miistakis Board of Directors, helping provide both vision-level guidance as well as a formal liaison with MRU.

As part of our on-going effort to offer work experiences for MRU students, two Bachelor of Science (Environmental Science) degree students worked for Miistakis as part of their work experience terms. These students worked on our Call of the Wetland citizen science project and our Putting Beavers to Work initiative.

In 2017, we worked with the Office of Research, Scholarship and Community Engagement to assess community-engaged research at MRU. The goal of the project was to develop a starting point for discussions to enhance community-engaged research (CEnR) at MRU. The project approach involved a survey of external institutes' CEnR programs, a survey of staff and faculty involved with CEnR related initiatives at MRU, and a literature review of CEnR research in order to enhance the understanding of CEnR at MRU today and into the future.

Click the link to view the final report: www.rockies.ca

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A scenic mountain landscape with a green overlay and a diagonal line. The background shows a mountain range with a forested valley and a grassy foreground. A semi-transparent green overlay covers the top and right portions of the image, with a diagonal line separating the lighter green top-left area from the darker green bottom-right area.

20 YEARS OF ADVANCING CONSERVATION

WORKING ACROSS
6 RESEARCH AREAS ON OVER
26 CONSERVATION PROJECTS

SECURED OVER \$850,000
IN PROJECT FUNDING

WORKING WITH
OVER 55 PARTNERS

Citizen Science for Conservation

Citizens are facing complex conservation challenges. Stronger sustainable solutions are those that engage citizens in better understanding the issue, contributing personal knowledge and experience, and supporting implementation. Miistakis uses a citizen science approach to generate data to inform conservation challenges, and to create a knowledgeable and engaged citizenry. Miistakis develops tools and frameworks that contribute to successful citizen science projects.

Call of the Wetland

Ninety percent of Calgary's pre-settlement wetlands have been lost to development, climate change and pollution. Wetlands play a vital role in the water cycle, providing important ecological services such as water filtration, flood and drought mitigation, sequestration of greenhouse gases, climate regulation, and recreation opportunities. In addition to the services provided to humans, wetlands provide habitat for a biodiverse cast of animals though many of these critters are disappearing in urban centres.

Miistakis is leading a citizen science initiative to collect amphibian data and to engage Calgarians in wetland conservation. The data from the project will be shared with municipal and provincial regulators to assist them in making conservation decisions about wetlands that are important to amphibians and Calgarians. 2017 was year two of this three-year initiative.

www.callofthewetland.ca

PARTNERS: *City of Calgary, Calgary Zoo, The Calgary Foundation, TD Friends of Environment, Institute for Environmental Sustainability, Alberta Conservation Association, Parks Foundation Calgary, Enbridge*

Calgary Captured

The City of Calgary has recognized that knowing where wildlife occur in the city is critical to expanding their knowledge and understanding of local biodiversity. To assess the terrestrial mammal diversity in Calgary, Miistakis worked with the City to undertake a multi-year wildlife monitoring program in the city using motion activated remote cameras. Miistakis developed a crowd-sourced citizen science initiative to identify wildlife captured on remote cameras throughout Calgary's urban parks. Our role includes developing the research methodology for placement of remote cameras throughout Calgary's parks and the development of the on-line platform for classifying images. This information will be used to inform city of Calgary biodiversity management.

www.zooniverse.org

PARTNERS: *City of Calgary*

Advancing Citizen Science in Alberta

Miistakis worked with the Government of Alberta's Environmental Monitoring and Science Division (EMSD) in 2016-2017 on a research project to understand the state

of citizen science in Alberta and its role in EMSD's ambient environmental science and monitoring program. This work identified several obstacles that could hinder efforts to establish and scale up citizen science initiatives including the lack of clear guidance to EMSD staff regarding the value of and approaches to advancing citizen science as a legitimate means to generating knowledge about the environment.

To address this obstacle, Miistakis is working with the Chief Scientist to develop a Memorandum to provide clarity to EMSD staff regarding the role and appropriate application of citizen science activities in the provincial ambient environmental science program. Miistakis is also working with EMSD to host a citizen science practitioners workshop to be held in Edmonton in September 2018.

PARTNERS: Alberta Environment and Parks Environmental Science and Monitoring Division

GrizzTracker

The Lower Peace Region of northwestern Alberta is a multi-use landscape, including forestry, extensive oil and gas development, electrical transmission/distribution lines, and agricultural production. The expansive scale of this landscape and complexity of land management makes collaboration between partners critical for achieving wildlife population monitoring objectives and effective integrated landscape management. There is also growing recognition that environmental decision-making requires not just technical information, but must include the expertise and values of the broader public. Personnel working or living within the Lower Peace landscape have

valuable knowledge and expertise, and integration of this information into Alberta Environment and Parks' (AEP) activities would represent a significant step forward for integrated landscape management. Miistakis worked with Alberta Environment and Parks and industry partners in the implementation of GrizzTracker, a citizen science based initiative that aims to address a lack of understanding of grizzly bear occupancy and the need to engage the public and industrial personnel in stewardship activities to maintain healthy bear populations in the Lower Peace Region of northwestern Alberta.

www.grizztracker.ca

PARTNERS: Alberta Environment and Parks, DMI Daishowa-Marubeni International Ltd. Boucher Bros. Lumber Ltd. CNRL, Canfor, Manning Forest Products, Alberta Conservation Association

Collision Count

Miistakis continued its efforts to better understand wildlife vehicle collisions along Highway 3 in SW Alberta. Now in its third year, Collision Count is a citizen science program whereby citizens walk a series of transects parallel to the highway and record road kill observations using a smart phone app. These citizen scientists monitor sites along Highway 3 where we have recommended the Government of Alberta implement mitigation infrastructure to reduce wildlife vehicle collisions. This information will be used to evaluate the effectiveness of highway mitigations to reduce wildlife vehicle collisions.

PARTNERS: Western Transportation Institute, Yellowstone to Yukon Conservation Initiative, Road Watch in the Pass, Wilburforce Foundation

MIISTAKIS USES A CITIZEN SCIENCE APPROACH TO GENERATE DATA TO INFORM CONSERVATION CHALLENGES, AND TO CREATE A KNOWLEDGEABLE AND ENGAGED CITIZENRY.

Municipalities and Conservation

Environmental conservation is inextricably linked to land use, and municipalities are the front lines of land use. This means land use decisions at the municipal level have a disproportionate ability to conserve—or degrade—the ecological systems on which citizens rely. Miistakis works directly with urban and rural municipalities to develop usable information, tools, and research that can promote more sustainable land use decisions at the local government level.

Community Conserve

Municipal land use decisions have significant ecological implications, yet local governments struggle to obtain support for conservation policy and practice that is useful and affordable. At the same time, research-capable ENGOs struggle to be certain their work is truly effective in supporting conservation at the municipal level. With the support of the Alberta Urban Municipalities Association (AUMA) and the Rural Municipalities of Alberta (RMA), Miistakis and the Environmental Law Centre (ELC) created Community Conserve. This web-based tool allows municipal personnel to post their environment and conservation issues and ideas, collectively vote on the priorities, and then pool funds for projects that address those issues. See the Community Conserve site and the completed projects at:

www.communityconserve.ca

PARTNERS: *Environmental Law Centre, Rural Municipalities of Alberta, Alberta Urban Municipalities Association, Max Bell Foundation, Anonymous Foundation*

How Municipalities Apply Environmental Reserve in Alberta

Although environmental reserves have been used extensively by municipalities across Alberta, they do not have 'environmental' purposes in the sense most people attach to the word. A survey was distributed through the Alberta Professional Planners Institute, Alberta Urban Municipalities Association, and Rural Municipalities Alberta to understand the current application of environmental reserve. Using those results as a starting point, a discussion paper was developed to provide context for environmental reserve, outlining what the intent is in the Municipal Government Act, and commenting on how it is interpreted and used by municipalities. View the paper at:

www.communityconserve.ca

PARTNERS: *Community Conserve (Environmental Law Centre, Rural Municipalities of Alberta, Alberta Urban Municipalities Association), Alberta Professional Planning Institute, Max Bell Foundation, Anonymous Foundation*

Municipal Least Conflict Lands for Renewable Energy Development

Many rural municipalities sit at the nexus of land use planning and making decisions around competing land use interests. In rural Alberta, new renewable development will occur in communities where citizens care deeply about lands of high agriculture, ranching, ecological, and cultural/heritage value as well as maintaining integrity of picturesque views. To start smart (Kelly & Delfino, 2012) Miistakis facilitated a stakeholder driven process to spatially identify least conflict lands in two rural municipalities in Alberta – the County of Newell and Wheatland County. To learn more about the work Miistakis is doing related to renewable energy siting visit our project page:

www.rockies.ca

PARTNERS: *Rural Municipalities of Alberta, Intact Foundation, Wheatland County, County of Newell, Energy Efficiency Alberta Community Energy Capacity Building Program.*

Municipal Flood and Drought Action Planning Primer

Municipalities are at the forefront of preparing for and responding to drought and flood events however limited resources are directed to this level of government.

The Miistakis Institute completed Phase 1 of this project and developed the Flood and Drought Action Planning Primer. The Primer provides data and resources in one place for municipal staff to access and to learn about why they should start to proactively plan for flood and drought events at the local level. Phase 2 has been initiated and will create a step by step process to assist municipalities in assessing and mitigating flood and drought risks in an ecologically-grounded way. The action planning tool empowers municipalities to access existing resources and data, and provides a robust process for developing an effective local flood or drought mitigation action plan.

To view the completed Municipal Flood and Drought Primer visit:

www.rockies.ca

PARTNERS: *Alberta Environment and Parks Watershed Resiliency and Restoration Program*

ALSA Conservation and Stewardship Tools Webinars

The Alberta Land Stewardship Act (ALSA) has conservation and stewardship tools that could be of use to local governments, but for many it is unclear how they would work for municipalities. To help address this issue, Miistakis organized a series of webinars on the four conservation and stewardship tools that are included in the Alberta Land Stewardship Act—Conservation Easements, Transfer of Development Credits, Conservation Directives, and Conservation Offsets. Experts in each of the topics presented a one-hour webinar, each followed by a facilitated Q&A session. Click the link to view the slide decks and recordings of all of the presentations on the Community Conserve site:

www.communityconserve.ca

PARTNERS: *Kim Good (Legacy Land Trust Society), Dave Poulton, Jason Unger (Environmental Law Centre), Community Conserve (Environmental Law Centre, Rural Municipalities of Alberta, Alberta Urban Municipalities Association), Max Bell Foundation, Anonymous Foundation*

Adapt-action Edmonton

After two years exploring the barriers and opportunities for addressing climate change adaptation at the municipal level in Alberta, the Miistakis Institute created Adapt-action, an online tool to help Alberta municipalities become more climate resilient in an ecosystem-based way. The initial focus of the information and promotion was southern Alberta, but the need for expansion to Edmonton-area municipalities was recognized.

This involves revising the information to apply as much to the Parkland eco-region as the Grasslands eco-region, and a recognition that there are unique implications and additional strategies needed. We are seeking \$31,000 from the Edmonton Community Foundation toward a \$57,000 budget that will include these modifications, plus a comprehensive edit, and a usage monitoring component.

Calgary Region Airshed Zone Municipal Air Quality Toolkit

The South Saskatchewan Regional Plan's Air Quality Management Framework (AQMF) relies heavily on municipalities, yet it is unclear exactly what their role will be, and there are few resources to support them. At the request of the Calgary Region Airshed Zone, and with support from the Cochrane Environmental Action Committee, Miistakis began work developing a tool kit aimed at helping municipalities understand how they can positively impact air quality management and how they can align with the AQMF. Initial products include the reports *Municipal Air Quality in Alberta – Background Research: Policy and Air Quality Reporting in Alberta: A Municipal Primer*.

PARTNERS: *Calgary Region Airshed Zone, Cochrane Environmental Action Committee*

MIISTAKIS WORKS DIRECTLY WITH URBAN AND RURAL MUNICIPALITIES TO DEVELOP USABLE INFORMATION, TOOLS, AND RESEARCH THAT CAN PROMOTE MORE SUSTAINABLE LAND USE DECISIONS AT THE LOCAL GOVERNMENT LEVEL.



MIISTAKIS SUPPORTS BOTH INDIVIDUAL ORGANIZATIONS AND THE PRIVATE LAND CONSERVATION COMMUNITY, INCLUDING LANDOWNERS, BY PROVIDING NECESSARY RESEARCH SERVICES, TOOLS, RESOURCES, AND PLANNING, MANAGEMENT AND POLICY ASSISTANCE.



Private Land Conservation

Much of the land that is critical for wildlife habitat, water cycling, nutrient flows and other ecological processes across the broad landscape is privately held. Land trusts and municipalities are working to ensure those parcels continue to play these important roles. Miistakis supports both the individual organizations and the private land conservation community, including landowners, by providing necessary research services, tools, resources, and planning, management and policy assistance.

Alberta Land Trust Grant Program Scoring Tool Review

Since 2011 the Alberta Land Trust Grant Program has invested almost \$50 million in private land conservation in the province. At the heart of the program is a scoring tool that measures proposed conservation projects against a series of ecological criteria. Developed by the Miistakis Institute according to the program's goals, the Land Conservation Suitability Assessment tool allows program reviewers to assess and score projects according to local, regional, vulnerability, and irreplaceability criteria, then automates the tallying process. In 2017, Miistakis was asked to assist in the revision of the tool, to incorporate the program's lessons learned.

PARTNERS: *Alberta Land Trust Grant Program, Alberta Environment and Parks*

Flagstaff County Conservation Easement Program

After being approached by a local landowner wanting to grant a conservation easement on his property, Flagstaff County in eastern Alberta approached Miistakis to help them set up a program. We worked with their Agriculture Service Board to scope the program, helped them draft their policies, and created a series of templates to help with implementation. The County passed their Conservation Easement Program Bylaw in February, 2018, and received their first conservation easement application in June. See their Bylaw at:

www.flagstaff.ab.ca

PARTNERS: *Flagstaff County, Don Ruzicka, Kim Good*

Conservation Easement Guide for Municipalities

Alberta's municipalities have had the ability to use conservation easements to help landowners conserve their properties since the legislation was introduced. However, because this tool is more commonly associated with land trusts, municipalities have had few support resources. Miistakis created a guide specifically for municipalities, giving them step-by-step instructions on setting up their own program, with links to numerous templates, cases, and other resources. See the guide at:

www.communityconserve.ca

PARTNERS: *Community Conserve (Environmental Law Centre, Rural Municipalities of Alberta, Alberta Urban Municipalities Association), Max Bell Foundation, Anonymous Foundation*

Rocky View County Transfer of Development Credits Program

Although the Alberta Land Stewardship Act formally created the ability for Alberta municipalities to create Transfer of Development Credits (TDC) programs in 2009, uptake on the tool has been slow. Rocky View County (RVC) has stepped out in front of the pack with the first program created under this legislation. RVC approached Miistakis to help them design the program within their Glenbow Ranch Area Structure Plan. The ASP was passed in July, 2017, and the TDC program is now awaiting Cabinet approval. See the Area Structure Plan (with the Transfer of Development Credits program built in) at:

www.rockyview.ca

Learn more about Transfer of Development Credits at:

tdc-alberta.ca

Human Wildlife Coexistence

In today's changing landscape it is often challenging for wildlife to coexist on the landscape with humans. Human developments including housing, agriculture, industry and recreation infringe on wildlife habitat and movement areas. Wildlife management attempts to balance the needs of wildlife with the needs of people using the best available science. Miistakis is interested in examining the ways to improve the coexistence of humans and wildlife. This often includes determining wildlife needs, assessing human impacts to wildlife habitat and exploring adaptive management for both humans and wildlife.


Putting Beavers to Work for Watershed Resiliency and Restoration

Together with Cows and Fish, Miistakis is developing tools to promote coexistence with beavers to enhance watershed resiliency. Our work focuses on decreasing conflict with beavers, fostering social tolerance, and heightening understanding of the benefits that beavers provide us and the ecosystem as a whole. In 2017 we hosted a Beaver Symposium bring together academics, practitioners and landowners to share information on beaver coexistence. We also conducted a province wide survey to assess perception and attitudes towards beavers to inform our ongoing outreach and education.

www.rockies.ca/beavers

PARTNERS: *Cows and Fish, Calgary Foundation, AEP WRRP Program, TD Friends of the Environment Foundation*





MIISTAKIS EXAMINES WAYS TO IMPROVE THE COEXISTENCE OF HUMANS AND WILDLIFE BY DETERMINING WILDLIFE NEEDS, ASSESSING HUMAN IMPACTS TO WILDLIFE HABITAT, AND EXPLORING ADAPTIVE MANAGEMENT FOR BOTH HUMANS AND WILDLIFE.

Conservation Planning and Policy

Success in environmental conservation largely relies on being proactive. This requires developing plans of various types, catalyzing improvements in the policy process, and working with a wide variety of ENGOs, provincial agencies, local governments, and industry players. Miistakis provides support in many areas of conservation planning (wildlife management, private land securement, connectivity, municipal conservation, park management, strategic conservation, watershed management, and others), and works to catalyze innovation in policy making of various types (land use policy, fiscal policy, conservation policy, science policy, and others).

Regional EcoPlan for the Calgary Regional Partnership

In 2014, Miistakis began working with the Calgary Regional Partnership (CRP) on an implementation plan for the Calgary Metropolitan Plan's first principle: "Protecting the natural environment and watershed". The CRP Regional EcoPlan was created to outline how the region's valued ecological features and functions could be maintained, and to do so by identifying measurable targets, describing specific actions that can be taken by the CRP and its members at both the regional and local level, and by integrating directly with the Calgary Metropolitan Plan. The Ecological Conservation Themes – the backbone to the plan – the plan framework, and the target-setting approach were approved by the CRP Executive in September 2017. All of the associated reports are available in the Miistakis website at:

www.rockies.ca

PARTNERS: *Calgary Regional Partnership, member municipalities of the CRP.*

Human Footprint Intensity Modelling for the Calgary Region

The goal of Human Footprint Comparison project was to create a spatially-explicit representation of the land use and natural features in the Calgary Region around a set of pre-determined themes. The project focused on showing the changes in human use and development on the landscape between the first Calgary Metropolitan Plan (2009) and the second (2014). The intent was not to assess the "good" or the "bad" of that change, but simply give the CRP and its members a data-based picture of how and where development occurred between the two plans which could then be compared to the goals that had been set out in the plans.

PARTNERS: *Calgary Regional Partnership, municipal members of the CRP*

Post-Kenow Fire Ecology Workshop

On August 30th, a lightning strike in the Akamina area of southeastern BC ignited a wildfire that moved into Waterton Lakes National Park, ultimately burning approximately 50% of the Park's vegetated area, 75% of that at 'extreme severity.' Knowing this was an unprecedented impact for the Park's ecology, the Park's Resource Conservation department convened a workshop in January, 2018 to help understand the implications for future monitoring, research and management. Miistakis was invited to help design the workshop and facilitate it, working with Park staff and several external experts to help plot a path forward. See the final report we submitted here:

www.rockies.ca

Southern Eastern Slopes Collaborative

The Eastern Slopes of Alberta are a treasured landscape. They provide important economic, ecological and social benefits to Albertans. They have long been recognized in policy as deserving of special management status. However, over the past few decades competing demands for resources (agriculture, forestry, mining, and oil and gas), access for recreation, residential development, and water use have resulted in habitat loss and fragmentation, species at risk of extinction and compromised watersheds. In 2017 we continued to work with Y2Y, CPAWS Southern Region and SALTS to create a bold, detailed, proactive land use vision for public and private lands along Alberta's South Eastern Slopes that prioritizes conservation and unites ENGOs, working more strategically to change policy and landscape protection and management. Our work included developing a common conservation vision for the region and developing scientifically-based reports that include the current state of knowledge and best available science, identification of threats and opportunities (existing

policy and planning processes and on-going conservation activities), identification of gaps in science and policy and generate strategies for each conservation priority.

www.southerneasternslopes.ca

PARTNERS: *Yellowstone to Yukon Conservation Initiative, SALTS, CPAWS Southern Region, Calgary Foundation*

Edmonton Ecoroof and Climate Change Resiliency Initiative

Greenroofs or, ecoroofs have been promoted extensively as having a number of benefits including stormwater management, biodiversity and habitat contributions, reduction of urban heat island effect, reduced carbon footprint, energy savings, urban agricultural opportunities, and air quality mitigation - to name a few. Many of the ecoroof benefits could contribute to climate change resiliency however, they have not been widely used in Alberta. This in part is due to the added cost of installing an ecoroof versus a traditional roof, lack of incentive programs to address these additional cost concerns, and questions about the effectiveness of ecoroofs in the Alberta context.

The Edmonton Ecoroof and Climate Change Resiliency Initiative will assess the impacts a critical mass of ecoroofs could have for Edmonton and develop a policy program to educate and incentivize increased implementation of ecoroofs. The Miistakis Institute, in collaboration with the City of Edmonton, will: analyze the impacts ecoroofs have on air quality, water quality and quantity, biodiversity, energy savings, wildlife habitat, the urban heat island effect, quality of life and economy. Successful incentive and policy programs in other jurisdictions will be evaluated, and these findings will be applied to Edmonton's context in order to promote the installation of ecoroofs—should they prove beneficial.

PARTNERS: *City of Edmonton, Edmonton Community Foundation, Federation of Canadian Municipalities, Alberta Ecotrust*

MIISTAKIS PROVIDES SUPPORT IN MANY AREAS OF CONSERVATION PLANNING AND WORKS TO CATALYZE INNOVATION IN POLICY MAKING OF VARIOUS TYPES.



MIISTAKIS AIMS TO GENERATE AWARENESS OF THE CHALLENGES THAT TRANSPORTATION INFRASTRUCTURE POSES TO WILDLIFE, PROMOTES WORKABLE SOLUTIONS TO THESE CHALLENGES AND GENERATES SUPPORT FOR IMPLEMENTATION.

Transportation Ecology

Transportation infrastructure across the world poses numerous environmental challenges, affecting our air, landscapes and water. From a landscape perspective, roads and railways cause wildlife mortality through collisions and act as a significant barrier to wildlife movements. The Miistakis Institute aims to: generate awareness of the challenges that transportation infrastructure poses to wildlife; to promote workable solutions to these challenges; and to generate support for implementing these solutions.

Hwy 68 Wildlife Monitoring

Highway 68 in south-western Alberta is undergoing upgrades that may include paving to gravel sections to facilitate increased traffic from recreational pressures. These upgrades are expected to result in higher traffic volumes and increased traveling speeds, which will subsequently have significant impacts for wildlife. In order to ensure appropriate highway mitigation measures are considered there is a need to know where wildlife are at greatest risk of collisions with vehicles and where the most important connectivity areas are. In order to determine this we are working with Dr. Tony Clevenger to determine wildlife road mortality, road crossings, optimal connectivity for specific species and wildlife distributions and occupancy. The results from these methods will together inform appropriate highway mitigation recommendations for the upgrading of Highway 68.

PARTNERS: *Dr. Tony Clevenger, Alberta Environment and Parks*

RoadWatchBC

To make highways safer for wildlife and people, we need to know the locations along highway with the highest rates of wildlife vehicle collisions and we need to engage citizens in this important issue. RoadWatchBC (RWBC) recruits local community members to participate in research that seeks to better understand where roads are impacting wildlife. Through a free smart phone application and a website that will display the data, RWBC enlists the public to report their wildlife observations along local highways - dead or alive. This will generate a large and spatially precise dataset of wildlife observations associated with highways in the East Kootenay region.

www.roadwatchbc.ca

PARTNERS: *Yellowstone to Yukon Conservation Initiative, Wildsight, Western Transportation Institute*

PronghornXing

In 2017 Miistakis launched PronghornXing, a citizen science program developed to ground truth seasonal movement pinch-points identified by connectivity modeling across highways in Alberta and Saskatchewan and increase public engagement in pronghorn science and conservation. Information on wildlife sightings collected by the public will enable us to better understand where pronghorn and other wildlife are commonly crossing, involved in collisions, or moving adjacent to the highway. Ultimately this will lead to development of informed strategies to reduce wildlife vehicle collisions while ensuring the safe passage of wildlife across highways.

www.pronghornxing.org

PARTNERS: *Alberta Conservation Association, Alberta Environment and Parks, Alberta Transportation, Saskatchewan Environment, Saskatchewan Government Insurance, National Fish and Wildlife Foundation*

Alberta Connectivity

Alberta supports an extensive network of transportation infrastructure. Across this network, human safety is compromised by wildlife-road interactions and the amount of habitat available to wildlife is reduced, predator-prey interactions are altered and the viability of populations can be reduced through genetic isolation. While efforts are starting to be made across Alberta to mitigate highways to support wildlife movement, it is not clear if these specific highway sections are the most important priority at the province-wide scale.

We are undertaking an initiative to create a decision support tool to identify priority road segments for mitigation to improve wildlife connectivity, motorist safety, and reduce wildlife mortality throughout Alberta's highway network in the South Saskatchewan Region. This work includes an assessment of wildlife connectivity, analysis of wildlife vehicle collision hotspots, and the exploration of a model of agency cooperation through engagement of the government departments responsible for developing and implementing solutions.

PARTNERS: *Dr. Adam Ford, Western Transportation Institute, Centre for Large Landscape Conservation, Alberta Environment and Parks, Alberta Transportation, Woodcock Foundation, Galvin Family Fund at The Calgary Foundation*

Financial Statements

Statement of Financial Position

As at March 31, 2018

	2018	2017
Assets		
Current		
Cash and cash equivalents	\$ 631,239	\$ 493,637
Accounts receivable	81,499	89,878
Accrued project receivable	46,381	25,976
Short term investments (NOTE 3)	120,000	120,000
Goods and services tax recoverable	2,837	2,018
Prepaid expenses	1,436	2,448
	883,392	733,957
Property, plant and equipment (NOTE 4)	9,027	12,617
	\$ 892,419	\$ 746,574
Liabilities and Net Assets		
Current		
Accounts payable and accrued liabilities	\$ 40,820	\$ 15,000
Wages payable	34,264	24,785
Deferred contributions	75,084	39,785
Related to operations (NOTE 5)	467,676	388,708
Contributions held as fiscal agent (NOTE 6)	-	2,409
Related to property and equipment (NOTE 7)	1,668	2,256
	544,428	433,158
Net Assets		
Invested in property and equipment	7,359	10,361
Internally restricted (NOTE 8)	140,000	140,000
Unrestricted	200,632	163,055
	347,991	313,416
	\$ 892,419	\$ 746,574

Statement of Operations

For the Year Ended March 31, 2018

	2018	2017
Revenue		
Foundation and other grants	\$ 498,662	\$ 522,937
Services	247,536	186,291
Government grants	203,959	104,460
Donations	19,916	18,349
Interest and other income	479	1,966
	970,552	834,003
Expenses		
Salaries and wages	570,367	530,298
Subcontractors	275,455	199,998
Travel	28,668	15,432
Professional fees	18,964	19,737
Workshop	11,055	5,490
Insurance	9,141	8,246
Supplies	7,007	9,405
Internet and web domain	6,540	4,294
Telephone	4,144	3,811
Amortization	3,589	4,567
Software	656	3,065
Training	329	2,369
Advertising and promotion	62	794
	935,977	807,506
Excess of revenue over expenses	\$ 34,575	\$ 26,497

Statement of Changes in Net Assets

For the Year Ended March 31, 2018

	Invested in property and equipment	Internally restricted	Unrestricted	2018	2017
Net assets - beginning of year	\$ 10,361	\$ 140,000	\$ 163,055	\$ 313,416	\$ 286,918
Excess (deficiency) of revenue over expenses	(3,002)	-	37,577	34,575	26,498
Net assets - end of year	\$ 7,359	\$ 140,000	\$ 200,632	\$ 347,991	\$ 313,416



Miistakis Institute

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