

## Supporting Municipalities in the Ecological Management of Water Systems

Natural water bodies are generally provincial jurisdiction, yet municipalities are the primary land use decision makers, thus every natural water system in Alberta is affected by municipal decision making. However, municipal capacity to address these issues is constrained by limitations on data, few opportunities to engage citizens, and few policy-level tools informed by science.

Miistakis' multi-faceted program aims to reconcile this inconsistency by mobilizing citizen scientists, collaboratively engaging multiple municipalities, generating more usable data sets, applying hydrological modelling, creating science-based bylaw tools, and generating information usable by any Alberta municipality.

**RECIPIENT:**

**Miistakis Institute  
for the Rockies Inc.**

**PARTNERS:**

**City of Calgary, Calgary  
Foundation, Enbridge,  
Alberta EcoTrust**

**TOTAL BUDGET:**

**\$341,580**

**AI FUNDING:**

**\$196,000**

**PROJECT DATES:**

**NOV 2018 –  
JUN 2020**

## APPLICATION

This program increases the capacity for Alberta municipalities to more effectively and more creatively integrate ecosystem-based approaches into their policy and operational structures for managing the natural water systems within their boundaries. Specifically, the results from this project will support municipal decision-makers and stakeholders in the Bow River Basin (City of Calgary, Bow River Basin Council, Alberta Environment and Parks, municipalities along the Bow River, water modeling experts), while generating information and tools usable by any Alberta municipality.



# ALBERTA INNOVATES CLEAN RESOURCES

## ENVIRONMENTAL INNOVATION

### WATER INNOVATION PROGRAM

## PROJECT GOALS

Four distinct - but linked - programs aim to increase the capacity for Alberta municipalities to more effectively and creatively integrate ecosystem-based approaches into their policy and operational structures for managing natural water systems:

- Call of the Wetland: Engaging citizens to gather amphibian data from urban wetlands for use in municipal conservation decision making
- Wetlands Data Strategy for Bow River Basin Municipalities: Developing a common strategy for neighbouring municipalities to integrate wetlands data into municipal planning
- Eco-Bylaws Toolkit: Creating regulatory guidance and templates for Alberta municipalities
- Wetlands Connectivity in the City of Calgary: Generating a method for mapping wetland/hydrological connectivity in an urban municipality which can be used in residential and natural area planning

## BENEFITS TO ALBERTA

The successful use of the knowledge generated could result in:

- Citizens engaged in generating valuable data and wetland management within the City of Calgary
- Improved maintenance and restoration of the Bow River region's wetlands by ensuring there is standardized wetlands data, in a form usable in municipal planning and programming, extending across the Bow River Basin, that is publicly accessible, and sustainably current over time
- Enhanced protection of natural systems within municipalities through their land use and regulatory decisions related to green infrastructure, wetlands, riparian areas, environmental management, and sensitive ecological features
- Improved wetland biodiversity through the identification of wetland connectivity in the City of Calgary



2 Publications



2 Project Jobs



1 New  
Products/Services

## CURRENT STATUS

### July 2020 – COMPLETE

- Municipal EcoToolkit: Regulatory guidance and templates for Alberta municipalities.
- Regional Wetland Data Strategy: A common strategy for neighbouring municipalities to integrate wetlands data into municipal planning.
- Call of the Wetland: Occupancy models to predict species distributions and identify critical habitat characteristics for two species of amphibians.
- Wetlands Connectivity in the City of Calgary: A method for mapping wetland/hydrological connectivity in an urban municipality.