



ALBERTA INNOVATES

# AGRICULTURE AND ENVIRONMENT

## ENVIRONMENTAL INNOVATION

### WATER INNOVATION

### FUNDING DETAILS

## Developing a Collaborative and Interdisciplinary Framework for Enhancing Sustainable Stormwater Management Through Existing Wetlands

This project aims to investigate the sustainable utilization of existing wetlands for stormwater management through a comprehensive case study of the Rawson Clark Park Wetland in Edmonton, Alberta. The study team will evaluate the construction costs, water quality performance, ecological benefits, and social and economic aspects of utilizing natural wetlands for stormwater management, providing valuable insights for future development projects. It is anticipated that lessons learned will inform a decision-making framework that can be used to guide future projects considering wetland retention as a component of stormwater management in urban development in Edmonton and other municipalities in Alberta and Canada.



#### RECIPIENT:

University of Alberta

Ali Bayat



#### PARTNERS:

See table below.



#### TOTAL BUDGET:

\$4,831,000



#### AI FUNDING:

\$600,000



#### PROJECT DATES:

JAN 2025 –  
DEC 2029



#### PROJECT TRL:

Start: 2  
Start: 7

## APPLICATION

This project provides a space for developers, scientists, engineers, and communities to collaborate to ensure that wetland conservation is embedded in urban planning frameworks. The research is expected to contribute to the development of national guidelines and standards, shaping future stormwater management practices across Canada.

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## PROJECT GOALS

The objective of this project is to gather appropriate information related to the incorporation of existing wetlands into stormwater management processes thereby creating a higher chance of success in climate resilient and sustainable current and future infrastructure while operating within the innate carrying capacity of the existing wetland and maximizing the biodiversity of what is ultimately retained.

## BENEFITS TO ALBERTA

This project will provide significant benefits to Alberta by advancing sustainable urban development practices through the conservation and utilization of natural wetlands for stormwater management. By focusing on the Rawson Clark Park Wetland in Edmonton, the study will offer valuable insights into reducing construction costs, improving water quality, and enhancing ecological and social benefits. These findings will support climate-resilient infrastructure planning, helping municipalities across Alberta adapt to changing environmental conditions while protecting biodiversity. Additionally, the project fosters collaboration among developers, engineers, scientists, and communities, promoting inclusive and informed decision-making. The resulting decision-making framework will empower Alberta municipalities to integrate wetland conservation into urban planning, aligning with provincial sustainability goals and positioning Alberta as a leader in innovative and eco-conscious stormwater management practices.

### CURRENT STATUS

OCT 2025 - IN PROGRESS

TBD