

**FUNDING  
DETAILS**

**Saddleridge Stormwater Kidney™ Retrofit**

A Stormwater Kidney™ treatment system is being constructed to demonstrate how effectively low power recirculation flow through a treatment wetland can manage human pathogenic organisms and nutrients within a stormpond. An industry gap exists for producing safe water for irrigation and other community uses from a stormpond without requiring an expensive to build and operate mechanical water treatment plant. The proposed system closes that gap using simple and low-cost water recirculation through a self-maintaining treatment wetland that also serves to add beauty and habitat diversity to a community.



**PARTNERS:**

Source2Source,  
IDEA Group,  
University of  
Alberta, City of  
Calgary



**RECIPIENT:**

Triovest Realty  
Advisor Inc.



**TOTAL BUDGET:**

\$940,000



**AI FUNDING:**

\$357,000



**PROJECT DATES:**

JULY 2018 –  
DECEMBER 2021



**PROJECT TRL:**

Start: 8  
End: 9-10

**APPLICATION**

The primary target market for the technology is the field of managing stormwater runoff generated by urban land development projects.



# ALBERTA INNOVATES CLEAN RESOURCES

## ENVIRONMENTAL INNOVATION

### WATER INNOVATION PROGRAM

## PROJECT GOALS

- Developing consensus between project stakeholders for a win-win technology implementation and testing strategy
- Achieving significant functional improvements to stormwater treatment infrastructure while requiring little or no intervention by operations and maintenance staff
- Achieving aesthetic improvements to stormwater treatment infrastructure by creating beautiful and self-sustaining treatment environments that elevate land value in a community
- Demonstrate that improvements to stormwater infrastructure can be achieved through retrofitting existing ponds with biofiltration style stormwater treatment systems
- Validation testing of human pathogenic organism removal performance

## BENEFITS TO ALBERTA

- Reductions in the cost to build and maintain stormwater infrastructure in Alberta
- Improvements to the capability for stormwater infrastructure to provide flood and drought protection to communities
- Collaboration between private development and the municipal/provincial approvals communities by demonstrating low-cost yet high value stormwater treatment systems
- Opportunities to provide beneficial environmental and commercial uses of high-quality treated stormwater
- Provide opportunities for policy development through demonstration of low-cost systems that can provide safe (i.e., low levels of human pathogenic organisms) treated stormwater for use in communities



### 6-18 Future Jobs

## CURRENT STATUS

### APRIL 2020

The project grading has been completed in 2019 with construction completion of underground infrastructure expected in the spring of 2020. Biofiltration system plants will be planted in early summer of 2020 with establishment through the growing season of 2020. Human pathogenic organism removal performance testing is scheduled to take place at the end of summer 2020.