



# ALBERTA INNOVATES

## Research and Innovation Project – Knowledge Transfer Summary

<b>Project Title:</b>	<b>Decentralized Wastewater Treatment by Resource Recovery</b>
<b>Project No:</b>	<b>2393</b>
<b>Project Lead:</b>	<b>Ken Pacholok, WaterWerx Renewables Inc.</b>
<b>Partners:</b>	<b>Alberta Innovates, WaterWerx Renewables Inc., University of Alberta, DeSaH</b>
<b>Status:</b>	<b>Ongoing</b>

### **Project Summary:**

Over the last decade, energy consumption by the municipal water and wastewater sector has increased considerably, so as to provide more intensive treatment technologies to meet new effluent and potable water quality standards. The resulting water and wastewater utilities are extremely energy intensive, and can account for 40-60% of a municipality's energy bill; wastewater treatment alone can represent up to 80% of a municipalities GHG emissions.

This innovative project includes a full-scale source-separated and decentralized water management system initially focused on blackwater resource recovery, which once proven, will service an adjacent 1,700 person-equivalent sustainable community. The project is preceded by an adjacent pilot-plant providing proof of concept, and supported by a planned Resource Recovery Centre that will subsequently include innovative greywater and stormwater treatment and reuse options. The current project will demonstrate capacity for blackwater energy and nutrient recovery, suited to new residential communities, remote rural settlements and commercial developments.

### **Outcomes:**

None available.

### **Links:**

None available.

### **Alberta Innovates Contact:**

Vicki Lightbown

[vicki.lightbown@albertainnovates.ca](mailto:vicki.lightbown@albertainnovates.ca)