

## AcceliCITY Smart Challenge

Pilot Project Description  
March 7, 2019

### **Project Category:** Smart Water

**Project Description:** One of Mount Pearl's most critical pieces of infrastructure is its water system. As our City is working through a digital transformation process, we are seeking pilot projects designed to help better manage this precious resource. Our primary objectives are to **monitor water quality** and **reduce water consumption and/or leakage**.

We are open to pilot project ideas that support the attainment of both objectives. However, outlined below are brief descriptions of our preliminary ideas.

### **Reduction of Water Consumption and/or Identification of Leakage**

Water is a significant expense to every City and water loss management is becoming increasingly important over time. Incorporating smart water technologies can allow water providers to minimize non-revenue water (NRW) by finding leaks quickly and even predictively using real-time SCADA data and comparing that to model network simulations. Reducing NRW also allows municipalities to recover costs incurred in treatment and pumping - this can be significant.

### **Monitoring and Detection of Water Quality and Consumption**

The monitoring of most water quality parameters (for example color or substance concentration) still involves taking separate samples from the water body and transporting these to a laboratory for analysis. This is monitored almost entirely manually at present. The capacity to monitor water quality parameters continuously or semi continuously offers exciting possibilities to resource managers wishing to better manage the water resources in their care. In addition, it provides the opportunity to proactively measure water quality in industrial locations to determine if any unacceptable substance is found (i.e. oil). In addition, the City of Mount Pearl is seeking to explore a refined approach to tracking commercial water usage through a pilot project designed to track water consumption without the requirement to manually review and record usage.