The Design of Hydropower Intakes for Run-Of-the-River Power Plant And Decision Support System for Low Impact Development Master Planning

Funded by NSERC CRD and WSP Canada Inc.

Duration: 2017 -2019

Significance:

The first component of this CRD project will address this research gap and concentrate on the complex hydraulics at hydropower intakes using physical and numerical models. **Through the proposed new research, new modelling approaches and guidelines will be developed to assist engineers to address the problem and seek solutions to reduce the impacts, thus strengthening Canada's energy sector.**

The second component of this CRD project will address this research gap by focusing on the development of a comprehensive planning framework. **This framework will address the challenge of data requirements needed to support the suitability analysis of LID, predict cumulative performance of LID alternatives on a watershed basis, perform cost-effective analysis of LID alternatives (capital, operation, and maintenance), and project implementation and management options using the public-private partnership approach.** The research findings will greatly improve the master planning of LID of Canadian municipalities with significant economic and environmental benefits.