

## **Masters of Environmental Science Research Opportunity – Watershed Modeling of Streamflow and Chloride Concentrations for Canadian Shield Lakes with Road Salt Application**

Nipissing University's Integrative Watershed Research Centre is seeking a motivated individual for Masters-level research in the area of watershed modeling of streamflow and water quality. The MEdSc Student will investigate relationships between streamflow, chloride concentrations and road salt application in soft water Shield lakes and their catchments within the Muskoka River watershed. The student will receive training in the use of the Soil Water Assessment Tool (SWAT), a widely used semi-distributed hydrologic and water quality model and will work with longterm streamflow and water quality data made available through a research partnership with Ontario Ministry of Environment and Climate Change's (MOECC) Dorset Environmental Science Centre. Working in collaboration with Dr. Shelley Arnott at Queen's University, this project offers a graduate student opportunity to become part of an interdisciplinary project in which modeling of salt transport in watersheds will be used to explore linkages between field-scale management practices (e.g. winter road de-icing), lake concentrations, and impacts on aquatic communities specific to soft water Shield lakes.

The ideal candidate will have a Bachelor's degree in Water Resources Engineering, Physical Geography, Earth Sciences, Biology or other related sciences and some experience in hydrologic modeling and/or quantitative analysis.

Funding for this project is provided by Ontario Ministry of Environment and Climate Change 'Best In Science' grant.

Interested candidates are encouraged to submit a cover letter and curriculum vitae immediately to:

Dr. April James  
Associate Professor, Canada Research Chair – Watershed Analysis and Modeling  
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Information on Nipissing University's interdisciplinary Masters of Environmental Studies and Masters of Environmental Sciences program is available at:  
<http://www.nipissingu.ca/academics/graduate-studies/master-of-environmental>

Information on Nipissing University's Integrative Watershed Research Centre is available at:  
[iwrc.nipissingu.ca](http://iwrc.nipissingu.ca)