



Carleton
UNIVERSITY



Department of
**Geography &
Environmental Studies**

FOUNDERS SEMINAR

Presents:

Dr. Glenn Benoy, International Joint Commission (IJC) Senior Water Quality and Ecosystem Adviser

SPARROW watershed modelling and the eutrophication of transboundary lakes and rivers

When: Friday March 9, 2018

Time: 2:45- 4:00

Location: A-220, Loeb Bldg.

ALL WELCOME

Light refreshments



Abstract:

Across North America, lakes and rivers straddle major sections of the Canada-United States (US) border. Due to excessive loading of nitrogen and phosphorus, many of these systems suffer from algal blooms and hypoxia. To understand and predict water quality dynamics in transboundary basins, the IJC launched a first-of-its-kind binational watershed modelling project in partnership with the US Geological Survey (USGS) and the National Research Council (NRC). The USGS SPARROW model is being used to relate observed long-term nutrient loads to nutrient sources and land-to-water delivery processes. Following successful application of SPARROW in the Red-Assiniboine River Basin, it is now being applied to the Rainy-Lake of the Woods and Great Lakes basins. Output from the models is used in watershed management planning, to identify regions of high nutrient contribution, to estimate changes in nutrient loading due to land use change and climate change, and to assist with the development of water quality objectives.

Biography:

Dr. Glenn Benoy is the Senior Water Quality and Ecosystem Advisor to the Canadian Section of the IJC and is also a Science Director with the Canadian Rivers Institute (CRI). He advises the IJC and the CRI on the science and management of shared waters – lakes and rivers and their watersheds – between Canada and the United States. Prior to joining the IJC, Glenn held a joint research scientist position in aquatic landscape ecology with Environment and Climate Change Canada and Agriculture and Agri-Food Canada in Fredericton. He holds a PhD from the University of Guelph and he was a postdoc at the University of Calgary and the National Hydrology Research Centre in Saskatoon.

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