



**University  
of Victoria**

Graduate Studies

Notice of the Final Oral Examination  
for the Degree of Master of Science

of

**GENEEN RUSSO**

BSc (University of Victoria, 1994)

**“Forty Years of BC’s Water Quality Objectives, Policies for  
Governance or Management? Lessons for Improving  
Cumulative Effects Management and Water Quality Protection”**

Department of Geography

Wednesday, March 14, 2018

9:00 A.M.

Clearihue Building

Room B017

Supervisory Committee:

Dr. Michele-Lee Moore, Department of Geography, University of Victoria (Supervisor)

Dr. Denise Cloutier, Department of Geography, UVic (Member)

External Examiner:

Dr. Bram Noble, Department of Geography and Planning, University of Saskatchewan

Chair of Oral Examination:

Dr. Jeff Barnett, School of Health Information Science, UVic

## **Abstract**

Water quality is a critical component of aquatic ecosystems, and impairments caused by the cumulative effects of human activities can threaten water security, ecosystem health and biodiversity, and ecosystem services that support human livelihoods, health, and well-being. Protecting water quality and managing the human activities that can contribute to cumulative effects remains the most persistent, poorly understood, and under-researched problem facing sustainable water quality management in Canada (Johns & Sproule-Jones, Schindler & Donahue, 2006) and around the world (Patterson, Smith, & Bellamy, 2013; UN-Water, 2011). For decades, federal and provincial governments in Canada have introduced, and experimented with, policy tools that are intended to assess and manage cumulative effects, yet, point source management approaches remain by far, the preferred policy tool. The results of this study indicate that part of the reason why cumulative effects assessment and management approaches have not evolved is because policy tools intended to address questions about environmental governance are being implemented as environmental management tools. Questions of environmental governance should be widely inclusive and focus on how the environment is used now and in the future for societal benefits. Management questions are narrower in scope and serve to operationalize these goals. This research highlights the challenge with identifying and developing critical relationships between the array of agencies and institutions responsible for governing and managing water quality, as well as the need to devise strategies to ensure these relationships are maintained over time if progress towards managing cumulative effects to water quality can be achieved.