NRESi



"Our environment is our future"

**Friday**Nov 1, 2013

3:30 - 4:30

LECTURE THEATRE

8-166



For Elluminate information and link to the webcast: http://www.unbc.ca/nres/nresi\_webcast.html

## RESEARCH COLLOQUIUM SERIES

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## **N**ONPOINT SOURCE POLLUTION AS A WICKED PROBLEM

Nonpoint source water pollution, or diffuse pollution, stems from runoff of precipitation or irrigation from urban and rural areas. The risks posed by polluted runoff increases as population and urbanization increase and, in many cases, contribute to eutrophication and hypoxia of freshwater lakes and rives, and the marked increase of so-called "dead zones" in coastal area around the world. Internationally, impacts to coastal water quality and related ecosystems and ecosystem services are topics of scientific and policy research and mitigation. Pacific coastal water quality, however, is not well investigated nor are the impacts from inland contaminants understood, in part due to a belief that our coastal waters are pristine and our biggest impact is from seasonal hypoxia caused by natural upwelling of deep nitrate. In 2012, ground-breaking forensic work by fisheries scientists and veterinarians in Vancouver correlated marine mammal deaths off British Columbia with pathogens normally affecting humans, livestock, and pets. The potential connection of these findings with nonpoint source pollutants begged to be investigated and the author will present a synopsis of ongoing interdisciplinary research into best practices and policy approaches to reduce polluted runoff to the Pacific coast, beginning with coastal British Columbia, but including Washington, Oregon, California, and Baja California.