



SCHOOL OF ENGINEERING/ECOLE D'INGENIERIE

Changing Agricultural Landscapes and Groundwater Quality in Sensitive Aquifers

Project Launch / Initial Stakeholder Engagement Meeting

Monday, March 17, 2014

Richards 3504, University of Guelph

1:30 pm – 3:30 pm

Please **RSVP** with names of attendees to jlevison@uoguelph.ca

*Parking map: http://www.parking.uoguelph.ca/images/CampusMap2010_11.pdf
(visitor lots indicated with a V. Richards Building is #18 on this map)*

Meeting objectives

- 1) to introduce stakeholders to this 3-year groundwater nitrate project
- 2) to promote interaction and discussion between stakeholders and the project team, with the intent to inform the research progress and future dissemination activities

Agenda

1:30 – 1:50 pm

Introductions

- Research team
- Meeting participants

1:50 – 2:05 pm

Overview of the research project

- Jana Levison, University of Guelph

2:05 – 2:25 pm

Field research plan

- Nishant Mistry, University of Guelph
- Graeme MacDonald, University of Guelph (*complementary research*)

2:25 – 2:35 pm

Numerical modeling plan

- Shoaib Saleem, University of Guelph

2:35 – 2:50 pm

Overview of G360 facilities (<http://g360.uoguelph.ca/>)

- Beth Parker, University of Guelph



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2:50 – 3:00 pm

- Refreshment break

3:00 – 3:30 pm

Feedback from meeting attendees

Suggested discussion points include:

- What are your organization's research needs and interests regarding groundwater quality and nitrate leaching?
- How can this research project best meet those needs?
- What synergies exist between projects at your organization and this research?
- How can we work together to facilitate the progress of this research?

3:30 pm

Adjournment

~ Coffee/tea and light snacks will be provided ~

Project abstract:

Groundwater is the principal water source for farms and rural residents. While agriculture and climate are changing across Ontario, it is essential that groundwater quality is continually protected. The research objective is to define and quantify the transport of excess nutrients (specifically nitrogen from commercial and animal sources) related to cash crop modifications and variable weather, into groundwater to anticipate and mitigate potential water quality impacts. State-of-the-art groundwater modeling coupled with agricultural nutrient management expertise and supported by a specialized hydrogeological field data network will be used to find critical cases for sensitivity to contamination. This in turn can be applied to on-farm nutrient management policies. Several geological conditions encountered across Ontario will be studied. New methodologies to investigate how agricultural and climate evolutions may affect groundwater quality will be developed. Stakeholders from both agricultural and water management sectors will contribute to and benefit from this multidisciplinary research.