

Groundwater at the Science-Policy Interface Workshop

Date: November 12-14, 2025

Location: Morwick G360 Groundwater Research Centre, 360 College

Avenue E, University of Guelph, Guelph, Ontario











Workshop Description

Groundwater is an essential resource for sustaining ecosystems, supporting agriculture, and providing drinking water to communities globally. This intensive 3-day workshop focuses on the critical role of groundwater in food security, agriculture, and community health, by bringing together researchers, policy-makers, practitioners, and community members across disciplines to highlight the interdisciplinary connections of groundwater.

Participants will have the opportunity to engage with leading experts in the field through lectures from academic researchers and professionals across disciplines, and to explore



cutting-edge technologies during field demonstrations that showcase key tools for groundwater research. They will also collaborate with peers in small group activities, fostering collaborative problem-solving and working through practical examples and case studies. Panel discussions featuring experts from various sectors will further enhance the experience, providing diverse perspectives on the application of integrated approaches for groundwater management and policy in different social-ecological settings.

Discussions will explore key barriers to evidence-based groundwater policy-making, addressing critical topics such as:

- Supporting evidence-based groundwater management and policy-making with peoplecentric science and research
- Managing groundwater resources under increasing demand
- Balancing aquifer protection, food security, and water supply for communities

Key Themes:

Wednesday, November 12: Setting the Stage with Concepts, Global Perspectives, Tools, and Methods

Thursday, November 13: Groundwater in Agriculture - Policy and Practice (with insights from Ontario producers and international researchers and practitioners)

Friday, November 14: Groundwater for Municipal Water Supplies and Community Environmental Health

Registration: Space is limited, <u>click here</u> to secure your spot!



Groundwater Science-Policy Workshop

Morwick Groundwater Research Centre, 360 College Avenue E, Guelph, Ontario

Agenda Day 1 – Wednesday, Nov 12th 2025

	and Registration @ Morwick Groundwate Stage with Concepts, Tools and Methods Sophie Bhalla and Becky Anderson (Mor Beth Parker (Director Morwick G360) Diana Lewis (IndigenERA lab) Sophie Bhalla (Morwick G360)					
8:30-8:50 20 8:50-9:10 20	Sophie Bhalla and Becky Anderson (Mor Beth Parker (Director Morwick G360) Diana Lewis (IndigenERA lab) Sophie Bhalla (Morwick G360)	Welcome and Introduction Indigenous Perspectives: All my relations				
8:50-9:10 20	Beth Parker (Director Morwick G360) Diana Lewis (IndigenERA lab) Sophie Bhalla (Morwick G360)	Welcome and Introduction Indigenous Perspectives: All my relations				
	Diana Lewis (IndigenERA lab) Sophie Bhalla (Morwick G360)	Indigenous Perspectives: All my relations				
9:10-9:20 10	Sophie Bhalla (Morwick G360)					
		Science-Policy Interface & Peak Groundwater				
9:20-9:35 15		Concepts				
9:35-9:50 15	Ferdinando Manna (Morwick G360)	Introduction to Groundwater Science				
9:50-10:10 20	Ken Walton (Morwick G360)	Aquifer Model Demonstration				
10:10-10:30 20	Break					
Theme: Developme	Theme: Development Perspectives and Understanding Shared Interests & Questions					
10:30-11:20 50	Richard Taylor (University College London)	Keynote: Development Perspectives & Climate Change				
11:20-12:00 40	Group Activity - Mentimeter, Networking, and Discussion (Moderator: Sophie Bhalla)					
12:00-1:00 60	Group Lunch @ Morwick Groundwater Research Centre					
Theme: Setting the Stage with Concepts, Tools, and Methods						
1:00-1:15 15	Chris Neville (SSPA)	Introduction to Hydraulic Testing				
1:15-1:30 15	Jonathan Kennel (Morwick G360)	Overview of High-Resolution Dynamic Data Sets				
1:30-1:45	Dave Rudolph (University of Waterloo)	Introduction to Monitoring and Modelling (multiple lines of evidence to inform decision-making)				
1:45-2:00 15	Ramon Aravena (University of Waterloo)	Introduction to Isotope Hydrogeology				
2:00-2:15 15	Aaron Berg (University of Guelph)	Introduction to Remote Sensing/GIS				
2:30-3:00 40	Panel/Q&A Roadblocks for Policy, and Examples on How to Use These Tools Effectively (Moderator: Beth Parker)					
3:00-3:30 20	Break					
Theme: Hands-On Demonstrations						
3:30-3:50 20	Steve Chapman and Stephane Lauzon (Morwick G360)	Station 1 - Multilevel Monitoring				
3:50-4:10 20	Ryan Kroeker (Morwick G360) and Jonathan Munn (City of Guelph)	Station 2 - Temporary Deployed Sensors				
4:10-4:30 20	Marina Nunes and Andrii Gusiev (Morwick G360)	Station 3 - Rock Core				
Theme: Challenges	Theme: Challenges and Lessons Learned					
4:30-5:00 30	Beth Parker, Richard Taylor, Sophie Bhalla	Challenges and Lessons Learned				
End of Day 1						



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Agenda Day 2 – Thursday, Nov 13th 2025

8:00-9:00 Brea	8:00-9:00 Breakfast @ Morwick Groundwater Research Centre					
Theme: Groundwater and Agriculture Talks and Panel Discussions						
9:00-9:20	20	Chunmiao Zheng (Sustech)	GW-Ag Perspectives from China			
9:20-9:40	20	Partik Kumar (University of York)	GW-Ag Perspectives from India			
9:40-10:00	20	Amy Kremen (Colorado State University)	GW-Ag Perspectives from USA/Ogallala Aquifer			
10:00-10:20	20	Manfred Matz	GW-Ag Perspectives from Tunisia: Challenges of Demand Management			
10:20-10:40	20	Sophie Bhalla (Morwick G360) and Ying Lin (Sustech)	Behavioral Models, Social Psychology, and Farmers Perspectives of Three Global Case Studies (China, India, USA)			
10:40-11:00	20	Panel discussion/Q&A: Global Perspectives Groundwater in Agriculture (Moderator: Richard Taylor)				
11:00-11:15	15	Break				
Theme: Agriculture in Ontario: Insights from Producers						
11:15-11:30	15	Mark Reusser (Director Ontario Federation of Agriculture)	Groundwater in Ontario Agriculture			
11:25-12:35	70	Panel discussion – Producers/Farmers from Southern Ontario on Practical Groundwater Management Issues Panelists: Mark Reusser (OFA), John Rodgers (Director Bruce County Federation of Agriculture), and John Williamson (Chair Cataraqui Source Protection Committee) (Moderator: Hugh Simpson)				
12:35-1:35	60	Group Lunch @ Morwick Groundwater Research Centre				
Theme: Groundwater and Agriculture Policy						
1:35-1:55	20	Dustin Garrick (University of Waterloo, Director of the Collaborative Water Program)	Groundwater Policy and Economics			
1:55-2:15	20	Brenda Dyack	Applied Groundwater-Agricultural Challenges			
2:15-2:35	20	Nandita Basu (University of Waterloo)	Groundwater Quality and Agriculture			
2:35-2:55	20	Jana Levison (Morwick G360)	Groundwater and Agriculture in Ontario: Current Research and Emerging Issues			
2:55-3:15	20	Discussion/Q&A – Identifying Themes for Breakout Groups (Moderator: Sophie Bhalla)				
3:15-3:30	15	Break				
Theme: Groun	Theme: Groundwater and Agriculture Breakout Groups: Workshopping Solutions to Social-Ecological dilemmas					
3:30-4:15	45	Group Activity Part 1: Breakout Groups on Agricultural Subthemes				
4:15-4:45	30	Groups Activity Part 2: Present Take-Aways from Part 1				
4:45-5:00	15	Discussion & Wrap-Up Day 2				
End of Day 2						



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Agenda Day 3 – Friday, Nov 14th 2025

8:00-9:00 Breakfast @ Morwick Groundwater Research Centre						
Theme: Groundwater for Municipal Water Supplies						
9:00-9:30	30	Jonathan Munn (Morwick G360 and the City of Guelph)	A Local Perspective from the City of Guelph; NSERC Synergy Award Success Story			
9:30-10:00	30	Ricardo Hirata & Carlos Marques (University of Sao Paulo)	Groundwater in Brazilian cities: beyond traditional solutions to overcome water crises			
10:00-10:20	20	Panel Discussion/Q&A Groundwater for Municipal Water Supplies: Monitoring Technologies and Policy Opportunities (Moderator: Ferdinando Manna)				
10:20-10:35	15	Break				
Theme: Groundwater for Municipal Water Supplies Breakout Groups						
10:35-11:15	40	Group Activity Part 1: Breakout Groups (brainstorming blind spots and perspectives)				
11:15-11:40	25	Groups Activity Part 2: Present Take-Aways from Part 1				
11:40-12:40	60	Group Lunch @ Morwick Groundwater Research Centre				
Theme: Community Environmental Health						
12:40-1:00	20	Bruce Davidson (Concerned Walkerton Citizens)	Walkerton Tragedy and Lessons Learned			
1:00-1:20	20	IndigenERA Lab (Veronica Reitmeier and Antonina Struminski-Bodden)	Indigenous Community Health			
1:20-1:40	20	Oneida Nation of the Thames, Oneida Women and Clan Mothers (Yukwanulha Yukwanikuhliyo)	Community presentation			
1:40-2:00	20	Sipekne'katik First Nation	Community presentation			
2:00-2:20	20	Theresa McClenaghan (Canadian Environmental Law Association)	Environmental Justice & Policy - The Clean Water Act			
2:20-2:40	20	Panel discussion/Q&A – Case Studies in Community Environmental Health and Policy Opportunities (Moderator: Sophie Bhalla)				
2:40-3:00	20	Break				
Theme: Interactive Discussion Sessions						
3:00 -4:00	60	Listening/Talking Circle led by IndigenERA				
4:00-4:40	40	Group activity/mentimeter: Tying Together Key Concepts and Ideas from Workshop (revisiting themes/expectations/questions from Day 1)				
4:40-5:00	20	Sophie Bhalla (Morwick G360)	Final Thoughts and Next Steps			
End of Workshop						