

# The University Consortium for Field-Focused Groundwater Research

**Our Mission:** Conduct world-class credible research to serve the needs of both society and industry, contribute to the advancement of groundwater contamination science, while focusing on real-world problems at contaminated sites.

The University Consortium for Field-Focused Groundwater Research (the “Consortium”) was established in 1987, with the first annual Consortium Meeting taking place in 1988.

**Our Members:** 3 distinguished directors and 31 principal investigators, from Canadian, Swiss and American universities.



**Dr. John Cherry**  
**Director**  
SOE Adjunct Professor,  
University of Guelph &  
Distinguished Professor  
Emeritus, University of  
Waterloo



**Dr. Beth Parker**  
**Associate Director**  
G<sup>360</sup> Institute for  
Groundwater Research,  
NSERC Senior Industrial  
Research Chair  
Professor, SOE,  
University of Guelph



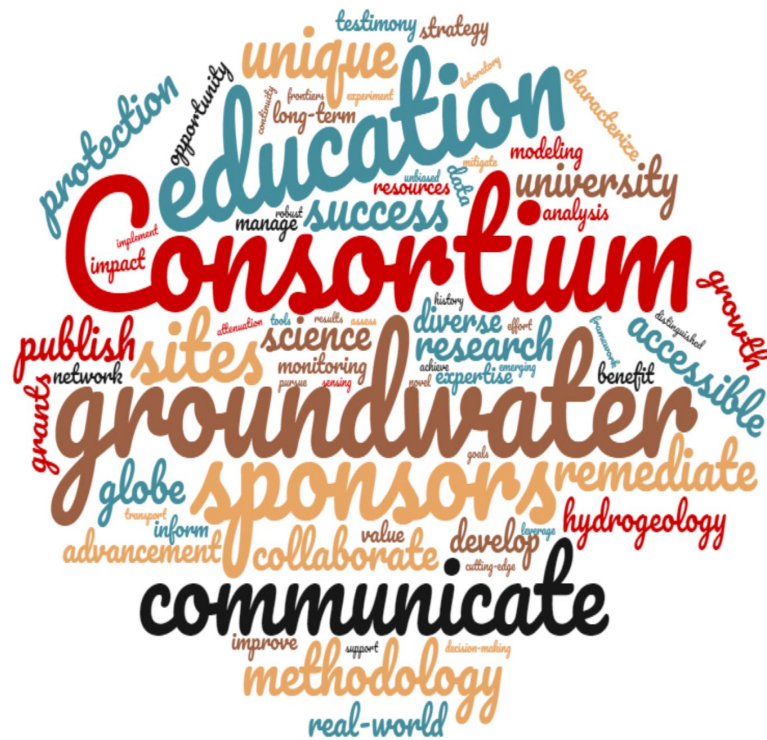
**Dr. Tom Sale**  
**Associate Director**  
Professor in Civil  
Engineering  
Colorado State  
University

The Consortium is unique in its combination of a strong field focus, intensive collaborations with researchers and practitioners around the globe, and frequent interactions with the corporate sponsors.

**Our Approach:** Each Consortium Sponsor provides a cash contribution of \$200K annually. Consortium principal investigators leverage these contributions with additional private and public grants for a combined value of more than \$10 million per year; this approach to funding ensures the research remains unbiased.

These combined funds are used to conduct field research at actual industrial sites, gathering real-world data through field and laboratory experiments and mathematical modeling. Our overarching goals are to inform remediation and mitigation efforts and improve the decision-making of groundwater practitioners by developing and using novel methods and tools to advance the science surrounding characterizing, long-term monitoring, conceptualizing, and remediating real-world sites.

Consortium Sponsors gain access to the results of the Consortium Program, and the Consortium hosts a 3-day event at the University of Guelph in June and a special topic focus meeting in Denver in October each year. The Consortium also communicates with its corporate sponsors, the regulatory community, and the groundwater professional community through other meetings, symposia, conferences, and short courses.



**Our Success:** The Consortium’s continuity and growth over its 32-year history is testimony to its value to the industrial sponsors and achievement of major advances at the frontiers of science. With your support, Consortium researchers collectively publish 40-60 journal articles each year based on Consortium-sponsored projects, and graduate 15-20 MSc’s and 1-3 PhD’s. Graduates regularly move onto positions with corporate sponsors or their consultants.

## Sponsor Benefits:

### Technical Expertise:

- Access to Consortium principal investigators for consulting at sponsor sites.
- Opportunity for research-related field work at reduced rates.
- Access to the Consortium's network of experts.

**Information Dissemination:** Access to cutting-edge research often before it is even published.

**Education:** Opportunities to learn from world-class educators, either by having them come to sponsor sites or by teaching workshops.

**Networking:** Other industrial consortium sponsors often have lessons learned from implementing remediation strategies or technologies at their site.

## The University Consortium Pursues the Development of Better Methods and Science Relevant to:

1. Site Characterization Methodologies in a Process Based Framework
2. Off-Site Liability from Contaminant Impacts
3. Methodologies for Improved Data Acquisition, Storage & Analysis
4. Monitoring and Sensing Technologies & Strategies
5. Robust Methodology for Conceptual Site Modeling
6. Develop GCMs for Diverse Contaminant & Hydrogeologic Systems
7. Fate, Transport, and Remediation of Emerging Contaminants
8. Groundwater Resource Protection
9. In-Situ Remediation Technology Assessment
10. Enhanced Attenuation & Long-term Site Management
11. Life-cycle Cost / Benefit Analysis for Source & Plume Management
12. Knowledge Translation & Transfer

### Principal Investigators

Andre Unger	Kari Dunfield
Andrew Binns	Kirk Hatfield
Colby Steelman	Mike Annable
Daniel Hunkeler	Neil Thomson
Doug Mackay	Orfan Shouakar-Stash
Emmanuelle Arnaud	Peeter Pehme
Erica Pensini	Ramon Aravena
Frank Loeffler	Rick Devlin
James Longstaffe	Rick Johnson
Jana Levison	Shaily Mahendra
Jay Ham	Susan De Long
Jens Blotevogel	Tadeusz Gorecki
Jessica Meyer	Tom Al
Joe Scalia	Ulrich Mayer

### Principal Universities

#### Canada

University of Guelph  
University of British Columbia  
University of Ottawa  
University of Waterloo

#### USA

Colorado State University  
University of Florida  
University of Iowa  
UC Davis, UC Los Angeles  
University of Kansas  
Oregon Health & Science University

#### Switzerland

University of Neuchâtel

### Corporate Sponsors

Dow Chemical (>1988)  
Boeing (>1993)  
Syngenta (>1997)  
Dupont (>1999)  
Chevron (>2001)  
Hydrite Chemical (>2003)  
BP (>2006)  
Lockheed Martin (>2009)  
ExxonMobil/Esso (>2010)  
Shell (>2010)  
Suncor Energy (>2012)  
Nestlé Waters (>2015)  
Chemours (>2017)  
TOTAL (>2018)

## Collaborating Organizations

### Academic

Lund University	University of Barcelona
McMaster University	University of Bologna
Missouri Institute of Sci & Tech	University of Calgary
Rutgers University, Newark	University of Hong Kong
Stanford University	University of Lausanne
SUSTech (China)	University of Rome
UC Santa Cruz	University of Stuttgart
Universite Laval	University of Tennessee
	USP, Sao Paulo

### Government

City of Guelph  
Geological Survey of Canada (GSC)  
Geological Survey of Sweden (SGU)  
Minnesota Geological Survey  
NSERC  
Ontario Ministry of Research and Innovation  
USGS  
U.S. DOE  
U.S. DOD (AFCEC, NAVFAC)