

# G<sup>360</sup> PROJECT TEAM

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Groundwater represents 99% of all available liquid fresh water on the planet and more than 50% of the world's population depends on groundwater as their primary source of drinking water. Not only does groundwater provide storage throughout the terrestrial landscape to sustain nearly half of all surface water flows annually, but the aquifers and aquitards through which this groundwater flows help to purify the water through various physical, chemical, and microbial mediated processes to replenish the freshwater quality that sustains ecosystem and community health. Improved knowledge of our groundwater resources is an essential component of the resilience and sustainability of our planet. Creating solutions for long-term sustainability is dependent on new characterization and monitoring technologies and advancing our understanding of groundwater and its interactions with both the community and natural systems.

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Help us meet our goal of \$10M to build the G<sup>360</sup> Bedrock Aquifer Field Facility to solve global water-related issues, which directly impact local, regional, and international communities



**Figure 1:** Rendering of the Field Facility that will serve as an international hub dedicated to protecting groundwater.

## To Learn More, Contact:

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## Our Vision:

### How G<sup>360</sup> is Improving Groundwater Awareness and Knowledge & Its Role in Freshwater Sustainability

The University of Guelph is proud of its commitment to research along with knowledge and technology transfer as a means to develop future leaders who will “Improve Life” by protecting one of our world's most essential resources: water. We are fundraising for the structural completion of the BAFF to support hands-on training and novel technology development and demonstrations for students, professionals, and community outreach.

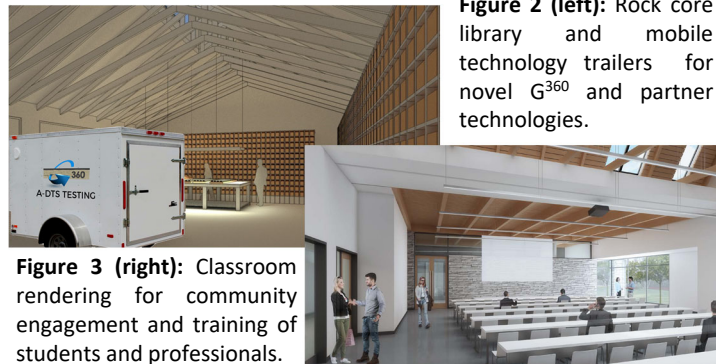
Facility sponsorship and naming features include:

- Classroom(s) – 1x120 or 2x60 person capacity
- Transparent 20-ft above-ground demonstration well
- In-classroom access to a borehole cluster
- “Outcrop style” Guelph aquifer rock wall
- Rock core library for CORE<sup>DFN</sup> & Data<sup>DFN</sup> methods
- Mobile borehole technology facilities
- Arboretum groundwater monitoring network wells
- Borehole clusters supporting the Fractured Rock Observatory across campus, the city, and regionally

Technology sponsorships include:

- Telemetry systems
- Groundwater-based geothermal heating & cooling
- Alternative solar and wind energy sources
- Grey water and stormwater management
- Green roofing
- Real-time data display systems and remote sensing with dashboards for fibre-optics, fluid pressure, and chemical and temperature sensors

This facility will strengthen our ability to serve as a state-of-the-art research and learning centre, and an ongoing critical component of G<sup>360</sup>'s field site network.



**Figure 2 (left):** Rock core library and mobile technology trailers for novel G<sup>360</sup> and partner technologies.

**Figure 3 (right):** Classroom rendering for community engagement and training of students and professionals.