

# CREATIVE, CARING SOCIO-HYDROGEOLOGY: COMMUNITY-BASED SCIENCE AND ART TO ENRICH HOW WE ENGAGE WITH PARTNERS, PLACE, AND OTHER DISCIPLINES

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Hydrogeologists care. Most of us enter this field to make a difference for and with people, places, and the planet, applying powerful technical tools to understand and manage groundwater systems. Yet despite decades of research and practice, groundwater depletion, contamination, and governance challenges persist in many regions. Even more strikingly, hydrogeologists are often the only consistent advocates for groundwater, with relatively few groundwater-focused civil society organizations worldwide.

Hydrogeologists are also creative. Science is itself a creative practice—full of imagination, interpretation, metaphor, and story—and many hydrogeologists are artists, musicians, writers, or makers, or once were. Art can make groundwater perceptible where it is otherwise invisible, invite emotional and cultural connection alongside technical understanding, and open conversations our graphs and models alone often cannot. Integrating art into hydrogeology is not about diluting rigor, but about widening how we know, care for, and communicate groundwater.

This keynote invites a bold but grounded shift: integrating community-based and arts-based research into hydrogeology to enrich how we engage with partners, place, and other disciplines. Drawing on four intersecting approaches—socio-hydrogeology, everyday practices of care, social-ecological systems, and relational understandings of groundwater—the talk reframes groundwater as more than subsurface storage, and hydrogeology as more than western scientific rationalism alone.

The keynote is grounded in my work on an ongoing community-based groundwater science project on Vancouver Island, Canada, where place-based groundwater knowledge is co-produced with communities through long-term relationships and shared questions. It also draws on recent work in groundwater-connected art and an emerging international community of practice where hydrogeologists, artists, and community practitioners experiment with creative, accountable, and place-based engagement.

Through stories, examples, and participatory reflection, this keynote argues that creative, caring socio-hydrogeology can deepen trust, expand relevance, and strengthen our collective capacity to sustain groundwater in a changing world.