

Northwest Territories and Nunavut Association  
of Professional Engineers and Geoscientists

**2023 NAPEG**  
**Annual General Meeting,**  
**Awards Banquet**  
and  
**Professional Development**  
**Symposium**



AGM - May 10 | Awards Banquet - May 11  
PD Symposium May 11 - 12, 2023

**“Thriving with Change”**

The Explorer Hotel, Yellowknife, NT

## Wednesday, May 10 - NAPEG Annual General Meeting - Katimavik D

Evening	5:00 - 6:00	<b>Annual General Meeting</b>
	6:00 - 6:15	<b>Education Foundation AGM</b>
	6:15 - 8:00	<b>President's Reception</b>

## Thursday, May 11 - NAPEG PD Symposium - Katimavik Rooms

Morning	8:00 - 8:45	Registration and Refreshments
	8:45 - 9:00	<b>Welcome</b> - Timothy Taylor, P.Eng., Chair, NAPEG Professional Development Committee <b>Opening Remarks</b> - Melanie Williams, P.Eng., NAPEG President
	9:00 - 9:45	<b>Cargo Airships versus All-weather Roads: Costs and Benefits</b> Barry Prentice, PhD.
	9:45 - 10:30	<b>Vulnerability of municipal freshwater provisioning in a climate variable future: The case of Coral Harbour, Nunavut</b>  Andrew Medeiros, PhD., Assistant Professor, Dalhousie University
	10:30 - 11:00	Health Break, Networking and Prize Draw

Afternoon	11:45 - 12:30	<b>An Overview of NRC's projects in the North</b> Andrew Colombo, PhD., P.Eng. (ON), Research Officer, National Research Council of Canada
	12:30 - 1:30	<b>Lunch and Prize Draw</b> <b>Climate Resources available to support Engineering and Geoscience Decision Making</b> Brian Sieben and Fritz Griffith
	1:30 - 2:15	<b>Utility-Scale Biomass District Heating System in Yellowknife</b> Gary Saskiw, P.Eng. and Lachlan MacLean, P.Eng., FVB / Alternatives North—virtual presentation
	2:15 - 3:00	Global Perspective on Climate Change: A discussion of treaties Timothy Taylor, P.Eng.
	3:00 - 3:45	Health Break, Networking and Prize Draw
	3:30—4:15	<b>Four simple things you can do to stay cybersafe</b> Bernadette Pasteris, IT Security Training Analyst, Mount Royal University

4:15—4:30 **Day 1 Wrap Up - Timothy Taylor, P.Eng., Professional Development Committee**

## Thursday, May 11 - NAPEG Awards Banquet - Katimavik Rooms

Evening	6:15 - 7:00	<b>Cocktails</b>
	7:00 - 8:00	<b>Awards</b>
	8:00 - 10:00	<b>Dinner and Speaker - Peter Mooney, P.Eng.</b> Being a Change Agent!

## Friday, May 12 - NAPEG PD Symposium - Katimavik Rooms

Morning	8:30 - 9:00	Refreshments
	9:00 - 9:15	<b>Welcome and Review of Passport Questions</b> Timothy Taylor, P.Eng., Chair, NAPEG Professional Development Committee
	9:15 - 10:15	<b>The Success-Energy Equation—How to Regain Focus, Recharge Your Life, and Really Get Sh1t Done.</b> <b>Keynote Speaker - Michelle Cederberg—Virtual Presentation</b>
	10:15 - 10:45	Health Break, Networking and Prize Draw
	10:45 - 11:30	<b>Diavik's Traditional Knowledge Panel—Using TK in Design</b> Myra Berrub, P.Eng.
	11:30 - 12:15	<b>Traditional Knowledge Inclusion</b> Morgan Murphy, MSc, University of Saskatchewan
	12:15 - 1:30	<b>Lunch, Prize Draw</b>

Afternoon	1:30 - 4:00	<b>Giant Mine Tour</b>  *Please note that there will be two two-hour tours with a maximum of 20 people per tour. Bus departure times will be approximately 1:30 and 3:30 pm. A sign up sheet is available at the Registration Desk. Sign up early so you don't miss out!  Running concurrently with the tour will be a Social and Passport Prize Draw.
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## Friday, May 12 - Symposium Social - Katimavik Room D

Evening	3:00 - 5:00	<b>Social and Passport Prize Draw</b> <b>(The Passport Draw will be at 4:30)</b>
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# Speaker Biographies

## Mark Abbott, P.Eng.



Mark Abbott, P.Eng., MBA, is an Ashoka Fellow who currently serves as the Director of the Engineering Change Lab (ECL) and the Director of Tech Stewardship based at MaRS Discovery District. Previously Mark served as a member of the Executive Team at Engineers Without Borders for several years. And before that, Mark spent fourteen years working for a heavy industrial consulting engineering firm based in Vancouver. Mark currently lives in Kamloops, BC with his partner Colette and their children Felix (8) and Stella (5).

## Myra Berrub, P.Eng.

Myra Berrub is the Principal Advisor for Communities and Social Performance at Rio Tinto's Diavik Diamond Mine. She started with the mine in 2019 as efforts ramped up in closure planning, to understand impacts of mine closure on local communities and to co-design mitigation strategies. Along with social and economic considerations of people and communities, this work includes a holistic approach for reclamation (regulatory-focused) and healing (community-focused) of the biophysical environment. Prior to working for Rio Tinto, Myra worked for the NT Power Corporation, incorporating renewable energy into diesel power systems in remote communities. She has had a hand in all of the major solar power projects in the NT and the development of the territories' renewable energy policies. She remains active in energy in her appointment to the NT Public Utilities Board. Myra has a Bachelor of Science (Agricultural Engineering) degree and a Master of Science (Biosystems Engineering) degree from the University of Manitoba.



## Michelle Cederberg



For over 17 years, Health and Productivity Expert Michelle Cederberg has captivated audiences across North America with her empowering and humorous messages that educate busy, driven professionals about purpose, productivity and the pursuit of better. An in-demand speaker, author, coach and consultant, she believes that personal and professional success is directly influenced by how well we harness the physical, mental and emotional capacity we each have within us. She helps people boost that capacity, so they gain clarity, build confidence, and get the discipline to create the life and career they want. And she's taken the virtual world by storm as well! She holds a Masters in Kinesiology, a BA in Psychology, a specialization in Health and Exercise Psychology, is a Certified Speaking Professional, a Certified Exercise

Physiologist, and a High-Performance Coach. She truly combines mind, body and practicality to empower change. She is the author of three books. Her latest book *The Success-Energy Equation*, debuted as a bestseller in October 2020.

## Andrew Colombo, PhD, P.Eng.

Andrew has been a researcher with NRC since 2011, devoted primarily to the areas of water supply and sewage infrastructure in remote and Northern communities. Apart from Northern-focused research, he is also involved in research pertaining to climate change and municipal infrastructure resilience, water distribution system analysis, security in water supply systems and the water-energy nexus. He is currently the water/sewage theme lead for NRC's Arctic North Challenge Program (ANCP) and the Northern theme lead for the Climate Resilient Built Environment (CRBE) initiative.



## Fritz Griffith



Fritz Griffith is a Climate Scientist with the Department of Environment and Climate Change in Yellowknife. Fritz was born in Lutsel K'e, and has spent most of his life in the NWT. He received a Master's in Paleoclimatology from the University of Ottawa before moving back up north to follow his passion working on climate change issues in the north.

## Lachlan MacLean, P.Eng.

Lachlan MacLean started his career and his Northern adventure in 2008, working for Ekati Diamond Mine as a Reliability Engineer. Since then he held a variety of positions related to Maintenance and Asset Management in both private and public organizations and expanded his skills to include Energy Management. While he no longer lives in the North, his northern adventure continues supporting a variety of clients with Energy and Asset Management.



## Speaker Biographies

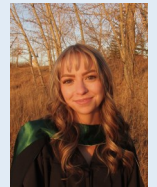
### Andrew Medeiros, Dr.



Dr. Medeiros (he/him) is an interdisciplinary researcher who focuses on understanding the influence of environmental stress on freshwater services, past, present, and future. He is particularly motivated in applying new methodologies to community-based research and ecological vulnerability assessment. By combining principles of freshwater ecology, paleolimnology, and risk assessment, he is able to bridge the gap between the natural evolution of freshwater ecosystems and human-induced change that influences ecosystem services. This includes investigation of water security through the lens of sustainability and conservation, municipal planning, and engineering for freshwater supply services. Dr. Medeiros has published numerous papers on water security, including novel methods that support the planning and development of municipal water supply in a climate variable future. These methods have been particularly important in supporting water security challenges faced by remote northern communities. Dr. Medeiros is currently an Assistant Professor at the School for Resource and Environmental Studies at Dalhousie University.

### Morgan Murphy

Morgan is a member of the Metis Nation of Alberta, she has a BSc in Environmental Science from Mount Royal University, and a Master of Sustainability from the University of Saskatchewan. Her previous work as a science educator for Northern Indigenous youth highlighted the opportunity to weave together Traditional Knowledge and Western Science. She focussed her Masters research on how Traditional Knowledge can be incorporated into Environmental Assessments, and supplement Western Science methods. In her current work within the remediation and reclamation industry, she is continuously looking for opportunities to engage with Indigenous communities, and to incorporate Traditional Knowledge. She looks forward to sharing her research findings, and starting conversations about the role Traditional Knowledge can play in project planning, execution, and follow up.



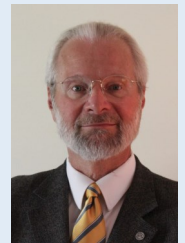
### Bernadette Pasteris



After a brief but traumatic stint teaching high school, Bernadette melded her interest in technology and love of teaching into a career. What started out as teaching the clueless how to use technology has morphed into empowering the populace so they can protect themselves from never ending cyberattacks. She specializes in being able to break down complex concepts into simple, easy to understand and implement steps. By focusing on making things easy, she doesn't just educate, she creates real behavior change. When she isn't saving the world from cybercriminals she can be found covered in dirt in the garden or jumping fences on her horse.

### Barry Prentice, Dr.

Dr. Prentice is a Professor of Supply Chain Management, at the I.H. Asper School of Business, University of Manitoba, and Director of the Transport Institute. In 1999, National Transportation Week named him Manitoba Transportation Person of the Year. He was instrumental in founding a new Department of Supply Chain Management (SCM) at the I. H. Asper School of Business in 2003 that now offers undergraduate and graduate degrees in this field. In 2009, Dr. Prentice was made an Honorary Life Member of the Canadian Transportation Research Forum. Since 2015, he is a Fellow in Transportation at the Northern Policy Institute. Dr. Prentice organized the first Airships to the Arctic conference, in 2002. This began the public interest in Canada of using cargo airships for Northern transportation. In 2005, he co-founded ISO Polar as a not-for-profit institute to coordinate airship research, cold-weather testing and to hold further airship conferences. In 2011, Dr. Prentice established Buoyant Aircraft Systems International (BASI), to undertake airship and drone research [www.buoyantaircraft.com](http://www.buoyantaircraft.com)



### Gary Saskiw, P.Eng.



Gary Saskiw is a Project Engineer with FVB Energy, a leading engineering consulting firm focusing entirely on district energy solutions. With over 50 years international and 30 years Canadian experience, FVB is recognized world-wide as setting the standard in the development, design, and long-term support of district energy systems. Gary has been with FVB for over 12 years and supports engineering and design efforts with a specialization in low-carbon technologies, and decarbonization technical pathways. His work includes early concept development, detailed project analysis, risk analysis, and implementation strategies. Gary provides a pragmatic view on projects with over 20 years experience in the energy sector, including early experience as an industrial plant operator and proven success with construction support, plant commissioning, troubleshooting, operational optimization, and in the development of asset replacement strategies. Gary holds a Mechanical Engineering degree from the University of Alberta and is a Registered Professional Engineer (P.Eng.) in Alberta, Saskatchewan, NWT & Nunavut. Gary also holds a LEED Green Associate designation and maintains a 4th Class Power Engineering certificate.

## Speaker Biographies

### Brian Sieben



Brian Sieben is Senior Climate Change Scientist, with the Department of Environment and Climate Change in Yellowknife. He has worked for GNWT since 2019. He first became involved in studying climate change impacts in the NWT in the mid-1990s, as part of his Master's thesis at UBC.

### Timothy Taylor, P.Eng.



Tim started his career in the aircraft industry. He moved to Alberta in 1980 and joined Gulf Canada. Tim's career has spanned 26 years working with Gulf and its successor, Petro-Canada, in various roles, including his last position as Team Leader, EH&S. Tim volunteered on behalf of Petro-Canada for its Young Innovators Award at Mount Royal and also with several other Mount Royal Committees. In 2006 Tim started his own environmental consulting firm. In 2007 he became a sessional instructor at Mount Royal, teaching Pollution Prevention. Tim has over 40 years of experience in industry and has been teaching at Mount Royal for 15 years. Over this time he taught 100 courses, empathizing logic, processes and an understanding of current trends and how they are applied to environmental scientific problems. Tim is currently trying to define what retirement looks like.

## Call for Volunteers

- Professional Development
- MIT and New Professionals
- Membership and Enforcement
- Outreach
- Environment
- Professional Practice

NAPEG has a number of opportunities to serve on various Committees. Service on a committee enables you to develop your leadership skills and use your expertise and experience to help guide NAPEG initiatives, policies, and publications. We are currently looking for volunteers for the following Committees:

*“Human history becomes more and more a race between education and catastrophe.”*

*~ Aristotle*

*“A man's work is in danger of deteriorating when he thinks he has found the one best formula for doing it.*

*If he thinks that, he is likely to feel that all he needs is merely to go on repeating himself.....*

*So long as a person is searching for better ways of doing his work he is fairly safe.” ~ Eugene O'Neill*

# Continuing Professional Development Program (CPD)

In the interest of protecting health, safety and welfare of the public and the environment, it is mandatory for professionals to engage in continuing Professional Development. Reporting your Professional Development through NAPEG's CPD Program is also mandatory and members are required to report their CPD Hours each year. Detailed Activity Records from other jurisdictions are also accepted.

NAPEG's CPD Program is flexible and diverse and recognizes the vast array of activities and responsibilities that our members have in the North, but also the limited opportunities members may have to attend conferences, seminars or professional sessions.

## Summary of Professional Development Activities and Hours Required

Continuing PD activities will relate to your individual scope of practice within six Activity Categories.

#	Activity Category	Hours	Max / year
1	<b>Professional Practice</b>	15 hours = 1 PDH	50
2	<b>Formal Activity</b> eg. courses through universities, colleges, employers, industry, technical societies	1 hour = 1 PDH 1 CEU = 10 PDHs	30
3	<b>Informal Activity</b> eg. self directed study, attending conferences/meetings, peer discussions, courses	2 hour = 1 PDH	30
4	<b>Participation</b> eg. mentoring, public boards, technical/professional committees or societies	1 hour = 1 PDH	20
5	<b>Presentation</b> eg. conducting technical/professional presentations at conferences/workshops, etc.	1 hour = 4 PDH	20
6	<b>Contributions to Knowledge</b> eg. publishing/reviewing/editing articles, development of published Codes or Standards	See website for complete details	30

**You are to accumulate at least 240 PDHs over a three-year period and you are encouraged to accumulate at least 80 per year**

### Please note:

- You must be active in at least three of the six Activity Categories
- You must report your CPD hours each year (80 PDH annually)
- You are allowed to "carry-over" two years worth of the maximum PDH in each category
- For courses offering Continuing Education Units (CEUs), each CEU may be used as 10 PDHs

## 2023 Awards

### *Professional Award of Merit in Engineering*

**WSP Canada Inc. - Justin Rak-Banville, P.Eng., Dr. Charles Goss, Ian Moran, EIT (Group Effort)**

#### **Responding To The City of Iqaluit Water Crisis**

This award is presented in recognition of innovative and comprehensive engineering response by WSP Canada Inc. to the 2021 Iqaluit Water Crisis during which the 9,000 Iqalummiut in the Territory's capital city were under a *Do Not Consume* water advisory due to the presence of fuel found in the drinking water supply. The advisory placed tremendous stress on consumers for access to potable water, the ability of the Hospital to sterilize equipment, and further logistical complications due to the Covid-19 pandemic. It also prompted a coordinated city-wide bottled water distribution program, bottled water supply assistance from the Government of Nunavut, and installation of a temporary water purification system by the Canadian Armed Forces. WSP was immediately flown to Iqaluit to identify the source of the contamination and address it, assess the risks to consumers, and actively implement measures to safeguard the system from a future contamination event. With industry professionals flown in from across the country, it was a multi-faceted and coordinated approach to identify any new or emerging potential sources of contamination. The water quality of Iqaluit was restored and the *Do Not Consume* advisory was lifted. The structural and materials subject matter experts confirmed that that the now 61-year-old water treatment plant in the Canadian Arctic remains in excellent condition and is fit for service for many years to come.



### *Environmental Award of Excellence*

**Matt Miller, P.Eng. for Spawning Bed Design and Construction for Fisheries in Yellowknife River**

### *Environmental Award of Excellence*

**Stantec Consulting Ltd. – Bullmoose Area Mines Remediation and Monitoring**

#### *Young Achievers Award*

**Sean Sinclair, P.Geo.**

#### *Young Achievers Award*

**Oliver Hodgins, P.Eng.**

#### *Distinguished Life Membership*

**Ken Johnson, P.Eng.**

#### *Member-In-Training Award*

**Jada Hawkins, EIT**