



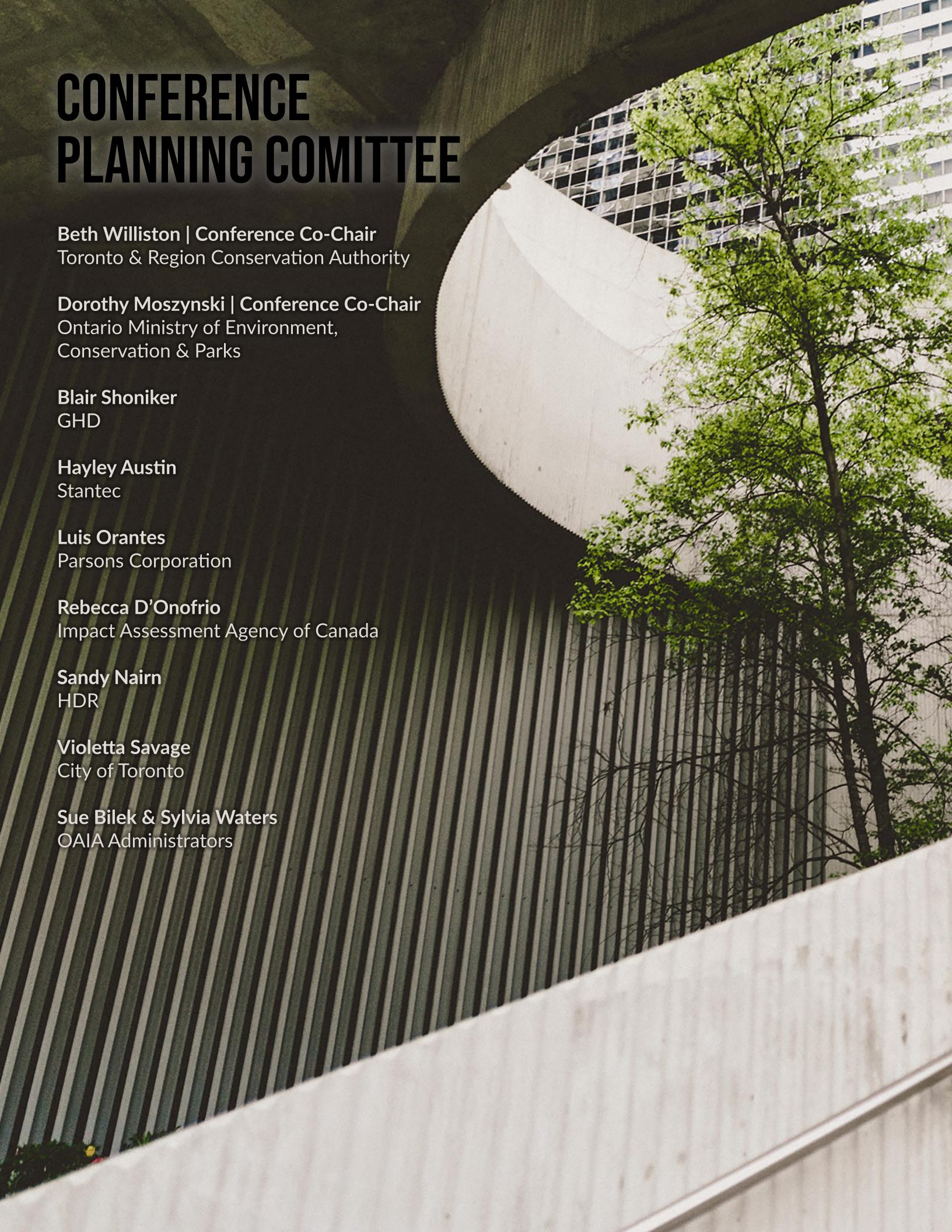


Welcome to the 2023 Ontario Association for Impact Assessment (OAIA) conference!

At this year's conference we are exploring where Impact & Environmental Assessments are going next. We are focusing on four main themes:

- Innovative Approaches and Quick Wins
- Meaningful Engagement
- Sustainable Development
- Climate Resilient Infrastructure

Through presentations and moderated sessions, we will highlight how impact and environmental assessments are moving forward to be more inclusive, more practical, and more technically advanced. Over the course of two days, we will hear from a variety of presenters, including government agencies, infrastructure proponents, consultants, regulators, NGOs and Indigenous Peoples.





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AT A GLANCE: DAY 1

8:30 AM - 9:00 AM Registration & Light Refreshments

9:00 AM – 9:05 AM Land Acknowledgement (Beth Williston)

9:05 AM - 9:10 AM
Traditional Opening & Welcoming Remarks (Gary Pritchard, Curve Lake)

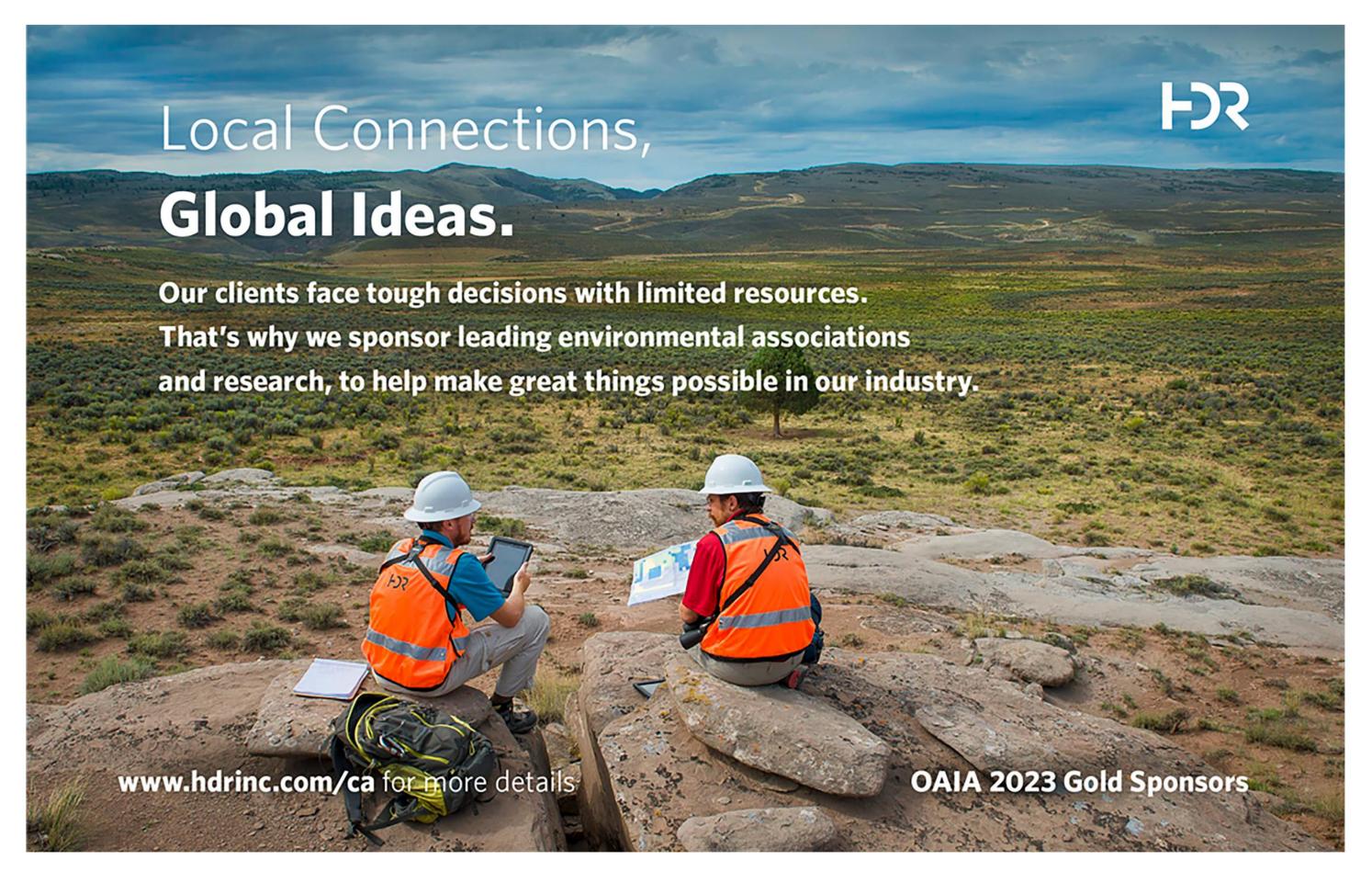
9:10 AM – 9:15 AM President's Welcome (Beth Williston)

9:15 AM – 9:45 AM
Keynote Address (Gary Pritchard, 4Directions Conservation)

9:45 AM - 4:45 PM Sessions 1, 2, 3 & 4

4:45 PM – 5:00 PM Closing Remarks from the President (Beth Williston)

5:00 PM - 8:00 PM
Networking & Socializing / Complimentary Appetizers & Cash Bar



	Time	Topic	Abstract	Participants
Sessio	n 1: Land, Water	& Indigenous Cor	nnections	
1 (a)	9:45 am - 10:15 am	Impact of Land & Water	Are Impact & Environmental Assessments Still Harming Indigenous peoples? Development, climate change, and colonialism have undoubtedly impacted many ecosystems within Canada and the world. Forests, wetlands, rivers, and lakes all play a critical role in the spiritual and cultural life of the Michi Saagiig Nishnaabeg. Through generations, the Michi Saagiig have developed relationships with the land and waters that reflect intimate local knowledge of place. Despite this history, Indigenous peoples have largely been excluded from impact assessments. This presentation will introduce participants to the Michi Saagiig and their territory, Indigenous worldviews on reclaiming, restoring, and rewilding nature, and examine how current Western approaches to ecological restoration uphold or infringe upon Indigenous Rights.	Moderator: Kevin Hanna University of British Columbi Presenter: Gary Pritchard CEO, Senior Ecologist, 4 Directions of Conservation Consulting Services
		0:15 AM - 10:30 A		

11:00 AM - 11:30 AM: Panel Discussion with Gary, Jeremiah, Sandy & Janine

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Environment Aboriginal Energy Law

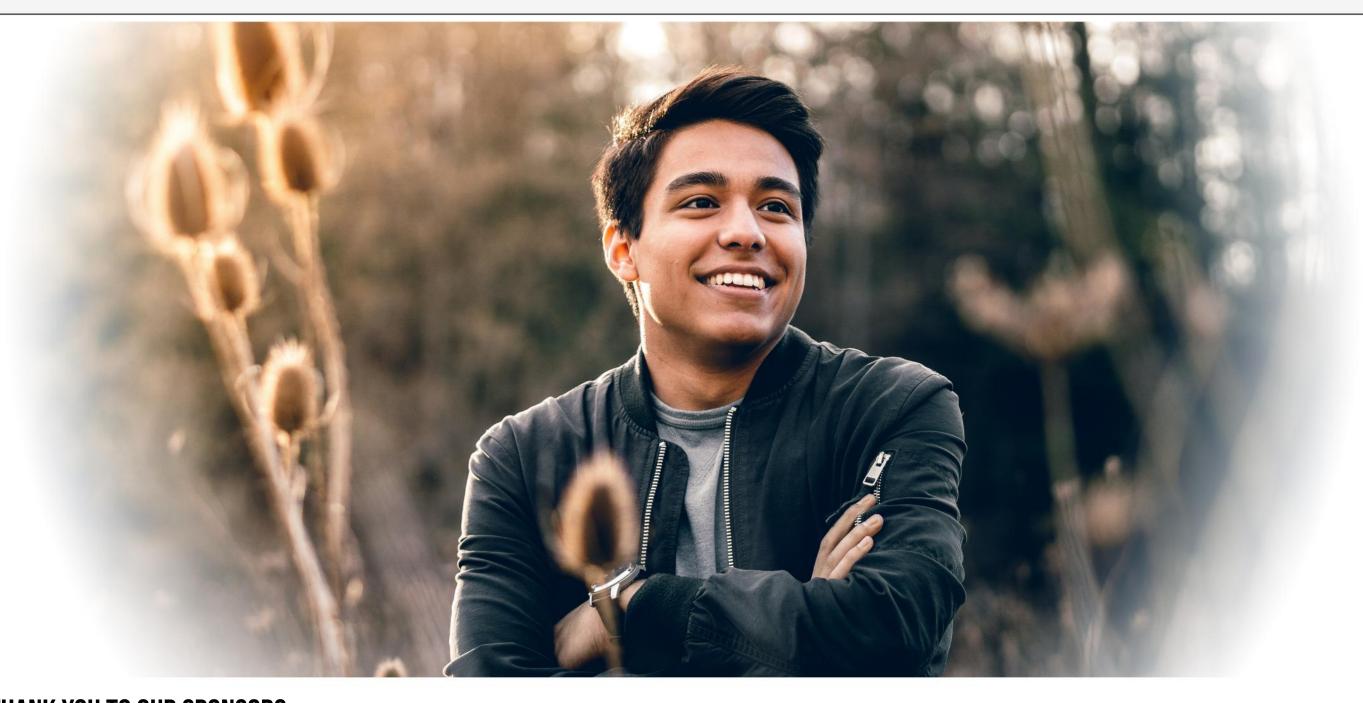






Item	Time	Topic	Abstract	Participants			
Session	Session 2: Innovative Approaches to Impact & Environmental Assessment						
2 (a)	11:30 am - 12:00 pm	Innovative & Changing Approaches	Research and Innovation in Impact Assessment The Impact Assessment Agency of Canada will focus on the theme of innovative approaches and quick wins by highlighting recent research completed under the Agency's research program. The session will build awareness of the program, highlight recent partnerships, and share innovative approaches in impact assessment methodology such as tools and resources for supporting high quality and inclusive assessments. An interactive workshop will follow the presentation to engage participants on themes and priorities for future research priorities.	Moderator: Blair Shoniker Senior Waste & Environmental Planner, GHD Presenters: Michael Grassie Manager, Science & Research Impact Assessment Agency of Canada Jenna Wolno Operational Policy Officer, Impact Assessment Agency of Canada			

Lunch: 12:00 PM - 1:00 PM



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Item	Time	Торіс	Abstract	Participants			
Session	Session 2: Innovative Approaches to Impact & Environmental Assessment (continued)						
2 (b)	1:00 pm - 1:20 pm	Deregulation	Case Study in Highway Exemptions – Do they Meet the Goals of IA? Re case study in attempted deregulation of 2 highways in Ontario – Highway 413 and Bradford Bypass. Avoiding delays and moving towards certainty is not the goal of IA. The goal of IA is to move towards more sustainable solutions to problems facing society and to advance reconciliation with First Nations (FNs). Exemptions undermine the foundations of IA and cause the very delays and uncertainty that proponents are trying to avoid. Exemptions also undermine meaningful consultation with the public and FNs – which will inevitably cause delay.	Moderator: Blair Shoniker Senior Waste & Environmental Planner, GHD Presenter: Laura Bowman Senior Staff Lawyer, Ecojustice Canada			
2 (c)	1:20 pm - 1:45 pm	Advancing Biodiversity Considerations Through Impacts Assessment	Principles and Guidance for Assessing and Safeguarding Biodiversity Through Project Assessment Under the Impact Assessment Act The Impact Assessment Act requires assessments to consider the extent to which projects help or hinder Canada's ability to meet its environmental obligations, including the goals and targets of the Kunming-Montreal Global Biodiversity Framework ratified by parties to the Convention on Biological Diversity in December 2022. Presenters will explore how assessments can better assess biodiversity effects and help us meet our biodiversity obligations. They will discuss the relevant Canadian legal and policy landscape, identifies gaps and challenges in assessing biodiversity effects in impact assessment, outlines key principles for assessing biodiversity effects, and recommends ways to incorporate those principles in project-level assessment.	Moderator: Blair Shoniker Senior Waste & Environmental Planner, GHD Presenter: Anna S A Johnston Staff Lawyer, West Coast Environmental Law Justina Ray President and Senior Scientist, Wildlife Conservation Society Canada			

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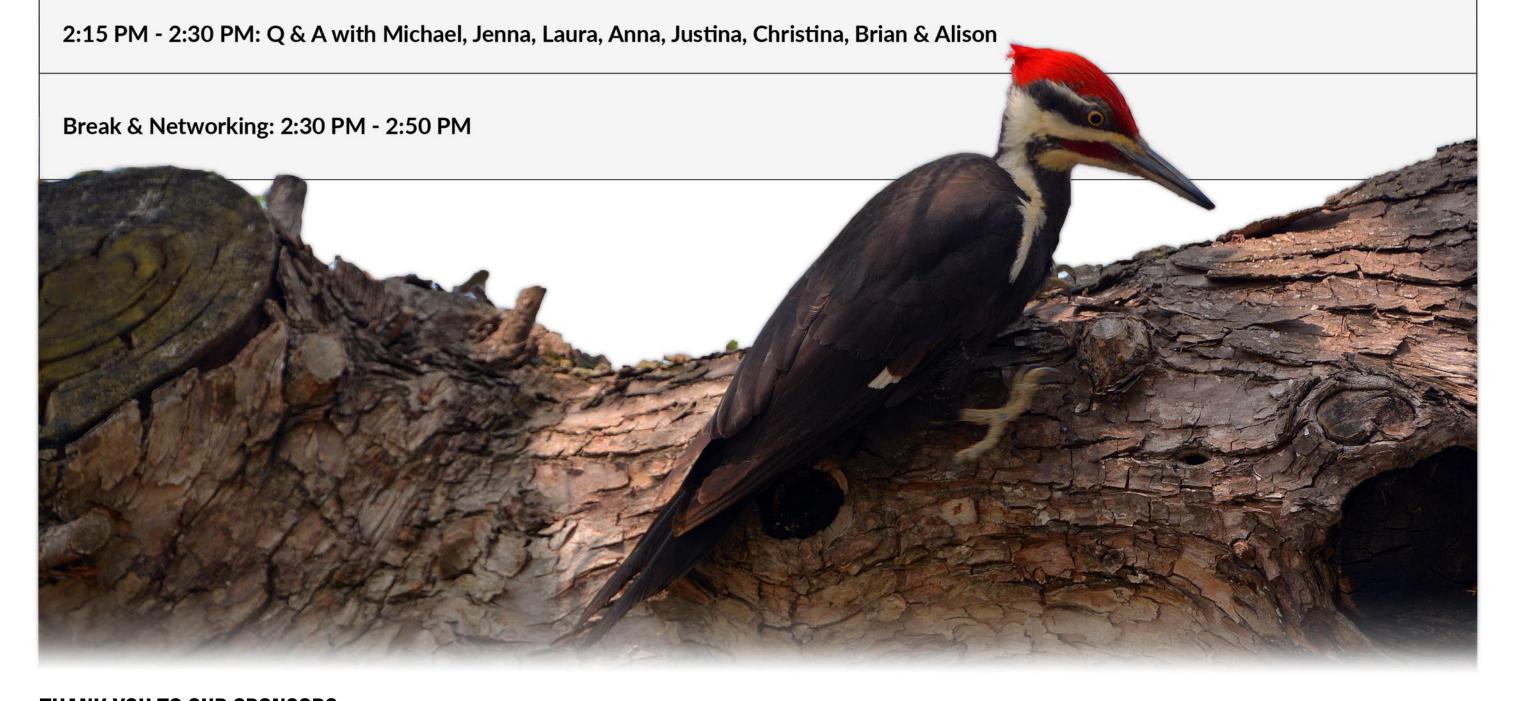








Item	Time	Topic	Abstract	Participants			
Session	Session 2: Innovative Approaches to Impact & Environmental Assessment (continued)						
2 (d)	1:45 pm - 2:15 pm	Advancing Sustainable Development of Natural Resources Through Applied Research	Nrcan's Selecting Terrestrial Areas Initiative: Prioritizing Study Areas to Conduct Cumulative Effects (CE) Research to Support the Potential Need for Science, Technical Advice, and Knowledge in Resource Development Projects Accounting for CE of natural resource projects is an important part of impact assessments. With the anticipated future development of numerous critical minerals, renewable energy, and sustainable forestry projects, many of which will overlap geographically with current and past development, there is a need to advance research to better understand and manage CE. NRCan is currently undertaking an initiative to help guide its researchers on potential study areas and to encourage interdisciplinary collaboration. In this presentation, we highlight our work to date and seek feedback from members of the IA community.	Moderator: Blair Shoniker Senior Waste & Environmental Planner, GHD Presenters: Christina Clarke Team Lead, Natural Resources Canada Brian G. Eddy Research Scientist, Ecosystems Analyst, Natural Resources Canada Alison Milan Policy Analyst, Natural Resources Canada			



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Item	Time	Торіс	Abstract	Participants		
Session 3: A Focus on New Approaches – Advancing Digital Technologies						
3 (a)	2:50 pm - 3:10 pm	Innovative Approaches	Sustainable Infrastructure Planning and Delivery: A Digital Transformation Delivering an ambitious infrastructure program requires a new approach. An approach that not only promotes engagement, but also decreases the time required to make decisions on projects − increasing accessibility for project stakeholders and community members. Cloud-based, interactive solutions will be essential to deliver these projects on task and on time with better outcomes for all. AECOM's PlanEnage™ platform streamlines report delivery by allowing project teams to craft interactive digital reports: blending text, geospatial data, multimedia functionality, and digital engagement tools. An integrated review and commenting workflow ensure stakeholders and communities have continuous access throughout a project's lifespan.	Moderator: Catherine Gentile Senior Environmental Planne & Environmental Impact Assessment Team Lead, WSP Presenters: Rayna Carmichael Digital/ GIS Manager, Environment Canada AECOM Mauricio Palomin Vice President Global Digital Leader, SaaS		
3 (b)	3:10 pm - 3:30 pm	Better Practices	Advancing Digital Technologies to Improve the Regulators Plan Input and Review Commenting System Through our new fully digitized, web-based cloud platform, planning and permit review, approval and enforcement are modernizing at the Toronto and Region Conservation Authority! Through automation, modern interfaces and communication instruments will provide for streamlined coordination between staff and clients. An interactive dashboard will provide for real-time status updates. Incorporating BlueBeam Studio Prime™ into our review will allow for real time and interactive collaboration. Future integrations will allow for APIs to be built, making integration with municipal, agency and private enterprise planning solutions in our jurisdiction a reality.	Moderator: Catherine Gentile Senior Environmental Planne & Environmental Impact Assessment Team Lead, WSP Presenters: Beth Williston Associate Director, Infrastructure Planning and Permits, Toronto and Region Conservation Authority Mark McKnight Chief Information Officer, Toronto and Region Conservation Authority		

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Item	Time	Торіс	Abstract	Participants		
Session 4: A Focus on New Approaches – Advancing Permitting and Approvals						
4 (a)	3:45 pm - 4:10 pm	Modernized Approaches & Benefits to Infrastructure Planning	Focusing Impact Assessment on Key Issues The Impact Assessment Act (IAA) seeks to balance protection of environmental, health, social and economic conditions, in a precautionary manner, with assessment processes that are timely, fair, predictable, and efficient. To meet these objectives, the Impact Assessment Agency of Canada (IAAC) sets the scope of the impact assessment in project-specific Tailored Impact Statement Guidelines issued at the end of the Planning Phase. This presentation will detail IAAC's approach to developing guidelines focused on the key issues for decision making and will present preconditions for successful tailoring with a discussion of two case studies.	Moderator: Sarah Duignan, Social Scientist, Two Worlds Consulting Presenter: Brian Giles Senior Policy Analyst		
4 (b)	4:10 pm - 4:30 pm	Modernized Approaches & Benefits to Infrastructure Permitting and Construction	Early Permits, Licences, Approvals and Agreements (PLAA) Collaboration within Environmental Impact Assessments Requests for Permits, Licenses, Approvals and Agreements (PLAA) efforts within Environmental Impact Assessment (EIA) submissions has been increasing over the years. While PLAA is a niche profession when it comes to environmental work, it is integral that it be collaborated on within EIA projects early to ensure that communications and the understanding of changing project expectations are known and PLAA work can appropriately adapt as the EIA team navigates design processes. This ensures a seamless transition from EIA to construction. Our presentation will explore why early PLAA integration is important, referencing project examples.	Moderator: Sarah Duignan, Social Scientist, Two Worlds Consulting Presenters: Mir Talpur WSP Catherine Gentile Senior Environmental Planner and Team Lead, WSP		
4 (c)	4:30 pm - 4:55 pm	Modernized Approaches to EAs in Ontario	Environmental Assessment Modernization The MECP will be providing an update on its efforts to modernize Ontario's environmental assessment program.	Moderator: Sarah Duignan, Social Scientist, Two Worlds Consulting Presenters: Peter Brown Senior Advisor – Outreach MECP		

4:45 PM - 4:55 PM: Q & A with Catherine, Mir, Brian & Ross

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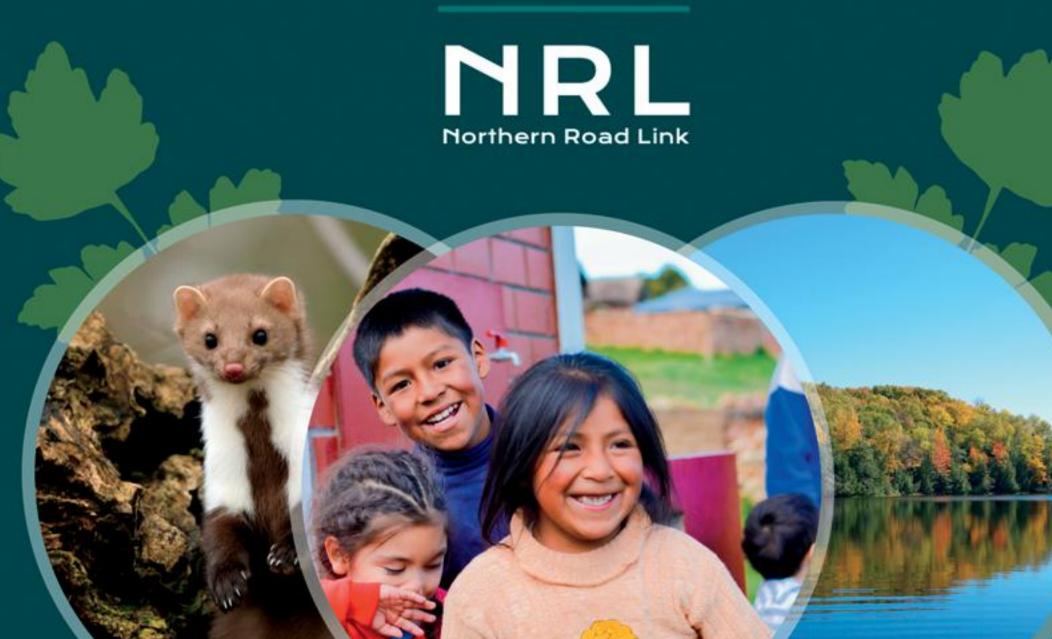












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AT A GLANCE: DAY 2

8:30 AM - 9:00 AM Registration & Light Refreshments

9:00 AM - 9:15 AM
Conference Opening & Land Acknowledgement (Dorothy Moszynski)

9:15 AM – 9:20 AM
Past President Award & Student Bursary Award (Beth Williston)

9:20 AM - 4:45 AMSessions 5, 6, 7, 8 & 9 (Violetta Savage)

4:45 AM – 5:00 PM
Closing Remarks,
2024 Conference Announcement & Annual General Meeting Notification



Item	Time	Торіс	Abstract	Participants		
Sessio	Session 5: Listening to Indigenous Voices					
5 (a)	9:20 am - 9:45 am	Indigenous Consultation	Opportunities for Maximizing Indigenous Leadership in the Impact Assessment Process The Impact Assessment Agency of Canada (the Agency) is responsible for fair, predictable, and efficient implementation of the Impact Assessment Act while also ensuring respect for the rights of the Indigenous Peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982. In implementing the Impact Assessment Act, the Agency works closely with Indigenous communities to collaboratively understand and assess impacts on the exercise of rights. During this presentation the Agency will discuss its approach to: 1. Scoping Indigenous communities for consultation during the preplanning phase. 2. Working with Indigenous communities prior to the determination on whether an impact assessment is required to understand the community's interest and potential impacts from the project; and 3. Identifying communities for consultation in the Indigenous Engagement and Partnership Plan at the end of the planning phase.	Moderator: Kevin Coulter Senior Environmental Project Manager, Gannett Flemming Presenter: Christine Greenaway Associate Regional Director Impact Assessment Agency of Canada		



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Item	Time	Topic	Abstract	Participants
Session				
5 (b)	9:45 am - 10:10 am	How Indigenous communities work with Government vs. Industry proponents	What Does the Blueberry River Decision Mean for Next Generation IBAs? In a landmark case Yahey v British Columbia, the BC Superior Court held that BC had failed to discharge the duty to consult when it failed to properly assess and manage the cumulative effects of hundreds of permits in the Blueberry River First Nation territory. The court made the point that permit-by-permit consultation does not adequately address the cumulative impacts on the exercise of Treaty rights. Rather than appealing the decision, in January of this year, as a direct result of Yahey decision, the Blueberry River First Nation and the Province of BC entered into an Implementation Agreement, followed by similar agreements between BC and each of four additional Treaty 8 First Nations. The Agreements provide a collaborative approach to land and resource planning, cumulative effects management, and revenue sharing. They are based on on-going relationships rather than one-off project reviews. This presentation will consider the BC Implementation Agreements and what they could mean for future Impact Benefit Agreements between resource companies and First Nations, whether in BC or elsewhere in Canada. We will discuss the opportunities, even though IBAs are negotiated on a project-by-project basis which makes it challenging to replicate the Implementation Agreement approach.	Moderator: Kevin Coulter Senior Environmental Project Manager Gannett Flemming Presenters: Charles J. Birchall Partner, Certified Specialist in Environmental Law by the Law Society of Ontario, Willms & Shier Environmental Lawyers LLP., OAIA Past President Julie Abouchar Partner, Certified Specialist in Environmental Law and Indigenous Legal Issues by the Law Society of Ontario Willims & Shier Environmental Lawyers LLP
10:10	AM - 10:20 AM:	Q & A with Julie &	& Christine	

Break & Networking: 10:20 AM - 10:40 AM



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Item	Time	Topic	Abstract	Participants			
Sessio	Session 6: Learning from Indigenous Led EAs						
6 (a)	10:40 am - 11:10 am	Indigenous Led EA	Indigenous Led EAs – The Good, The Bad and The Ugly. The Story of How 3 Indigenous Led EAs Have Evolved and Some of the Challenges and Opportunities Encountered Two northern Ontario First Nations, Marten Falls First Nation, and Webequie First Nation are co-proponents leading the EAs for 3 road projects within the Ring of Fire area within their traditional territories. The project team will share insights about challenges and opportunities including: the story of where we started and where we are now and the evolution of discourse around project planning and impacts on project level including Regional Assessments, cumulative impacts, Federal and Ontario EA coordination in the 2020s, Federal Table, UNDRIP, TRC, capacity, self-determination, reconciliation, misinformation, braiding western science and Indigenous knowledge, and the search for meaningful engagement.	Moderator: Kevin Coulter Senior Environmental Project Manager, Gannett Flemming Presenters: Michael Fox President, Indigenous Community Qasim Saddique Principle Consultant, SUSLOP Inc.			
6 (b)	11:10 am - 11:40 pm	Innovating & Changing Approaches	Connecting the Arctic: Inuit-led Submarine Cable Routing and Feasibility Study The team will share their experiences associated with the preliminary routing, and feasibility assessment for consideration of a submarine option for Kivalliq Hydro-Fibre Link KHFL) in co-operation with the Nukik Corporation. KHFL is a 100% Inuit-owned and Inuit-led green inter-tie project that will be Nunavut's first infrastructure link to Southern Canada, providing clean, renewable power and fibre-optic internet capacity. Presenters will focus on how this type of preliminary routing assessment can be carried out in an innovative and timely manner considering the use of various information sources, data acquisition tools, and associated challenges; permitting and regulatory reviews; and a review of assessment strategies, lessons learned and next step.	Moderator: Kevin Coulter Senior Environmental Project Manager, Gannett Flemming Presenter: Ryan Doyle Environmental Sciences & Planning, Eastern Canada Lead, HDR Sarah Zappala Routing & Siting Lead, HDR Alison Williams Intermediate Environmental Planner, HDR			

11:40 AM - 12:00 PM: Q & A with Michael, Qasim, Ryan, Sarah & Alison

Lunch: 12:00 PM - 1:00 PM

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Item	Time	Topic	Abstract	Participants			
Session	Session 7: Modernizing Technologies						
7 (a)	1:00 pm - 1:15 pm	Better Practices	Using Virtual Sound Demonstrations to Demonstrate Changes in Noise to Communities Noise impact reports rely on numerical value changes of sound levels to describe expected noise impacts to communities and stakeholders. However, it is difficult for these values to accurately portray what these noise impacts may sound like in practice to the public. Using auralization tools, AECOM has produced online virtual sound demonstrations (with accompanying real and animated footage) for various locations near a planned subway/railway corridor to help stakeholders listen to what the project may sound like in their community, as well as how acoustic mitigation methods may impact the sound from the trains. https://www.ontariolinesoundstudio.ca/	Moderator: Faiza Waheed Health Impact Assessment Lead and an Environmental Health Scientist, Intrinsik Presenter: Brian Bulnes Acousitc Engineer, AECOM Canada Inc. Alex Southern Senior Acoustic Engineer, AECOM UK Inc. Alan Oldfield Acousitc Engineer, AECOM Canada Inc.			
7 (b)	1:15 pm - 1:30 pm	Climate Action	The Role of Earth Observation Data in Decision-Making around Climate Resilient Infrastructure Green infrastructure, which encompasses wetlands, natural corridors, urban forests, and waterways, plays a crucial role in mitigating the adverse social and economic impacts of extreme climate events. However, the essential ecological services they provide are under pressure from land use change and policy fragmentation. This presentation will demonstrate the utilization of uncrewed aerial vehicles (UAVs) as an earth observation tool for managing green infrastructure. It aims to show: 1. How UAVs can complement both fieldwork and satellite data. 2. Data applications to monitor the health of ecosystem services. 1. How the data outputs provide valuable insights for decision-makers.	Moderator: Faiza Waheed Health Impact Assessment Lead and an Environmental Health Scientist, Intrinsik Presenters: Grace Saunders-Hogberg Founder, Consultant Veritas Terrae			

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Item	Time	Topic	Abstract	Participants			
Session	Session 7: Modernizing Technologies (continued)						
7 (c)	1:30 pm - 1:40 pm	A Water- Centric Model for Impact Assessment Planning WINNER OAIA STUDENT BURSSARY	Reconsidering Environmental-Cultural Flows in Development Decision-Making in Canada through Grounded Theory Environmental-cultural flows (water set aside for ecosystems/people) concepts have the potential to protect water more comprehensively in impact assessment. Through grounded theory (interviews/review), we answer how these concepts are and could be embedded within Canadian assessment. The concepts are now considered in dam, gas, and mining projects, with emphasis on fish habitat, not collaboration or cumulative withdrawals. We propose regional readiness through water conversations, connections, and classifications, following best examples in Canadian environmental-cultural flow-based initiatives in assessments (e.g., Saint John and Athabasca watersheds). A shared understanding of environmental-cultural flows could strengthen how we value water in assessments.	Moderator: Faiza Waheed Health Impact Assessment Lead and an Environmental Health Scientist, Intrinsik Presenters: Nathanael Bergbusch PHD Candidate, University of Waterloo			

1:40 PM - 1:50 PM: Q & A with Brian, Alan, Alex, Grace & Nathanael

Break & Networking: 1:50PM - 2:10PM



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Item	Time	Topic	Abstract	Participants			
Session	Session 8: Communication & Consultation – Integrating Diverse Voices						
8 (a)	2:10 pm - 2:30 pm	Innovative Approaches - Better Practices	Conducting Engagement in Health Impact Assessment Our discussion will focus on our approach and ability to integrate diverse voices when conducting engagement and consultation for Health Impact Assessments (HIA) conducted on resource development and major infrastructure development projects. We will aim to highlight the challenges and barriers faced when conducting effective engagement and consultation, as well as demonstrate the positive outcomes/benefits that far outweigh said challenges. We will discuss our experience with past projects to highlight some aspects of engagement with Indigenous communities as well as other stakeholders by employing a Gender-Based Analysis Plus approach in HIAs.	Moderator: Katrina McCullough Senior Stakeholder Engagement Specialist, GHD Presenter: Elaine Larocque Environmental Risk Assessor, Intrinsik Corp. Dr. Faiza Waheed Health Impact Assessment Lead/ Environmental Health Scientist, Intrinsik Corp.			



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Item	Time	Торіс	Abstract	Participants		
Session 9: Need for Secure Infrastructure - Innovation & Climate Action						
9 (a)	2:30 pm - 3:00 pm	Inclusive Approaches	Ashbridges Bay Landform: Working with Stakeholders for Innovative Solution The Ashbridges Bay Landform Project is an integrated solution to successfully realize several critical planning initiatives. A Conservation Ontario Class Environmental Assessment (EA) undertaken by Toronto and Region Conservation Authority (2015) considered the planned facilities for three other City of Toronto led EAs that were previously approved in the study area and at various stages of design. This project has demonstrated that through stakeholder-inclusive planning, innovative and comprehensive solutions can be achieved to meet the challenges of urban infrastructure planning while providing for enhanced habitat and public realm opportunities.	Moderator: Hayley Austin Environmental Assessment Planner, Stantec Presenters: Lisa Turnbull Associate Director, Restoration & Infrastructure Toronto & Region Conservation Authority Co-Presenter: Jet Taylor Senior Manager, Erosion Risk Management		
9 (b)	3:00 pm - 3:20 pm	Qualitative Approaches	Employing Qualitative Methods for Assessing Impacts of Major Projects in Canada The purpose of my research was to explore how qualitative methods contribute to next generation IA. My objectives include identifying qualitative methods and how they are being used currently, and documenting barriers and good practices of use from Teck's Frontier Mine and BC Hydro's Site C Dam. Through a constructivist design employing document review and interviews I expected to identify common methods and how they were used. I found interviews and focus groups to be common and I identified many opportunities and challenges to overcome for qualitative methods to contribute to better assessment through identifying concerns of communities involved.	Moderator: Hayley Austin Environmental Assessment Planner, Stantec Presenters: Brendan Middel Master's Student, University of Manitoba		

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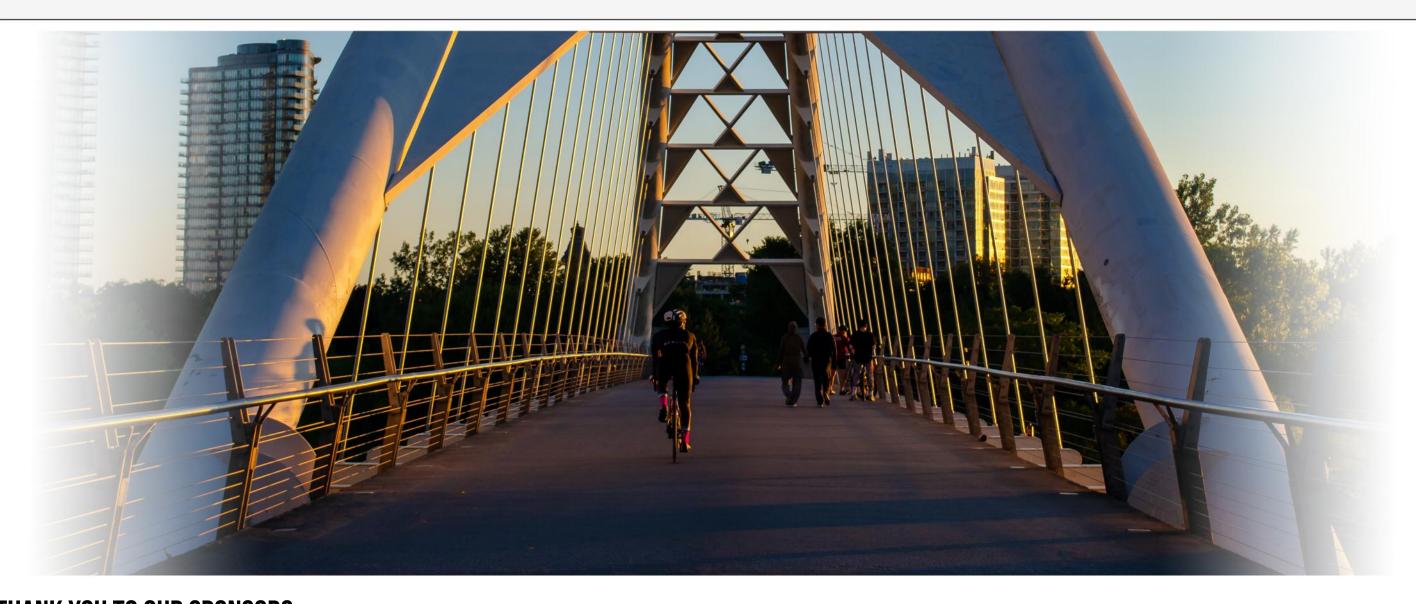






Item	Time	Торіс	Abstract	Participants		
Session 9: Need for Secure Infrastructure – Innovation & Climate Action (continued)						
9 (c)	3:20 pm - 3:50 pm	Quantitative Approaches	A Quantitative Approach to Carbon Life-Cycle Assessment and Decarbonization of Infrastructure Projects The built environment accounts for a significant amount of greenhouse gas emission released into the atmosphere. Managing the carbon impact of a project's construction, operation, and maintenance phases is critical to achieve net-zero emissions and mitigate further climate change. AECOM has contributed to reducing emissions in Ontario municipalities by recommending efficient approaches to decarbonization, including adopting zero emission vehicle fleets and reducing emissions in across assets. AECOM has the tools, methods, and resources to be able to quantify a project's life-cycle carbon emissions, serving Canada's ongoing need to decarbonize our infrastructure and construction sectors.	Moderator: Hayley Austin Environmental Assessment Planner, Stantec Presenters: Fabianna Palacios Air Quality Specialist, AECOM Canada Inc Master's Student, University of Manitoba		
9 (d)	3:50 pm - 4:15 pm	Climate Emergencies	Coastal Zone Mitigation and Adaption Infrastructure: Can Federal las Help? Infrastructure projects on freshwater and marine coasts are critical to climate change adaption strategies, and impact assessment is vital planning tool to assure sustainable development goals are being met. Provision for IAs for such projects are normally covered under the category 'Projects on Federal Lands'. However, such IAs differ significantly from IAs for 'designated projects. This paper briefly reviews those differences and reports on research from Atlantic Canada to suggests why this places a problematic limitation on the role of IA for supporting adaption strategies in coastal environments.	Moderator: Hayley Austin Environmental Assessment Planner, Stantec Presenters: lan Gordon Stewart Doctor, University of King's College		

4:15 PM - 4:30 PM: Q & A with Elaine, Faiza, Lisa, Jet, Brendan, Fabianna & Ian



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1 (A) ARE IMPACT & ENVIRONMENTAL ASSESSMENTS STILL HARMING INDIGENOUS PEOPLES?

Gary Pritchard Giniw (Golden Eagle) is an adjunct professor at Carleton University and Conservation Ecologist & Indigenous Placemaker from Curve Lake First Nation. As the owner of Four Directions of Conservation Consulting Services has had the privilege to work on behalf of Indigenous peoples in almost 300 communities throughout Canada and northern United States. He brings expertise in land-use/traditional knowledge studies, Indigenous lead conservation/restoration, Ecological Monitoring using Two-eyed Seeing, and Indigenous Place-making. He believes that if individuals can form a connection with nature, they can make conscious decisions on how we impact Mother Earth and the next seven generations.

1 (B) THE CHANGING LANDSCAPE OF MEANINGFUL INDIGENOUS ENGAGEMENT

Sandy Nairn, MCIP, RPP is HDR's Environmental Sciences and Planning Director in Canada. Sandy has 30+ years of experience in the environmental planning field in both the public and private sectors. He has led over 100 Impact Assessment (IA) studies ranging from integrated sustainable master plans to LRT transit projects to highly contentious new highway projects. Sandy has provided expert advice to clients on IA process, policy development and EA Audits. Sandy is also an active member on the Board of Directors for OAIA and has been on the Conference Planning Committee for the last several years.

Janine Ralph is HDR's Cross Sector Manager for Canada, covering Environmental Sciences and Planning, Strategic Communication and Sustainability and Resiliency services. She has over 25 years of experience delivering environmental impact assessments, permitting processes, strategic planning and policy initiatives and community engagement processes, with a focus on energy, waste, and rail related projects on behalf of both public and private sector clients. This has included major infrastructure projects including trans-boundary power lines and trans-boundary railway lines. Her experience encompasses Provincial regulatory frameworks in Ontario and Alberta, as well as Federal IAA and CER processes.

2 (A) RESEARCH AND INNOVATION IN IMPACT ASSESSMENT

Michael Grassie is the Manager of Science & Research at the Impact Assessment Agency of Canada (IAAC). He has a Bachelor of Science in Physical Geography, minor in Earth Sciences (Geology) from Carleton University. He has been with the Agency since 2016 and has contributed to the review of federal environmental assessment processes leading to the establishment of the Impact Assessment Act, supported the evolution of the organization from "CEAA" to "IAAC", and currently manages the research program along with other Agency initiatives including the Technical Advisory Committee, Scientific Integrity Policy, and External Technical Reviews.

Jenna Wolno is an Operational Policy Officer at the Impact Assessment Agency of Canada (IAAC). Her passion lies in working at the intersection of people and their environment. She holds a B.A. in Biology and Research Specialist Psychology and a Master of Environmental Science with specializations in conservation and biodiversity. Jenna has worked in both private practice and government to provide research and regulatory support for stakeholders participating in impact assessment. Currently, she the co-lead of the IAAC's research program and is the acting liaison for the IAAC's Technical Advisory Committee's biodiversity subcommittee.

2 (B) CASE STUDY IN HIGHWAY EXEMPTIONS - DO THEY MEET THE GOALS OF IA

Laura Bowman is a lawyer at Ecojustice Canada in Toronto. She represents environmental groups, First Nations and community groups at all levels of court in judicial reviews. She is on Ecojustice's Healthy Communities team and has an interest in the inter-relationship between sprawl, food systems and toxics. She has a Juris Doctor from the University of Toronto and a Masters in Law from Osgoode.

2 (C) PRINCIPLES AND GUIDANCE FOR ASSESSING AND SAFEGUARDING BIODIVERSITY THROUGH PROJECT ASSESSMENT UNDER THE IMPACT ASSESSMENT ACT

Anna Johnston, BA, LLM, is a staff lawyer at West Coast Environmental Law, where she works on environmental impact assessment, cumulative effects, constitutional, biodiversity and climate law. She co-chairs the Environmental Planning and Assessment Caucus of the Canadian Environmental Network and is a member of the Minister's Advisory Council appointed to advise the federal Minister of Environment and Climate Change in implementing the Impact Assessment Act.

Dr. Justina Ray has been President and Senior Scientist of Wildlife Conservation Society Canada since its incorporation in 2004. In addition to overseeing the operations of this non-governmental organization, Justina is involved in research and policy activities associated with conservation-based planning, impact assessment and biodiversity conservation, with a particular focus on mammals in northern boreal landscapes. Justina is Adjunct Professor at the University of Toronto in two departments and Trent University.

2 (D) NATURAL RESOURCES CANADA'S SELECTING TERRESTRIAL AREAS INITIATIVE: PRIORITIZING STUDY AREAS TO CONDUCT CUMULATIVE EFFECTS (CE) RESEARCH TO SUPPORT THE POTENTIAL NEED FOR SCIENCE, TECHNICAL ADVICE, AND KNOWLEDGE IN RESOURCE DEVELOPMENT PROJECTS

Brian Eddy is a research scientist with the Atlantic Forestry Centre (AFC), Natural Resources Canada in Corner Brook, NL. His research involves Ecosystem-based Management (EBM), Adaptive Management (AM), climate change impacts, and human dimensions of natural resource development and resource reliant communities.

Christina Clarke is a Team Lead in the Impact Assessment Division at Natural Resources Canada in Ottawa, Ontario. She coordinates the departmental involvement in regional and strategic assessments as well as departmental participation in federal cumulative effects' initiatives.

Alison Milan (she/her/they/them) joined the public service through PARDP in 2018 following their Master of Science in Geography from York University. She previously worked for the Green Infrastructure Program in NRCan's Office of Energy Research and Development and in a policy role with the Indigenous Forestry and Bioheat division of CFS.

3 (A) SUSTAINABLE INFRASTRUCTURE PLANNING AND DELIVERY: A DIGITAL TRANSFORMATION

Rayna Carmichael is the Digital Lead for Environment within Canada. She is also the GIS manager for Ontario & Western Canada. She has over 16 years of experience within the AEC industry specializing in GIS project management. With a keen understanding of how data moves within all sizes of projects she has supported a diverse range of development projects from remediation to renewable energies, transportation to subwatershed planning. Rayna's experience has led her to be a strong advocate for leveraging digital initiatives to greatly improve decision making and communication at all levels of a project.

3 (B) ADVANCING DIGITAL TECHNOLOGIES TO IMPROVE THE REGULATORS PLAN INPUT AND REVIEW COMMENTING SYSTEM

Mark McKnight is the Chief Information Officer at TRCA. He has worked and consulted in municipal government and public sector services for over 25 years. Mark has implemented corporate systems and technology solutions in asset management, business intelligence, information and records management, ERP systems, and customer engagement. He is currently leading multiple digital transformation initiatives at TRCA. Mark holds degrees in business from Wilfrid Laurier University (BBA) and York University (MBA).

Beth Williston is the Associate Director of Infrastructure Planning and Permits with TRCA. She has worked as an environmental planner with the Toronto and Region Conservation Authority for the past 33 years. She has worked as a conservation land management planner, watershed planner, and as a development review planner. Currently, Beth manages partnerships with infrastructure builders from across the GTA and ensures her department provides streamlined review of projects and permits through the environmental assessment and TRCA regulatory review processes. Beth holds a degree in Geography, with a specialization in Urban Development from the University of Western Ontario. Beth is also President of the Ontario Association of Impact Assessment (OAIA).

4 (A) FOCUSING IMPACT ASSESSMENT ON KEY ISSUES

Brian Giles is a Senior Policy Analyst working for Quality Systems Management for the Impact Assessment Agency of Canada, with a focus on developing guidance and processes to promote national constituency in conducting impact assessments. He has an MSc in Biology from the University of Ottawa, and has worked for 15 years for the Government of Canada on environment and health issues.



4 (B) EARLY PERMITS, LICENCES, APPROVALS AND AGREEMENTS (PLAA) COLLABORATION WITHIN ENVIRONMENTAL IMPACT ASSESSMENTS

Mir Talpur has nearly 10 years of experience in conducting and leading environmental assessments and navigating regulatory processes for the acquisition of permits, licenses, approvals and agreements for a wide range of infrastructure projects, including municipal infrastructure (transportation, wastewater and stormwater), energy / power infrastructure, and federal property development. Mir has comprehensive understanding of federal, provincial, municipal, and other regulatory legislation and policies. As a strategic thinker, Mir works with multidisciplinary teams to develop strategies and deliver solutions to move projects forward, ranging from concept through to construction phases. Mir's work also involves regulatory, public, and stakeholder engagement and advancing reconciliation efforts by supporting project proponents to carry out meaningful engagement with the Indigenous Nations as part of Duty to Consult process.

Catherine Gentile is a Senior Environmental Planner and Environmental Impact Assessment Team Lead with 15 years of experience applying environmental planning policies, such as the Ontario Environmental Assessment (EA) Act, the Municipal Engineers Association's Municipal Class EA, the Federal Impact Assessment Act, MTO's Class EA for Provincial Transportation Facilities, and the Transit Project Assessment Process (TPAP, Ontario Regulation 231/08), to over 40 transportation and infrastructure projects. Ms. Gentile manages the WSP Transportation Environmental Impact Assessment Team who specializes in Transportation EAs for MTO and Municipalities, TPAP work for Metrolinx and TTC, Federal Impact Assessments, and Consultation and Engagement work.

5 (A) OPPORTUNITIES FOR MAXIMIZING INDIGENOUS LEADERSHIP IN THE IMPACT ASSESSMENT PROCESS

Christine Greenaway is the Associate Regional Director currently at the Impact Assessment Agency of Canada for Ontario Region. Prior to assuming this role, for several years, Christine has been a Team Leader managing a team of professionals working on several projects. Earlier in her career, Christine was a Project Manager at the Agency. Prior joining the Agency Christine worked for the Province of Ontario at the Ontario Ministry of Natural Resources.

5 (B) WHAT DOES THE BLUEBERRY RIVER DECISION MEAN FOR NEXT GENERATION IBAS?

Julie Abouchar, B.Sc. (Hons.), LL.B., B.C.L., LL.M., Partner at Willms & Shier Environmental Lawyers LLP and Certified Environmental Law Specialist and Indigenous Legal Issues Specialist by the Law Society of Ontario. Julie has a substantial Indigenous legal issues practice working with industry, municipalities and First Nations. She advises on the duty to consult and negotiates benefit agreements. She served as Assistant Commission Counsel at the Walkerton Inquiry, was Legal Advisor to the Expert Panel on Regulating Safe Drinking Water on First Nations. Julie is called to the Bar in Ontario, New Brunswick, Northwest Territories and Nunavut.

6 (A) INDIGENOUS LEAD EAS – THE GOOD, THE BAD AND THE UGLY. THE STORY OF HOW 3 INDIGENOUS LEAD EA'S HAVE EVOLVED AND SOME OF THE CHALLENGES AND OPPORTUNITIES ENCOUNTERED

Michael Fox is the President of Indigenous & Community Engagement (ICE) Inc., located in Fort William First Nation, Ontario. ICE is a 100 percent Aboriginal-owned firm and is one of Canada's leading Indigenous firms specializing in community-based research, assessment and capacity building, and community engagement and development. As the President of ICE, Michael has played a pivotal role in facilitating Indigenous corporate development, governance training, management reviews and needs assessments across Canada. Michael holds an MBA from the University of Fredericton and has extensive experience working with Indigenous organizations through his professional and volunteer work.

Qasim Saddique is the Principal Consultant of Suslop Inc., which is a Toronto-based consulting firm that specializes in high-level research, strategic planning, project management, community engagement and stakeholder negotiations. Qasim has over 15 years of research, consulting, teaching and mentoring experience with Indigenous communities, industry and not-for-profit organizations. He is also completing a PhD in Strategy and Policy at the Schulich School of Business where he has been a lecturer since 2016. His academic research focuses on the maximization of socio-economic impact and development in Indigenous communities through novel public policy and private enterprise.

6 (B) CONNECTING THE ARCTIC: INUIT-LEAD SUBMARINE CABLE ROUTING & FEASIBILITY STUDY

Ryan Doyle (MCIP, RPP, EP) leads HDR's Environmental Sciences and Planning group for Eastern Canada. Ryan is a Senior Environmental Planner and EA practitioner with over 23 years industry experience leading environmental planning and impact assessments, permitting & compliance, and engagement programs for complex private and public projects for energy, waste, water, transit and transportation. Ryan has extensive experience with federal, provincial, and municipal approvals processes in addition to leading engagement programs with public, agencies Indigenous peoples and communities, and other stakeholders.

Sarah Zappala has led the feasibility, siting, permitting and compliance monitoring for transmission, infrastructure and renewable energy projects. She has prepared a number of critical issues assessments, Environmental Impact Statements and Environmental Assessments and licensing for Certificate of Environmental Compatibility and Public Need. She specializes in project pre-development routing and developing permitting strategies to evaluate feasibility, data gaps and needs for project development.

Alison Williams is an Intermediate Environmental Planner with 8 years of experience in environmental planning and impact assessments, compliance, risk management, and stakeholder engagement. Her experience includes projects for municipal, provincial/territorial/state, and federal clients, as well as the private sector across Canada and the United States. Alison has had the opportunity to consult in a wide range of industries including but not limited to transportation, energy; construction; waste management; trans loading; chemical manufacturing; and metal fabrication.

7 (A) USING VIRTUAL SOUND DEMONSTRATIONS TO DEMONSTRATE CHANGES IN NOISE TO COMMUNITIES

Brian Bulnes is an acoustic engineer working with AECOM with 9 years of experience in acoustic modelling, measurement, and reporting for transportation, environmental, and architectural projects. His experience includes working on projects throughout the different phases of development, from planning and environmental assessment, preliminary design, and detailed design. With many projects, he has been tasked with communicating the potential ramifications of noise and vibration impacts to clients, stakeholders, and public regulators. As such, Brian has worked on increasing the use of virtual auralization in the acoustics field in Canada to help assist these communication efforts.

7 (B) THE ROLE OF EARTH OBSERVATION DATA IN DECISION-MAKING AROUND CLIMATE RESILIENT INFRASTRUCTURE

Grace Saunders-Hogberg is the founder of Veritas Terrae, a drone service company that specializes in environmental management. Previously, she worked as a Water Risk Consultant and is published in academic and trade journals. Early in her career, she worked with the Ministry of Transportation and Highways in British Columbia. Grace is an active member of AmeriGEO, and organization focused on advancing Earth observations and technologies and applications in the Americas. She holds a Master's degree in Land Use Planning from Toronto Metropolitan University (formerly Ryerson Polytechnic University).



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7 (C) A WATER-CENTRIC MODEL FOR IMPACT ASSESSMENT PLANNING: RECONSIDERING ENVIRONMENTAL-CULTURAL FLOWS IN DEVELOPMENT DECISION-MAKING IN CANADA THROUGH GROUNDED THEORY

Nathanael (Nat) Bergbusch, has a PhD candidate in the School of Environment, Resources and Sustainability at the University of Waterloo. Nathanael grew up in the Canadian prairies, where he completed a master's degree in freshwater science. Nathanael identifies as a "white, cisgender, able-bodied male of settler descent and hopes to be a natural and social scientist who actively works towards reconciliation, water justice, and conservation". His PhD research was created with the Lands, Resource, Environment, and Stewardship Department of File Hills Qu'Appelle Tribal Council and is a combination of water and rights-based projects.

8 (A) CONDUCTING ENGAGEMENT IN HEALTH IMPACT ASSESSMENTS

Ms. Elaine Larocque is an Environmental Risk Analyst at Intrinsik. She completed her Master of Science in Environmental Science at the University of Toronto in 2020 and her Honours Bachelor of Science at UofT in 2019. Ms. Larocque focuses on conducting Health Impact Assessments (HIAs). She works to identify/communicate how various determinants of health are impacted by projects and polices. She provides support when conducting scoping workshops and engaging with communities, non-profit and government stakeholders. Projects include various transportation projects within Ontario, resource development in British Columbia as part of the BC EA process, and a climate change and health vulnerability assessment in the Northwest Territories.

Dr. Faiza Waheed is the Health Impact Assessment Lead and an Environmental Health Scientist at Intrinsik. She specializes in the use of the HIA framework as it applies to major infrastructure and resource development projects, as well as in applying a Gender-Based Analysis Plus approach. Faiza has co-authored guidance documents for Health Canada for federal Impact Assessment projects and also for the Ontario Ministry of Transportation for assessing health in major new projects. Faiza is also the co-chair of the Ontario Public Health Association's built environment and health working group.

9 (A) ASHBRIDGES BAY LANDFORM: WORKING WITH STAKEHOLDERS FOR INNOVATIVE SOLUTIONS

Lisa Turnbull is the Associate Director of the Professional Services team at Toronto and Region Conservation Authority. She is responsible for leading and overseeing multidisciplinary teams and internal services, providing strategic direction to enable successful planning and implementation of special projects.

Jet Taylor is a Senior Manager, Erosion Risk Management with Toronto and Region Conservation Authority and oversees TRCA's waterfront flood and erosion mitigation teams. The Waterfront portfolio handles the repair and maintenance of TRCA's network of 233 permanent shoreline erosion control assets and also undertakes large scale waterfront erosion related projects for TRCA's regional and municipal partners.

9 (B) EMPLOYING QUALITATIVE METHODS FOR ASSESSING IMPACTS OF MAJOR PROJECTS IN CANADA

Brendan Middel is completing his Master's thesis at the University of Manitoba under the tutelage of Dr. John Sinclair. His background is a Bachelor of Science in Environmental Studies with a concentration in Biology. Outside of research you can find Brendan long-distance running, birding, or cycling in the North Saskatchewan River Valley. He is looking forward to beginning his career in the field of impact assessment and one day working abroad.

9 (C) A QUANTITATIVE APPROACH TO CARBON LIFE-CYCLE ASSESSMENT AND DECARBONIZATION OF INFRASTRUCTURE PROJECTS

Fabianna Palacios, Environmental engineer graduate with 1.5 years of experience in air quality compliance and air dispersion modelling for transportation related projects using CALROADS, MOVES, and AERMOD to estimate the emissions emitted from sources and its contaminants of concern in a particular study area to be able to perform an air quality impact assessment for future projects.

9 (D) COASTAL ZONE MITIGATION AND ADAPTION INFRASTRUCTURE: CAN FEDERAL IAS HELP

lan Stewart is an Associate Professor of Humanities who specializes in the history and philosophy of science and technology, and the philosophy of environmental management. He has a BSc in Physics, and MA (Toronto) in History and Philosophy of Science and a PhD (Cambridge) in the same field. Recently Ian has been co-director of the IAAC and SSHRC funded project Advancing Impact Canada's Assessment for Social-Ecological Systems, and co-organizer of the Network of Expertise and Dialogue on Impact Assessment (www.nedia.ca). Publications and presentations have focused on the role of IA in coastal and marine contexts for advancing sustainable development.







