DILLON CONSULTING

NUNAVUT NUKKIKSAUTIIT CORPORATION

IQALUIT NUKKIKSAUTIIT PROJECT REGULATORY AND ENVIRONMENTAL CONSULTANT

April 21, 2025

Submitted by Dillon Consulting Limited
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April 21, 2025

Nunavut Nukkiksautiit Corporation,
200 - 5300 Qulliq Court,
Iqaluit, NU,
X0A 2H0.

Attention: Jillian Byrne, Project Manager, Development, Nunavut Nukkiksautiit Corporation

Proposal for Iqaluit Nukkiksautiit Project Regulatory and Environmental Consultant

Dillon Consulting Limited, in partnership with Sikumiut Environmental Management Limited and EcoLogic Consultants Ltd., is pleased to submit our proposal for the Iqaluit Nukkiksautiit Project Regulatory and Environmental Consultant role. We appreciate the opportunity to support Nunavut Nukkiksautiit Corporation (NNC) in advancing this transformative renewable energy initiative and ensuring a thorough, efficient, and compliant regulatory process.

Our Team brings extensive experience in environmental impact assessments, permitting, and Indigenous engagement, with a proven track record of delivering successful projects in Northern Canada. We are committed to guiding NNC through the permitting and approvals process, meeting all regulatory requirements while integrating Inuit Qaujimajatuqangit and fostering meaningful community participation.

We have carefully reviewed the Request for Proposals (RFP) dated February 12, 2025 and all subsequent addenda and have structured our submission to align with its objectives and requirements. Dillon confirms compliance with the Workers Compensation Act in Nunavut, and we confirm to adhere to regulatory requirements as outlined in the RFP.

We look forward to the opportunity to collaborate with NNC and contribute to the success of this critical project. Should you require any additional information or clarification, please do not hesitate to contact us.

Sincerely,

DILLON CONSULTING LIMITED

Michelle Roche, EP, RPF.
Associate

Our file: MN92EM1-004-01 [509071]

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Dillon Consulting Limited

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Proponent's relevant qualifications and related project experience.	✓	Refer to **Section 3 – Details about the Proponent Company** Refer to **Section 17 – Qualifications and Related Project Experience**
Identification of project team and lead personnel responsible for delivery of the work.	✓	Refer to **Section 12 Key personnel and Appendix C - Resumes**
Proposed methodology, approach, work plan, and schedule to meet required deliverables detailed in this RFP.	✓	Refer to **Section 4 – 8 for detailed methodology, approach, work plan, and schedule**
Plan for Inuit Participation in the scope of work.	✓	Refer to **Section 11 Inuit Participation**
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Proponent's Health, Safety, and Environment statistics for last three (3) years, including confirmation to comply with the Workers Compensation Act in Nunavut.	✓	Refer **to Section 3 – Details about the Proponent Company and Section 14 Proponent's Health, Safety, and Environment statistics**

1. VALUE PROPOSITION

1.1 WHY US? THE TEAM CANADA ADVANTAGE

The Iqaluit Nukkiksautiit Project is a bold move toward renewable energy, energy independence, and Inuit-led development. It demonstrates the capability to plan and build large-scale projects in Northern Canada. This initiative will serve as a model for future generations, showing that complex projects can support Indigenous growth, combat climate change, and highlight Northern Canada's immense potential.

"A Team Rooted in Expertise and Local Knowledge - we are Bringing the Best of Canada to Nunavut"

Success in the North goes beyond meeting regulations; it's about building meaningful relationships, benefiting communities, and aligning with environmental and cultural values. Our Team is dedicated to collaborating with NNC to make the Iqaluit Nukkiksautiit Project a model of sustainable development, where economic opportunity and environmental stewardship are closely intertwined, reinforcing and enhancing each other's success.

Building a large hydroelectric project in Northern Canada and in this environment is attainable with the right expertise and resources, and our Team is uniquely equipped to navigate the region's challenges. We bring extensive experience in managing remote, complex projects, and we are committed to guiding you every step of the way, ensuring the successful realization of your vision. With our support, your planned outcome is not just possible—it's within reach. Our Team plans with that outcome in mind.

THE IDEAL TEAM TO TURN VISION INTO REALITY – "TEAM CANADA"

Dillon Consulting Limited (Dillon), EcoLogic Consultants Ltd. (EcoLogic), and Sikumiut Environmental Management Limited (SEM) have formed a powerhouse team, combining expertise in environment, regulation, and community engagement to support the NNC in delivering this transformative project. You will benefit from the experience, dedication, commitment to customer service, flexibility, and adaptability of our combined team. We bring you three proudly Canadian, strong, and employee-owned firms dedicated to the growth of Canadian projects and Indigenous communities especially in Northern Canada.

Dillon Consulting Limited (Dillon) will serve as the prime consultant, supporting the regulatory approvals process in developing the Environmental Impact Statement (EIS), and managing strategic environmental planning. With decades of experience in northern environmental management, Dillon brings a thorough understanding of Nunavut's regulatory landscape and permitting challenges, providing every step of the approval process is well-coordinated, efficient, and proactive. EcoLogic will play a critical role in baseline environmental data collection and analysis, leveraging existing datasets and local knowledge to support the regulatory submissions and streamline the assessment process. SEM, with its expertise in Indigenous engagement and capacity building, will support NNCs' efforts to integrate Inuit Qaujimajatuqangit and community-driven decision-making, strengthening the project's foundation in local knowledge and priorities as well as navigate the permitting process.

Team Canada has a proven track record of working seamlessly together, and we're ready to hit the ground running, ensuring a smooth and efficient project launch on day one. We've assembled a strategic team that's specifically designed to minimize overlap and promote maximum efficiency, allowing each member to focus on their area of expertise. By acting as a highly capable and cohesive unit, we'll work collaboratively to turn this Project into a successful reality.

By leveraging our collective regulatory knowledge, environmental expertise, and longstanding relationships with northern communities and government agencies, we will navigate the Nunavut Planning and Project Assessment Act processes, permitting requirements, and impact assessments with efficiency and precision. This partnership embodies a collaborative and solutions-oriented approach, bringing together national expertise with local, Inuit-led perspectives to drive a sustainable, community-focused energy transition for Iqaluit. With our deep knowledge and experience, we can prioritize studies effectively, ensuring we focus on what truly matters while reducing the need for unnecessary assessments or studies. This approach allows us to streamline the process, putting the development of the project at the forefront and aligning our collective expectations to achieve a successful and timely outcome.

TEAM CANADA'S APPROACH: STRENGTH IN COLLABORATION

Our approach ensures active client engagement at every stage, fostering direct collaboration, open communication, and alignment with your goals. By working closely together, we'll drive the successful development of the project. We'll involve regulators early, focusing on goal setting and efficiency to streamline development and keep the process on track.

Team Canada Approach

Dillon's Regulatory Leadership

Dillon's Regulatory Leadership streamlines community-driven project approvals.

Regulatory Excellence

Ecologic's Environmental Assessments

EcoLogic's expertise in impact assessment programs in Nunavut

SEM's Community Engagement

SEM's Community Engagement ensures Indigenous values guide development.

Inuit Local Support

Our approach prioritizes Inuit-led development by fostering local capacity, integrating local support into decision-making, and ensuring long-term benefits

The success of the Iqaluit Nukkiksautiit Project lies in our collaborative team: Dillon, EcoLogic, and SEM. Together, we combine regulatory expertise, environmental stewardship, and Indigenous-led development to ensure the success of the project.

Dillon leads regulatory approvals, Environmental Impact Assessment (EIA), and environmental planning, streamlining the process with decades of northern experience. EcoLogic drives data collection and analysis, ensuring accurate and efficient regulatory submissions. SEM ensures meaningful Indigenous engagement, integrating Inuit Qaujimajatuqangit and community priorities into the project.

Our partnership offers a low-risk, high-value solution, leveraging regulatory knowledge and local collaboration to deliver a sustainable, clean energy future for Iqaluit.

VALUE IN UNDERSTANDING AND PROTECTING THE ENVIRONMENT

Iqaluit's environment is as fragile as it is beautiful, requiring a thoughtful and science-driven approach to development. Team Canada (the Team) brings deep expertise in assessing and mitigating potential project impacts, managing environmental risks while maintaining regulatory compliance. The Team will apply industry-leading knowledge and innovative solutions to protect biodiversity and support sustainable development in the North. The Team provides specialized expertise to assess the following:

	Air Quality	Developing strategies to minimize emissions and protect air quality.
	Climate and Meteorology	Understanding local weather patterns to inform project design and risk mitigation.
	Noise and Vibration	Ensuring that project activities do not disrupt wildlife or community well-being.
	Terrestrial Environment	Protecting land-based ecosystems, including permafrost stability, sensitive ecosystems and traditional-use plants.
	Geological and Geochemical Features	Evaluating soil, bedrock, and mineral composition to inform site suitability.
	Hydrology and Hydrogeology	Assessing groundwater and surface water impacts.
	Sediment and Water Quality	Monitoring potential disturbances to aquatic environments.
	Freshwater and Marine Ecosystems	Providing protection of fish habitats, marine life, and biodiversity.
	Wildlife and Habitat Conservation	Supporting the preservation of key species, with a focus on Barren-ground Caribou

EMPOWERING SUSTAINABLE GROWTH AND COMMUNITY BENEFITS

Beyond the physical environment, the Project has the potential to generate meaningful economic and social benefits. Our team works to maximize these opportunities while mitigating risks to local communities by providing support in:

- **Economic Development and Employment** – Creating pathways for local job growth and workforce development. Identifying opportunities for involvement of Inuit and Qikiqtani-based personnel by integrating them into key project tasks, providing hands-on experience, and supporting career development through mentorship and training opportunities. A detailed overview of assigned roles and responsibilities will be provided to NNC as the EIA scope is developed, including technical support in fieldwork (e.g., environmental monitoring, wildlife surveys, and data collection), logistical coordination and engagement in regulatory and community consultation activities;

- **Education and Training** – Support career development by providing scholarship funding through Nunavut Arctic College, along with skills training programs, to equip Iqalummiut with the expertise needed to participate in and benefit long term from the Project;
- **Indigenous and Local Business Opportunities** – Facilitating meaningful partnerships and procurement strategies, including opportunities for Inuit-registered firms to participate in the project: for example, we will use Nuna Logistics to source local technicians that will work on all field programs;
- **Land Use and Cultural Heritage** – Integrating Inuit Qaujimajatuqangit, or Inuit societal values, and protecting areas of cultural significance; and
- **Health and Wellbeing** – Supporting development that enhances, rather than disrupts, community health.

2. PROPONENT'S COMMERCIAL INFORMATION

DETAILS OF PROPONENT COMPANY	
Legal name.	Dillon Consulting Limited
Authorized Representative.	Indra Kalinovich, B.Sc.(HONS), Ph.D., C.CHEM., P.Eng., FEC Email: ikalinovich@dillon.ca 204-453-2301 x4053
Address.	4920- 52nd Street, Suite 403, Yellowknife Northwest Territories, Canada, X1A 3T1
Type of business organization (Ltd., Private, wholly owned subsidiary, etc.).	Corporation
Place of registration.	Ontario
Date business founded.	1946
Confirmation whether the company is registered to do business in Nunavut.	Yes (ET11703) – Refer to **Appendix A** for the registration Certificate

3. DETAILS ABOUT THE PROPONENT COMPANY

Dillon Consulting Limited (Dillon) (www.Dillon.ca) is a **Canadian, employee-owned, professional consulting organization** that has been providing services to communities and governments in Canada for more than 75 years. We have built a reputation for client focus and technical excellence that has earned us the respect of both clients and peers as a trusted advisor in the areas of environmental and risk management planning, land use planning, engineering, science and technology, and project management since 1946.

Dillon has been recognized as one of Canada's 50 Best Managed Companies for 18 consecutive years as well as one of Canada's 50 Best Employers and one of Canada's Green 30 companies. Internationally, Dillon has been recognized as one of ENR's Top 200 Environmental Firms worldwide. Partnership is the core philosophy that drives our business. It is reflected in both our approach to client relationships, and in our willingness to participate in joint ventures with other consultants in the field, if that means a more successful solution for our client.

We are recognized as an industry leader in the excellence of our work and the value we provide to clients.

Dillon operates from 20+ regional offices located across Canada, including an office in Yellowknife, NT. Dillon has a long history working with First Nation, Métis, and Inuit communities in northern Canada and across the country. We are proud of the services we have provided and the relationships we have built. We attribute much of our success in these endeavours with our ability to successfully collaborate with and engage community members in the work. As a client-centered firm, we operate as members of our clients' teams and encourage our clients to be an extension of ours. Additional corporate information can be found in Appendix A.

Figure 1: Dillon Office Locations

Partnership is the core business strategy that drives our firm. We strive to establish long-term relationships with our clients, to understand their needs, their strategies, the way they operate and what their customers and society expect from them. As a client-focused organization, we operate as members of our client's team, ensuring that innovative solutions are applied to their problems expeditiously and cost effectively.

Dillon regularly undertakes large, multi-disciplinary projects requiring expertise in a wide range of environmental and socio-economic disciplines. Our staff is experienced in working within integrated project teams although Dillon specialists also undertake small projects in their own particular area of expertise, often as individual consultants to a client, or as members of small project teams. We encourage our staff to seek out such opportunities to apply their special knowledge, ensuring they remain at the forefront of their respective disciplines. Specifically, we have a full suite of professionals in the following fields of practice:

- Waste Management & Remediation Solutions;
- Geoscience and Contaminated Sites;
- Environmental Management and Atmospheric Services;
- Water Resources;
- Water & Wastewater Systems Design;
- Natural Environment Management;
- Buildings and Facilities Design;
- Municipal Engineering;
- Landscape Architecture & Environmental Design;
- Planning & Development Strategies;
- Transportation Engineering; and
- Transportation Systems Planning.

Any time a project team recognizes a critical issue, they can draw upon an experienced group of professionals from multiple disciplines to provide expert insight. Our company structure has been developed to provide for a culture of cooperation across the firm. Staff from multiple offices often work on

a single project, supported by a robust corporate services group. Many of our clients tell us that our ability to bring the appropriate expertise to a project, where and when needed, is unique and refreshing.

3.1 AWARDS AND CORPORATE SUSTAINABILITY

Our Commitment to Sustainability:

- Implementation of a Corporate Sustainability Strategy that includes over 30 specific environmental and social initiatives
- Maintained carbon neutrality since 2010
- Over 70 LEED Accredited Professionals

We have been recognized on the Green 30 List for being one of the top green employers in Canada. While many consulting firms follow their clients in the area of environmental stewardship, in recent years Dillon has helped lead the way, both with and for our clients. Several years ago, we took steps toward "greening" our operations through an environmental stewardship policy and a commitment to buy green power. Most of our offices were quick to embrace green measures and have established office committees to develop innovative green initiatives to promote energy and waste reduction.

ACCOLADES/AWARDS

CANADA'S BEST MANAGED COMPANIES Platinum member

AWARDS

Recognized for 18 years in a row	BEST MANAGED COMPANIES OF CANADA
2023 Sustainable Development Award, Collins Creek, Wildlife Mitigation Project	ASSOCIATION OF CONSULTING ENGINEERING COMPANIES - ONTARIO
2023 Waste Award, Food Material Flow Study in Guelph-Wellington	FEDERATION OF CANADIAN MUNICIPALITIES, SUSTAINABLE COMMUNITIES AWARDS
Top 200 Environmental Firms	ENGINEERING NEWS RECORD
2023 Outstanding Workplace of the Year	RICHMOND CHAMBER OF COMMERCE
Award of Excellence + Special Outreach Award for the Million Meals and Counting Campaign	CANADIAN CONSULTING ENGINEERING AWARDS

Our Corporate Sustainability Strategy sets environmental targets and clarifies roles related to sustainable solutions, reducing the environmental impact of our business in three key areas: greenhouse gases, water and waste. We are currently implementing over 30 specific initiatives to reduce the impact of our operations. As a company, we have maintained carbon neutrality since 2010. Other activities include expanding our knowledge and capacity for sustainable solutions, assisting staff in achieving LEED Accredited Professional designations and working with clients to support sustainable solutions. Many organizations have strategies and policies. We believe the Dillon difference is in taking concrete actions that reduce our environmental footprint. **Our goal is to "walk the talk."**

Dillon appreciates and recognizes the GN's commitment to sustainable development. Dillon will work with the GN's Project Team to complete all work associated with this SOA in a sustainable manner, through the following activities:

- Double-siding printed documents and use of Ecologo^{M} certified recycled paper or paper with equivalent post-consumer recycled content;
- Reviewing reference materials and documents electronically as possible;
- Minimizing the use of plastic binding materials;
- Providing deliverables electronically where practical; and
- Undertaking meetings by teleconference when appropriate.

Our vision is to be recognized by Dillon's key rightsholders – our owners, employees, clients, and the public – for our pursuit of excellence in corporate social responsibility. Our commitment to conduct our operations in an environmentally conscious and socially inclusive fashion influences our strategy for sustainable growth. We recognize

the important role that our operations play in achieving a culture of sustainability – both in the services we provide and the way we do business – and have developed this policy accordingly. - Dillon's CSR Policy

We believe that true partners work together, leveraging each other's strengths to achieve results. As a testament to our excellence in engineering and project execution**, Dillon Consulting Limited was honored with the 2024 Award of Excellence from the Association of Consulting Engineering Companies Canada for the Utilidor Replacement Project in Rankin Inlet, Nunavut.**

Rankin Inlet, a remote community on the west coast of Hudson Bay, relies on a rare Arctic water and sewer system originally constructed in the 1970s. Over time, this infrastructure has faced significant age-related deterioration and environmental challenges. To address these critical issues, the Government of Nunavut (GN) entrusted Dillon Consulting Limited with the design and implementation of system-wide upgrades.

Dillon's work focused on mitigating contamination risks, enhancing system reliability, and increasing capacity through innovative solutions tailored to the extreme Arctic environment. **By leveraging specialized Arctic design principles and remote capture technology**, the firm successfully delivered infrastructure upgrades despite the complexities of the region's challenging construction conditions.

Beyond design, Dillon's role extends to capital planning, risk management, construction administration, and ongoing advisory services, ensuring sustainable and resilient water and wastewater infrastructure for the community.

3.2 SUBCONSULTANT INFORMATION

3.2.1 EcoLogic Consultants Ltd

EcoLogic believes that the path of sustainability requires acknowledgement that wealth is not just economic; it is fundamentally the health of our environment and our communities. EcoLogic has five core values:

Everything starts with the land.

- EcoLogic attempts to infuse a land-based ethic into everything we do; and
- Adopting this ethic facilitates the development of long-term solutions.

We strive to inspire change.

- In each other, the communities where and with whom we work and our clients.

We assume that we can always do better.

- We challenge and critically evaluate the status quo.; and
- We stay current with the state of practice in our areas of expertise.

We are accountable for the decisions we make and the actions we take.

- In each other, the communities where and with whom we work and our clients.

We collaborate.

- This allows us to bring the best minds to bear on a given opportunity; and
- Valuable contributions can come from anywhere if you listen closely.

EcoLogic brings a proven team that is experienced and committed to providing the highest quality work in a cost- and schedule-sensitive manner. Our staff has extensive experience in environmental assessment, permitting, regulatory approvals, construction environmental monitoring, and GIS modelling and mapping, both in Nunavut and throughout Canada. We are accustomed to working on large, complicated projects with tight deadlines that must pass multiple levels of rightsholder and regulatory review. Many of the scientists at EcoLogic were key persons for the baseline, environmental impact assessment and permitting of the Back River Project. EcoLogic has been the prime consultant since 2017 on the Chidliak Diamond Project, first with Peregrine Diamonds and then DeBeers Canada. This project is located very close to the INP, so we have a deep understanding of the environmental and cultural issues that will be raised as this project moves forward.

Legal name: EcoLogic Consultants ltd
Address: 224-998 Harbourside Dr. North Vancouver, BC V7PO 3T2
Type of business organization (Ltd., Private, wholly owned subsidiary, etc.): Limited Company
Place of registration: BC
Date business founded: June 13, 2016
Confirmation whether the company is registered to do business in Nunavut: Business License Application has been submitted. Appendix A and B includes the WSCC clearance letter.

3.2.2 Sikumiut Environmental Management Limited (SEM)

Founded in 2002, Sikumiut Environmental Management Limited (SEM) was formed to respond to the demand for greater Indigenous representation in the world of environmental consulting. We've been responding to these needs ever since.

Our mandate is simple – as a multidisciplinary consulting firm based in Newfoundland and Labrador, we solve problems of any scale for companies, communities, and people. We help take our client's businesses to the next level with our cutting-edge technology, our network of professional employees and contractors, and our commitment to robust science, accessibility, and sustainability.

Since its formation, SEM has compiled an extensive work history on large and small projects throughout Atlantic Canada, Nunavut, and Sweden. Over the years, SEM's client portfolio has expanded to include almost every company involved in our province's rich natural resources sector. Our services have evolved to bring brilliant people and innovative technology to our clients, including virtual reality, 360-degree video, recruitment services, RPAS (drone) surveys, and media production, to name a few.

Dedication to the communities where we work, providing NL-based staff for projects, and delivering local and traditional content are core values at SEM. We give back to these communities, from Northern Labrador to Labrador West to St. John's – not only by providing local jobs, but by volunteering and participating in community initiatives. Our culture revolves around community inclusivity and engagement and achieving goals for our clients and their communities.

SEM's team is an agile, tight-knit team of experts. We employ highly educated and trained specialists who offer professional expertise in every project we undertake, regardless of scale. Our adoption of technology in applications that range from fieldwork to health and safety training allow us to maximize project efficiency (and profitability). We manage and deliver unprecedented analytic insights to back up our scientific findings. SEM has conducted a myriad of baseline studies, produced countless environmental assessment documents and has assisted with permitting and community consultations for clients in the mineral exploration, mining, oil and gas, and renewable energy sectors.

Legal Name: Sikumiut Environmental Management Limited
Business Address: 79 Mews Place, 2nd Floor, St John's, NL, A1B 4N2
Type of Business Organization: Wholly Owned Private Corporation
Place of Registration: Newfoundland and Labrador, Canada
Date of Business Founded: 2002
Registered to Do Business in Nunavut: Temporary Employer Status
SEM has earned a solid reputation for providing high-quality environmental consulting services in Newfoundland and Labrador, with a core focus on environmental approvals, baseline studies, permitting, and community consultations. We have an experienced team with a high degree of credibility in the environmental industry.
Locations: St. John's, Labrador City
Core Staff: 50 (seasonally growing to over 100 employees)

4. OUR UNDERSTANDING OF THE PROJECT

The Team understands that the primary objective of this Scope of Work is to secure all necessary environmental and regulatory permits and approvals to advance pre-construction activities for the Project. This includes managing the regulatory and environmental approvals process, meeting the requirements of the *Nunavut Agreement* (NA) and the *Nunavut Planning and Project Assessment Act* (NuPPAA), and integrating strategic environmental planning to support decision-making. The scope extends to the decision gate of "Does the concept make sense and should the Project advance to permitting?" within the phase gate structure, with preliminary planning for Phase 4 included.

The Team's approach draws on its experience with EIS frameworks from similar projects in Nunavut to align with regional expectations. The Technical Leads will collaborate to develop the Terms of Reference (ToR) in line with the EIS Guidelines, which will form the foundation for the project's impact assessment. These key documents will guide all aspects of the Nunavut Impact Review Board (NIRB) Screening and Review processes, defining the study areas, methodologies, and Valued Ecosystem Components (VECs) and Valued Socio-economic Components (VSECs) across categories, including:

- Human Environment – community well-being, cultural heritage, heritage resources, traditional land use and activities, socioeconomics, and human health; and
- Terrestrial Environment – ecosystems and vegetation, traditional and rare plants, migratory birds, terrestrial wildlife, special landscape features, and permafrost.
- Freshwater Environment – hydrology, hydrogeology, sediment quality, fish and fish habitat; and
- Atmospheric Environment – air quality, noise, and climate interactions.
- The Marine Environment may become relevant at later date. However, for this first year of studies we have not included marine studies as these are very expensive and potentially not relevant to the project (likely to be scoped out during the development of the ToR).

Each subject will be assessed based on potential project interactions, with technical studies designed to meet the requirements of the Nunavut Planning Commission (NPC), the Nunavut Impact Review Board (NIRB), the Nunavut Water Board (NWB), and other applicable Authorities Having Jurisdiction (AHJs).

Team members were key authors in the development of the ToR and EIS guidelines for the DeBeers Chidliak Project; our team thus brings a substantial "head start" when it comes to understanding the environmental setting, the issues with development and the likely scope of the EIS guidelines. We can thus tailor our baseline programs to address a very specific series of questions rather than taking a broad-brush approach, as would be required by a consultant that does not have specific experience at this time and this spatial area.

4.1 CONSULTATION AND ENGAGEMENT

Consultation and engagement will be embedded throughout the project rather than treated as a separate function. Engagement activities led by NNC will inform the identification of VECs and VSECs, refine impact assessment methods, and validate baseline findings. SEM will support NNC in engaging Indigenous organizations, Hunter and Trapper Organizations (HTOs), regulatory agencies, and local communities to integrate Inuit Qaujimajatuqangit into the assessment and the approach to environmental management.

This collaborative attitude will provide valuable insights into species distributions, land use practices, and culturally significant sites, strengthening the understanding of potential project effects.

4.2 PERMITTING AND REGULATORY STRATEGY

All regulatory approvals required, such as the water license for the river and reservoir or land use permits for construction of infrastructure and rights-of-way, cannot proceed until the Project has undergone review by the NPC and NIRB, the impact assessment process is completed, and NIRB has issued a Project Certificate. Early permitting work by SEM will focus on securing authorizations for baseline data collection, such as Government of Nunavut (GN) and Nunavut Research Institute (NRI) permits for research and camp use, and early-stage field activities. Primary regulatory applications will be initiated once the NIRB Review process is complete, ensuring a smooth transition between assessment and permitting.

5. YEAR 1 PLANNING AND EXECUTION

Year 1 efforts will focus on key planning activities to support the NPC conformity review and the NIRB screening and technical assessment. A Permitting Roadmap and a Permitting Register will be developed to define permitting pathways, establish timelines, and incorporate lessons from past projects in the region. A baseline data and gap analysis will review existing environmental and socio-economic information, identify knowledge gaps, and engage regulators to refine study requirements.

We understand that NNC will lead the development and implementation of the engagement strategies, including engagement frameworks, benefit agreement negotiations, and systems for tracking communications and feedback, with SEM providing support. Logistics planning will focus on field study requirements, workforce coordination, and transportation constraints to optimize local participation. The Team and NNC will collaborate to achieve efficient execution of:

- Baseline Studies and Focus Areas;
- Baseline studies will be prioritized based on key focus areas identified in past assessments of similar projects in Nunavut;
- Caribou studies – movement patterns, habitat use, and potential project interactions, incorporating Inuit Qaujimajatuqangit;
- Breeding and migratory bird assessments – habitat conditions, species vulnerability, and conservation strategies; and
- Water quality and aquatic habitat studies – potential hydrological changes, sediment transport, and risks such as methylmercury mobilization.

The first year will involve a combination of desktop and field-based research. Desktop studies will provide an initial assessment of each environmental category and inform the scope of field studies. A two-year baseline data collection program will be structured with early fieldwork focusing on caribou, aquatic systems, and cultural heritage. NNC will lead heritage and cultural resource studies, with SEM supporting the integration of these aspects into the broader assessment process.

All studies will be supported and informed by the Chidliak baseline data set. The Chidliak local study area (LSA) extends to McKeand Lake, which has been proposed as a back-up reservoir. Thus, it is highly relevant

to this Project. We understand that there is a data sharing agreement between DeBeers and NNC. Team members have been carrying out baseline data collection programs in this area for 10 years. Some of the highlights of this dataset include:

- full water quality datasets encompassing McKeand Lake and McKeand River;
- full fish and fish habitat data set;
- two meteorological stations (still functioning as of 2024), one with a 10m tower 2 km from McKeand Lake;
- wildlife camera array of 77 cameras over a 24 by 42 km grid, comprising perhaps the most comprehensive wildlife observation dataset on Baffin Island, as it has been collecting data since 2019;
- an Ecosystem Land Classification (ELC) developed by EcoLogic and government experts – Nunavut has no formal ecological classification system;
- 2 years of bird surveys, including waterfowl and waterbird surveys on McKeand Lake;
- Extensive vegetation and soils plot data; and
- Many remote monitoring techniques pioneered for this project.

EcoLogic has been managing this data set since 2019 and holds all these data in-house.

5.1 TEAM LEADERSHIP AND EXPERTISE

The Team is well-positioned to lead the Environmental Impact Assessment (EIA) in collaboration with NNC, bringing extensive experience in northern environmental management, impact assessment, and regulatory coordination. By aligning with NPC and NIRB's established regulatory framework and integrating Inuit Qaujimajatuqangit with scientific research, the Team will provide NNC with the foundation needed for informed decision-making and a clear path forward for project approvals.

6. YEAR 1: PROJECT PLANNING AND INITIATION

6.1 PROJECT PERMITTING AND APPROVALS

Over the last three years SEM has provided professional consulting services to NNC for the review and interpretation of prior environmental and feasibility reports, providing environmental constraints advice, and developing project planning from an environmental and regulatory lens. Prior to moving forward with the community-chosen McKeand River South hydropower project, SEM was involved in refining the planning and coordination towards execution of baseline studies for the Project, which included project management and planning, critical path mapping, permit applications and tracking, information management, and engagement planning. This culminated in a Planning Workshop held at SEM's office in March 2024. The Dillon, EcoLogic, and SEM partnership enables the Team to "pick up where we left off" by refining the scope of baseline studies execution, logistics, and continuing with preparation of the associated

applications for approvals. This section describes at a high-level the requirements, strategies, and effort that will be necessary to proceed with environmental baseline studies and to eventually proceed with Project construction.

The extent of regulatory agency and rightsholder concerns, and therefore the time and cost required to obtain final project approval, is critical to the overall Project feasibility and schedule. All projects in Nunavut are assessed pursuant to the *Nunavut Land Claim Agreement* (NLCA) and the *Nunavut Planning and Project Assessment Act* (NuPPAA). The Project will first be assessed for conformance to any applicable Land Use Plan (LUP), followed by screening conducted by the Nunavut Impact Review Board (NIRB), and approval by the Nunavut Water Board (NWB), as well as federal and territorial agencies. The assessment of a hydroelectric project is complex and potentially lengthy, as this will involve preparation and approval of an Environmental Impact Statement (EIS) with NIRB and a public hearings process once an EIS has been submitted. Harmful alteration, disruption or destruction (HADD) of fish or fish habitat associated with the hydroelectric facility construction and operations will add a regulatory and design complexity, as the requirements to negotiate an acceptable offset plan and obtain a Fisheries Act Authorization (FAA) involve prescriptive baseline studies and approval times. The NWB process requires a significant time constraint as well, to review the water use application and to navigate additional public hearings during the approval process. None of the federal, territorial, or municipal agencies are permitted to issue approvals for construction or operations until the Environmental Impact Assessment (EIA) process is complete, and a Project Certificate is issued by NIRB. SEM played a key role in the environmental assessment of major South Baffin projects, including the Mary River Mine, by conducting baseline studies, authoring the EIS, and participating in public hearings from 2008 to 2012. We also designed and executed mitigation and monitoring programs, ensuring Baffinland met regulatory requirements for mining operations to begin in 2014. Having been involved in these processes on multiple projects before makes SEM uniquely qualified to assist NNC with strategizing the overall Project execution schedule.

SEM will provide strategic insight to develop a Permitting Roadmap to coordinate approval timelines with the progression of engineering design, baseline studies, and logistical planning such that scheduling risk is minimized. Preparation of research and field study related permit applications were commenced by SEM, EcoLogic, and others in 2024. A Permitting Register was developed to communicate to the wider Project team which activities - or “triggers” - on the land would require approval and the essential information to submit comprehensive applications. The Permitting Register outlines all required approvals and permits, and will be used to track application submission schedule, status, monitoring and reporting requirements, and ongoing compliance with terms and conditions issued to NNC. Draft permit applications for the NIRB, NPC, and the NRI were being prepared for submission to construct a field camp and to conduct field work, along with supporting draft documents required. This included non-technical research proposal descriptions, summary of engagement and consultation, and letters of support. SEM is therefore well-positioned to manage the permitting process and will create a Gantt chart which will serve as the Permitting Roadmap outlining expected approval turnaround times and important milestones in the overall approvals process. This will enable the Project team to visualize regulatory risks beginning from the current phase until Construction and will be adapted based on changes to the work plan and consultations with Authorities Having Jurisdiction (AHJ).

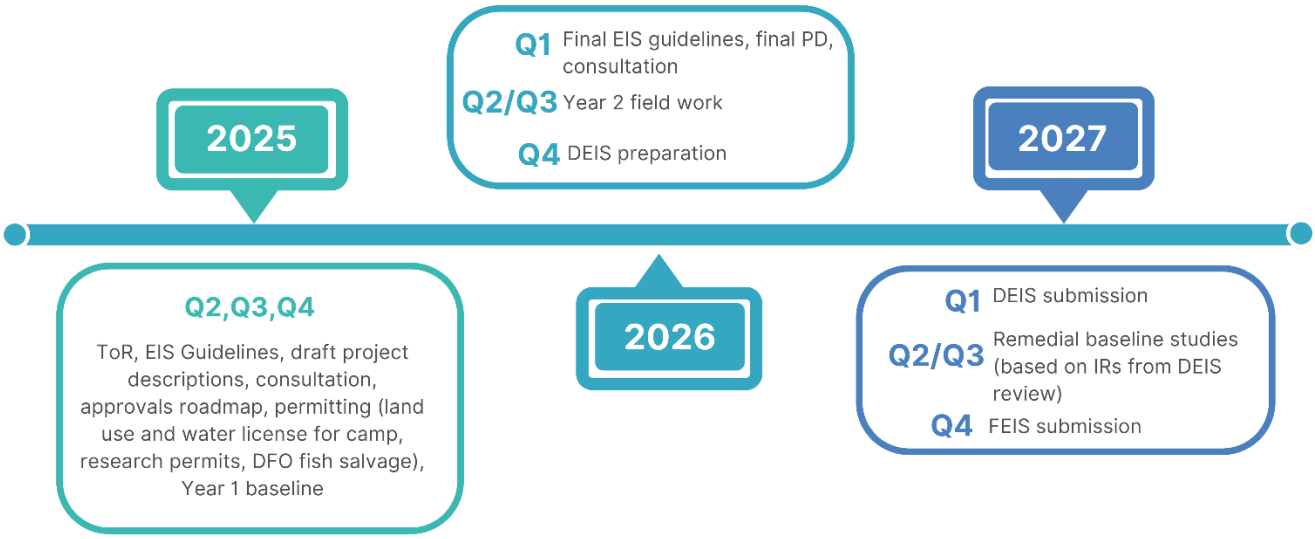

Figure 2: Proposal Approach

6.2 EIA SCOPE DEVELOPMENT

Dillon acknowledges that a full Environmental Impact Assessment (EIA) is required for this project due to its potential for significant environmental and socio-economic impacts. In compliance with the Nunavut regulatory process, Dillon will collaborate with NNC, SEM and EcoLogic to build upon the Permitting Roadmap and Permitting Register and develop a preliminary EIA scope that aligns with Nunavut's environmental planning mandates, Indigenous rights, and sustainability objectives. Dillon will provide support to NNC to provide a systematic, transparent, and science-based approach to evaluating the project's potential impacts and mitigation measures, the following outlines the methodology for developing the EIA scope. This methodology is structured into four key phases, each designed to define, assess, and address the project's environmental and socio-economic effects while meeting regulatory compliance and community engagement commitments.

To develop an EIA scope for the Iqaluit Nukkiksautiit Project, the Team will build on previous work completed for the Project by SEM and EcoLogic by implement the following phased approach:

Phase 1	Defining the Scope of Assessment

- Baseline Data Collection: Conduct desktop studies and field reconnaissance to define key Valued Ecosystem Components (VECs) and Valued Socio-economic Components (VSECs);
- Indigenous and Community Engagement: Review NNC/SEMs preliminary consultations with Inuit organizations, Hunter and Trapper Organizations (HTOs), and local communities to integrate Inuit Qaujimajatuqangit into the assessment; and
- Regulatory Mapping: Identify necessary permits and approvals, including:
    - NPC Conformity Determination Letter;
    - NIRB Screening Decision Report;
    - Nunavut Research Institute (NRI) Research Licenses;

- Territorial and Federal Environmental & Cultural Permits; and
- Impact Identification & Scoping Workshops: Conduct multi-rightsholder workshops to define the spatial, temporal, and thematic scope of assessment.

Phase 2 **Physical and Biological Assessments**

- Field Studies and Data Collection:
  - Physical Environment: Hydrology, terrain, geology, and geochemistry assessments;
  - Biological Environment: Wildlife, fish habitat, migratory birds and vegetation surveys;
  - Cumulative Effects Assessment: Evaluate interactions between the project and other regional developments; and
  - Mitigation Strategies Development: Propose avoidance, minimization, and offset strategies for potential adverse impacts.

Phase 3 **Regulatory Submissions and Approvals**

- Environmental Impact Statement (EIS) Preparation:
  - Summarizing baseline conditions, predicted impacts, and mitigation measures;
  - Integrating Inuit Qaujimajatuqangit and Community Concerns;
  - Addressing potential climate change resilience considerations;
  - Regulatory Engagement: Submit reports to NIRB, NPC, NWB, and other relevant agencies; and
  - Response to Comments & Adjustments: Address feedback from regulatory bodies and public rightsholders.

Phase 4 **Monitoring & Compliance Strategy**

- Environmental Protection Plan (EPP) Development: Outline long-term monitoring programs for water quality, wildlife impacts, and habitat restoration;
- Adaptive Management Approach: Implement a real-time monitoring framework to modify mitigation strategies based on observed conditions; and
- Regulatory Compliance & Reporting: Provide periodic compliance reports to regulatory agencies and Indigenous rightsholders.

6.3 PRELIMINARY TERMS OF REFERENCE (TOR)

The Preliminary Terms of Reference (ToR) will serve as the foundational document for the EIA, establishing the scope, objectives, and methodology required to evaluate the project's potential environmental and socio-economic impacts. The ToR will define the Valued Ecosystem Components (VECs) and Valued Socio-economic Components (VSECs) to be assessed, outline data collection and analysis methods, and provide a framework for impact evaluation and mitigation planning. The ToR is a critical step in the EIA process, providing alignment with regulatory requirements, Indigenous perspectives, and community priorities. It will also set clear expectations for the assessment process and guide the development of the Environmental Impact Statement (EIS).

Dillon will develop the ToR in collaboration with NNC, SEM, EcoLogic, regulatory agencies, and members of the public to align with regulatory requirements, environmental standards, and community priorities. This process will involve working closely with:

- Nunavut Planning Commission (NPC) – to comply with land-use planning requirements;
- Nunavut Impact Review Board (NIRB) – to align with NIRB's Impact Statement Guidelines and screening recommendations;
- Nunavut Water Board (NWB) – to incorporate water quality and management considerations; and
- Indigenous Organizations and Local Communities – to reflect Inuit Qaujimajatuqangit and community perspectives.

Engagement with the public and Indigenous communities will be led by NNC and supported by SEM, with EcoLogic providing technical input to address ecological and environmental factors. Information gathered through engagement will guide the definition of the ToR, particularly in identifying Valued Environmental Components (VECs) and Valued Socio-economic Components (VSECs) that require focused assessment. This process will include:

- Consultation with Indigenous organizations, Hunter and Trapper Organizations (HTOs), and local communities to integrate Inuit Qaujimajatuqangit into the impact assessment;
- Reviewing multi-rightsholder scoping workshops to define spatial, temporal, and thematic boundaries for the assessment;
- Regulatory mapping to identify necessary permits, approvals, and compliance measures, which will be completed by SEM; and
- Technical input from EcoLogic to incorporate ecological and environmental considerations.

By combining regulatory guidance, technical expertise, and community input, Dillon will develop a balanced and comprehensive framework for assessing project impacts.to identify necessary permits, approvals, and compliance measures which will be completed by SEM.

The ToR will establish:

- Assessment Scope – Defining key environmental and socio-economic factors to be evaluated;
- Baseline Data Collection Requirements – Identifying study areas, methodologies, and data sources;
- Impact Prediction and Significance Determination Criteria – Providing a structured approach to evaluate project impacts;
- Mitigation Planning Framework – Establishing the avoid, minimize, restore, offset hierarchy for environmental and community impact management;
- Monitoring and Compliance Strategy – Outlining performance indicators, contingency measures, and reporting requirements; and
- Implementation and Mitigation Planning.

By structuring the EIA around a well-defined ToR, Dillon will provide a focused, transparent, and regulatory-compliant assessment process. This structured approach will enhance regulatory confidence, build community trust, and support long-term environmental protection, maintaining alignment with project goals and sustainability commitments.

6.4 YEAR 1 FOCUS FOR EIA: EXPLORING KEY ENVIRONMENTAL AND CULTURAL CONSIDERATIONS

In the first year of the assessment, the Team will focus on identifying and evaluating key environmental and cultural considerations that will be central to the NIRB process. Rather than broadly assessing all potential impacts, the 2025 work plan will prioritize four primary areas: caribou, birds, water quality and aquatic habitat, and heritage resources.

This exploratory phase will focus on gathering baseline data and refining research priorities to support the development of the EIA scope. Early fieldwork and analysis will help clarify potential project interactions with these key components, identifying that regulatory planning and mitigation strategies are well-informed.

We will confine the majority of the baseline effort to understanding environment around infrastructure that is certain to be part of the project: this includes the main reservoir and the access road from here to Iqaluit. McKeand Lake and the associated access road will not be a major part of the first year's studies for the following two reasons:

- We have comprehensive and relatively recent data for McKeand Lake, including water quality, fish and fish habitat, wildlife, and ecosystems and vegetation (the two later for the eastern side only).
- At this time of preparing this proposal, the inclusion of McKeand Lake as part of the project had not been finalized. Baseline programs are always a balance of budget and schedule risk. We look forward to discussions with NNC regarding how to find this balance for Year 1. If engineering design and hydrologic modelling have developed to the point where McKeand Lake is likely to be included in the final design, we can revisit how we approach data collection in Year 1.

6.4.1 Caribou: Identifying Interaction Points

EcoLogic will assess how the Project, particularly the access road and transmission line, may affect caribou movement patterns. Our experience on the Chidliak Project that camera networks are clearly the most efficient way of collecting comprehensive data on caribou (aerial survey is not permitted on Baffin Island and the collaring data set is decades old). Using camera data, Inuit Qaujimajatuqangit, and site assessments, potential interaction areas will be identified. Seasonal variations in movement will be evaluated to determine whether mitigation measures such as crossings or buffer zones should be considered.

6.4.2 Birds: Understanding Habitat Changes

The Team will examine how the development of the reservoir could alter wetland and shoreline habitats. Habitat mapping and seasonal field assessments will help determine potential effects on nesting and feeding areas for both resident and migratory birds. The study will also explore whether habitat preservation or mitigation strategies may be required to protect sensitive wetland ecosystems and maintain suitable conditions for migratory bird populations.

6.4.3 Water Quality and Aquatic Habitat: Anticipating Impacts on the McKeand River

Initial studies can focus on how reservoir fluctuations may affect water flow, sediment transport, and aquatic ecosystems. The team will investigate whether methylmercury (MeHg) mobilization is a concern, considering the region's soil composition, and assess any potential acid rock drainage (ARD) risks. This work will inform long-term water quality monitoring and impact mitigation planning.

6.4.4 Heritage and Cultural Resources: Evaluating Potential Impacts

The project area includes documented heritage sites near the McKeand River. Initial assessments will focus on confirming the extent of these sites and evaluating potential project impacts. Additional surveys may be conducted as needed. Options for site protection, documentation, or relocation will be considered in consultation with regulatory agencies and Indigenous groups.

Findings from Year 1 will be delivered in a data summary and used to refine the EIA scope, providing that regulatory submissions and community discussions are based on relevant data and early risk identification.

7. ENVIRONMENTAL IMPACT ASSESSMENT BASELINE STUDIES MULTI-YEAR APPROACH

7.1 AIR QUALITY AND NOISE ASSESSMENT

Based on Dillon's extensive experience with similar projects, we recommend using predictive modeling instead of relying solely on ambient air quality monitoring. This approach provides a more detailed and accurate comparison of current conditions (diesel generator operation) and future conditions (with hydroelectric generation). The assessments will use regulatory-approved methodologies and predictive models to offer a more precise evaluation of impacts than monitoring alone and to support the identification of mitigation measures before project implementation.

The air quality and noise assessments will be informed by the Front-End Engineering and Design (FEED) process. In 2025, Dillon's team will review the proposed design components, which will provide critical input into the air quality impact assessment and baseline noise assessment planned for 2026 and 2027. While both air quality and noise are likely to be VECs, further information on the project design and operational details is required to fully define the scope and methodology for these assessments.

7.1.1 Air Quality Impact Assessment

The air quality assessment will be completed for two separate phases (Year 2 and Year 3) as outlined below.

7.1.1.1 2026 Air Quality Baseline and Study Plan

The Year 1 assessment will include the characterization of baseline air quality within the study area. It is expected that the Environment and Climate Change Canada (ECCC) National Air Pollution Surveillance (NAPS) station in Iqaluit will be used to determine background air quality for select indicator compounds. It is expected that the indicator compounds will be selected to be representative of contaminants generated from sources of emissions within the study area (e.g., stationary diesel combustion and transportation activity). It is anticipated that for the purposes of this assessment the indicator compounds will be the conventional air contaminants include nitrogen oxides (as nitrogen dioxide), sulphur dioxide, carbon monoxide, particulates (TSP, PM_{10}, $PM_{2.5}$), as well as diesel particulate matter, and select volatile organic compounds.

During the Year 1 of this assessment, the air quality study area will be defined and the methodology (i.e., the study plan) for the detailed effects assessment will be prepared.

It is expected that the study area will include:

- Baseline Scenario – Diesel generation facility; and
- Project Scenario – Hydro generating facility, dam, quarry operations and access road.

7.1.1.2 2027 Air Quality Effects Assessment

The air quality effects assessment will be prepared following the study plan established during Year 1. An assessment of Baseline Scenario (existing conditions) and a future with-project (Project) Scenario (reasonable worst-case impact scenario for the project) will be reviewed as part of the Year 2 effects assessment.

The air quality impact will be analyzed using the US EPA AERMOD air dispersion modelling software for stationary sources (e.g., diesel generator, quarry operations) and the CAL3QHCR model for vehicular emission sources along the proposed access road. These models incorporate emissions data, local surface, and upper-air meteorological information to predict ambient concentrations of conventional air contaminants at and beyond the project boundary as well as at identified receptor locations. Predicted concentrations will be evaluated against applicable ambient air criteria to characterize the ambient air quality within the study area for the existing and future (with-project) scenarios. For the future with-project scenario, where there are no / limited air contaminant emissions for the operational phase, a qualitative assessment of the air quality impact will be carried out.

7.1.2 Noise Impact Assessment

Similar to air quality impact assessment, the noise impact assessment will be completed in two phases for Year 2 and Year 3 of the Project. The assessment details for the two phases are described below:

7.1.2.1 2026 Baseline Noise Environment & Study Plan

The baseline noise environment within the study areas will be characterized qualitatively. The noise impact associated with the existing infrastructure (i.e., the diesel generator facility) will be determined through noise propagation modelling, based on ISO9613 Part I & II. Noise source data for various onsite noise sources will be obtained from manufacturer specifications, engineering calculations and/or onsite noise measurements. In case onsite noise measurements are required, the team will also carry out an ambient noise monitoring program, in which ambient noise levels are measures at receptor locations that are in proximity of the existing diesel generation facility. The ambient noise monitoring will conform to applicable standards and guidelines and will consist of minimum 48 hours of continuous noise monitoring with hourly logs. The instrumentations will be set to log hourly sound level equivalents (Leq), Lmax, Lmin, and 90th percentile sound levels (L90). The data will be used to characterize the existing noise environment in proximity of the project area as well as to calibrate the noise propagation modelling of the existing noise sources (related to the existing generation facility).

For the access road and future project areas that are not developed yet, the baseline noise environment will be assessed qualitatively as no existing anthropogenic noise sources are expected on those areas.

7.1.2.2 2027 Noise Effects Assessment

The noise impact for future with-project scenario will be assessed using noise propagation modelling, based on ISO 9613 Part I & II. Relevant information, including (but not limited to) site layout, general arrangement drawings, elevation drawings, noise source specifications (including noise data in octave spectrum) will be used to predict noise impact at nearby receptor locations. The predicted noise levels will be compared to applicable criteria, including standards from other jurisdictions, as well as existing ambient noise levels, to evaluate the operational phase impacts. In case of predicted exceedances for the future with-project scenario

(i.e., a net increase in receptor ambient noise levels), Dillon will advise the project proponent on potential mitigation measures and the associated level of effort before proceeding with additional work.

For the access road, the noise impact for the future operation scenario will consist of traffic noise modelling. The traffic noise modelling will be based on Transportation Noise Model (TNM) 2.5 implemented through CADNA/A noise propagation model. The noise impact from the future access road will be assessed at existing and future proposed receptors along the route and at the two terminuses of the access road.

7.1.3 Construction-Phase Assessment

Noise and air quality impacts during the construction phase will be assessed qualitatively, as these are expected to be temporary and short-term. Industry-standard best practices for construction activities will be identified and included in the assessment to address potential impacts during this phase of the project.

7.1.4 Advantages of the Proposed Methodology

This approach provides a reliable evaluation of current and future air quality and noise impacts, helping the project team to make informed decisions. By integrating predictive modeling, the methodology allows for targeted assessments that adapt to the specific needs of the project while meeting regulatory expectations and addressing potential concerns from rightsholders and regulators. This method offers an efficient way to address project requirements and support decision-making as the project progresses.

7.2 FISH, FISH HABITAT AND WATER QUALITY

With any hydroelectric development, a thorough understanding of fish and fish habitats within the project area is essential for ensuring sustainable project outcomes. Preserving the integrity of aquatic ecosystems is crucial not only for ecological stability but also for maintaining the cultural significance of these resources. The existing aquatic environment within the project area will be described through a series of baseline studies and desktop reviews. The overall baseline program will utilize a phased approach.

7.2.1 Likely Valued Ecosystem Components

- Water Quality – Reservoir development can alter water quality both within the impoundment area and downstream, with primary concerns including nutrient levels, sediment loading, and mercury increase. Water quality changes can serve as early warning indicators of broader ecosystem impacts;
- Fish Habitat – Reservoir creation alters fish habitat quantity and quality, typically increasing lacustrine habitats while reducing riverine ones; and
- Fish Communities and Fish Health – Alterations in water quality and fish habitat can affect the health of fish communities, potentially impacting the overall community level, species level, and individual fish.

7.2.1.1 2025 Baseline Studies

In Year 1, preliminary assessments of fish and fish habitats within the project area will be conducted through a combination of literature reviews and aerial photo interpretation. This interpretation will utilize the most recent and highest-resolution imagery available, along with LiDAR data. Geographic Information Systems (GIS) will be utilized to measure river slope, a key factor in habitat characterization, and to identify potential

obstructions to fish movement. Following completion of aerial photograph interpretation, detailed habitat mapping will be produced to present the distribution and extent of each habitat type present.

Fish communities in the project area will be evaluated using all available literature, including peer-reviewed journals, government publications, indigenous knowledge, and grey literature. Extensive aquatic baseline data collection has been completed within portions of the proposed Project Area, which was completed by members of the Project Team for the Childliak Project. This data will be available and analyzed to further describe the existing baseline conditions. Data gap analysis will also be completed to direct field programs to be undertaken in Year 2.

Opportunistic field sampling will also be completed in Year 1 in cooperation with field teams deployed for other disciplines. With permitting requirements for fish sampling and collection, it is anticipated that this sampling would be limited to water sampling. Further details of a water sampling program are presented below.

As the desktop reviews progress, the information gathered will inform the scoping of field programs scheduled for Year 2, support field logistics, and be incorporated into permit applications for fieldwork and sample collection.

7.2.1.2 2026 Baseline Studies

With the desktop support work being completed in Year 1, an extensive baseline field program will be initiated in Year 2. The field programs will aim to describe three key aspects of fish and fish habitat: water quality, habitat characterization and existing fish communities. All baseline sampling programs will include a control site, which will be incorporated into future monitoring efforts to ensure the development of a comprehensive and effective monitoring framework. Additionally, the design and implementation of field programs will be carried out in collaboration with Inuit and local community input and support.

7.2.1.3 Water Sampling

A baseline water sampling program will be undertaken to assess the water quality, from a fish and fish habitat perspective, throughout the proposed reservoir as well as the areas downstream, including Irvine Inlet, the marine receiving environment. Samples will be collected from predetermined locations and sent to an accredited laboratory for analysis of general water chemistry, total metals (including mercury and selenium), total suspended solids, nutrients, and chlorophyll. Within the reservoirs, profiles will be completed using an in-situ water quality probe to determine dissolved oxygen and temperature throughout the water column. Profiles will be completed in multiple locations within each existing lake and will aim to capture the deepest point in each.

7.2.1.4 Habitat Characterization

The existing habitat will be surveyed and characterized in both the riverine and lacustrine environments. Following characterization, data will be utilized to quantify the habitat for *Fisheries Act* Authorization, which will likely be required during the permitting stage of the Project.

Lacustrine surveys will be focused on the existing lakes which will eventually form the reservoirs post construction. Characterization will include bathymetric mapping, measuring Secchi depths and shoreline surveys. Ground truthing of riverine characterization completed during the desktop studies in Year 1 will also

be completed. This will include stream surveys in select areas, which will measure several physical aspects of stream habitat, including substrate, depth, velocity, width and riparian cover.

Another important aspect of the habitat to be characterized is food availability. This will be assessed through plankton sampling in lacustrine habitats and benthic invertebrate sampling in riverine areas. Plankton tows will be conducted, and the collected samples will be preserved and sent to a certified laboratory for identification and biomass estimation. Kick netting, following CABIN protocols, will be carried out in the riverine areas, with samples similarly preserved and identified by a certified laboratory.

7.2.1.5 Fish Communities

The existing fish communities will be assessed through a combination of trapping and electrofishing, with the method being determined by the habitat.

Within the existing lacustrine habitat, traps (i.e. fyke nets and or minnow traps) will be used to determine species presence and relative abundance (catch-per-unit-effort). All fish captured will be identified to species, weighed and measured. A subset of fish captured will be lethally sampled for laboratory analysis such as mercury body burden, fecundity and growth rates. All other fish will be live released near their capture location. Given the size of the lakes, a successful mark-recapture program will likely be difficult, limiting the confidence of calculated population estimates. However, any Arctic char captured will be marked throughout the baseline programs.

Within the riverine habitats, including the outflow of each reservoir and predetermined tributaries, electrofishing will be completed to determine species presence and population estimates. A combination of quantitative and index electrofishing site will be utilized, which will ensure safe completion of electrofishing during post construction monitoring while maintaining comparability within the baseline database. Similar to trap surveys, all fish will be identified to species, weighed and measured. It is anticipated that fish captured during electrofishing will be relatively small, and therefore unsuitable for laboratory analysis, therefore the majority will be live released.

7.2.1.6 Assumptions

The proposed methodologies above have been developed with the following assumptions:

- Field camp will be set up near the Project site, and available to field staff;
- All applicable permits are in place prior to field season in Year 2; and
- Sediment sampling will be included under the Geochem scope of work.

7.2.1.7 Advantages of the Proposed Methods

The proposed methodology outlines a collaborative baseline sampling program that integrates traditional knowledge and local support throughout its planning and execution, alongside collaboration across project teams to ensure efficient and successful project delivery. This program's various components aim to develop a comprehensive baseline database to accurately describe the existing environment, while also establishing the basis for an adaptive post-construction monitoring program.

7.3 TERRESTRIAL WILDLIFE

7.3.1 Likely Valued Ecosystem Components

The key Terrestrial Wildlife VEC will be caribou (*Rangifer tarandus*). In addition to their critical importance to the Inuit, survey efforts indicate substantial population declines in Baffin Island since the early 1990s. In addition, caribou have demonstrated adverse responses to the construction of roads, above-ground transmission lines, and wind energy projects in tundra environments.

7.3.1.1 2025 Baseline Studies

In 2025, we proposed to deploy an extensive network of wildlife cameras surrounding the primary proposed reservoir and in a buffered area surrounding the road routing options (including the area of a potential wind energy project). The cameras will be programmed to capture motion-triggered images as well as time-lapse photos (synchronized across the entire network). The time-lapse photos, in addition to providing important information on camera functionality, allow for non-wildlife analysis (e.g., estimation of freshet, spring green-up, snow depth, air temperatures).

The proposed team has been managing a large-scale camera network at the nearby Chidliak Project and that network has provided important information on caribou habitat use patterns, as well as observations for other species (e.g., lemming, Arctic fox, polar bear).

During camera deployment, the wildlife team will be accompanied by one of our terrestrial ecosystem specialists to complete ecosystem and wildlife habitat assessments at each camera location. This has the added benefit of informing the overall ecosystem classification for the Project.

We have not included a cost estimate to evaluate wildlife activity along the proposed road route to McKeand Lake. If project engineering has progressed to a stage where studies of these areas will add value from a risk-evaluation perspective, we can add that scope of work. Based on our prior experience in this area dating back to 2013, it is highly likely that high levels of caribou activity will be detected in these areas (higher than expected in the vicinity of the first phase of the Project). There are generational caribou movement trails on both sides of the McKeand Lake, some of which will be intersected by the proposed road or potentially affects by changes in lake levels. Adding a camera network in this area can be added into the 2025 workplan and cost estimate or can be added in 2026 once project engineering has advanced further.

7.3.1.2 2026 Baseline Studies

2026 field work will be focused on maintaining the existing wildlife camera network and in-filling the camera layout to accommodate design changes or areas of particular interest. For example, if it is determined that a wind energy project is a feasible and desirable part of the Project, the camera network will need to be expanded considerably in the area surrounding the potential wind project location. Modern wind turbines are very tall and will be highly visible from a considerable distance (up to 5 km away, depending on topography). Accounting for a larger potential sensory disturbance effect area will be an important component of the effects assessment.

7.3.2 Assumptions

Our proposed scope and associated cost estimates are based on several assumptions:

- 40 cameras (and associated materials) will be installed in 2025;
- No baseline work completed for the potential expansion to McKeand Lake;
- Work will be based out of a field camp close to the study areas;
- A helicopter will be available to provide dedicated support to the camera deployment and management teams when they are on site. The time required at each camera location to install and manage is very short (e.g., 10 min) and having to wait on helicopters servicing multiple groups is very inefficient. A 40-camera network can be deployed over two days with dedicated helicopter support and serviced in a single day with dedicated helicopter support; and
- All required construction materials for camera stands (e.g., 2x4s, screws) will be readily available in Iqlauit.

7.3.3 Advantages of the Proposed Methods

The use of an automated survey system provides multiple advantages:

- It allows for the collection of data without the cost and logistic/safety concerns associated with the deployment of people to remote locations;
- It allows for the collection of data over longer time periods that human-led survey can cover, reducing the risk of missing key biological windows or occurrences (e.g., calving, migration); and
- The approach has a proven track record of value in the region and is a respected form of data collection in the territorial EIS process.

7.4 BIRDS

7.4.1 Likely Valued Ecosystem Components

Three bird VECs are anticipated for the Project:

- Waterfowl and waterbirds – The project will have a direct effect on surface water hydrology in both river and lake environments. Waterfowl and waterbird densities are high during the breeding season in this area and habitat use patterns are concentrated along watercourses and lakeshores;
- Raptors – Several species of falcons (e.g., Peregrine Falcon, Gyrfalcon) and Snowy Owl breed in the vicinity of the proposed Project and are susceptible to sensory disturbance. These species are also susceptible to collisions with above-ground transmission lines and operating wind turbine generators and could be present in the Project area year-round; and
- Songbirds – Very few songbird species breed in inland portions of Baffin Island but those that do are protected by federal statutes. Understanding the spatial and temporal distribution of songbirds in the vicinity will be important for an effects assessment. Songbirds also frequently collide with above-ground transmission lines and operating wind turbine generators.

7.4.1.1 2025 Baseline Studies

2025 survey efforts for migratory birds will include:

- Aerial surveys (e.g., timed transects along watercourses and lake margins) - alternate road routes from Iqaluit to the primary reservoir, around the primary reservoir, along proposed route to McKeand Lake, and around McKeand Lake;
- Point count surveys for breeding birds, with count stations distributed throughout areas of proposed disturbance (e.g., to assist in road route selection) - alternate road routes from Iqaluit to the primary reservoir and around the primary reservoir; and
- Standwatch surveys along the proposed road routes to document current patterns of bird flight behaviour where vertical structures (e.g., transmission lines) may be constructed - alternate road routes from Iqaluit to the primary reservoir, around the primary reservoir.

We have included the proposed road route to McKeand Lake and McKeand Lake itself in our scoping and cost estimates for 2025 for the aerial surveys because these surveys do not add a substantial incremental cost to the surveys of the initial Project phase. These areas will not be surveyed with the ground-based methods.

7.4.1.2 2026 Baseline Studies

The 2026 survey will involve a repeat of the 2025 surveys as a minimum of two consecutive years of bird data will be required for the effects assessment.

7.4.2 Assumptions

Our proposed scope and associated cost estimates are based on several assumptions

- Baseline work completed for the potential expansion to McKeand Lake limited to aerial surveys;
- Work will be based out of a field camp close to the study areas; and
- A helicopter will be available to provide dedicated support to the bird survey teams when deployed (4-5 hrs per day).

7.4.3 Advantages of the Proposed Methods

The proposed methods have a proven track record of value in the region and are respected forms of data collection in the territorial EIS process

7.5 VEGETATION AND ECOSYSTEMS

7.5.1 Likely Valued Ecosystem Components

Reservoir development can affect plants and ecosystems both through direct flooding as well as through the removal of vegetation associated with infrastructure development. Shoreline erosion can further degrade ecosystems in upland areas adjacent to the reservoir. As such, the following Valued Components are recognized for vegetation and ecosystems:

- Sensitive ecosystems;
- Culturally important plants; and
- Rare plants and lichens.

7.5.1.1 2025 Baseline Studies

7.5.1.1.1 Ecosystem Land Classification

We recommend that Ecosystem Land Classification (ELC) be carried out early in the baseline program, as it is the foundation of so many of the other disciplines. Early mapping allows for mitigation of project effects by design, especially for the road where there are multiple route options. ELC allows planning that avoids sensitivity areas such as caribou migration routes.

ELC mapping requires the implementation of a standardized classification system across the landscape. However, as no accepted system currently exists for Nunavut, many projects carried out in the territory tend to develop stand-alone systems that suit the purposes of the project. EcoLogic ecologists developed an ELC system (*Table 1: Ecosystem Land Classification system developed for southern Baffin Island by EcoLogic.*) over a 10-year period for the Chidliak Project (located about 75 km east of the Project, including a portion of McKeand Lake) in conjunction with Will MacKenzie (Province of BC Research Branch). The Chidliak ELC system also incorporated project specific systems developed for nine major arctic projects (1995-2013), of with the majority of the more recent projects completed by EcoLogic ecologists. Between 2014 and 2023, over 1,100 field inspections were completed for the Chidliak Project for the 147,000 hectares of ELC mapping. As the Chidliak Project study area is in close proximity to this Project (*Figure 2: Proposal Approach*), it is our expectation that only minor refinements to the Chidliak ELC system will be required to accurately describe the study area. Our project team includes all of the ecologists and terrain specialists who completed the Chidliak terrain and ecosystem mapping, field surveys, and ELC system development, bringing local field experience to this Project.

Table 1: Ecosystem Land Classification system developed for southern Baffin Island by EcoLogic.

ASSOCIATION	MAP LABEL	ELC NAME
Tundra	ML	Till Lichen Tundra
	MG	Till Graminoid Tundra
	MGW	Till Graminoid Tundra (Wet Phase)
	TH	Dry Sparse Tundra
	FFT	Fell Field Tundra
Barren/Sparse	BR	Bedrock
	TB	Blockfield
	AB	Aeolian Beach
	FDC	Freshet Drainage Channels
	SE	Ephemeral Streams
Open Water Features	RI	River
	PD	Pond
	LA	Lakes
Wetland	WFCS	Cottongrass Sedge Fen
	WMCS	Cottongrass Sedge Marsh
	WUF	Undifferentiated Fen
	SOW	Shallow Open Water

ASSOCIATION	MAP LABEL	ELC NAME
Fluvial	FGV	Vegetated Glaciofluvial
	FGS	Sparsely Vegetated Glaciofluvial
	FL	Low Bench Floodplain

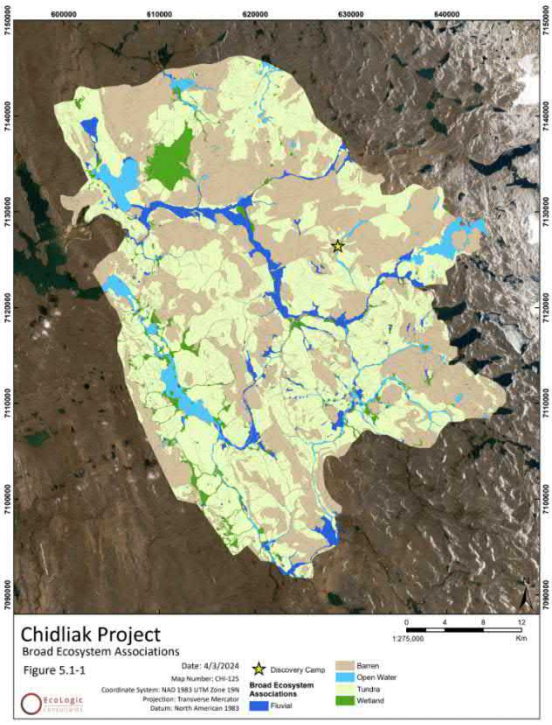

Figure 3: The Chidliak ELC mapping to the east of McKeand Lake

7.5.1.2 Ecosystem Land Classification Mapping and Field Verification

ELC mapping and field verification is a multi-discipline process that requires multiple steps. Ecosystem development and stability in the arctic are determined by surficial geomorphological features (including parent material, landscape position, soil texture, and coarse fragment content), permafrost and periglacial processes, and erosion (wind and water). Ecosystem types are first classified based on surficial geomorphology and subsequently further defined by active and inactive processes, along with the dominant vegetation. The following steps are required to create an accurate ELC map:

- Define a study area and obtain high resolution imagery and digital elevation models;
- Complete draft terrain mapping;
- Complete draft ecosystem mapping;
- Field verification of terrain and ecosystem mapping classification and spatial accuracy; and
- Finalize terrain and ecosystem mapping using field data.

Pre-field delineation of surficial geomorphic units and ecological land classes will be undertaken using ArcPro GIS with high-resolution satellite imagery and digital elevation models (DEM). The mapping derived from this

exercise will be used to delineate proposed ecosystem polygons within the study area that will be subsequently verified in the field.

Field verification of the ELC require the collection of data using a consistent methodology which is not available in Nunavut, therefore we have developed an arctic data collection process (including digital data collection forms using ESRI Survey123) based on the BC Field Manual for Describing Terrestrial Ecosystems[1]. Field work to verify the ELC mapping will be carried out within the footprint of the primary proposed reservoir and dam infrastructure between early July and mid-August 2025, which coincides with the primary growing season within the region. Two types of ground plots will be established to assess the accuracy of the mapping: detailed plots and reconnaissance plots. All plots will collect standard information to characterize the ecosystem, including terrain texture, parent material, surface expression, geomorphic process present, and vegetation diversity. In addition to the ground plots, visual aerial plots will be incorporated into the study to ensure maximum coverage of the study area. The visual plots will be completed whenever the field crew is transported by helicopter, so no additional field expense will be incurred.

We propose to focus the 2025 baseline studies on the primary reservoir, dam, and dam infrastructure to ensure that mapping and assessments are not completed in areas where the Project design is uncertain and may change. An ELC study area of approximately 8,800 ha is required to capture the primary reservoir (about 7,400 ha excluding the existing lake and including a 100 m buffer around the reservoir), dam and dam infrastructure (roughly 1,400 ha using a 2 km buffer). Full ELC mapping will be completed in this area, including a preliminary 2025 field program to verify the mapping classification and spatial accuracy.

The main access road, with a 2 km buffer, will require approximately 10,000 ha of ELC mapping, and over 20,000 ha if all three main road options are included. As there are three routes, discussions will be had with the engineering team and NNC to determine which routes are most likely. However, we do propose to map all three in the office as this exercise can form the basis of the alternatives assessment, which will be required by the NIRB.

In the spring of 2025, we propose to only map critical sensitive features along the road routes that may affect the road alignment and design in 2025, supported by a reconnaissance level field assessment that is completed in conjunction with the establishment of the wildlife camera network (to reduce helicopter time and cost).

The upper reservoir access road ELC study area will be around 8,000 ha, and the dam and upper reservoir (excluding McKeand lake) will include about 10,000 ha, for a total of 18,000 ha. We propose to not include this area in the 2025 mapping or field program until design plans are finalized. If the proposed wind farm is added to the Project, it can also be included in the 2026 mapping and field program.

7.5.1.3 Rare and Culturally Important Plant Surveys in Primary Reservoir

The territory of Nunavut does not currently maintain a list of rare plants or lichens, so the determination of focal rare species will be done by assessing a variety of floristic resources prior to the field surveys to determine which species would most likely qualify as being rare in the territory. Potential resources that will

1 B.C. Ministry of Forests and Range and B.C. Ministry of Environment. 2015. Field Manual for Describing Terrestrial Ecosystems. 2nd Edition. Reprint with updates 2015.

be consulted will include, but not be limited to, online biodiversity collection databases such as the Global Biodiversity Information Facility (GBIF; www.gbif.org), online floras such as the Flora of the Canadian Arctic Archipelago (https://nature.ca/en/our-science/research-projects/flora-canadian-arctic-archipelago/), and citizen science portals such as iNaturalist (www.inaturalist.org/home). EcoLogic Consultants have produced several in-house plant identification field guides for southern Baffin Island as part of the nearby Chidliak project, and these guides will be fully applicable to the survey area proposed for this project.

Rare plant and lichen surveys will be conducted between mid-July and early August 2025. The survey methodology will follow an intuitive-meander protocol, as outlined in the provincial British Columbia provincial standards (BC MECCS 2018). This survey protocol involves utilizing the expertise of the botanist to prioritize surveys to habitats and ecosystems with a higher likelihood of supporting rare species, while recording all species encountered and describing in detail any rare plants or lichens encountered. This protocol is most effective in large areas with heterogenous landscapes, such as those found within the survey area, as the distribution of rare species is generally not uniform across the landscape. Within the proposed survey area, potential specialized or localized habitats that could support rare species may include a variety of wetland types, talus slopes, cliffs or rock outcrops, unusual substrates (i.e., calcareous soils/limestone), fluvial or lacustrine shorelines, and seepages. All detections of rare plants will be fully documented, including information on the location, population size and extent, ecological associations, potential interactions with the project; a voucher specimen of each rare plant population will be collected or, if fewer than 20 plants are present, a full suite of identifiable photographs will be taken. Any specimens collected for the project will be ultimately deposited in the herbarium of the University of British Columbia (UBC) or a different herbarium, if preferred.

A full list of vascular plants, bryophytes, and lichens observed during the field surveys will be compiled for each survey location and will subsequently be collated into a comprehensive species list for the project. The species list from each survey location will be used to provide an indication of the general distribution, ecological associations, and abundance of each species across the survey area, including any culturally important plant species (assuming that information on culturally important plants will be provided by local community members). Any species that could not be identified in the field – particularly bryophytes and lichens – will be photographed, collected, and retained for post-field analysis using appropriate microscopy and identification resources. All photographs, geospatial data (e.g., survey tracks, rare plant locations), and databases will be provided to the client upon submission of the report.

7.5.1.4 2026 Baseline Studies

Ecosystem Land Classification mapping and rare plant and lichen surveys will be completed along the preferred access road and at the upper access road and reservoir in 2026 when designs are finalized, with the methodology of both being consistent with the 2025 program.

7.5.1.5 Assumptions

The proposed methodologies above have been developed with the following assumptions:

- all areas will be accessible by helicopter, either from Iqaluit or an established field camp, and the ELC field crew will have 2-4hrs of helicopter time per field day;
- The primary reservoir, dam, and dam infrastructure designs will not substantially change and are captured by the proposed ELC study area;

- the main road route is not confirmed before the 2025 field season, and the upper reservoir road and reservoir are not confirmed and will not be mapped in 2025;
- a list of culturally important plants will be provided by community members; and
- any applicable permits will be acquired prior to July 2025.

7.5.1.6 Advantages of the Proposed Methods

The methods proposed for assessing ecosystems and vegetation in this proposal have been utilized on numerous large industrial projects by EcoLogic during baseline assessments in the arctic. This has provided many opportunities to assess the efficacy of the methodology within an arctic environment, as well as alter the methodology where needed to increase its effectiveness. In order to reduce cost and be as efficient as possible, our focus is on the year-one assessment of Project components that are not likely to significantly change due to ongoing design, with surveys of the uncertain areas completed in 2026.

The underlying methodology for rare plant and lichen surveys is drawn directly from the provincial standards of British Columbia and represent a well-informed and well-supported standard for assessing plant and lichen diversity in any ecosystem. The rare plant and lichen surveys will be based on our extensive knowledge of the Project area ecology, with efforts focused on habitat types mostly likely to contain rare species.

The ELC mapping and field surveys will draw on our experience from the Chidliak Project, including the use of the existing plot data and classification system which will result in substantial cost savings. The Arctic specific data collection process and ESRI Survey123 forms that we created for the Chidliak project will be adapted for this Project enabling us to collect data using a consistent methodology that reduces cost and potential sources of error.

7.6 TERRAIN, SPECIAL LANDFORMS AND PERMAFROST

7.6.1 Likely Valued Ecosystem Components

Information on terrain and permafrost supports the assessment of potential impacts to Project infrastructure from the environment. It is important to understand the dynamic physical environment to mitigate through design and management the risks that Project interactions with existing geohazards and potentially unstable terrain present. Although terrain and permafrost often do not have specific valued components associated with them, they will often be classified as a subject of note; assessments are carried out, but the significance determination is captured in interconnected VECs (such as sensitive ecosystems).

Special landforms were a VEC in the Back River Project. These include landforms of cultural importance, including lookouts, eskers, and other geomorphic features.

7.6.1.1 2025 Baseline Studies

Terrain, special landforms and permafrost initial assessment is largely captured in the ELC methods as presented in 5.6.2.1 and 5.6.2.2. The terrain specialist is part of the ELC mapping crew. As stated, work in 2025 will focus on the primary reservoir and the main access road to Iqaluit. As there are three routes, discussions will be had with the engineering team and NNC to determine which routes are most likely. However, we do propose to map all three in the office as this exercise can form the basis of the alternatives assessment, which will be required by the NIRB. Mapping will focus on areas that are identified as sensitive or

challenging from an engineering perspective (the proposed road route passes through some very challenging terrain just about 20 km out of Iqaluit, for example).

Reconnaissance field investigations will be carried out by the Senior Technical Lead (Daniel McAllister) in conjunction with the ELC mapping. Areas of focus will be those identified as sensitive and challenging, for the purpose of informing project design. To the best of our ability, field investigations will include a local Inuit knowledge keeper to help identify special landforms of cultural importance.

The Project area is within the continuous permafrost zone. Permafrost is at the surface year-round except from just after freshet (middle of June in the western portions of the Project area, first two weeks of July in near McKeand Lake) to September. The active layer is about 1m thick in mineral sediments and about 50cm thick where insulative organic blankets are present. Our experience in this area is that there is little actual ground ice in the sediments. If ground ice is identified (through either the presence of periglacial features or remote sensing techniques such as SAR and InSAR), then discussions will be had by the project team to determine if this subject area is best handled by the terrestrial studies team or the hydrogeology team, or both.

During both the mapping and reconnaissance field investigations, periglacial features and other features caused by ground ice displacement will be identified and mapped where present. Remote sensing techniques will be used to augment terrain mapping to further delineated and classify permafrost features. These will be used to inform engineering design to mitigate impacts to infrastructure and permafrost.

7.6.1.2 2026 Baseline Studies

As per the ELC mapping section 6.6.3, terrain and permafrost mapping will be completed along the preferred access road and at the upper access road and reservoir in 2026 when designs are finalized, with the methodology of both being consistent with the 2025 program. A terrain and terrain stability map will be finalized, as well as a permafrost and periglacial feature map. A separate special landforms map will also be developed. Comprehensive baseline reports will be prepared to support the DEIS submission.

7.6.2 Assumptions

The proposed methodologies above have been developed with the following assumptions:

- all areas will be accessible by helicopter, either from Iqaluit or an established field camp, and the ELC field crew will have 2-4 hours of helicopter time per field day;
- The primary reservoir, dam, and dam infrastructure designs will not substantially change and are captured by the proposed ELC study area; and
- the main road route is not confirmed before the 2025 field season, and the upper reservoir road and reservoir are not confirmed and will not be mapped in 2025;

7.6.3 Advantages of the Proposed Methods

The methods proposed for assessing ecosystems and vegetation in this proposal have been utilized on numerous large industrial projects by EcoLogic during baseline assessments in the arctic. This has provided many opportunities to assess the efficacy of the methodology within an arctic environment, as well as alter the methodology where needed to increase its effectiveness. In order to reduce cost and be as efficient as

possible, our focus is on the year-one assessment of Project components that are not likely to significantly change due to ongoing design, with surveys of the uncertain areas completed in 2026.

The ELC mapping and field surveys will draw on our experience from the Chidliak Project, including the use of the existing plot data and classification system which will result in substantial cost savings. The Arctic specific data collection process and ESRI Survey123 forms that we created for the Chidliak project will be adapted for this Project enabling us to collect data using a consistent methodology that reduces cost and potential sources of error.

7.7 GEOCHEMISTRY

The geochemistry in bedrock, soils and waters in Nunavut can be variable, with the presence of elevated metals that are unrelated to anthropogenic activity. Prior to development, it is important to establish baseline concentrations of major and trace elements, including metals, in surface water, groundwater, sediments, and soils within the project area and potential zones of influence. By identifying mineralogy and potential sources of metals prior to development, mitigation measures can be developed (if required) if development is to alter their state with potential for mobilization (i.e., potential for acid-rock drainage and/or metal leaching, by breaking materials down).

7.7.1 2025 Baseline Studies

In Year 1, preliminary assessments of geological and geochemical conditions within the project area will be conducted through a combination of literature reviews. GIS will be utilized to map different bedrock lithologies (if known), and potential acid-bearing formations and/or areas with anticipated elevated metals. Geology in the project area will be evaluated using all available literature, including peer-reviewed journals, government publications, Inuit Qaujimajatuqangit, and grey literature. Opportunistic field sampling (soil, surface water, groundwater) will also be completed in Year 1 in cooperation with field teams deployed for other disciplines to help refine a comprehensive workplan for geological and geochemical characterization to be carried out in Year 2.

7.7.2 2026 Baseline Studies

Environmental samples will be collected to provide statistical analysis of geochemical (metals, nutrients including nitrogen, phosphorous and carbon) data. This analysis will be conducted to determine baseline concentrations and identify spatial trends. Geochemical modeling (if relevant to the project site) will be conducted to assess the potential mobilization and transport of metals that may pose potential risk to environmental and/or human health. The data will be compared with applicable environmental quality guidelines and standards (i.e., CCME). The robust data set can be used to represent site conditions prior to further development, and support HHERA evaluations (as described below in **Section 6.3.9** of this proposal).

7.8 HYDROLOGY

The McKeand South Project (the selected alternative stemming from the earlier feasibility and consultation studies) represents a major change to the lands, and waters of Baffin Island and to the peoples who use these natural resources. Consequently, it is critical that the project thoroughly understand and address its potential impacts. Notably the potential collection, impoundment, and diversion of natural runoff from these arctic

lands will now be subject to a thorough hydrology assessment that seeks to examine the water supply capability of the project in view of its potential impacts and proposed mitigation efforts. Once the above is fully understood and confirmed to be sufficient, this will provide the NCC the confidence to move to the permitting phase of the project.

The proposed project will result in the inundation and flooding of the upper McKeand River lands by a constructed dam to provide an over 100 km2 impoundment reservoir for water supply use for the City of Iqaluit. It will include over 50 km of upgraded and new connecting roadway that will be constructed to support the proposed system. Collectively through these potential works many watercourses, and small lakes would be impacted by a combination of flooded valleys, altered drainage patterns and watercourse crossing infrastructure (i.e. culverts). The hydrologic assessment must specifically review these changes and consider their influence on the local and regional impacts and must specifically address impacts on the altered hydrologic regime and it's influence on such important issues as permafrost degradation, erosion, fish passage, channel morphology, and fish habitat quality. The following sections of our submission aim to support a robust understanding of current and proposed hydrologic conditions and identify needs for potential mitigation for an approvable balanced project plan.

7.8.1 Data Inventory completeness and gap analysis

As advisors to the NNC team, Dillon will initially undertake a thorough review of the key climatic, hydrologic and hydraulic parameters that have been adopted within the currently defined project description (e.g. design assumptions and available baseline data). We understand that additional hydrometric data is currently being collected at 2 sites within the project area and that this data will be collected until the end of 2025. Collectively all the relevant data pertinent to the meteorologic, hydrologic and water use aspects of the project will be critically reviewed to identify and understand its completeness to confidently move forward to the permitting phase of the project.

In doing so, we will seek to identify data gaps and information needs to support a defensible opinion concerning the magnitude, timing and environmental impacts on the water handling aspects of the project. Knowing that there are many inter-relational aspects and dependencies of water resources in the environment, our efforts will also include ongoing consultation with the other team members (such as the fisheries team) to support the compatibility and thoroughness of our hydrological assessment to support the various disciplines.

The outcome from this scope of work to be completed in 2025 is to help define the needs of completing the baseline works in 2026, as described below.

7.8.2 Hydrologic Baseline Study and Monitoring Plan

To assess project feasibility and better understand whether the Iqaluit Nukkiksautiit Project can confidently move forward, following our above described 2025 gap analysis efforts, Dillon will develop a comprehensive hydrologic baseline study and monitoring plan. The baseline study will focus primarily on the future impoundment area as well as the water transmission corridor to Iqaluit. It is understood that implementation of this study will take place in 2026 and will be revised based on the available hydrometric data collection that is carried out under the ongoing front-end engineering and design work.

In support of this, Dillon will develop a hydrologic baseline monitoring plan to fill critical data gaps noted earlier and enhance our understanding of the existing hydrologic regime. Also of importance is the need to understand how the streams and lakes will function under a changing climate. It is noted that in the background literature used to develop this scope of work, preliminary investigations have already been completed to account for climate change. As more evidence and research becomes available, this information must be incorporated into the project plan.

The baseline study and monitoring plan will include an inventory of watercourse crossings, with assessments of channel morphology and potential impacts to fisheries now and in the future. The study's findings will be essential in evaluating project feasibility, potential environmental impacts, and to support future permit applications.

7.8.3 Hydrologic impact assessment

Building upon the 2026 baseline study and monitoring, Dillon will provide recommendations regarding the potential hydrologic impacts of the Iqaluit Nukkiksautiit Project. This assessment will assess how the reservoir, dam footprint, transmission pipelines, and projected water releases may impact streamflow and runoff. This will include specific focus on how these changes could impact watersheds and watercourses within, and adjacent to, the project area. We will also assess potential local impacts on road and pipeline watercourse crossings to support the project's long-term sustainability and minimize disruption to existing infrastructure and natural systems.

7.9 GROUNDWATER HYDROLOGY

In tandem with Items **6.6.4** and **6.6.5** discussed above, the permafrost and seasonal groundwater systems may be affected by the presence of newly created reservoirs. Water bodies such as reservoirs and lakes hold thermal energy and over time, can thaw the underlying permafrost, creating taliks. The potential for talik creation could also impact capacity of an overlying reservoir. We propose combining desktop review, LiDAR, the available geotechnical data as proposed under the front-end engineering and design work, to evaluate the subsurface geology, depth to bedrock, and the potential for seasonal active layer groundwater and their interconnected pathways with overlying surface water systems.

7.9.1 2025 Baseline Studies

In Year 1, preliminary assessments of geological conditions within the project area will be conducted through a combination of literature reviews (in combination with Section 6.3.6.1, above). LiDAR will be used to collect data on fracture networks at surface, bathymetry (as discussed above in Section 6.3.7), and ice content. Geology in the project area will be evaluated using all available literature, including peer-reviewed journals, government publications, Indigenous knowledge, and grey literature. Opportunistic field sampling (soil, surface water, groundwater) will also be completed in Year 1 in cooperation with field teams deployed for other disciplines to help refine a comprehensive workplan for geological characterization to be carried out in Year 2. Year 1 will also include the time to collaborate with NNC to identify locations for drilling to install monitoring wells and thermistors in Year 2. It is assumed that the thermistors will be used for long-term site monitoring.

7.9.1.1 2026 Baseline Studies

A field assessment for ice content in soil, soil grain size, depth to bedrock, depth to permafrost will be conducted. This analysis will be conducted to determine geological conditions and assist in evaluating climate change vulnerability (present and in the future). The installation of thermistors will assist in providing baseline data for permafrost hydrology at the site, as well as provide long-term monitoring options that can assess the underlying permafrost under a changing climate. The information will be used to develop a conceptual site model that shows linkages between surface water, seasonal groundwater, bedrock and soil. These flow conditions can be used to further assess potential migration pathways and risk to human health as proposed below.

7.9.2 Human Health Risk Assessments

Hydroelectric development has the potential to influence water quality and aquatic ecosystem health, particularly in newly created reservoirs. While the proposed reservoir area and downstream environments are unlikely to present conditions conducive to significant methylmercury formation—given the region's cold climate, predominantly gravel-to-bedrock substrate, and low organic carbon levels—it is well documented that hydroelectric impoundments can alter biogeochemical processes. These changes may increase the production of methylmercury, a bioavailable and toxic form of mercury, leading to its accumulation in aquatic food webs. This is particularly relevant for subsistence fisheries and other country food sources relied upon by Indigenous and non-Indigenous communities in Nunavut.

Given the potential implications for human health and environmental sustainability, a Human Health Risk Assessment (HHRA) may be required to evaluate the extent of methylmercury accumulation in fish and other aquatic country food items. The necessity of an HHRA will be determined based on the collection of additional site-specific data, including:

- Reservoir and downstream biophysical characteristics, such as water chemistry, fish habitat quality, and sediment composition;
- Baseline methylmercury concentrations in fish and other aquatic species of interest;
- Inuit Qaujimajatuqangit and TLU studies, which will provide critical insight into the extent to which the affected waterbodies are used for fishing and harvesting by local Indigenous and non-Indigenous community members; and
- Cumulative effects considerations, evaluating whether the project's influence on methylmercury levels may compound existing environmental and human health risks.

Until baseline studies are completed, it is uncertain whether this VEC will be relevant to the Project. Once additional information is gathered, Dillon will review the results and work with NNC and regulators to determine the most suitable assessment approach, ensuring it is tailored to the site-specific conditions and potential project impacts. Dillon will also engage closely with regulatory agencies and NNC to confirm that all relevant factors are considered when determining the need for a Human Health Risk Assessment (HHRA). If an HHRA is deemed necessary, Dillon will develop a comprehensive scope of work in Year 2/3, including a detailed study design, sampling and analytical methods, and risk characterization approaches.

7.10 PUBLIC AND INDIGENOUS CONSULTATION SUPPORT

SEM has specialized experience in rightsholder and Indigenous engagement, specifically in northern communities; and has a comprehensive understanding of the Iqaluit Nukkiksautiit Project having collaborated with NNC in 2023 and 2024 on the development of a consultation plan and roadmap, engagement communication protocol, and communication and collateral material for community awareness and capacity building.

Through this proposed partnership, SEM will continue the consultation work already started to create a constant connection to the people of Iqaluit. SEM understands the importance of consistent, clear, and understandable messaging for a diverse audience through multiple communication channels. This is even more important for the Iqaluit Nukkiksautiit Project due to the language barriers which often accompany projects of this type in Nunavut and other Northern landscapes, and so the focus on clear language and the availability of all materials in Inuktitut first is something SEM will work diligently with NNC to ensure for every communication.

SEM has extensive experience with environmental assessment and the consultation requirements associated with the regulatory process. SEM will include all regulatory requirements in the Consultation Plan and roadmap to ensure compliance with regulations. SEM will also manage the rightsholder tracking software to ensure that ongoing tracking of engagement, responses, and commitments are organized and responded to in a timely manner. Tracking of communication and engagement activities is critical for compiling a complete record of engagement for regulatory and permit approval processes. SEM recommends using Net Benefit, a rightsholder and benefits tracking software used by many project proponents.

7.10.1 Strategic Recommendations

SEM recommends that NNC provide an update to the public and key rightsholders in Iqaluit about the decision to move forward with further baseline studies on the Project, which was presented to the public in November 2023 and January 2025. It will be important to share the materials regarding the announcement to the nearby Hamlet of Pangnirtung at the same time, to ensure they are kept up to date with the Project. Consideration should be given to offering an information session in the Hamlet. Considering that this is an extremely remote area with varying accessibility, SEM will work with NNC to determine the feasibility and scheduling of an event in Pangnirtung, if there is interest.

SEM also recommends launching field work announcements including calls to the public for positions such as Inuit Mentors, Bear/Wildlife Monitors, students, etc. The target release date is April-May as this will be important timing to capture any requirements for Inuit involvement in baseline studies and will give people ample time to consider participating. While field work is ongoing, it is recommended that NNC continue to distribute updates and information about the studies being completed. Testimonials from locals who participate in field studies can be used to create positive outreach materials for the Project. This work is also an opportunity to create additional awareness around NNC and the work it is doing, utilizing a promotional campaign strategy.

Upon completion of baseline studies, SEM recommends hosting another community event that will provide an update on the Project, results of baseline studies, as well as to present the overall strategy for

environmental assessment going forward. All feedback collected during this process will be handled appropriately, and lessons learned will be incorporated into the following year's engagement planning.

As SEM has created and executed materials for many of NNC's events in Iqaluit, Kinngait, Resolute Bay, and Sanirajak, an established materials list, workback schedules, and a communications loop is already in place. Coupling this with new ideas to increase accessibility, reach, and additional communications channels, SEM is excited to bring this next phase of the Project to the people of Iqaluit and provide in-person opportunities for feedback, questions, and concerns.

7.10.2 Additional Consultation and Engagement Services

In addition to the consultation support requirements listed in the RFP, SEM is available to assist NNC with the creation of collateral material and key messaging for engagement activities. SEM can provide a suite of consultation services to complement engagement activities, this includes:

- Collateral material, such as information sheets, poster boards, maps, FAQs, newsletters, surveys, project website, social media posts, advertisements, public notices, etc;
- Event management and coordination for community information sessions and rightsholder events; and
- Socio-economic Partnership Agreements or Impacts and Benefits Agreements with local communities.

SEM is happy to work with NNC to develop a budget for any additional services or collateral material required to execute the Consultation Plan.

7.11 SOCIOECONOMIC

Dillon understands that Nunavut Nukkiksautiit Corporation (NNC) will lead all socio-economic data collection for the Iqaluit Nukkiksautiit Project. Dillon's role is to review and provide feedback on the information collected by NNC and to support the development of an EIA scope and Terms of Reference for future data collection activities related to Valued Socio-Economic Components (VSECs).

Year One Activities

In the Year One, Dillon will support NNC by:

Reviewing VSECs Identified by: Dillon will review the social, cultural, and economic factors identified by NNC as potentially affected by the Project. These may include:

- Economic development and employment opportunities
- Community infrastructure and services
- Cultural and traditional land use
- Energy and food security
- Potential impacts on protected and culturally significant areas

Assessing Existing Data and Gap Analysis: Dillon will review socio-economic reports and datasets compiled by NNC to help assess whether they meet the Nunavut Impact Review Board (NIRB)'s requirements. Dillon will provide a summary memo outlining:

- The adequacy of the data relative to NIRB expectations
- Key data gaps
- Comparisons with other projects in Nunavut where relevant

Supporting Community Engagement if required: While not anticipated for year one, Dillon can support NNC in incorporating input from community engagement sessions into the socio-economic components of the Environmental Impact Assessment (EIA) so that local priorities are reflected.

Recommendations for Future Work if required: Dillon will prepare a memo summarizing reviewed data, identifying key gaps, and providing recommendations to guide future socio-economic data collection and analysis.

Subsequent Years

In future phases of the Project, Dillon will continue to support NNC by:

- Assisting in the development of detailed plans for socio-economic data collection to address gaps identified;
- Supporting refinement of the VSEC assessment based on new information and community input;
- Helping integrate long-term socio-economic trends into the overall EIA; and
- Providing guidance on aligning socio-economic documentation with NIRB's regulatory expectations

Dillon's role is advisory and collaborative, working closely with NNC to ensure that socio-economic considerations are effectively documented and integrated into the EIA scope and Terms of Reference, in a manner that reflects Indigenous perspectives and supports sustainable development in Nunavut.

7.12 FINAL TERMS OF REFERENCE

To finalize the Terms of Reference (ToR), Dillon will refine the preliminary version by incorporating regulatory, technical, and rightsholder feedback. This process involves addressing input from the NIRB, NPC and federal authorities to align the ToR with established impact assessment requirements. Key revisions will include adjusting the scope of studies, refining methodologies, and clarifying compliance expectations in year two and three. Updates will be made to VECs and VSECs based on regulatory guidance, early consultation findings, and additional data reviews. The structure of the document will reflect NIRB's framework by grouping assessments under distinct Environments, placing all disciplines on an equal level.

Study designs will be refined to reflect updated baseline data collection needs, including wildlife movement, water quality, socio-economic impacts, and traditional land use considerations. The assessment criteria for cumulative effects and significance determination will be revised to align with regulatory expectations and emerging project information. Mitigation planning will be expanded, incorporating the avoid, minimize, restore, offset approach with specific measures tailored to the project's potential impacts. IQ and rightsholder feedback will be integrated into study methodologies, guiding decisions on spatial, temporal, and thematic assessment boundaries.

The final ToR will be subject to internal technical review before submission to regulators for final review and comment resolution. Following engagement with regulatory agencies and rightsholders, any outstanding requests for modifications will be addressed by the Team. Once approved, the document will provide a structured foundation for the Environmental Impact Assessment (EIA) Report, aligning impact assessment activities with federal and territorial decision-making processes.

8. ENVIRONMENTAL IMPACT STATEMENT (EIS) PREPARATION

Dillon will lead the development of the Draft Environmental Impact Statement (DEIS) to meet the requirements of the Nunavut Planning Commission (NPC) under the Nunavut Agreement (NA) and the Nunavut Planning and Project Assessment Act (NuPPAA), and to support submission to the Nunavut Impact Review Board (NIRB).

The DEIS will provide a structured, science-based evaluation of potential environmental, social, and economic impacts, supporting regulatory decision-making and rightsholder engagement. The Team will develop the DEIS through an iterative process, incorporating regulatory feedback, rightsholder input, and technical assessments following the completion of the baseline studies listed in Section 6.

Regulatory Pathway Overview

- NPC Screening Process
- The first step is the submission of a Project Description to NPC.
- The NPC's role is to determine if the project conforms to applicable land use plans.
- A full Environmental Impact Assessment (EIA) is not required at this stage — only a project description is needed.

NIRB Review and EIS Development

- If the project is deemed to conform with land use plans, it will be referred to NIRB for a screening.
- NIRB will determine whether a full impact assessment is required.
- Dillon assumes that NIRB will require a full impact assessment.

If required, the Team will develop the Terms of Reference (ToR) and EIS guidelines to inform the DEIS.

8.1 EIS REPORT STRUCTURE AND CONTENT

The NIRB has a two-stage approach for the submission and acceptance of an EIS. The first stage is the submission of the Draft EIS (DEIS). This can be submitted after one year of baseline collection and after the finalization of the EIS Guidelines. The NIRB will review the DEIS submission and prepare a number of information requests submitted by the NIRB, regulatory agencies such as Environment and Change Canada (ECCC), the Hunter and Trappers Associations (HTAs), and other regional governing agencies. Theses information requests will inform additional baseline work and analysis, which will then be used to prepare the Final EIS (FEIS).

Both the DEIS and FEIS will be organized to clearly present findings and facilitate regulatory review. Key sections will include:

- Guiding Principles – Inuit Qaujimajatuqangit (IQ), Public Engagement, Precautionary Principle, and Sustainable Development;

- Executive Summary – Overview of key findings, regulatory considerations, and proposed mitigation strategies;
- Project Description & Regulatory Framework – Proponent information, Project details, scope, and required approvals;
- Project Environment and Impact Assessment – Assessment chapters including baseline assessment and impact assessment for the following, but not limited to;
    - Atmospheric Environment (Air Quality, Climate);
    - Acoustic Environment (Noise & Vibration);
    - Water Resources (Hydrology, Hydrogeology, Surface Water, Groundwater);
    - Aquatic Environment (Fish & Fish Habitat, Acid Rock Drainage/Metal Leaching);
    - Terrestrial & Vegetated Environment (Wildlife, Vegetation, Biodiversity);
    - Wetlands;
    - Public Health & Safety;
    - Socioeconomic Considerations (Labour, Economy, Infrastructure);
    - Indigenous and Traditional Land Use;
    - Heritage & Archaeological Resources; and
    - Transportation & Land Use.
- Impact Assessment – Factors considered, scope of the impact assessment, VEC, VSEC, Approach, cumulative effects, transboundary impacts, indicators and criteria, significance determination and certainty;
- Cumulative Effects Assessment – Analysis of project effects in combination with other projects and activities that have been or will be carried out; and
- Environmental Effects, Impact Analysis, and Mitigation Integration – A consolidated assessment of potential project impacts and corresponding mitigation measures.

The Team will apply a structured impact assessment methodology, evaluating risks to water quality, wildlife, habitat integrity, and Traditional Land Use. The analysis will categorize impacts and develop practical mitigation strategies, providing environmental protection, resource conservation, and social responsibility principles are embedded in project planning and execution.

8.2 INCORPORATION OF INUIT QAUJIMAJATUQANGIT (IQ) AND PUBLIC CONSULTATION

Dillon will outline how Inuit Qaujimajatuqangit was incorporated throughout the EIA process, including the collection of baseline data, impact prediction, significance assessment, and the development of mitigation and monitoring programs.

The report will also integrate Inuit Qaujimajatuqangit and local expertise information gathered by NNC and SEM, including:

- Community concerns and cultural values; and
- Findings from consultations with Hunters and Trappers Organizations (HTOs), Inuit organizations, and rightsholders.

8.3 MONITORING AND ADAPTIVE MANAGEMENT FRAMEWORK

A monitoring plan will track environmental and socioeconomic impacts over time, including:

- Performance indicators for terrestrial and aquatic environments, and climate resilience;
- Community-based monitoring initiatives, engaging Indigenous groups in environmental oversight;
- Adaptive management strategies, allowing for mitigation adjustments based on observed impacts; and
- Incorporation of Inuit Qaujimajatuqangit to inform the selection of performance indicators, guide community-based monitoring, and support adaptive management by ensuring Indigenous knowledge and perspectives are reflected in assessing and responding to environmental and socioeconomic changes.

8.4 REVIEW, FINALIZATION, AND SUBMISSION

The DEIS will undergo a quality assurance review, confirming technical accuracy, regulatory completeness, and clarity. Feedback from Indigenous organizations and regulators will be incorporated before submission to NIRB and other governing bodies.

The team will remain actively engaged post-submission, providing technical support, participating in public hearings, and responding to regulatory inquiries if required.

By leading the development of the DEIS, Dillon will deliver a well-structured, data-driven assessment that supports informed decision-making, regulatory approval, and responsible project execution in Nunavut.

8.5 IMPACT MITIGATION PLANS

Dillon's approach to mitigation planning includes detailed environmental effects and impacts analysis which will be completed as part of the EIA report. Using data collected through environmental baseline studies and community engagement, Dillon assess the potential effects of the proposed hydroelectric facility on both the environment and local communities. This analysis will consider:

- Direct and indirect impacts, including habitat disturbance, water flow alterations, and socio-economic changes;
- Cumulative effects, evaluating how this project may interact with existing and future developments in the region; and
- Regulatory compliance, meeting the requirements of the Nunavut Planning Commission (NPC), and the Nunavut Impact Review Board (NIRB).

Based on this analysis, Dillon will develop targeted mitigation measures strategies for construction activities that will be designed to minimize negative environmental and social impacts. These measures will be:

- Practical and effective, supporting feasibility in implementation;
- Sustainable, incorporating long-term environmental stewardship; and
- Aligned with community and regulatory expectations, incorporating both technical assessments and Inuit Qaujimajatuqangit.

Mitigation measures will address a range of environmental factors, including but not limited to:

- Air quality – strategies to control emissions and particulate matter;
- Aquatic habitats and fisheries – measures to protect fish populations and maintain ecological balance;
- Geology and terrain stability – plans to minimize erosion and landscape disruption;
- Terrestrial wildlife and vegetation – habitat conservation strategies;
- Water resources – protecting hydrology, groundwater, and water quality; and
- Noise – assessing and mitigating disturbances to local environments.

These measures will be designed to align to territorial environmental regulations and community sustainability goals.

9. PLANNING FOR PHASE 4

Phase 4 will focus on developing a comprehensive monitoring and compliance strategy framework to track the effectiveness of environmental protection measures throughout the construction phase of the project. This framework will ensure that mitigation strategies are effectively implemented, performance is tracked, and adaptive responses are made based on real-time data and evolving project conditions.

Regulatory Context and Alignment

- Phase 4 will begin after the EIS has been approved and the project has received an Environmental Certificate from NIRB.
- The framework will align with the conditions of the Environmental Certificate and any terms set by regulators (including NIRB and the Nunavut Water Board).
- Permitting for major infrastructure, including the water license for the hydroelectric facility, can only proceed after NIRB approval and issuance of the Environmental Certificate.
- The strategy will also reflect any requirements for ongoing consultation and engagement with Indigenous organizations and rightsholders.

Monitoring Strategy

Dillon will develop a monitoring program to track environmental and socio-economic impacts over time, including:

- Water Quality – Monitoring surface and groundwater quality to ensure compliance with environmental standards and protection of aquatic ecosystems;
- Wildlife Populations – Tracking population dynamics, habitat use, and changes in species abundance;
- Fish and Fish Habitat – Monitoring fish populations, habitat conditions, and water quality to assess potential impacts on aquatic ecosystems and ensure the protection of critical spawning and rearing areas;
- Vegetation and Habitat – Monitoring vegetation health and regeneration, including potential disturbances;

- Climate Resilience – Measuring weather patterns, ice formation, and other climate-related factors affecting project infrastructure;
- Community and Social Conditions – Monitoring changes in local employment, economic benefits, and cultural well-being.

Adaptive Management Approach

An adaptive management approach will be used to allow for real-time adjustments based on observed impacts and emerging environmental trends. This approach will involve:

- Early Warning Triggers – Establishing performance thresholds that will signal the need for corrective action;
- Data-Driven Adjustments – Using monitoring data to modify mitigation measures as necessary;
- Regulatory and Rightsholder Feedback – Ensuring that adjustments are made in consultation with regulators and Indigenous groups;
- Continuous Improvement – Updating the monitoring framework regularly based on project performance and evolving environmental conditions.

Role of Inuit Qaujimajatuqangit (IQ) and Community Engagement

The monitoring framework will integrate Inuit Qaujimajatuqangit and local expertise by:

- Incorporating Inuit knowledge into the development of performance indicators and monitoring strategies;
- Engaging Indigenous groups and local communities in community-based monitoring programs;
- Using local feedback to guide adjustments to mitigation measures and monitoring priorities;
- Providing transparent reporting to Indigenous communities and rightsholders on environmental and social performance.

Compliance and Reporting

Dillon will develop a compliance framework to track adherence to regulatory requirements and commitments outlined in the Environmental Certificate, including:

- Annual Reporting – Providing detailed reports to NIRB and other governing bodies on project performance and environmental compliance;
- Non-Compliance Triggers – Defining corrective actions in the event of non-compliance or unexpected environmental impacts;
- Transparency – Sharing monitoring results and compliance status with Indigenous communities, local rightsholders, and regulatory agencies.

Flexibility and Long-Term Strategy

The framework will be designed to evolve over time, allowing adjustments based on:

- Scientific Assessments – Updated technical data and expert analysis;
- Environmental Changes – New stressors, habitat shifts, and water flow alterations;

- Rightsholder Feedback – Input from Indigenous groups, local communities, and regulatory agencies;
- Regulatory Updates – Changes to environmental legislation or NIRB conditions of approval.

10. WORK PLAN

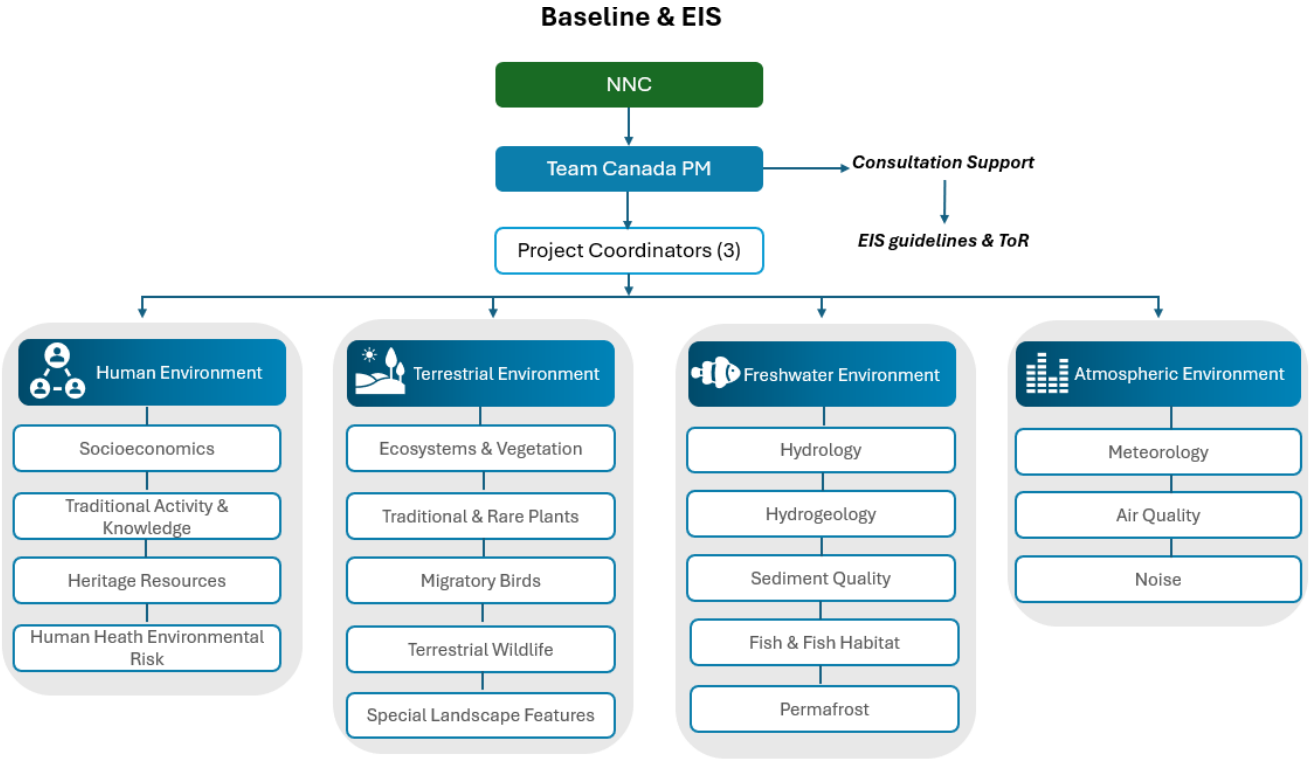

Figure 4: Work Scope Chart

10.2.1Proposed Project Schedule

Dillon understands that future development is contingent on the Project approval. Understanding that EIS process and its inherent uncertainties, Dillon's strategy includes an early engagement with all Authorities Having Jurisdiction (AHJ) along with reviews of the draft EIS. This step is integral to refining and improving the final submission. For the purpose of this proposal Dillon has compiled a schedule for Year 1 Environmental and Cultural Focus Areas, Baseline Study & Engagement Strategies. With an expected Project start in mid March 2025, Dillon has laid out schedule for the necessary tasks, detailed on Error! Reference source not f ound. which outlines key project milestones and proposed deliverable dates for Year 1.

Table 2: Year 1 (2025) Proposed Timeline

MILESTONE	QUARTER
Project Kick-off	March 17, 2025
Permit Roadmap and Permit Register	Q2
Year 1 baseline studies permit(s)	Q2
Field Program (year 1 baseline)	Q2-Q3

MILESTONE	QUARTER
Draft Project Description	Q4
Draft ToR	Q4
Draft EIA Scope	Q4

Table 3: Year 2 (2026) Proposed Timeline

MILESTONE	QUARTER
Final EIA Scope and Year 2 Field Work Scope	Q1
Final Project Description Submission	Q1
Year 2 Field Work	Q2/Q3
DEIS Preparation	Q4

Table 4: Year 3 (2027) Proposed Timeline

MILESTONE	QUARTER
DEIS submission for review	Q1
Remedial baseline studies (based on IRs from DEIS review)	Q2/Q3
Q4 Final EIS report submission	Q4

11. INUIT PARTICIPATION

The Team will prioritize local participation by first consulting with Nuna Logistics to identify hiring opportunities and determine the best approach for integrating local personnel into the project. It is assumed that at least one field assistant will participate in each field trip.

We will also engage students from the Nunavut Arctic College Environmental Technology Program based in Iqaluit. This two-year program equips students with a broad array of technical and field skills required for successful environmental work. Our vision is to support career development by providing scholarship funding through Nunavut Arctic College, along with skills training programs, to give residents the expertise needed to participate in and benefit from the Project.

We will work with Nuna Logistics, an Inuit-owned company, to handle the recruitment of local technician, procurement of materials and shipping.

Additionally, we will work with NNC to integrate Inuit and Qikiqtani-based personnel into key project tasks, providing hands-on experience and supporting career development through mentorship and training opportunities. This approach fosters early engagement of student technicians in the environmental assessment phase, allowing them to develop long-term expertise and retain valuable corporate memory through the construction and monitoring phases.

The integration of local personnel will not only enrich baseline studies with local knowledge and insights but also contribute to a broader community-building initiative, making this more than just another construction project. To initiate this process, we will immediately engage with the instructors of the Environmental Technology Program, present an overview of the planned fieldwork, and seek summer employees to participate in project activities.

12. PROJECT MANAGEMENT

12.1 KEY PERSONNEL

Project Managers at Dillon are dedicated to thoroughly understanding your organization and advocating for your needs throughout the entire process. They focus on maximizing the value of every dollar spent, meeting time constraints, minimizing external pressures, and exceeding expectations.

The Dillon Leadership Team will be led by **Michelle Roche**, the Project Manager, with support from **Joe Muraca** as the Risk Screening Partner and **Indra Kalinovich** as a Senior Technical Advisor for Dillon.

Given the complexity of this project, a Project Management Team approach will be adopted. This team will include Senior Advisors and a Project Coordinator to support the Project Manager and NNC. SEM Senior Advisors and the Project Coordinator will play a key role in managing logistics, planning, and permitting. Leadership in these areas will be provided by **Grant Vivian, Rosanne Williams,** and **Melanie Williams** as Senior Advisors. **Mogan Walsh** will serve as the Project Coordinator.

Senior and Technical Advisory services will also be provided by **Dan McAllister** from EcoLogic.

This structure builds on Michelle's expertise, facilitating effective internal communication, client liaison, scheduling, and budget control.

Table 5: Leadership Team Matrix

NAME & DESIGNATIONS	ROLE	PROPOSED PROJECT DUTIES	YEARS OF EXPERIENCE
DILLON CONSULTING LIMITED			
Michelle Roche, EP, RPF	Project Manager	• Lead the project management process and advise NNC on issues with schedule and/or budget; • including course corrections and issue resolution, if required; • Provides proper resources are available to deliver the project; • Lead the project team and provide advice and direction to team leads, including sub-consultants; and • Attend regular calls with the NNC Project Team • and disseminate information to the Team, as appropriate.	16
Joe Muraca, MES	Senior Advisor and Risk Screening Partner	• Responsible for risk management, including; and • identifying risks, critical path items and mitigation measures to maintain the schedule	23
Indra Kalinovich, P. Eng	Senior Advisor	• Quality Assurance and Control of deliverables by reviewing draft and final reports, and documents; and • Support Project Manager on logistics, national resource support and guidance.	20
ECOLOGIC			

NAME & DESIGNATIONS	ROLE	PROPOSED PROJECT DUTIES	YEARS OF EXPERIENCE
Daniel McAllister	Senior Technical Lead, Terrestrial Ecosystems	• Manage the design and execution of terrestrial baseline programs; • Field lead for terrain, special landforms and permafrost • develop terms of reference, project description and environmental impact assessment methods; and • manage and prepare the DEIS and FEIS submissions, manage information requests	30
Ryan Durand	Senior Field Lead, Terrestrial Ecosystems	• Prepare and execute baseline programs for terrestrial ecosystems; and • Field lead for terrestrial ecosystems.	20
Jason Jones	Senior Technical Lead, Wildlife	• Field lead for wildlife studies; and • Senior author for terrestrial baseline studies.	35
Jamie Fenneman	Senior Field Lead, Rare Plants	• Field lead for rare and culturally important plant studies; and • Contributing author for terrestrial baseline studies.	20
David Willis	Community Consultation	• Ensure meaningful participation of the local communities in the project, support on baseline studies logistics.	25
SEM			
Grant Vivian	Senior Advisor	• Advisor for coordinating complex projects in remote and northern environments.	20
Rosanne Williams	Senior Advisor Consultation and Engagement	• Provide support to NNC in managing rightsholder and Indigenous engagement, developing communication plans; and • Identifying rightsholder needs, building trust, and developing strategies to strengthen client and community relations.	20
Melanie Williams	Senior Advisor Regulatory Affairs	• Advisor for compliance with regulatory standards and successful project execution; and • Provide support for collaborating with Indigenous governments and rightsholders to deliver strategic environmental solutions.	20
Brittany Connolly	Environment and Permitting Specialist	• Coordinate permitting and approvals to complete field studies; and • Manage compliance with conditions of permits and approvals.	10
Morgan Walsh	Project Coordinator	• Coordinate deliverables (e.g., VEC reports, field study protocols etc.); • Coordinate field staff, sub-consultants, and suppliers; and • Coordinate desktop reviews and compile EIA report	10

Other members of the Team may be included on the Project to carry out additional tasks, as needed. While curricula vitae for the Project team members or other Dillon staff that may be added for the assignment are not provided in this proposal in the interests of brevity, they can be provided upon request.

Selecting a strong team will provide NNC with advice and solutions that are tailored to satisfy the specific regulatory framework in Nunavut and that are aligned with values of NNC. We are confident in our Team's ability to successfully deliver the scope as outlined in this proposal; however, as a national company we have additional resources that can be engaged to address unforeseen Project requirements or manage schedule slippage.

Biographies for key team members and leads are below; resumes for all the proposed personnel are provided in **Appendix C.**

MICHELLE ROCHE, RPF, EP — 20 YRS EXPERIENCE

PROJECT MANAGER

Michelle Roche is an Environmental Specialist with over 20 years of experience in natural resource management, environmental assessments, and sustainability planning. She holds a bachelor's degree in environmental studies and Forest Conservation (Honours) from Lakehead University and is a Registered Professional Forester in Newfoundland and Labrador. Additionally, she is a certified Environmental Professional (EP) in Canada specializing in Sustainability, Natural Resources Management, and Environmental Management Systems (EMS) and a Lead Auditor for ISO 14001.

As a Project Manager and Environmental Professional, Michelle has extensive expertise in regulatory compliance, environmental impact assessments, and permitting processes for major infrastructure projects, including Muskrat Falls, Churchill Falls and Menihiek hydroelectric generation stations. Her experience includes leading rightsholder and Indigenous consultations, managing complex environmental approvals, and conducting biophysical surveys to support environmental assessments. She has successfully coordinated both federal and provincial impact assessment, permitting strategies, and environmental management systems for projects across Canada.

With a strong background in environmental planning and project management, Michelle brings a detail-oriented approach to managing environmental risks and regulatory frameworks, ensuring compliance with federal, provincial, and territorial requirements. Her leadership in environmental sustainability and commitment to responsible resource management make her a valuable asset to projects requiring strategic environmental oversight.

INDRA KALINOVICH, P. ENG — 20 YRS EXPERIENCE

SENIOR ADVISOR

Indra has been working on Northern projects for the federal government since 2003, performing environmental projects at sites in communities and remote fly-in locations. Indra's first field experiences were working on the DEW Line remediation project for CIRNAC sites – BAF-5 (2003-2008), and FOX-D (2013-2016) are two programs that Indra had direct involvement with both the remediation planning, mitigation adoption, and delivery. Indra has managed numerous Phased ESAs, EIA/PPRs, LTM programs in the north and RAPs for abandoned exploration, mine sites, and others, across the Canadian north. Indra has been supporting the Environmental Working Group that reviews consultant assessments of DEW Line landfills since 2017. This role requires both technical reviews of long-term monitoring programs, and deep understanding of contaminant containment and permafrost hydrogeology in the north, under a changing climate. The EWG

works with representatives from both the Nunavut Tunngavik Incorporated and the Inuvialuit Regional Corporation to discuss and make recommendations on improving the monitoring program under its current phases in each of their respective regions. This experience lends to Indra's deep understanding of the need to develop viable, long-term decisions that weave Traditional Knowledge and land use planning with regulatory approaches.

Indra's northern experience isn't limited to federal – by working closely with our Yellowknife-based environmental team, Indra has supported northern communities in the Northwest Territories and Nunavut in developing their water licenses, and managing their facilities (including the development and evaluation of long-term monitoring programs, and applying for Water Licences and Land Use Permits) that maintain their compliance within their respective Land and Water Boards, as well as working on site assessment and remediation projects throughout the NT and NU. As a result, Indra has long-standing relationships with northern and Indigenous suppliers and businesses throughout the NT and NU.

JOE MURACA, MES **23 YRS EXPERIENCE**

SENIOR ADVISOR AND RISK SCREENING PARTNER

Joe is a Partner and environmental planner with more than 20 years' experience in large, multidisciplinary environmental and socio-economic impact assessment and rightsholder and Indigenous engagement projects. In this time, he has managed or directed hundreds of projects with many more where he participated as a team member or Subject Matter Expert (SME). He has also been involved in environmental mitigation and inspection services and has provided expert testimony before the Ontario Energy Board and supported clients with hearings before the National Energy Board. In particular Joe has been involved in a number of projects requiring Individual Environmental Assessments throughout the province including linear infrastructure, electric transmission, and mining projects. Joe also has experience supporting Hydro One in a variety of roles and projects.

Joe has worked to assist a wide range of companies in managing/coordinating the environmental assessment, rightsholder engagement and permitting of a variety of facilities. He is well known to his clients for his in-depth understanding of project lifecycles, from pre-planning through to the EA, permitting, construction, and post-construction phases. He is particularly very well versed in the creation of Environmental Protection Plans and programs to support clients with Environmental Inspection and Monitoring services.

Joe approaches complex issues in a strategic manner, balancing clients' business interests with their obligations to regulatory authorities. A vocal advocate for his clients, he prides himself on a practical and results-driven approach to permitting and approvals. He has had success directing and managing projects and portfolios of work for linear infrastructure clients. Joe also has a relationship-based approach to contract and project management. Understanding what his clients need and how deliverables should be provided to best serve their expectations is one of his key differentiators. His level of credibility and reliability has been described by his clients as being at the 'utmost level of professionalism and consistency'.

GRANT VIVIAN **20 YRS EXPERIENCE**

SENIOR ADVISOR

Grant Vivian is President and CEO of SEM and has nearly 20 years of environmental consulting experience spanning a broad spectrum of skills. Since joining SEM in 2007, he has assumed the role of project manager

for a wide variety of large-scale environmental assessments, compliance, groundwater, PFAS, habitat compensation, fish passage, closure and rehabilitation, and water treatment projects. Work has been conducted in Newfoundland and Labrador, Nunavut, Sweden, and other regions of Canada. Most recently he is managing the largest TIA expansion project in the province guiding it through the full environmental permitting process including the Federal MDMER Schedule 2 amendment process. Having spent over a decade working in the Labrador Trough he expanded SEM's focus to northern projects and established an office in Pond Inlet supporting the Baffinland Iron Mines Corporation. Throughout his career his focus surrounded environmental consulting where he assumed the role of project manager for a wide variety of habitat compensation, fish passage, closure and rehabilitation, civil construction and water treatment projects. In 2013-2014 he retained a secondment position in western Labrador where he served as an environmental project manager for Wabush Mines. During his deployment to western Labrador, he acted as the primary liaison between the client, contractor and Provincial/Federal agencies. His main responsibilities were to ensure that the work was performed in accordance with applicable legislation and contract specifications, particularly as it pertains to the technical, safety and environmental requirements. He has attained a great amount of experience relating to the Fisheries Act and how it effects new and existing applications. Grant led the documentation process under the transitional measures for existing Fisheries Act Authorizations and is currently working on new applications under the new Fisheries Protection Policy Statement. Throughout his tenure with SEM, Grant has participated on several construction teams that have completed fish passage and fish habitat compensation projects from the conceptual stage through to final construction. He has led marine and freshwater field studies that involved the collection of water, sediment, benthos, fish, plankton, habitat classification, underwater video, and bathymetric data. He has completed several 'cutting edge' projects using innovative applications of technology that were new to the region of Newfoundland and Labrador. Currently, Grant is focused on key projects and growth initiatives within the organization.

ROSANNE WILLIAMS — 20 YRS EXPERIENCE

SENIOR ADVISOR

Rosanne Williams is a communications and external affairs professional with 20 years of experience in the energy and mining sectors. With degrees in Geology and Business, Rosanne is skilled in identifying rightsholder needs, building trust, assessing risks, and developing strategies to deliver effective solutions for clients. Rosanne has worked in exploration and large-scale renewable projects. Her experience spans all phases of project development and execution from environmental assessments to construction and commissioning. She has managed rightsholder and indigenous engagement, government relations, corporate reporting, and regulatory compliance for multiple projects. As Director of Corporate and External Affairs, Rosanne is responsible for strategic communications and planning, rightsholder relations, and Indigenous consultation and agreements. She is focused on strengthening our client and community relations. Before SEM, Rosanne played a key role in developing communication plans, managing rightsholder relations, and securing regulatory compliance for large-scale energy projects, including her time at Bp and Equinor. At Nalcor Energy, she led rightsholder engagement for high-risk projects such as the Muskrat Falls Inquiry and oversaw the development of various rightsholder and Indigenous relations strategies. Additionally, Rosanne has significant experience in public relations, corporate communications, and business development, with a proven track record of managing complex, sensitive, and high-profile projects.

MELANIE WILLIAMS — 20 YRS EXPERIENCE

SENIOR ADVISOR

Melanie Williams is an experienced environmental and engineering professional with over 20 years of expertise in both public and private sectors, specializing in contaminated site management, public land administration, policy development, and project management, particularly in Northern Canada. At Sikumiut Environmental Management Ltd. (SEM), she leads environmental programs, manages contaminated sites, and coordinates large-scale environmental assessments, ensuring compliance with regulatory standards and collaborating closely with Indigenous governments and organizations. Previously, as Assistant Deputy Minister at the Government of the Northwest Territories (GNWT), Melanie played a key role in developing the Public Land Act, managing the contaminated sites program, and providing strategic guidance on environmental policies. With significant experience in overseeing environmental site assessments and remediation projects, she excels in delivering successful environmental outcomes through strong leadership, technical expertise, and effective collaboration with diverse rightsholders.

MORGAN WALSH — 10 YRS EXPERIENCE

SENIOR ADVISOR

Morgan Walsh is a Professional Engineer at SEM with ten years' experience in project coordination and management. Morgan excels in organization, risk assessment, and budget management. She has a proven track record in leading teams, developing schedules, and overseeing major projects like the Trillium Line Expansion and the West White Rose Project. Known for her expertise in logistics, quality control, and problem-solving, Morgan is recognized for her effective project execution and leadership. She's been heavily involved in many IOC and Tacora Resources projects and several environmental assessments in NL.

DAN MCALLISTER — 30 YRS EXPERIENCE

SENIOR ADVISOR

Daniel McAllister, a Director at EcoLogic, is a geomorphologist and project manager with over 30 years of experience in environmental assessment, permitting, and project management, specializing in northern and remote projects. Since 2017, Daniel has managed the baseline programs and Environmental Impact Assessment preparation and planning for DeBeers Chidliak Project, which is adjacent to the Iqaluit Nukkiksautiit Project. Dan's expertise lies in integrating scientific disciplines to manage large, multidisciplinary projects in challenging environments. He has led key environmental assessment and permitting efforts for various mining, infrastructure, and clean energy projects, bringing together rightsholders, regulators, and Indigenous communities to achieve successful outcomes. His work emphasizes practical, community-driven approaches, ensuring plans are realistic, achievable, and reflective of local priorities. Daniel excels in bridging the gap between proponents, regulators, and local communities, creating collaborative environments where all rightsholders' concerns are addressed. Through his leadership on some of the North's most challenging environmental and infrastructure projects, Daniel McAllister has established himself as a trusted expert in advancing sustainable development in Canada's remote and Arctic regions.

RYAN DURAND — 25 YRS EXPERIENCE

SENIOR ADVISOR

Ryan Durand is a Registered Professional Biologist (R.P.Bio.) and ecologist/project manager with 25 years of experience working throughout western and northern Canada, including British Columbia, Nunavut, Northwest Territories, and Saskatchewan. Ryan has experience working on a wide range of projects, mainly baseline mapping and surveys and environmental assessments of proposed mines, and a variety of mine restoration, compensation and reclamation projects. He has worked on mine projects in the arctic since 2010, including the Chidliak Diamond Project (Baffin Island), Hope Bay, Hackett River and Back River in Nunavut, and Courageous Lake and Pine Point in the Northwest Territories, as well as several dozen mine projects in BC, Saskatchewan and New Brunswick since2007. His arctic experience includes extensive ecosystem and predictive mapping, baseline surveys for ecosystems, wildlife and fish habitat, and several million hectares of wildlife habitat suitability mapping. Other projects have included rare species surveys (mammals, birds, amphibians, gastropods and plants), riparian and foreshore mapping and assessments, and wetland and floodplain restoration

JASON JONES — 35 YRS EXPERIENCE

SENIOR ADVISOR

Dr. Jason Jones is a Senior Biologist and provincial QP with over 35 years of experience in terrestrial and wetland environments. Dr. Jones has worked on more than 350 energy (generation, transmission, and distribution), infrastructure and mining projects. His scientific responsibilities have included project design and implementation, experimental design, field surveys, data analysis (univariate and multivariate; spatial analysis), impact assessment and risk analysis, report writing, and senior technical review. Dr. Jones regularly leads regulatory consultation and First Nations engagement efforts. As a Director of EcoLogic, Dr. Jones is responsible for corporate management, human resources, client management, safety oversight, business development, and strategic planning. Since 2018, Jason has managed and completed the baseline programs and Environmental Impact Assessment preparation and planning for DeBeers Chidliak Project, which is adjacent to the Iqaluit Nukkiksautiit Project.

JAMIE FENNEMAN — 35 YRS EXPERIENCE

SENIOR ADVISOR

Dr. Fenneman has more than 30 years' experience studying flora and fauna in British Columbia and has collected and documented plants and wildlife throughout most of the province. He has performed work as an ecologist and botanist in several Canadian provinces and territories, and in the U.S. Dr. Fenneman specializes in ecological inventories, rare species surveys, and mitigation strategies for rare plants and animals. He has also conducted inventories and surveys of small and large mammals, invertebrates, amphibians, and birds. Dr. Fenneman completed wildlife surveys and rare plant surveys for the adjacent Chidliak Project.

Figure 5: Organization Chart illustrates our team organizational structure.

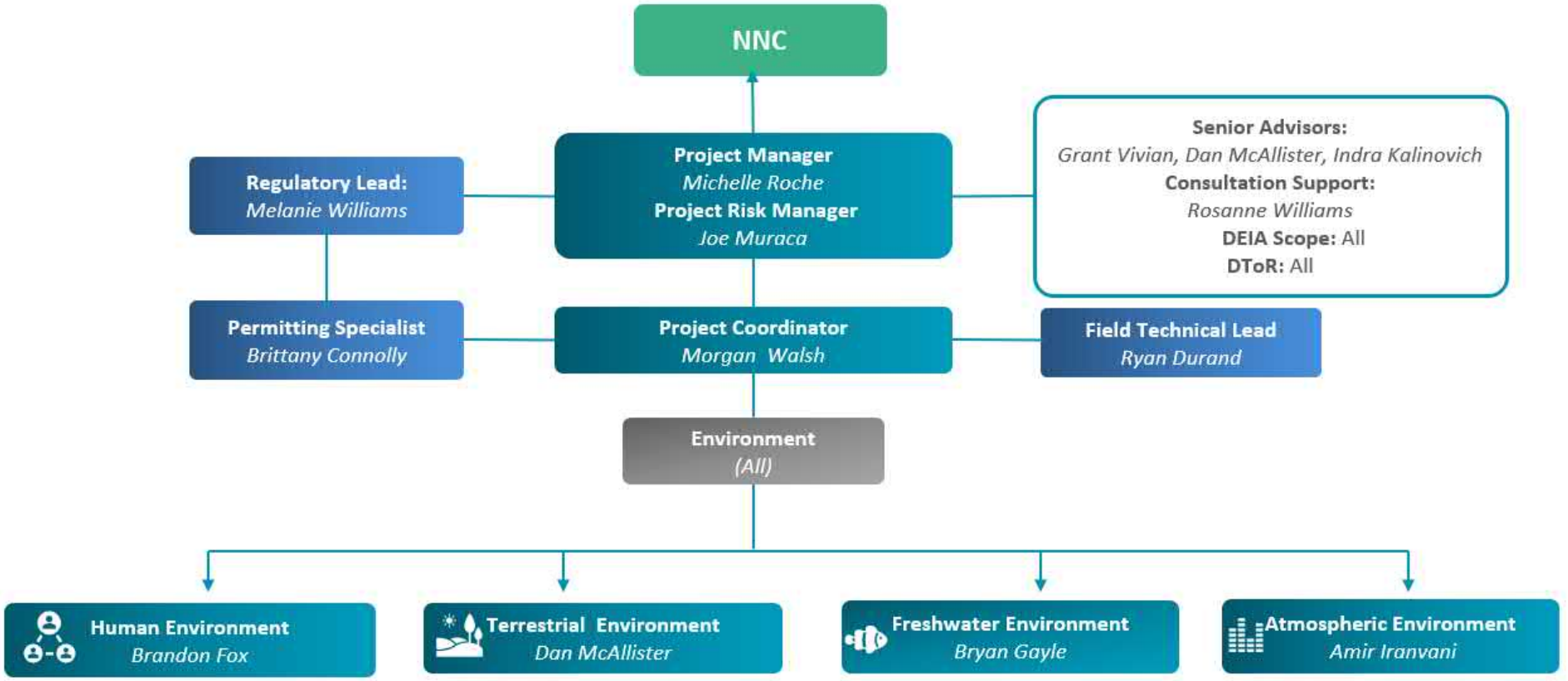

Figure 5: Organization Chart

17. QUALIFICATIONS & RELATED PROJECT EXPERIENCE

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
Dillon Consulting Limited		
NAME OF THE PROJECT: Apex Bridge Replacement **CLIENT:** City of Iqaluit **DURATION:** May 2024 - Mar 2025 **CONTRACT SIZE:** $375,902 ..... **LOCATION:** City of Iqaluit **RELEVANCE:** • Environmental impact assessment and field work; • Project permitting, approvals, and management; and • Preparation of study reports.	The City of Iqaluit engaged Dillon for an assessment by a Qualified Environmental Practitioner and to assist with environmental permitting for the project to replace the crossing structure over the Niaqunguk River in Apex, which is part of Iqaluit, Nunavut. In addition to these services, Dillon is responsible for the detailed engineering design, preparing tender documents, and managing the construction of the new bridge. As part of the environmental assessment process, desktop and field studies were conducted to evaluate the fish and fish habitat within the project area, including a general biophysical assessment. These assessments involved observing and identifying aquatic and terrestrial resources in and around the Project study area. The findings from these studies were compiled into a Request for Review and a supplemental Fish and Fish Habitat Assessment, which were submitted to the Department of Fisheries and Oceans (DFO). This comprehensive assessment addressed the potential environmental impacts, proposing mitigation strategies to prevent harm to the fish and fish habitat in the Niaqunguk River, mitigate downstream marine impacts, and protect SAR. Dillon was retained by the GN to assist with the planning and development of a new sewage lagoon within the municipality of Kimmirut, NU. Currently, sewage from the community is discharged daily down a bank, into a natural creek/wetland system (i.e., effluent flowpath), and flows into the Arctic Ocean. An existing pond south of the municipality was proposed to be converted into the new sewage lagoon to allow for the treatment of raw sewage. In discussions with DFO, they requested that fish sampling be conducted to confirm the absence of fish and determine whether the Project may cause	• EA; • Supply project scoping expertise; • Provide technical reviews of development project proposals, environmental impact statements, and monitoring reports; • Provide technical expertise for aspects related to the jurisdiction of the GN under legislation and or political mandates; and • Geographic Information Systems: map creation, geospatial database/toolkit development.

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
	impacts to fish and fish habitat that would require approval under the Fisheries Act. The project included the completion of a desktop assessment to confirm habitat requirements for potential fish species in the area; consultation with the community of Kimmirut (i.e., community Elders), a field-based assessment of fish habitat within the pond where observations and identification of aquatic resources and fish habitat located in and immediately surrounding the pond were conducted and water quality was sampled; and, passive and active fish observations and sampling to confirm presence or absence of fish within the pond. Consultation was conducted with the community of Kimmirut (i.e., with community Elders), which indicated that fish were not present within the pond and that the pond dries up and/or freezes to bottom in the winter. To complete the fish salvage work, a License to Fish for Scientific Purposes and Animal Use Permit was obtained from DFO (reviewed and approved by the Ontario, Prairie and Arctic Animal Care Committee [OPA-ACC]). Following the completion of the fish habitat assessment, a memo was completed to outline the potential for fish to be present in the pond and was submitted to the DFO. As part of this scope of work, Dillon also conducted bird hazard assessment and additional field surveys.	
NAME OF THE PROJECT: Environmental Impact Assessment At Otter And Montgomery Lakes CLIENT: Public Services and Procurement Canada (PSPC) DURATION: 2020-2022 .... CONTRACT SIZE: $226,00 CAD LOCATION: Kivalliq Region, NU	Dillon Consulting Limited and Outcome Consultants in joint venture (DOJV) completed this project for the Northern Contaminated Sites Program of PSPC on behalf of their client Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). The assignment was a multi-component environmental study leading to a Remedial Action Plan (RAP) for mining exploration on sites at Otter Lake and Montgomery Lake in NU. These mining exploration sites were active in the 1980s and are located approximately 200 km to the west of the hamlet of Arviat. Access is primarily by air (helicopter was used) but overland access in the winter from Arviat is also possible. The scope of work covered Steps 5 to 7, under the Federal Contaminated Sites Action Plan (FCSAP) Decision Making Framework, including: a data gap analysis, a conceptual site model and pre-fieldwork project planning given the	• EIA; • VEC; • Environmental Effects Mitigation; and • Indigenous/ Innu Consultation

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
RELEVANCE: • **Environmental Impact Assessment and Field Work;** • **Environmental Impact Assessment scoping;** • **Field Program Plan; and** • **Preparation of Study Reports.**	complicated logistics to access the remote sites.[2] The Phase III Site Assessment, Human Health and Ecological Risk Assessment (HHERA), EIA, geotechnical and survey field work were conducted with a small team supported by Inuit field team members, accessed on a fly-in/fly-out by helicopter via Arviat, NU. An Archaeological Overview Assessment was conducted by a sub-consultant. Findings supported a Remedial Options Analysis (ROA), RAP and associated Class B Cost Estimate. The EIA identified environmental effects and mitigation recommendations to be carried through the remediation project. The Specifications and Designs, Detailed Design Report, Cost Estimate and Tendering Assistance were based on the RAP. An EIA was carried out for the site's proposed RAP. Background information was collected at all stages of the project – through data gap analyses, historical record, and scientific record reviews, throughout the field program (interviewing local Arviat community members with knowledge on land use at and near the site), and during reporting (reviewing and incorporating archaeological assessment findings). A multi-disciplinary team was on site to collect biophysical, biological, geological, and environmental data. Environmental Effects and mitigation recommendations were made with respect to climate and air quality (e.g., using equipment in good working order, incineration of waste fuel to be conducted in incinerators with filter and mechanisms to reduce air emissions); geomorphology, hydrology and hydrogeology, soils, aquatic resources, vegetation, wildlife and wildlife habitat, traditional land use, heritage resources and culturally important areas, employment and economy, community services, and aesthetic value. Based on the assessment of effects for each VEC and VSEC identified, adverse residual effects predicted to be low in magnitude were identified for the wildlife and wildlife habitat VEC (e.g., change in wildlife mortality risk during site remediation activities and change in habitat availability during site preparation and remediation activities).	

[2] Legislative and Regulatory review included: Impact Assessment Act, Species at Risk Act, Nunavut Land Claims Agreement Act, Nunavut Planning and Project Assessment Act, Canadian Environmental Protection Act, Migratory Birds Act and Regulations, Transportation of Dangerous Goods Act, Canada Labour Code, Territorial Lands Act, Territorial Lands Regulations, Nunavut Wildlife Act, Nunavut Environmental Protection Act, Nunavut Environmental Right Act, Nunavut Territorial Archaeological Sites Regulation, and Environmental Guideline for the General Management of Hazardous Waste.

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
NAME OF THE PROJECT: Environmental Impact Assessment For Pioneer Sites CLIENT: PSPC DURATION: 2021 – 2022 CONTRACT SIZE: $399,981 CAD LOCATION: 160 km to 570 km from Resolute Bay, NU RELEVANCE: • **Environmental Impact Assessment and Field Work;** • **Field Program Plan;** • **Project Permitting, Approvals and Management; and** • **familiarity with the NIRB review process and regulatory requirements.**	Dillon Consulting Limited and Outcome Consultants in joint venture (Dillon-Outcome) provided Northern Contaminated Sites Program of PSPC on behalf of their client CIRNAC a multi-component environmental Study leading to a RAP for mining exploration on sites at the Pioneer Exploration Sites in Nunavut. The Pioneer project consists of seven sites - Pioneer Island, Playfair Point, Cape Ahnighito, Stupart Island, Skybattle Bay, Kristoffer Bay and Cape Isachsen. All the seven sites are located on Crown land at distances that range from 160 km to 570 km from Resolute Bay, the nearest Nunavut Community to the sites. Three of the Pioneer Project study areas, Skybattle Bay, Kristoffer Bay and Cape Isachsen, are abandoned oil well sites. The other four sites (Pioneer Island, Playfair point, Stupart Island and Cape Ahnighito) are historical camps, airstrips or barrel caches. These oil and gas exploration sites were active in the 1980s. The scope of work covered steps 5 to 7, under the FCSAP Decision Making Framework, including: a data gap analysis, a conceptual site model and pre-fieldwork project planning given the complicated logistics to access the remote sites. The Phase III ESA, HHERA, EIA, geotechnical and survey field work were conducted with a small team supported by Inuit field team members, accessed on a fly-in/fly-out by plane via Resolute, NU to a base camp at the High Arctic Weather Station on Cape Isachsen, and then helicopter from base camp to the remote site locations. A RAP, and specifications were prepared for the program. A summary of the site assessment and proposed RAP were presented in-person to the nearest community, Resolute, NU through a Community Consultation, on behalf of CIRNAC. Local foods (e.g., char, beluga, polar bear) were purchased to provide to the community, with the char being prepared by community Elders. Rides were arranged to pick-up and drop-off Elders who wished to attend the consultation but did not want to walk given the -50 o C weather. Door prizes (whole char, co-op gift certificate, Canadian North gift certificate) were advertised to increase interest in attendance and participation in the event.	• EIA; • Human Health and Environmental Risk Assessment; • Surveying, and permitting requirements; • Field, technical, and project management support; and • Indigenous/ Innu Consultation.

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
	Given the remote location and need for a base camp, permit approvals were required by CIRNAC (Type A Land Use Permit), Nunavut Planning Commission, and the Nunavut Water Board (NWB) to carry out the assessment programs. The EIA has been reviewed by the Crown and will be submitted (as a PPR) to be reviewed by the Nunavut Impact Review Board. Further Land Use Permits will be required to carry out the remediation programs anticipated for the 2024 field season.	
NAME OF THE PROJECT: Line 21 Segment Replacement Project CLIENT: Enbridge Pipelines (NW) Inc. DURATION: 2016 - 2019 CONTRACT SIZE: $1,600,000 CAD LOCATION: Mackenzie River, NT RELEVANCE: • **Environmental Impact Assessment and Field Work;** • **Project Permitting, Approvals and Management;** • **Consultation Support; and** • **Non-EA Approvals.**	Enbridge applied to the National Energy Board and the Mackenzie Valley Land and Water Board (MVLWB) for approval to replace a 2.5 km segment of pipeline beneath the Mackenzie River and decommission the existing pipeline in place. Dillon conducted desktop and field-based biophysical studies to support the development of the environmental and socio-economic assessment (SEA), with a focus on vegetation (including weeds) and wildlife (including birds, amphibians, and SAR). Dillon later conducted supplemental wildlife fieldwork to field-truth ecosystem types documented by a third party. The SEA was prepared as part of the application to the National Energy Board under Section 58 of the National Energy Board (NEB) Act and Section 45.1 of the National Energy Board Onshore Pipeline Regulations (NEB OPR). Later in the project, Dillon completed additional ESAs as part of applications to the NEB under Section 44 of the NEB OPR (deactivation) and Section 45 of the NEB OPR (reactivation) for the entire Line 21 (Norman Wells) pipeline which extends from Norman Wells, Northwest Territories to Zama, Alberta. Various plans were developed as part of the project including the EPPs for Winter and Summer construction, the erosion and sediment control plan and the closure and reclamation plan. Dillon successfully supported Enbridge through the oral hearings for both the NEB and MVLWB, which included responding to IRs from the NEB and intervenors, responding to intervenor evidence submissions, developing issue sheets and attending the hearing in-person.	• Aquatic Biological Support Services; • Bird Survey and Bird Management; and • Water Quality Monitoring (including TSS monitoring)

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
NAME OF THE PROJECT: Human Health Risk Study CLIENT: Nalcor Energy DURATION: Apr 2022-Jun 2026 CONTRACT SIZE: $216,048 LOCATION: Lower Churchill (Muskrat Falls) RELEVANCE: • **Management of Environmental impact assessment commitments;** • **Project permitting, approvals, and management; and** • **Consultation support.**	Dillon is the HHRA Program lead and subject matter expert for Nalcor Energy (NL Hydro) Lower Churchill (Muskrat Falls) Hydroelectric Generation Project. This is an ongoing project spanning multiple years. Key roles have included; • Procurement support to client for key services required for HHRA Program; • Workplan development for key HHRA-related studies; • Design and modification of environmental effects monitoring programs to ensure appropriate data collection for relevant parameters in the assessment of methylmercury (MeHg) exposures and risks; • Provision of ongoing technical advice and guidance to client, affected Indigenous communities, other rightsholders and federal and provincial regulatory authorities; • Development and implementation of HHRA programs including diet surveys, human biomonitoring studies, HHRA studies (focusing on both baseline MeHg exposures and risks and predicted future peak MeHg exposures and risks) and consumption advisory/advice programs; • Indigenous and other rightsholder consultation and risk communication programs; • Regulatory liaison; • Participation in Health Education Working Group (a subcommittee to the provincial Methylmercury Health Management Oversight Committee); and • Annual HHRA updating and reporting. Special Features: A number of aspects of the HHRA Program and its key studies required novel exposure and risk modelling approaches for MeHg which coupled HHRA exposure and risk models with a toxicokinetic model to enable prediction of blood and hair MeHg levels, and to enable application of the HHRA model framework in a public health context. There were also novel uses of MeHg generation (formation) models, hydrodynamic models, and extensive knowledge of study area aquatic ecology and aquatic habitat to yield predictions of peak future MeHg	•

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
	levels in study area aquatic media and biota. The project has involved extensive Indigenous consultation/engagement throughout its entire duration, and such consultation and engagement are on-going.	
ECOLOGICS		
NAME OF THE PROJECT: Chidliak Diamond Project CLIENT:DeBeers Canada DURATION:10 years CONTRACT SIZE: 2,500,000 LOCATION: Baffin Island RELEVANCE: Large project following the NIRB EIS process	The Chidliak Project, situated on the Hall Peninsula of Baffin Island, is a visionary initiative aimed at advancing mineral exploration and development in the Arctic. Under the leadership of De Beers Canada and supported by EcoLogic, the project aspires to establish a sustainable mining operation while addressing the environmental and logistical challenges unique to this remote location. Since 2016, EcoLogic has been integral to this effort, conducting comprehensive baseline studies to meet the rigorous standards required for an Environmental Impact Statement (EIS) submission to the Nunavut Impact Review Board (NIRB). These studies reflect a deep commitment to sustainability and collaboration with local communities. EcoLogic team members (Dan McAllister and Jason Jones) have been involved in the project since 2013, prior to forming EcoLogic. EcoLogic's work on the Chidliak Project has encompassed various disciplines, including wildlife monitoring and habitat modelling, vegetation and ecosystem mapping, soil and permafrost studies, and atmospheric assessments. These efforts involved the deployment of wildlife cameras in 2019 to monitor species presence and habitat use. This network of cameras, enhanced over the years, now covers an extensive area (~900 km2) and serves as a valuable tool for observing wildlife activity. Automated Recording Units have also been installed to monitor avian species (e.g., Red Knot), and caribou scat has been collected for genetic analysis to gain insights into population dynamics. Vegetation and ecosystem studies have focused on updating ecological land classifications (ELC) through field surveys and satellite imagery analysis. These efforts have resulted in detailed vegetation community models that inform habitat and ecosystem management. Soil and permafrost studies have	• Scientific baseline studies to support the environmental impact statement; • Project management; • Terms of Reference Development; • EIS guidelines development; and • Community consultation.

provided critical information about terrain stability and environmental conditions, with remote sensing tools tracking changes over time.

In the atmospheric realm, weather stations have been installed to gather data on temperature, wind speed, and humidity. These stations have undergone significant upgrades, including the addition of wind turbines to ensure year-round data collection. Concurrently, air quality and noise surveys have established a baseline for understanding potential impacts of development.

EcoLogic has embraced innovative methodologies to overcome the challenges posed by the Arctic environment. By integrating satellite imagery with ground-based sensors, the team has created dynamic datasets that remain relevant for extended periods. Machine learning tools analyze the vast amounts of data collected, while technologies like the Landsat Cloud Computing Tool (LCCT) enhance the efficiency of processing satellite imagery for vegetation and habitat monitoring.

Non-invasive techniques, such as wildlife cameras and genetic analysis of scat, have minimized the environmental impact of data collection. Collaboration with Inuit communities has been a cornerstone of the project, incorporating traditional knowledge into mapping and modeling efforts while providing local employment opportunities. During the COVID-19 pandemic, EcoLogic adapted by prioritizing remote and autonomous data collection methods to ensure the continuity of baseline studies.

Relevance to scope of the RFP

The Chidliak Project's environmental and logistical management aligns closely with the objectives of tProject This relevance is evident through several key parallels in the approaches, methodologies, and challenges addressed during the Chidliak initiative:

- **Comprehensive Project Management**
  EcoLogic's role in managing the multifaceted baseline studies for the Chidliak Project demonstrates its ability to oversee large-scale,

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED

complex projects. Tasks such as coordinating multidisciplinary teams, managing schedules, and ensuring regulatory compliance mirror the project management requirements of the INP Project.

- **Baseline and Environmental Studies Expertise**
  The Chidliak Project involved extensive baseline studies in wildlife monitoring, vegetation mapping, and atmospheric assessments. These skills translate directly to the environmental assessments, archaeological overviews, and ecological modeling tasks critical to advancing infrastructure projects like the **INP Project**. The Chidliak studies utilized advanced remote sensing, satellite imagery, and dynamic data modeling, which are essential tools for conducting environmental and technical studies in remote and sensitive environments.
- **Adapting to Remote and Logistical Challenges**
  Operating in the Arctic required EcoLogic to develop solutions for logistical hurdles, such as limited access and harsh environmental conditions. The emphasis on remote data collection and partnerships with local communities aligns with the challenges posed by infrastructure projects in Nunavut.
- **Incorporation of Indigenous Knowledge**
  The Chidliak Project integrated Inuit traditional knowledge into its data collection and analysis processes, fostering community collaboration. This approach supports the Project's emphasis on indigenous participation and consideration of local context in infrastructure planning and management.
- **Innovation in Data Collection and Management**
  The use of automated recording units, machine learning for data analysis, and continuous updates to ecological land classifications at Chidliak highlight EcoLogic's capability to employ innovative technologies. These methodologies are directly applicable to the technical studies and advanced project management plans required for the Project.
- **Response to External Constraints (COVID-19 Adaptation)**
  The Chidliak Project's pivot to remote and autonomous

methodologies during the pandemic showcases EcoLogic's ability to maintain project momentum under unforeseen constraints. This adaptability aligns with theProject's need for a consulting team capable of navigating evolving challenges, including regulatory delays and resource limitations.

Budget control and management

Ecologic's initial budget was $350,000 for studies in 2020. To date, EcoLogic has billed over $1,500,000 to support the Chidliak project. The primary drivers behind the budget growth were execution of agreed-upon scopes on schedule and under or at budget, exceeding quality expectations, and the ability to predict potential problems before they became actual problems.

Key Personnel

Dan McAllister, M.Sc., P.Ag. – Dan has served as Project Manager for the Chidliak Diamond Project, guiding it through baseline data collection and the preparation of environmental documentation for submission to the Nunavut Impact Review Board (NIRB). Over eight years, he designed and executed comprehensive field programs, secured necessary permits, and prepared a project plan to navigate the Environmental Impact Statement (EIS) process.
Jason Jones, Ph.D., R.P.Bio. – Wildlife Technical Lead. Full suite of terrestrial vegetation, soils, and wildlife surveys, including maintaining a wildlife camera network over a 900 km2 area, songbird and waterbird surveys, and habitat modeling.

Unique Challenges

The Chidliak Project has faced several challenges, including logistical difficulties, data continuity, and environmental sensitivities. Initially, baseline studies were slated to begin in 2020, but the COVID-19 pandemic imposed significant travel and accommodation restrictions. EcoLogic responded by emphasizing remote data collection techniques, leveraging technologies such as satellite imagery, autonomous sensors, and local partnerships. These adaptations ensured that data collection could continue despite the constraints. Other challenges, such as the need for long-term data relevance and stringent regulatory requirements, were addressed through innovative

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
	solutions, including dynamic modelling and meticulous rightsholder engagement. By focusing on remote methodologies and integrating traditional knowledge, EcoLogic minimized ecological disruption while ensuring the project met high standards for environmental stewardship.	
SEM		
NAME OF THE PROJECT: Anuriqjuak Nukkiksautiit Project Environmental and Permitting Support **CLIENT:** NNC **DURATION:** February 2023 – March 2026 **CONTRACT SIZE:** $329,000 **LOCATION:** Sanikiluaq, NU **RELEVANCE:** • **Project Permitting, Approvals and Management** • **Field Program planning** • **Familiarity with the NPC, NIRB, and NWB review process and regulatory requirements**	Beginning in 2023, SEM provided professional consulting services to NNC and their partners for the review and interpretation of biophysical and socio-economic impact assessments prepared by others, terms and conditions for the Project issued to the Proponents by the NIRB, and a draft Permitting Plan as prepared by the Proponents. With this information, SEM developed a comprehensive environmental management and permitting framework for the purpose of summarizing project activities, environmental monitoring conducted, and effectiveness of mitigations applied to meet the requirement for annual reporting to the NIRB and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). This involved writing a suit of management plans including: • Construction Environmental Protection Plan (EPP); • Historic Resources Management Plan (HRMP); • Rightsholder Engagement Plan (SEP); • Spill Prevention and Response Plan (SPRP); • Waste Management Plan (WMP); and, • Wildlife Mitigation and Monitoring Plan (WMMP). With this work, SEM built the foundation upon which we have continued supporting NNC to maintain compliance and to proceed with the construction of Nunavut's first wind energy project. In 2023 our scope of work also included: • Preparation of applications and submissions to AHJs for necessary authorizations to proceed with construction; ○ Coordination of Acid-Rock Drainage/ Metal Leaching (ARD/ML) testing at the local quarry, and interpretation of results.	• Construction Site Environmental and Wildlife Monitoring; • Pre-Construction Archaeological Surveys; • Construction Permitting requirements; • Field, technical, and project management support; • Environmental effects mitigation; • Provide technical expertise for aspects related to the jurisdiction of the GN under legislation and or political mandates; and, • Geographic Information Systems: map creation.

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
• **Regulator Liaison Support** • **Non-EA Approvals**	○ Coordination of a pre-construction Archaeological survey of the Project area under the *Nunavut and Archaeological and Palaeontological Site Regulations*, and interpretation of site marking and avoidance procedures; ○ Provision of environmental constraints advice and daily on-site environmental and wildlife monitoring, collection of surface water samples and in-situ turbidity monitoring, and advisory on meeting compliance requirements during initial phases of road construction; ○ Acting as a liaison with regulatory representatives across various federal and territorial agencies; and, ○ Preparation of monitoring, compliance, and annual reports as per permitting requirements on behalf of NNC. In late 2024 SEM provided remote support to the construction team on-site in Sanikiluaq, as well as to NNC, including: ○ Coordination with Bureau Veritas for submission of surface water samples, data interpretation, results reporting; ○ Coordination of turbidimeter rental, support as needed for equipment usage procedures; ○ Advice or clarification as needed for Construction EPP procedures such as for selection or adjustment of surface water sampling sites, mitigation measures in the event of threshold exceedances prescribed in the Water Licence, prescribed buffer zones, and recording of in-situ sampling results, wildlife observations, and archaeological site boundaries; and, ○ Review of the Permit Register and work completed in 2024 to aid with identification and interpretation of time-sensitive terms and conditions such as permit expiration, notification requirements, and documentation requirements. The current ongoing scope of work on the project includes: • Preparation of a summary memo of non-compliances including recommendations for rectification;	

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED

- Ongoing Permit Registry updates including permit application preparations and data retrieval, communication of important deadlines and data gaps to Project Team;
- Interpretation, analysis, and reporting of data and results collected during the 2024 and 2025 field seasons;
- Preparation of the Annual Reports for 2024 and 2025 for NIRB, the NWB Water License, and the GN Wildlife Mitigation Effectiveness Report;
- GIS mapping to support reporting or permitting preparations;
- Preparation of correspondence and updates to regulators as well as advising NNC on practicalities of potential liabilities and land tenure issues;
- Support with communications and attendance in meetings with regulators as needed; and,
- Review of construction and field work plans for 2025 to ensure compliance, developing down-scaled training materials on EPP and monitoring procedures, and providing ongoing support during the 2025 construction season.

Special Features: Regulatory regime in Nunavut is comprehensive and SEM are experienced at “translating” legislated requirements as well as scientific or technical jargon into more easily understandable requirements, action plans, and recommendations. We have demonstrated our capabilities in assisting our clients to meet compliance requirements, how to mitigate and prevent non-compliances from occurring, and have created streamlined communication procedures to help make project construction happen in an environmentally responsible manner.

SEM personnel involved on the Anuriqjuak Project are available to provide similar services for the Iqaluit Nukkiksautiit Project including Brittany Connolly (PM / Environmental Manager), Melanie Williams (Senior Regulatory Advisor), Shelly Brown (Permitting Specialist), and April Tucker (Environmental Coordinator).

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
NAME OF THE PROJECT: Iqaluit Nukkiksautiit Project **CLIENT:** NNC **DURATION:** October 2022 – April 2024 **CONTRACT SIZE:** $654,000.00 **LOCATION:** Iqaluit, NU RELEVANCE: • **Familiarity with the Project Concept and prior development work;** • **Experience collaborating with key members of the NNC and TetraTech teams;** • **Effective means of disseminating environmental risk evaluation to the public;** • **Development of Project engagement materials using**	Beginning in late 2022, SEM was contracted by Growler Energy, NNC, and Landsvirkjun Power (collectively NGL) to provide an evaluation of environmental and regulatory risk by reviewing and summarizing previous environmental studies and current regulatory context relating to the hydroelectric, wind generation, and pumped storage alternatives being considered for a renewable energy development near Iqaluit. For this study, SEM was not responsible for summarizing the human environment, however the link between resource use and EcoLogical importance was assumed to be present. The possibilities include five (5) locations for a wind turbine farm along with one possible wind turbine-pumped storage site. Eight hydroelectric power options were also considered, including those previously evaluated by QEC from 2005-2011. SEM provided an overview of the existing environmental baseline data for each of the areas under consideration so that the project alternatives could be ranked comparatively according to biophysical environment, protected areas, and regulatory criteria. The desktop risk assessment that was performed as input to the project selection process was based on a limited number of parameters due to the uneven availability of information on key issues across all the candidate undertakings. SEM provided a detailed report on the various options for a renewable energy project near Iqaluit, as well as a focused memo which included environmental and permitting concerns, with potential mitigation measures to explore if required for the top 3 project alternatives (i.e. McKeand River South Hydro (Kuugaluk), Iqaluit North Wind(Niaqunguk), and Jaynes Inlet Hydro + Wind). This evaluation was utilized by NGL, along with sociocultural and feasibility studies, to present benefits and drawbacks for each alternative to Iqalungmiut in November 2023. Those attending were encouraged to provide feedback so that a singular alternative could be chosen to progress to the next decision gate.	• Project Management; • Review and interpretation of existing technical reports; • Planning for execution of baseline studies; • Regulatory and permit planning; and • Engagement and consultation support.

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED
the Inuktitut first approach; • **Participation in NNC's engagement event in Iqaluit and collection of feedback on Project Alternatives;** • **Field program and logistics planning; and** • **Familiarity with the NPC, NIRB, and NWB review process and regulatory requirements**	In addition to the environmental and regulatory risk assessment, SEM developed a suite of informational and promotional materials for NNC, both to increase awareness of the company and to provide visually appealing materials for the public to peruse during the engagement event in Iqaluit. Materials delivered included: • Promotional video; • Voting ballots; • Event-promotion posters and mailers; • 19 posters (one for each alternative) for display during the event; and, • Webpage and an informational booklet giving details on the alternatives. All materials were developed with the philosophy of "Inuktitut first", meaning that engagement materials were designed to share information that helps educate and inform communities in a manner that is transparent, respectful, and easy to understand by those unilingual in Inuktitut. In early 2024 SEM further assisted NGL to determine the scope of baseline studies and permitting timelines that would be required to move forward on the Kuugaluk Project. SEM went through a vigorous process to select and contract a key team of environmental and archeological experts to design and plan for baseline studies that would be required to achieve success in all facets of the regulatory process. A summary of the scope of work prior to receiving a stop work order in April 2024 is provided below. Those which were completed or partially completed are indicated accordingly. <u>Completed:</u> • Developed a Gantt chart to track timelines, milestones, and deliverables for all licences, permits, and required authorizations for project activities such as field studies and environmental assessment; • Assembled an experienced team of professionals to execute the project in the most cost effective and timely fashion;	

PROJECT INFO	BRIEF DESCRIPTION	SERVICES PROVIDED

- Organized and hosted a collaborative Workshop amongst SEM, Growler, NNC, Landsvirkjun, CPL, EcoLogic Consultants, North/South Consultants, and Kinickinick Heritage Consulting to build a strong rapport with all team members and outline data sharing protocols, document management, and engagement procedures for the Project;
- Refined necessary activities and timelines associated with the baseline study work including field camp requirements, archaeological survey, geotechnical investigation, GIS review, aquatics, and terrestrial studies for 2024-2025; and,
- Developed a high-level Rightsholder Engagement Plan for 2024, focusing on key deliverables, tracking engagement activities, risk analysis, and subconsultant meetings.

<u>Partially Completed:</u>

- A high-level Baseline Studies Execution Plan outlining study logistics and describing the necessary studies required as part of the Project development was delivered. A refined Plan was in the process of being developed; and,
- A Permit Register to track application statuses and reporting requirements was delivered. The Archaeology Study Permit was submitted in March 2024, and draft applications for the Nunavut Impact Review Board, Nunavut Planning Commission, and Nunavut Research Institute were being prepared, along with supporting documents.

SEM personnel involved on the Iqaluit Nukkiksautiit Project are available to provide similar services again including Brittany Connolly (PM / Environmental Manager), Melanie Williams (Senior Regulatory Advisor), Shelly Brown (Permitting Specialist), Nicole Button (Communications and Engagement Specialist) and April Tucker (Environmental Coordinator).