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To	Brennan Hutchison, Project Assessment Director, Environmental Assessment Office
From	Lara Taylor and Jason Lyth
Date	July 4, 2024
Subject	Terms of Engagement for Independent Environmental Monitor
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Revision	1

Introduction

Cedar LNG Partners LP, by its general partner Cedar LNG Partners (GP) Ltd. (Cedar), a Haisla Nation-led partnership with Pembina Pipeline Corporation (Pembina), is planning to construct and operate a liquefied natural gas (LNG) export facility within the District of Kitimat, British Columbia (BC) (the Project). The Project is subject to the requirements of the provincial *Environmental Assessment Act* and federal *Impact Assessment Act* and underwent a substituted environmental assessment from 2019 to 2023. Cedar received an environmental assessment certificate (EAC #E23-01) under the *Environmental Assessment Act* on March 13, 2023 and a positive decision under the *Impact Assessment Act* (IAA) on March 15, 2023.

Pursuant to Condition 8 of EAC #E23-01 and Condition 11 of the IAA Decision Statement, Cedar is required to retain the services of a third-party independent environmental monitor (IEM) to objectively observe and report on implementation of EAC #23-01 and the IAA Decision Statement to the Environmental Assessment Office (EAO), the Impact Assessment Agency of Canada (IAAC), and Indigenous Nations during construction and the first year of operation.

This memorandum documents the requirements and terms of engagement for the IEM and includes:

- Qualifications
- Responsibilities and authority
- Monitoring frequency
- Reporting
- Records keeping

This document has been drafted in accordance with EAC #E23-01, the IAA Decision Statement, and the EAO guidance document *Environmental Monitors and Independent Environmental Monitors*¹.

¹EAO. 2019. *Environmental Monitors and Independent Environmental Monitors*. Available at <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/compliance-and-enforcement/eao-em-and-iem-bulletin.pdf>. Accessed: September 2023



Qualifications of the IEM

In accordance with the definition of a Qualified Professional, Condition 8.1 of Schedule B to EAC #E23-01, and Condition 11.1 of the IAA Decision Statement, the qualifications of the IEM will include:

- A membership in good standing with an appropriate professional organization in BC and acts under that organization's code of ethics. For the purposes of this assignment and in consideration of BC's *Professional Governance Act*, members of the following professional regulatory bodies will be considered:
 - College of Applied Biology
 - Engineers and Geoscientists BC
 - Applied Science Technologists and Technicians of British Columbia
 - British Columbia Institute of Agrologists
 - Association of BC Forest Professionals
- A minimum of five years experience in construction/operations environmental monitoring in BC

Based on the qualifications outlined above, Cedar has selected the Lead IEM and an Alternate IEM as presented in the table below. Resumes for both the Lead and Alternate IEMs are attached to these Terms of Engagement. The Lead IEM will be responsible for implementing the requirements outlined in these Terms of Engagement. Should they require support (e.g., be unable to undertake a site visit), the Lead IEM may request the Alternate IEM undertake tasks on their behalf. The Lead IEM will remain responsible for ensuring their requirements outlined herein are met. If the Lead IEM becomes unavailable (e.g., vacation, illness), the Alternate IEM will conduct site inspections while the Lead IEM is absent. Moreover, should the Project require a higher level of IEM effort, both may be utilized to conduct site inspections.

Lead IEM	Jason Côté, R.P.Bio. <ul style="list-style-type: none">• Registered Professional Biologist• More than 20 years of experience
Alternate IEM	Jason Moulard, R.P.Bio. <ul style="list-style-type: none">• Registered Professional Biologist• More than 12 years of experience

Role of the IEM

The purpose of the IEM is to act as an independent third-party observer to provide transparency and information to the EAO, IAAC and Indigenous Nations as well as to verify the Project is constructed and operated in accordance with the terms of EAC #E23-01 and the IAA Decision Statement. In accordance with Condition 8 of EAC #E23-01 and Condition 11 of the Decision Statement, the IEM will:

- Undertake work in accordance with this Terms of Engagement and as directed by the EAO or IAAC

- Conduct scheduled and/or unscheduled site visits (audits) to objectively observe, record and report as directed by EAO and IAAC:
 - Compliance with EAC #E23-01 and the IAA Decision Statement by Cedar and its Contractors
 - Compliance with management plans required by EAC #E23-01 by Cedar and its Contractors
- Undertake site visits in a manner and frequency such that they can gain adequate information to determine the compliance status of the conditions outlined in EAC #E23-01 and IAA Decision Statement and mitigation measures set out in the management plans required by EAC #E23-01.
- Provide feedback to the Cedar Senior Environmental Inspector or Construction Manager following completion of any inspection.
- Request information required to fulfill their obligations under these Terms of Engagement from the Senior Environmental Inspector and the Environmental Advisor.
- Where determined to be required by the IEM, attend meetings with the EAO, IAAC, Indigenous Nations or Cedar to obtain information regarding the Project to support the IEM's inspections.
- Prepare and distribute monitoring reports as directed by EAO and IAAC within five days following each visit.
- Provide information on compliance to the EAO, IAAC and Indigenous Nations in the monitoring reports as directed by EAO and IAAC.
- Provide information on compliance to the EAO, IAAC and Indigenous Nations as specified in this Terms of Engagement. Nations to be included in the distribution of monitoring reports are Haisla Nation, Kitselas First Nation, Kitsumkalum First Nation, Gitga'at First Nation, Gitxaala Nation, Metlakatla First Nation, and Lax Kw'alaams Band.
- Prepare project phase completion reports following:
 - The completion of the construction phase monitoring
 - The completion of one year of operation-phase monitoring
- Check in with Cedar's Construction Manager or Senior Environmental Inspector prior to entering an area with ongoing work. Cedar will provide an escort if requested by the IEM.
- Adhere to Cedar's site safety requirements.

The IEM will determine the required frequency of site inspections based on the ongoing project-related activities and their associated environmental risk as well as direction from the EAO and/or IAAC. A minimum of monthly inspections are to be conducted during construction and quarterly during the first year of operations.

Authority of the IEM

While conducting the inspections, the IEM will have the authority stop work on activities that are, or are highly likely to, result in non-compliance or contravention of:

- Environmental performance criteria set out in the Construction Environmental Management Plan (CEMP)
- EAC #E23-01 or the IAA Decision Statement



- Conditions of approval in a permit, licence, or authorization that may result in adverse environmental effects
- Legislative requirements that may result in adverse environmental effects

The work stoppage will only apply to the specific construction activity (or activities) that are, or are highly likely to, result in the non-compliance or contravention described above. A Project-wide work stoppage would only be put in place if the activity of concern was occurring across the Project and had the potential to result in a Project-wide non-compliance or contravention.

In the event that the IEM implements a work stoppage, they must clearly outline the rationale and scope of the non-compliance to Cedar representatives. Any use of stop work authority will be thoroughly documented and will include the rationale for the decision. Approval to restart work will be at the discretion of the Construction Manager or Senior Environmental Inspector following implementation of corrective actions and will include a clear rationale and discussion with the IEM on the rationale for re-starting the stopped work. The Senior Environmental Inspector will notify the IEM when work is restarted.

If the IEM receives a complaint or IEM-related information request from a member of the public, the IEM will direct the complaint or information request to the EAO and then to Cedar's Environmental Advisor as soon as practical. The IEM will not respond to complaints or information requests directly but will work with the EAO and/or Cedar to address the complaint or information request.

Role of Cedar

To comply with the IEM requirements of EAC #E23-01 and the IAA Decision Statement, Cedar will:

- Provide the name, organization, and qualifications of the proposed IEM to the EAO no later than 45 days prior to the planned commencement of Construction.
- Provide Indigenous Nations with the name, organization, and qualifications of the proposed IEM. Cedar will also provide Indigenous Nations with confirmation of the IEM after that person has been approved by the EAO.
- Engage the IEM for the period required by this Terms of Engagement.
- Cooperate fully and in a transparent manner with the IEM.
- Provide information to the IEM upon their request. If information requested by the IEM is not available or Cedar does not believe the requested information is pertinent to EAC #E23-01 or the IAA Decision Statement, Cedar and the IEM will follow the steps below:
 - First, discuss the information requested by the IEM to help Cedar understand the rationale for the request or to identify alternate information that may meet the IEM's needs.
 - If there is disagreement between Cedar and the IEM regarding what constitutes reasonably necessary information, Cedar or the IEM may refer information to the EAO for final determination regarding whether Cedar is required to provide the requested information.

- Provide access to the IEM to any and all areas of the Project that can be safely accessed. If Cedar's Construction Manager determines that a specific Project area is unsafe at the time of the inspection, Cedar will work with the IEM to schedule a subsequent inspection and will notify the EAO that a portion of the site was not safe for access.
- Provide an escort to allow the IEM to safely undertake their inspections (if requested by the IEM).
- Designate the Environmental Advisor as the primary point of contact for all formal correspondence and communication for the IEM.

Site Inspection Program

The purpose of IEM inspections is to monitor and oversee Project environmental compliance with the EAC conditions, IAA Decision Statement conditions, and management plans required by EAC #E23-01 during the course of construction as well as provide transparency and accountability to the EAO, IAAC and Indigenous Nations.

Inspections will occur a minimum of monthly during construction and quarterly during the first year of operation. The IEM will increase the frequency of inspections if they determine that more inspections are required to adequately oversee Project environmental compliance based on the activities being undertaken and their associated risk or as required by the EAO and/or IAAC. Factors the IEM will consider when determining whether additional inspections are required include, but are not limited to:

- The Project schedule, which Cedar will share with the IEM
- Repeated observations of non-compliance and/or contraventions of the EAC conditions, IAA Decision Statement conditions, or management plan requirements
- Direction of the EAO or IAAC to the IEM
- Inability of the IEM to access to specific portions of the Project due to safety concerns or access limitations
- Insufficient time available onsite to permit a thorough inspection
- Change or increase in construction activities
- Work occurring in areas of greater environmental sensitivity (as determined by the IEM)

The specific procedure and scope of inspections will be determined by the IEM in accordance with the requirements outlined in the EAC, IAA Decision Statement, and these Terms of Engagement. The IEM will be responsible for ensuring inspections have sufficient coverage to permit oversight of the applicable conditions. Factors the IEM will consider when determining the procedure and scope of the inspections include, but are not limited to:

- Ongoing activities
- Sensitive environmental periods (e.g., bird nesting window)
- Weather conditions



- Previous observations of non-compliance and/or contraventions of the EAC conditions, IAA Decision Statement conditions, or management plan requirements
- Direction of the EAO or IAAC to the IEM

Measures that the IEM may take to verify compliance with conditions of EAC #E23-01, the Decision Statement, management plans required by EAC #E23-01 will be at their professional discretion based on the ongoing activities. Examples of activities that may be undertaken by the IEM include, but are not limited to, site inspections, water quality monitoring, reviewing Cedar's documentation of compliance, and interviews with Cedar staff.

If the IEM determines that mitigative or corrective actions may be required to address any non-compliance or potential non-compliance with conditions of EAC #E23-01, the Decision Statement, management plans required by EAC #E23-01, or other legislative requirement, these recommendations will be communicated to Cedar's Environmental Advisor. These observations will also be communicated to Cedar, the EAO, IAAC, and Indigenous Nations via the monitoring report generated after the inspections as described in the Reporting section.

Reporting

Following completion of each inspection, the IEM will generate a monitoring report which will include, at a minimum, the following information:

- Date and time of the inspection, as well as total time spent onsite
- Name(s) of Cedar personnel who accompanied the IEM during the inspection
- Weather conditions
- Construction/operations activities observed by the IEM during the inspection
- Any observed compliance and/or contravention of EAC conditions, IAA Decision Statement conditions, or management plans required by EAC #E23-01
- Any situation, practice, or procedure observed that could reasonably lead to contravention of the EAC conditions, IAA Decision Statement conditions, or management plans required by EAC #E23-01
- Any limitations to the scope or completeness of the inspection (e.g., restricted access to site, insufficient time to complete the audit)
- A record of any instance of stop work authority use and its rationale
- Any additional information deemed to be useful by the IEM, including observations of compliance with EAC conditions, IAA Decision Statement conditions or management plans required by EAC #23-01.

Each monitoring report will be completed and delivered to the EAO, IAAC, the Indigenous Nations specified in this Terms of Engagement, and Cedar within five days of inspection. The EAO and IAAC will receive the IEM report prior to, or concurrently with, the delivery of the report to Cedar. Indigenous Nations will receive reports concurrently with the delivery of the report to Cedar.



If Indigenous Nations have any questions or concerns regarding the IEM's report, they should contact Cedar's Environmental Advisor either via telephone or email to ask their questions. If Nations do not get a response they consider satisfactory from the Environmental Advisor, they should contact the EAO. Cedar will provide contact information for the Environmental Advisor to Indigenous Nations in advance of commencing construction.

In accordance with Condition 8.9 of EAC #E23-01 and in addition to the monitoring summary reports, two project phase completion reports will be prepared by the IEM. The first will follow completion of the construction phase and the second will follow the completion of the first year of operation monitoring. These reports will include, at a minimum, the following:

- A summary of inspections
- A record of all non-compliances
- A record of compliance
- A record of any instance of stop work authority use and its rationale
- A summary on the overall effectiveness of mitigation measures outlined in the EAC
- A record of the recommendations made by the IEM to Cedar to prevent or address any non-compliance with this EAC #23-01
- A record of whether recommendations from the IEM were implemented and the corresponding outcome of implementation

Both project phase completion reports will be completed and delivered to the EAO, IAAC, the Indigenous Nations specified in this Terms of Engagement, and Cedar within 60 days of completion of the final inspection of the respective phase. The EAO and IAAC will receive the audit summary report prior to, or concurrently with, the delivery of the report to Cedar. Indigenous Nations will receive reports concurrently with the delivery of the report to Cedar.

Safety and Insurance Considerations

To facilitate the IEM's safe access to the Project as described in EAC #E23-01, the IEM will be required to check-in with the Cedar Construction Manager or Senior Environmental Inspector prior to entering an area with ongoing work. Should the IEM request an escort, one will be provided by Cedar for the duration of each inspection. The escort will assist the IEM in safely moving around the Project site and will facilitate provision of necessary information to the IEM during the audit. It is recommended that the IEM provide Cedar with 24-hour notice of each planned site visit to allow for the scheduling of an escort for the site inspection; however, Cedar acknowledges that notice of site inspections is not required.

At a minimum, the IEM will possess the following training prior to the first audit:

- WHIMIS 2015
- Construction Safety Training System (CSTS) 2020 Fundamentals
- Occupational First Aid Level 1



- Site specific or other orientations as determined to be necessary by Cedar

The IEM will follow site-specific personal protective equipment requirements while within the Transmission Line Corridor, Facility Area, and Marine Terminal Area. Personal protective equipment requirements will include:

- Type 2 (side impact) hard hat
- Class 2 high visibility vest
- Safety glasses with rigid side shields
- CSA Green triangle and orange omega steel-toed boots
- Long-sleeve shirts and full-length pants
- Other necessary PPE as determined by Cedar

Unless otherwise approved by Cedar, the IEM will be required to carry the following insurance:

- Commercial general liability insurance with a policy limit of no less than \$2,000,000 per occurrence.
- Professional liability insurance with a policy limit of no less than \$2,000,000 per claim and in aggregate
- Automotive liability insurance for owned and leased vehicles of no less than \$2,000,000 per occurrence

Updates to IEM Terms of Engagement

Cedar may, or the EAO may require Cedar to, revise the IEM Terms of Engagement in response to:

- Feedback provided by Indigenous Nations
- One or more requirements of Condition 8 of EAC #E23-01 or Conditions 11 of the IAA Decision Statement not being fully addressed

Any revisions to the IEM Terms of Engagement will be submitted to the EAO and provided to IAAC. In addition, Cedar will inform Indigenous Nations when minor revisions (e.g., grammatical edits, wording changes, brief clarification descriptions) are made to the document that would not affect the scope and objectives of the IEM Terms of Engagement.

If material revisions that affect the scope and objectives of the IEM Terms of Engagement are required (e.g., changes to the IEM), Cedar will provide Indigenous Nations with the opportunity to comment as follows:

- If Cedar determines the edits are time-sensitive (e.g., the IEM and Alternate IEM are no longer available), Cedar will implement updated IEM Terms of Engagement concurrently with providing the Indigenous Nations with a 30-day period to provide feedback regarding the updates. In the email to Indigenous Nations, Cedar will advise that the edits were considered time-sensitive and are being implemented. In response to any comments received, Cedar will incorporate the feedback or provide the rationale for why it wasn't incorporated within a 21-day period.
- If Cedar determines the edits are not time-sensitive, Indigenous Nations will be provided with a 30-day review period prior to the updated IEM Terms of Engagement being implemented. In response to any comments received, Cedar will incorporate the feedback or provide the rationale for why it wasn't incorporated within a 21-day period.



Following incorporation of feedback, Cedar will provide the EAO, IAAC and Indigenous Nations with the updated version of the document. A document history table listing the version and date will be included in the updated document.

As part of updating the IEM Terms of Engagement, Cedar will maintain a consultation log that records:

- When updated versions of the IEM Terms of Engagement are sent to Indigenous Nations, the EAO, and IAAC
- Any comments received regarding updates to the IEM Terms of Engagement
- Cedar's responses to any comments received, including the rationale for any feedback that was not incorporated into the IEM Terms of Engagement
- When the responses were provided back to Indigenous Nations, the EAO, and IAAC
- Whether any feedback on the responses was provided by the Indigenous Nations

Summary

The IEM process is an important tool for providing transparency and accountability regarding compliance with EAC #E23-01 and the IAA Decision Statement. The IEM will be retained by Cedar but will report findings to the EAO and IAAC before reporting findings to Cedar via the monitoring report. At the discretion of the IEM, findings may be communicated verbally to Cedar personnel in order to obtain additional information to support the IEM's inspections. This document outlines the qualifications and responsibilities of the IEM to fulfill these conditions.



Senior Environmental Scientist

JASON CÔTÉ, RPBIO.



Office Location

Terrace, BC

Education

B.Sc. Environmental Science, Royal Roads University, 2004

Tech. Diploma Advanced Renewable Resource Management, British Columbia Institute of Technology (BCIT), 2002

Tech. Diploma Fish Wildlife and Recreation, BCIT, 2001

Affiliations

Professional Biologist #2106, College of Applied Biology, 2009

Certifications

Level 1 First Aid (with CPR) and Transportation Endorsement

Pleasure Craft Operator Certification, Boat Smart Canada

Marine Emergency Duties (MEDA2)

Electrofishing Crew Supervisor

Basic Forest Crew Supervisor

Construction Safety Training System

Safety Training Programs (Hazard Recognition, Assessment, and Control, and Influencing Others to Choose Safe Behaviours; Safety Leadership: Rights and Responsibilities)

Wildlife Awareness and WHMIS

Overview

With 20 years' of multi-disciplinary expertise, Jason's career has progressed from a technical specialist (in the field of marine and freshwater fisheries biology, aquatics, and permitting) to project manager and senior leader and mentor. Throughout his career, Jason has led several inter-disciplinary teams and projects from baseline data collection, regulatory reviews and permitting through to construction and aquatic effects monitoring. His technical background includes expertise in logistical planning for large scale and remote fish and aquatic impact assessments (including fish salvage and mitigation planning), development of erosion and sediment control plans for various land development projects (residential housing developments, transmission line corridors, hydroelectric facilities, marine dredging and pile removal), habitat offsetting design, and construction environmental management planning and permitting.

Jason has spent his career developing relationships with regulatory agencies, First Nations, and clients and prides himself on working as a team to collaboratively advance projects through completion. His commitment to technical quality and experience in data collection, research, permitting and construction provides clients with confidence that projects will advance on-time and budget.

Areas of Expertise

- Business and Project management
- Relationship building
- Technical writing and communication
- Freshwater and marine biology
- Study design
- Regulatory and Permitting
- Environmental Management Systems
- Environmental Monitoring and Construction Site Auditing
- Environmental Construction Management
- Statistical Analyses
- Risk and impact assessment

Employment History (Abbreviated)

Director/Senior Environmental Scientist | Atna Environmental Ltd. | Terrace, BC 2019-present

Senior manager for all projects related to freshwater and marine ecology, regulatory and stakeholder engagement, permitting, and restoration. Provide technical support to clients and senior mentorship to staff on projects throughout northwest British Columbia.

Associate/Senior Biologist | Stantec Consulting Ltd. | Terrace, BC | 2013-2018

Senior level professional providing First Nation liaison, regulatory agency permitting, stakeholder engagement and subcontractor management. Daily activities included technical quality review and strategic advice to clients and staff, study design, field work, permit management, and proposal writing.

Aquatic Biologist/Senior Project Manager | Cambria Gordon Ltd. | Terrace, BC 2007-2010, 2012-2013

Senior manager of several construction developments, regulatory and permitting assignments, environmental impact assessments, and development of aquatic baseline monitoring programs.



Project Experience – Construction Environmental Management

Projects noted with an * were completed under a different company

Marine Trestle Loadout Line | Kitimat, BC | Clough Pacific Joint Venture

Environmental Program Manager for the construction of the marine trestle associated with the LNG Canada terminal in Kitimat, BC. Responsible for development and execution of environmental work plans, preparing technical reports to support project request for review applications, prepare and implement hydroacoustic and marine mammal monitoring programs, respond to spills/releases, and manage discussions with the prime contractor.

LNG Canada | Kitimat, BC | Boskalis Canada Dredging and Marine Ltd.

Environmental Technical Lead responsible for oversight of marine dredging operations, water quality monitoring program, sediment deposition monitoring program, and pile removal program. Provide technical expertise in report preparation, preparing for regulatory agency environmental audits, development of mitigation plans and construction methodologies, and communication with LNG Canada representatives.

Coastal Gas Link Project | Kitimat to Fraser Lake, BC | Trans Canada Energy

Independent Erosion and Sediment Control Auditor (IESCA) of planned and implemented ESC measures along the CGL pipeline and auxiliary sites between Kitimat and Fraser Lake, BC. The IESCA role required an in-depth review of risk at sensitive receptor locations (e.g., wetlands, watercourses, private land, etc.), incident investigations, communication with the construction contractor and CGL environmental inspectors, and preparation of detailed reports.

Jasper Interconnect Project* | Jasper, AB | Valard Construction

Field Environmental Manager for the construction of a 44 km long overhead high voltage electrical transmission line. Role included development of site-specific Erosion and Sediment Control Plans, refueling protocols, riparian and waste management plans, and closure reports.

Dasque Hydroelectric Project* | Terrace, BC | BluEarth Renewables

Independent Environmental Monitor (IEM) during construction and wet commissioning of the Dasque Creek Hydroelectric Project. IEM responsibilities included permit and regulatory agency management during installation of penstock pipeline, blasting near water, stream crossings, in-stream construction of intake gallery, and wet commissioning. Role required managing environmental monitors, communicating with regulatory agencies, issuing field advice memos, reviewing management plans and completion of an Environmental Closure Report.

Tseax River Bridge Replacement* | Terrace, BC | MOTI

Environmental Technical Lead for the replacement of Rio Tinto Tower 375. Key project activities included obtaining appropriate permits to facilitate geo-technical investigations, development of a CEMP, conducting nest bird and raptor surveys throughout the construction period, and environmental monitoring and reporting.

Pacific Northwest LNG Project* | Prince Rupert, BC | Pacific Northwest Partnership Ltd.

Lead Fisheries Biologist in the logistics planning and implementation of marine fish and fish habitat surveys within the Skeena River Estuary near Prince Rupert, BC. Survey objectives focus on habitat use by fish, life-history dependencies on habitats, and verification of a least risk work window. Surveys completed include beach seine, crab/prawn trapping, hydroacoustic, trawl, fyke net, and habitat reconnaissance.



Professional Experience – Marine and Freshwater Ecology

Lubbe Lake Dam Remediation* | Victoria, BC | Capital Regional District

Lead Fisheries Biologist in completing baseline fish and fish habitat assessment in Lubbe Lake. Assessment involved determination of species composition, identification of flow sensitive habitat, and habitat mapping. Data collected were used to develop an Environmental Management Plan, a water drawdown plan, fish salvage plan, ramping effects assessment, and water quality monitoring program.

Rio Tinto Emergency Spill Response* | Kitimat, BC | Rio Tinto

Work an interdisciplinary group of toxicologists and fisheries biologists to prepare for and respond to various spills associated with the Rio Tinto site in Kitimat, BC. Emergency response included alumina ore and chlorine releases into fish-bearing habitat, and overflow of the on-site lagoon system into the Douglas Channel, risks to infrastructure associated with ice dams, and several small construction incidents.

Powers Creek Water Treatment Facility* | Kelowna, BC | City of West Kelowna

Obtain regulatory permitting for remedial works at Powers Creek following flood conditions and sediment deposition within the water treatment plant reservoir. Works included fish and fish habitat assessment, development of an Environmental Management Plan, and working with hydrological engineers in developing a water diversion plan. Provide Environmental Monitoring and fish salvage support during construction.

Dasque Creek Emergency Works* | Terrace, BC | Veresen Inc.

Emergency works included dewatering the facility headpond and fishway to complete damages to the weir, in-stream repairs to the weir apron due to significant erosion, compensation channel intake maintenance, and side-slope failures. Works required design and implementation of Environmental Management Plans, fish salvage, permitting, reporting, and liaison with regulatory agencies and First Nations.

Ellis Creek Stream Rehabilitation* | Kelowna, BC | City of West Kelowna

Lead Fisheries Biologist in an interdisciplinary team of stream engineers. Assisted design engineers in preparing stream profile designs, enhancing fish habitat features, prepared environmental management plans for construction and provided technical support for obtaining emergency *Fisheries Act* authorizations and approvals under the *Water Sustainability Act*. During in-stream construction activities conducted fish salvage and relocation, sediment and erosion control and environmental monitoring services.

Taltson River Aquatic Effects Monitoring* | Fort Smith, NT | Northwest Territories Power Corporation

Lead Field Biologist in the design, logistical planning, implementation, analysis and reporting of various monitoring programs associated with the Taltson Twin Gorges Generating Station in the Northwest Territories. Monitoring programs initiated include: Fish Stranding Program, Fish Entrapment Assessment; and Mercury in Fish Flesh Program.



Professional Experience – Regulatory and Permitting

Carter Family Claim for Compensation* | Yellowknife, NT | Client: Northwest Territories Power Corporation

Acted as an *expert witness* on behalf of NTPC in response to the Carter Family Claim for Compensation. Role included development of response to the Carter Family claims of effect to Nonacho Lake by regulation of water levels and effects of mercury in fish and erosion of shoreline. Review legal documents and provided strategic advice to the legal team, and participation in the formal hearing with the Mackenzie Valley Land and Water Board.

Twin Gorges Generating Station Water Licence Renewal* | Yellowknife, NT | Northwest Territories Power Corporation

Environmental Manager responsible for assessing potential impacts associated with continued operation of the Taltson Twin Gorges Generating Station. Role required development of an impact statement, Water Licence renewal submission package, leading Technical and Public Hearings, and development of long-term monitoring programs to support community and stakeholder concerns.

Watson Island Wharf Rehabilitation | Prince Rupert, BC | City of Prince Rupert

Lead Fisheries Biologist in completing baseline fish and fish habitat assessments in support of the Watson Island Marine Wharf Rehabilitation Project. Scope of works required site investigations, impact assessment, regulatory requirement reviews, and completion of an Assessment of Serious Harm. In support of the works site specific mitigation measures were identified and a Request for Review was prepared for Fisheries and Oceans Canada.

Tower 375 Replacement Project* | Kitimat BC | Rio Tinto

Project Environmental Manager for the replacement of Rio Tinto Tower 375. Key project activities included obtaining appropriate permits to facilitate geo-technical investigations, Section 11 approval under the Water Sustainability Act, closure of a wetland feature, and development of a Construction Environmental Management Plan. Post permitting role required conducting nest bird and raptor surveys throughout the construction period, and environmental monitoring and reporting.

Upper Vernon Creek Stream Rehabilitation* | Kelowna, BC | City of West Kelowna

Lead Fisheries Biologist in an interdisciplinary team of stream engineers. Assisted design engineers in preparing stream profile designs, enhancing fish habitat features, prepared environmental management plans for construction and provided technical support for obtaining emergency *Fisheries Act* authorizations and approvals under the *Water Sustainability Act*. During in-stream construction activities conducted fish salvage and relocation, sediment and erosion control and environmental monitoring.

Watson Island Wharf Rehabilitation | Prince Rupert, BC | City of Prince Rupert

Lead Fisheries Biologist in completing baseline fish and fish habitat assessments in support of the Watson Island Marine Wharf Rehabilitation Project. Scope of works required site investigations, impact assessment, regulatory requirement reviews, and completion of an Assessment of Serious Harm. In support of the works site specific mitigation measures were identified and a Request for Review was prepared for Fisheries and Oceans Canada.



Office Location

Comox, BC

Education

Master's Degree, Environmental and Life Sciences, Trent University, Peterborough, ON, 2012

Diploma, Ecosystem Management, Sir Sandford Fleming College, Lindsay, ON, 2009

Affiliations

Registered Professional Biologist, BC College of Applied Biology

Professional Biologist, Alberta Society of Professional Biologists

Certified Erosion and Sediment Control Lead, Erosion and Sediment Control Association of BC

Certifications

UTV Training Certificate, Calgary, AB, 2022

Certified Crew Supervisor, Backpack Electrofishing, Calgary, AB, 2012

Emergency First Aid for Industry Level 1 (OFA Level 1), Campbell River, BC, 2021

WHMIS, Houston, BC, 2022

Swiftwater Rescue Training, Calgary, AB, 2015

Supervising Ground Disturbance 201, Houston, BC, 2022

ATV Training Certificate, Calgary, AB, 2015

TDG, Houston, BC, 2022

Resource Road Driver Training, Campbell River, BC, 2022

Professional Driver Upgrade Training, Edmonton, AB, 2019

Senior Environmental Monitor

JASON MOULAND
RP BIO

Overview

Jason Mouland holds an M.Sc. in environmental and life sciences and has over 20 years of field experience, including 12 years' consulting experience in western Canada. Mr. Mouland has been a lead environmental Inspector on several large industrial construction projects in Alberta and British Columbia. Mr. Mouland is an aquatics qualified professional with extensive experience conducting aquatic habitat assessments and inventories, fish salvages, construction and post-construction water crossing assessments and associated reporting. His involvement in the pre-construction, construction and post-construction phases provides context for his practical and results-based approach to his work.

Areas of Expertise

- Team management
- Technical writing and communication
- Environmental monitoring
- Regulatory compliance
- Freshwater biology

Employment History (Abbreviated)

Senior Environmental Monitor | Atna Environmental Ltd. | Terrace, BC | 2024-Present

Senior environmental professional, managing construction monitoring projects in sensitive aquatic and terrestrial environments. Provides support in proposal development, client liaison, regulatory permitting, and reporting.

Lead Environmental Inspector | TC Energy | Houston, BC | 2019-2023

Lead a team of environmental inspectors responsible for ensuring compliance with relevant project commitments as well as provincial and federal regulations. Responsibilities include liaising with provincial and federal regulators, contractors and First Nations.

Lead Environmental Inspector | Wolf Carbon Solutions | Ponoka, AB | 2018-2019

Managed environmental compliance on an 80km construction spread in central Alberta. Specific duties included conducting bird nest surveys, fish habitat assessments and liaising with provincial regulators.

Environmental Inspector | Pembina Pipeline Corporation | Fort St. John, BC | 2016-2018

Jason functioned as an independent environmental inspector responsible for monitoring construction activities for project commitment compliance.

Fisheries Biologist | TERA Environmental | Calgary, AB | 2012-2016

Jason was a field crew lead and assistant project manager for water quality monitoring, fish habitat assessments and post impact assessments. Additional duties included report writing, project permitting and proposal writing.



Project Experience – Environmental Monitoring

Coastal GasLink Pipeline Project | TC Energy | Houston, British Columbia | 2019-2023 | Lead Environmental Inspector/Fisheries Biologist

Jason was the lead environmental inspector on Spread 8 East located in the Coast Mountains southeast of Terrace, BC. Jason also functioned as the qualified professional overseeing construction of water crossings with DFO Avoid and Mitigate letter guidance. Additional duties included assessment of external qualified professional needs for the project and liaising with stakeholders.

Alberta Carbon Trunk Line | Wolf Carbon Solutions Inc. | Ponoka, Alberta | 2018-2019 | Lead Environmental Inspector

As the lead environmental inspector for Spread 4 of the Alberta Carbon Trunk Line, Jason ensured contractors were aware of relevant project commitments prior to starting each phase of work. Jason also obtained permits for water withdrawal, fish salvage and assisted with mitigation for a SARA listed species. Jason sourced and managed contractors to conduct water quality monitoring and fish salvage support for construction activities within fish-bearing watercourses.

Northeast BC Expansion Project | Pembina Pipeline Corporation | Fort St. John, British Columbia | 2016-2018 | Environmental Inspector

Jason communicated project commitments directly with contractors at all phases of pipeline construction. Jason also assisted with the development of mitigations that met the goals of both construction and project compliance. As a member of a small team, Jason conducted all water quality monitoring and fish salvages associated with pipeline construction through fish-bearing watercourses.

Project Experience – Fisheries

Fox Creek to Namao Expansion Project | Pembina Pipeline Corporation | Whitecourt, Alberta | 2018 | Fish and Wildlife Biologist

Jason obtained emergency fish salvage permits and conducted all fish salvage operations associated with chance finds at several locations along the pipeline right-of-way. Jason also assisted with amphibian salvage and bird nest surveys to proactively in front of construction activities.

Grand Rapids Pipeline Project | TC Energy | Fort McMurray, Alberta | 2012-2015 | Fisheries Biologist, Crew Lead

Jason conducted pre-construction fish habitat assessments as well as construction support via fish salvages and water quality monitoring at fish-bearing watercourses. Jason also obtained relevant fish salvage permits.

Blackwater Gold Project | New Gold | Vanderhoof, British Columbia | 2015 | Environmental Monitor

Jason conducted water quality monitoring at project specific reference points bordering the mine. Jason communicated project commitments to contractors and monitored compliance during active construction.