

**JULY 2024**

# **The Community Connector**

**BIANNUAL NEWSLETTER - ISSUE 9**

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# Message from Michelle Carr

Commissioner & CEO

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Welcome to our summer edition of the Community Connector!

At the British Columbia Energy Regulator (BCER) we're committed to being a progressive and trusted life cycle energy regulator and are grateful for this opportunity to share updates on the important work we do.

In this issue you'll find a staff profile on Laurie Welch, Executive Director of the Responsible Stewardship Branch and key project highlights from some of our other subject matter experts, including information on how we're using new aerial survey technology to detect leaks from decommissioned wells and making our seismicity data easier to understand.

Given the dry conditions and the threat of wildfires, there's a timely update on northeast B.C. water monitoring and information on our new All Hazards Map which assists with planning activities during active wildfires. We are also happy to share the results of our annual survey of northern residents which we use to address our commitment to continuous improvement.

Meaningful reconciliation and partnerships with First Nations is a key component to the work that we do at the BCER and we are happy to share information in this newsletter regarding our Indigenous Relations Strategy.

That's just a sample of what you can find inside, so if you can take a few minutes, have a read and hopefully, it will give you a sense of some of the work we're undertaking as B.C.'s regulator of energy development and how we take responsible resource development seriously.

Wishing everyone a safe and peaceful summer,

Michelle

**We acknowledge and respect the many First Nations, each with unique cultures, languages, legal traditions and relationships to the land and water, on whose territories the British Columbia Energy Regulator's work spans.**

# What is Methanol and Why Are We Regulating It?

Methanol is one of the energy resources that is now under the British Columbia Energy Regulator's purview, following our organization's recent [mandate expansion](#).

Methanol (CH<sub>3</sub>OH; not to be confused with methane, the primary component of natural gas) is a simple alcohol that is a liquid under standard conditions. It is widely used industrially (e.g., as a solvent, antifreeze and in the production of formaldehyde and other chemicals) and has seen growing interest as a fuel source. If you've ever used an alcohol burner backpacking or sailing, the methyl-hydrate that those stoves burn is methanol by another name.

A methanol facility in Kitimat operated from 1982 until 2005, producing 500,000 tonnes of methanol per year (it also produced ammonia from 1987 until 2005). There has been no methanol manufacturing in B.C. since that facility (run by Methanex) shut down.

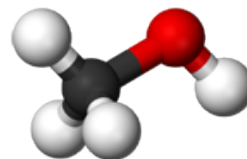
The Kitimat methanol facility consumed natural gas as its primary "feedstock" (i.e., raw material) and manufactured methanol through a process called steam methane reforming. This method of methanol production is the most common manufacturing process for methanol globally and has been under the BCER's jurisdiction since 2015, when the provincial government granted us responsibility for regulating the "operation of manufacturing plant[s] designed to convert natural gas into other organic compounds."



Kitimat methanol plant circa 2006 (District of Kitimat (detail), CC BY-SA 4.0, via Wikimedia Commons).

While the majority of methanol produced today comes from natural gas, the methanol industry is seeking to reduce its greenhouse gas emissions and is looking to alternative production pathways to do this. A possible alternative pathway in the B.C. context involves the synthesis of methanol from hydrogen (manufactured using renewable electricity) and carbon dioxide (captured as a by-product of industrial processes or directly from the air, for example) - see graphic below. By way of the Energy Statutes Amendment Act, our regulatory oversight over methanol (as well as hydrogen and ammonia) manufacturing has now expanded to encompass such non-natural gas derived production pathways.

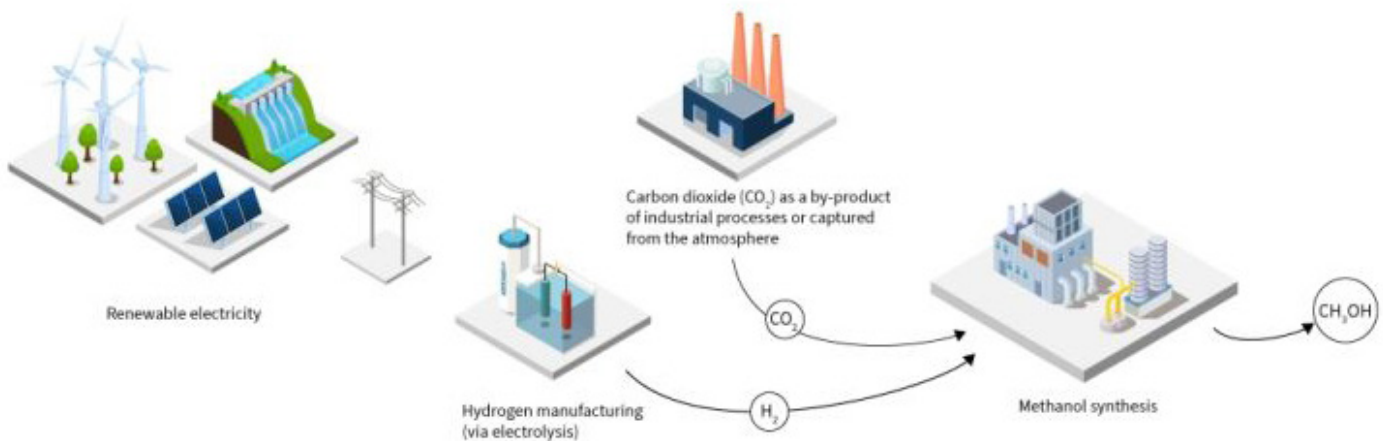
In addition to its role as a fuel source, methanol could play a potentially important part of a hydrogen economy.



A methanol molecule (CH<sub>3</sub>OH).

In 2022, B.C. released its [Hydrogen Strategy](#) with identified goals for the development of a clean hydrogen production industry to serve both domestic and export markets. One of the challenges the strategy identified in the development of hydrogen exports is its low density (it is the lightest element after all). This makes it expensive to transport in large quantities over long distances.

One potential solution to this problem is to convert the hydrogen into denser chemicals that can be used as fuels in their own right or broken down to recover the hydrogen at their destination – with the B.C. Hydrogen Strategy identifying methanol and ammonia as prime candidates.

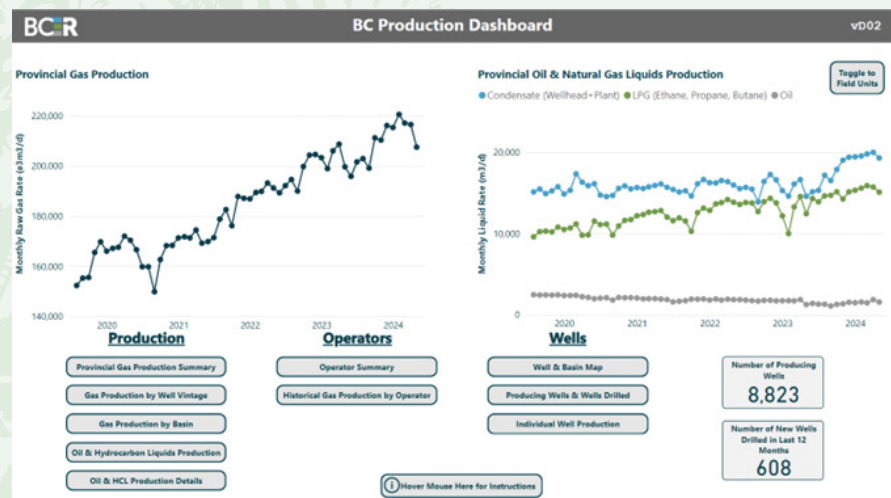


Methanol manufacturing via electrolysis of water and hydrogenation of carbon dioxide.

## New at the BCER: Interactive BC Production Dashboard

The BCER's new BC Production Dashboard provides comprehensive provincial hydrocarbon production data in a highly interactive and user-friendly interface. Users can explore production data across various dimensions, such as geography (basins or province-wide), operator, product type or well vintage – or down to the level of an individual well. Well drilling data is also available. This tool aims to enhance transparency and accessibility of B.C.'s energy resource production data.

The dashboard, as well as background and instructional documentation can be accessed via the [Data Centre](#) on our website.



BC Production Dashboard screenshot.

# Making Our Data Easier to Understand: Northeast B.C. Seismicity Map

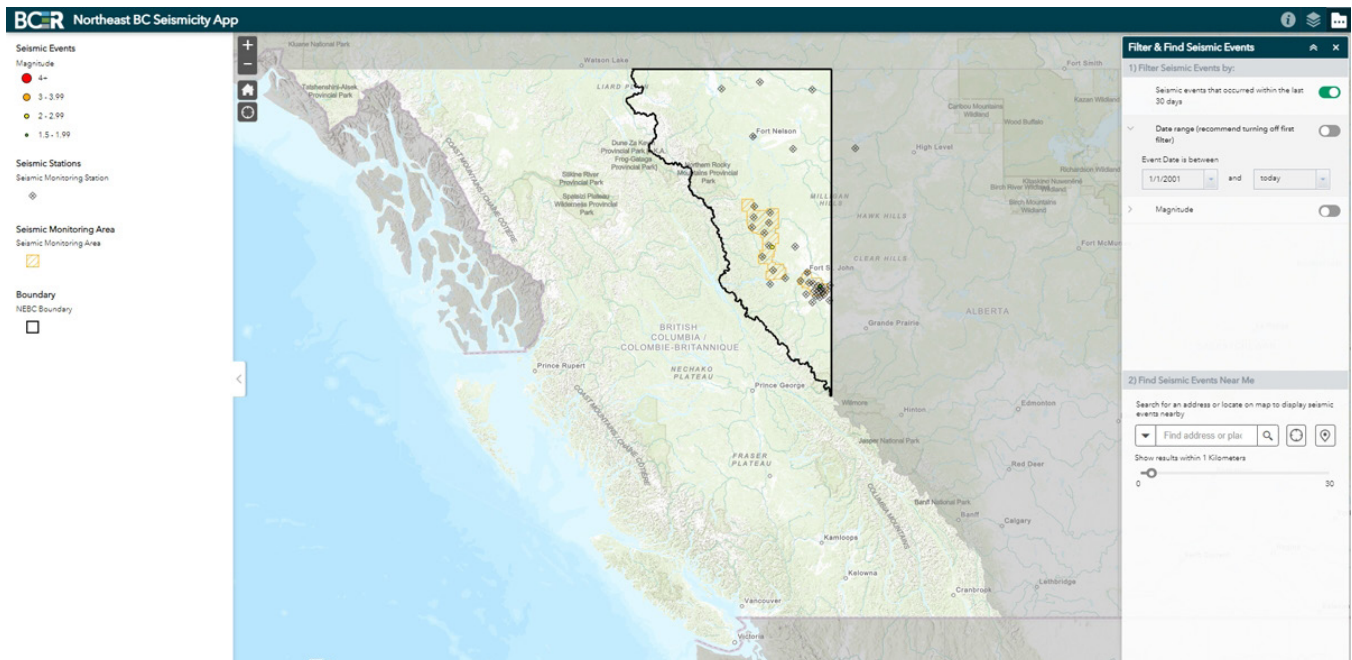
Our large collection of data can be overwhelming. That’s why we are busy carving out short-form, graphically-driven “data narratives” to summarize, simplify and explain our data on some key topics to a general audience. Our latest offerings ease you into our compliance management activities and well emissions data.

Seismicity refers to the geographic and historical distribution of earthquakes. Induced seismicity is a seismic event resulting from human activity, such as hydraulic fracturing, and can be caused by industries such as mining, dam impoundment and natural gas development.

Our [seismicity map](#) displays recent and past seismic events greater than [local magnitude 1.5](#) recorded in northeast B.C. The web map includes detailed information on each seismic event, the location of seismic stations that record events and if there are energy companies working nearby.

For residents living near oil and gas activity, this map will help provide them with further information of felt events. The map is updated frequently with the capability to filter and find events by date and/or location.

This map builds on the leadership role the BCER has taken in the detection and mitigation of induced seismicity associated with energy development.





# Regulatory Framework Update

As we work towards updating our legislative framework, we are continuing our interim approach to regulating hydrogen, ammonia and methanol projects, seeking to balance the cost and complexity of complying with a new set of regulatory requirements borne by companies, with the need to ensure projects are built and operated safely, environmentally responsibly and in a way that respects the interests of First Nations and communities.

The BCER has issued orders to two pre-existing hydrogen production facilities, allowing their continued safe operation while establishing clear timelines for the submission of permit applications.

Through discussions with project proponents pursuing activities covered under the expanded mandate, we heard concerns over the challenges involved in meeting the requirements of the Consultation and Notification Regulation (which sets out distances within which land owners and residents must be either notified of or consulted on proposed energy resource activities) in more dense urban settings where the normal radius may apply to thousands of addresses, relative to the potential impacts of the proposed activities. The BCER has been working with project proponents to determine appropriate consultation and notification distances given expected project impacts and risks.

Significant progress has been made towards completing a comprehensive update to the regulatory framework. This spring, the BCER held 18 hours of virtual engagements with First Nations, industry, municipalities and other key stakeholders on regulatory proposals for facilities and pipelines used in the manufacture of hydrogen, ammonia and methanol based on the feedback from our initial engagement activities. Following those engagements, the BCER released proposed policies for pipelines and facilities used in the manufacture of hydrogen, ammonia and methanol. While the deadline for feedback has passed, the BCER still welcomes any additional feedback.

The regulatory policies can be accessed here: [https://www.bc-er.ca/files/documents/Regulatory-Update/ERAA-Review\\_Proposed-policies-for-pipelines-and-manufacturing-facilities\\_May2024.pdf](https://www.bc-er.ca/files/documents/Regulatory-Update/ERAA-Review_Proposed-policies-for-pipelines-and-manufacturing-facilities_May2024.pdf).

The BCER will be continuing to hold public engagements through the Fall and Winter on topics relating to hydrogen production, including land owner notification and emergency management.

More information on the engagement can be found here: <https://www.bc-er.ca/how-we-regulate/legislative-framework/regulatory-update/eraa-review-hydrogen-ammonia-methanol/>

# Staff Profile: Laurie Welch

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I have been with the BC Energy Regulator since 2014, initially as the BCER's Hydrogeologist. In that role, I developed technical guidance for industry regarding groundwater use, aquifer protection and water monitoring and was also involved in informing the development of the Water Sustainability Act and other provincial water initiatives. I also supported several research programs in collaboration with academia, to improve the understanding of baseline groundwater conditions in northeast B.C. and address environmental concerns.

In 2020, I transitioned into my current role as Executive Director of the Responsible Stewardship Branch, which includes three groups: Environmental Stewardship, Heritage Conservation Program and Geospatial Services. Responsible Stewardship staff include subject matter experts, environmental specialists and technologists with skills in the disciplines of hydrogeology, hydrology, biology, agronomy, air emissions, archaeology and geographic information systems. I am continually impressed by the Responsible Stewardship Branch staff for their passion, dedication and their many contributions to continuous improvement of the BCER's regulatory oversight.

A few current topics the BCER Responsible Stewardship team is working on include:

- **Environmental Oversight:** Our overarching environmental oversight program includes tracking of environmental priorities and fosters continuous improvement of BCER processes relating to our mandate for environmental protection.
- **Drought Response:** Our team has worked to mitigate impacts of drought in B.C. watersheds by collaborating with the Province to monitor drought impacts on streams and by implementing water restrictions for short-term water use authorizations in drought sensitive areas.
- **Methane Emissions Reduction:** Subject matter experts in air emissions lead the development of technical regulatory requirements for the upstream energy resource sector, to meet provincial methane emission reduction targets.
- **Public Spatial Data:** Our Geospatial Services team maintains spatial data and provides public access to data and web maps through our Open Data Portal - [BCER GIS Open Data Portal \(arcgis.com\)](https://www.bcer.ca/open-data-portal)
- **Heritage Conservation:** Our Heritage Conservation Program has established processes and an Archaeology Audit Program to support BCER regulatory oversight authorities under the B.C. Heritage Conservation Act (HCA).

When asked what I like most about my job, I say it is the team of enthusiastic and knowledgeable Responsible Stewardship staff, the diverse spectrum of topic areas we manage and ongoing opportunities to learn and grow.



# Responsible Development & Stewardship: Soils Training Days in Farmington

As a regulator, one of the BCER's main jobs is to protect the environment. From exploration to development and operations all the way to restoration, we carefully oversee energy resource activities and work to continuously improve to meet British Columbia's energy and environmental goals.

In September 2023, members of our Responsible Development & Stewardship team spent some time in the field with the BCER's agrologist to learn about soils as it relates to their reviews and decisions in the Agricultural Land Reserve (ALR). The BCER holds a Delegation Agreement with the B.C. Agricultural Land Commission (ALC) which grants us some authorities under the ALC Act for energy resource activities within the ALR.

Energy resource applications are submitted with a pre-disturbance site assessment report that summarizes a series of assessments to document and inform:

- Pre-disturbance site conditions including soils classifications and assessment data.
- Soils handling and management practices during construction.
- Reclamation plans for implementation post-development.

The BCER has the legislative authority to make decisions on proposed energy activities. While we do not set policy, the diverse expertise and experience of BCER staff provides critical insight at every level of development. This knowledge base provides perspective through scientific evidence, guidance, best practices, reports, tools and analysis.



The BCER is grateful to the land owner in Farmington for allowing us to learn about soils on their property. Vehicle traffic was permitted by the land owner and followed the requested route set by the land owner.

Learning about and seeing various soil properties and characteristics firsthand was an important part of the training. Staff were able to compare soils at a location in Farmington by investigating soil pits in undisturbed aspen forest, in a cultivated field with no oil and gas disturbance and in a cultivated field within a pipeline right-of-way. The team had the opportunity to see how soil changes with different types of development in comparison to its pre-disturbance state. They also spent some time assessing soils along a reclaimed pipeline in Farmington.

The Responsible Development & Stewardship team had a great time in the field and are grateful for the opportunity to learn about soils and their complexity and look forward to using this knowledge to strengthen the BCER's approach in regulating energy resource activity.

# Water Management During Times of Drought

As evidenced by the extensive drought experienced throughout B.C. in both summer 2022 and 2023, the impacts of climate change to our water resources are a present and constant consideration for managing water resources.

To ensure water availability for all water users in northeast B.C., all water licences issued to industry by the BCER have conservative withdrawal conditions assigned to them. These conditions are tied to real-time flow rates at various Water Survey of Canada hydrometric stations and ensure withdrawals are restricted or halted during times of drought.

Conditions such as snowpack, rainfall, temperature, soil moisture, and streamflow as well as indicators like the El Niño Southern Oscillation (ENSO) and the Pacific Decadal Oscillation (PDO) are used to predict upcoming drought conditions.

Additionally, our hydrologist is a member of the Provincial Technical Drought Working Group, which actively monitors and sets drought levels across the province.

The BCER can – and has – suspended withdrawals under Short-Term Use Approvals for any length of time depending on drought conditions. This was seen in spring/summer of 2023 with several directives issued, suspending water diversions in various basins within the Fraser, Peace and Liard River watersheds. Due to low winter snowpack and ongoing drought conditions, some of these suspensions remain in 2024. For more information on drought, we encourage you to visit the B.C. Government [Drought Information page](#) and [Drought Information Portal](#).



Low flow at BCER hydrometric station on the Blueberry River.

# Spring 2024 Update – Expanding Northeast B.C.’s Water Monitoring Network

As a follow up to the Fall 2023 Community Connector Article – [Expanding Northeast B.C.’s Water Monitoring Network](#) – the BCER Stewardship Water team has initiated another field season of hydrometric monitoring in northeast B.C. While funding from Geoscience BC has lapsed, the program continues under expanded funding from the British Columbia Oil and Gas Research and Innovation Society (BC OGRIS). With the wrap of the 2023 season, the nine existing stations and associated data were reviewed and the decision was made to decommission three stations. This will allow the team to focus their efforts on collecting better data and upgrading some components at the remaining six stations.

In 2024, monitoring locations include Osborn River and Doig River (Doig River First Nation), Aitken Creek and Blueberry River (Blueberry River First Nations), Hulcross Creek (Saulteau First Nations) and Beaver Creek (Prophet River First Nation). The monitoring season is now in full swing, with most stations already having at least three visits.

Hydrometric data collected during the 2023 season has been processed and posted to the B.C. provincial Aquarius website and the Water Portal. The operation of the hydrometric program over the past five years has fostered relationship and capacity building with the First Nation communities as well as increasing our

understanding of small watersheds in northeast B.C. Ministry of Water, Land and Resource Stewardship (WLRS) Water Authorization Specialists from the Fort St. John office continue assisting with the monitoring of these stations.

The BCER is very excited to continue this hydrometric monitoring into the future in collaboration with the numerous partners. If you have any questions please contact Ryan Rolick, Hydrologist at [Ryan.Rolick@bc-er.ca](mailto:Ryan.Rolick@bc-er.ca).



High flow measurement and water level surveying on Blueberry River.

# Working toward Meaningful Reconciliation and Partnerships

Did you know that, as a Crown Corporation, the BCER follows direction from the provincial government through its mandate letter from the Ministry of Energy, Mines and Low Carbon Innovation? For the past several years, reconciliation with First Nations has been one of several provincial priorities, and as a Provincial agency, we're committed to delivering on our mandate.

## What does reconciliation look like at the BCER?

Reconciliation means working in partnership with First Nations in ways that build trust—we know this is difficult, and we know it takes time, but having this vision in mind and pursuing common interests together will set us on the right track.

## Our roadmap for building trusting relationships.

We've developed an Indigenous Relations Strategy roadmap, shown on the next page, to help guide us toward our vision of trust. Through four areas of focus, here are a few examples that explain how we're approaching this important work.

**Relationship-Building Opportunities** – As part of the Treaty 8 Restoration Advisory Committee, we're collaborating with Treaty 8 First Nations on landscape restoration projects while sharing knowledge and ideas. Indigenous perspectives, voices and cultural values are central to this work. The vision is to support restoration of the land that meets levels of ecological health necessary to support and sustain the restoration of treaty rights and the ability to carry out Indigenous ways of life for future generations.

## Responsive Business Practices


– With First Nations, we've co-developed new planning and mitigation measures for energy activities on Treaty 8 territory that help to protect both treaty rights and the environment.

## Information Sharing and Communication

– First Nations receive notification about incidents that occur in their territories so they can ensure the health and safety of community members who are out on the land.

## Collective Capacity Building

– Reconciliation-focused learning for staff is a big component of ongoing education. It is important for everyone to understand what reconciliation means and how it relates to their work at the BCER.



Creating opportunities to learn about one another, and learn together, will be fundamental for building trust.



# Indigenous Relations Strategy

A pathway for how we approach our work with Indigenous Peoples and advance our commitment to meaningful reconciliation and partnerships

Trust building is anchored in four areas of focus:

## Relationship-Building Opportunities

### Area of focus

Strengthening relationships with First Nations and Indigenous communities

### What it means for the BCER

Approaching our relationships with Indigenous Peoples with a mindset on pursuing common interests together across the regulatory life cycle



## Information Sharing & Communication

### Area of focus

Increasing transparency, sharing information and building trust into how decisions are made

### What it means for the BCER

Sharing, collecting, exchanging and interpreting information with Indigenous Peoples



## Vision

Trust is the foundation of our relationships with Indigenous Peoples

## Responsive Business Practices

### Area of focus

Collaborating and co-developing new processes

### What it means for the BCER

Being open to new and improved approaches to doing our work and sharing regulatory responsibilities with Indigenous Peoples



## Collective Capacity Building

### Area of focus

Enhancing Indigenous relations competencies and capacities

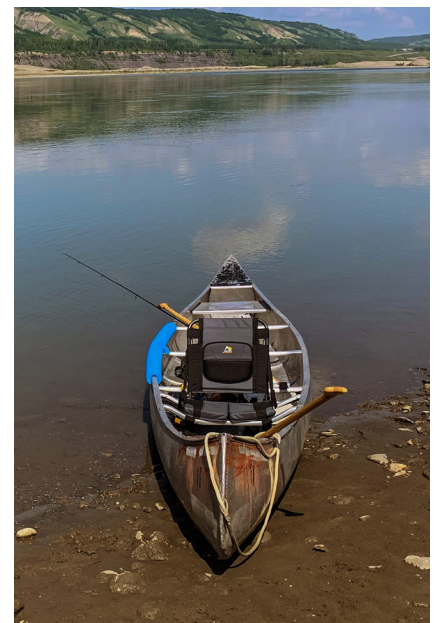
### What it means for the BCER

Understanding how to build reconciliation into our work and creating opportunities to learn alongside Indigenous Peoples



“ Reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country. In order for that to happen, there has to be awareness of the past, an acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour. ”

– Truth and Reconciliation Commission of Canada



Staff photo taken while canoeing on the Peace River near Hudson's Hope.

# Another Successful Trade Show Season!

In April, BCER staff had the opportunity to connect with British Columbians at trade shows in Fort St. John and Terrace. The event in Fort St. John was a highlight, attracting thousands of residents from the city and surrounding areas. Our team was there to listen and engage, answer questions, address local concerns and receive feedback on the work we do. Our attendance at the trade show in Terrace was equally important, especially with the upcoming launch of the LNG Canada facility nearby in Kitimat. This event was a chance for locals to understand the regulatory landscape and role we have in ensuring the LNG Canada facility operates safely.

These yearly events are always a great opportunity for the BCER to engage with communities. We are eager to meet with land owners, community members and anyone interested in learning more about the work we do. If you know of an event that would benefit from the BCER's attendance, please email us at [Community.Engagement@bc-er.ca](mailto:Community.Engagement@bc-er.ca). We are looking forward to seeing and speaking with everyone about our role in B.C.'s energy future.



2024 Fort St. John Trade Show.



Staff photo taken while in Terrace for the 2024 Terrace & District Chamber of Commerce Trade Show.

## New Fillable Written Submission Form

If there are new proposed energy resource activities being planned, such as a wellsite, facility or pipeline, you may receive a consultation or notification letter. If you have concerns about potential impacts from the proposed activity, you can provide a written response to the company and/or make a written submission to the British Columbia Energy Regulator. Making a submission means your concerns are documented, forwarded to the applicant and will be considered in the application review process. A submission can be simply an email or letter sent to the BCER outlining your concerns or you can use our [new fillable written submission form](#) to provide as many known details as you can, so the Community Relations' staff can better assist with addressing your concerns. The form includes information for the location, what activity is proposed, how far away it is from your interests, etc. All this information is helpful to have and some of it can be found on the consultation or notification letter.

# Enhancements to Orphan Site Management

Orphan sites are wells, facilities, pipelines and associated areas where an energy resource company is declared bankrupt or cannot be located. Orphan site designation enables the BCER, utilizing the [Orphan Site Reclamation Fund](#) (OSRF), to decommission and restore the site. The OSRF is a levy on industry permit holders used to pay the cost of restoring orphan sites in B.C.

As the BCER continually works to further its protection of public safety and the environment, provide transparent governance, support innovation and drive collaborative and informed restoration, the Orphan Restoration team has implemented additional tools as part of this continuous improvement.

## BCER Pest Management Plan

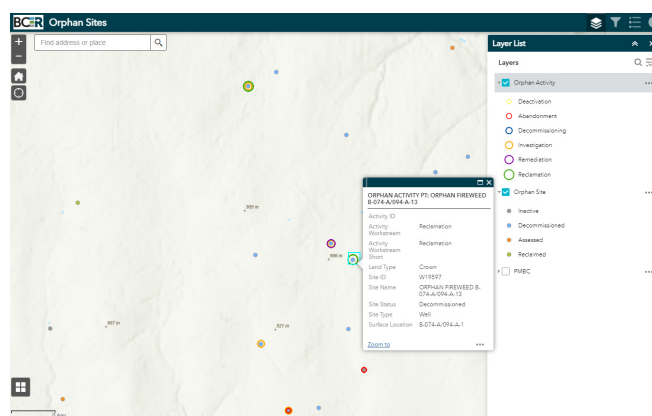
In support of restoration, the BCER has developed a Pest Management Plan (PMP) to manage noxious and unwanted vegetation on orphan sites within B.C.'s Peace River and Northern Rockies Regional Districts. The potential threats posed by invasive and undesirable vegetation to human health, ecosystems and wildlife make prevention and control necessary. To achieve this, collaboration with land owners, First Nations and local communities, industry and other stakeholders is paramount.

Our intent is to use an integrated vegetation management approach, using a combination of cultural, biological, chemical and mechanical methods. These methods will assist the BCER in meeting the end restoration goals of the land owner or when on Crown land, the [Ecologically Suitable Species Guideline](#).

The draft PMP can be viewed at <https://www.bc-er.ca/files/operations-documentation/Remediation-Reclamation-and-Restoration/Orphan-Site-Pest-Management-Plan-PRRD-NRRM.pdf>

## Orphan Sites Interactive Map

The [Orphan Sites Map](#), which shows the current restoration status of all orphan sites, was recently updated to include intended restoration activities from this year's workplan. Users of the map have access to a variety of filter and layering tools to better locate areas, sites or work scopes of interest. A glossary of terms used in the map (as shown in the image below) is also available as part of the menu in the upper right.



This interactive map can be found at: <https://geoweb-ags.bc-er.ca/portal/apps/webappviewer/index.html?id=a93cadbbd1044b148d0deb8f7f3ee59f>

If you have any questions regarding an orphan site, please email [OrphanRestoration@bc-er.ca](mailto:OrphanRestoration@bc-er.ca) or call 250-794-5200.



# 2023 Wildfire Season Roundtable Report Released

As part of our commitment to protect public safety and the environment, the BCER hosted a post-season wildfire roundtable to understand the impacts of the 2023 fire season on participants, to look at key actions undertaken and identify best practices for future years.

The 2023 wildfire season was unprecedented and created challenges across the province, testing agencies, authorities, companies and individuals. No part of B.C. was spared from the impacts of the fires, from smoke to evacuations. This roundtable provided an opportunity for agencies to gather on Nov. 2, 2023 and reflect on successes and areas for improvement, to help prepare for future wildfire season challenges.

Throughout the 2023 wildfire season, the BCER and other agencies maintained a high level of communication, supporting the safety of both industry and Wildfire Service field staff with multiple coordination calls, exchange of contacts and other information, direct support with links to resources and a widespread commitment to review and improve, where possible, for the 2024 fire season and beyond. Some of the best practices and recommendations captured in this report will be helpful in response to any significant and sustained incident response that involves multiple parties, including industry, agencies and communities.

Improvements are already underway since the roundtable took place. For example, the BCER is working with other agencies to improve the tracking of hazardous products and firefighting water sources on energy sites, as well as providing updates to the [Firesmart](#) guide for industry.

To learn more about the recommendations that came out of the roundtable discussions, please view the full report: [2023 Wildfire Report](#)



A BC Wildfire Service Incident Management Team operating out of the BCER's Fort St. John office during the 2023 wildfire season.



North Peace fire complex, May 2023.



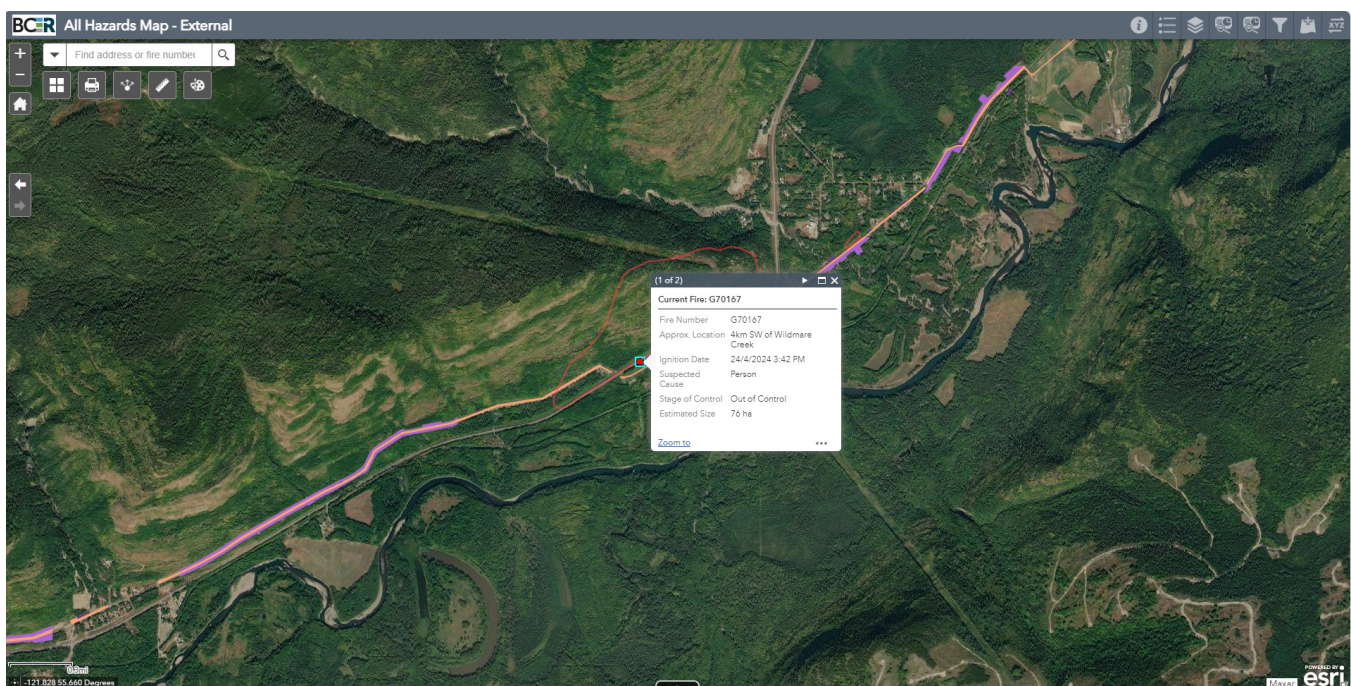
# New All Hazards Map Assists Planning Activities During Active Wildfires

Our new [All Hazards Map](#), formerly known as the Fire Map, was created for the public, energy industry partners and BCER staff, to quickly locate energy resource activity infrastructure in areas where there are active fires.

The map presents expanded capabilities and common GIS (geographic information system) mapping software, allowing users to identify energy resource activity infrastructure in B.C. that is within a specified distance from a fire point, perimeter or user defined location. The map and accompanying report display the active infrastructure in the area of interest. Fire perimeters are updated nightly and fire locations are updated as needed.

Additional information on [fire perimeters](#) and [fire points](#) can be found in the British Columbia Provincial Data Catalogue, which is maintained by the B.C. Ministry of Forests – [BC Wildfire Service](#).

The new map can be found in the [Tools & Maps](#) page on the BCER website under All Hazards Map. A map User Guide and FAQs with more information and instructions are available as well. This tool is intended for general information purposes only and should be independently verified prior to use in emergency response planning. We encourage you to download the [BC Wildfire Service mobile app](#) for real-time information to help you stay informed about wildfires and wildfire-related events and conditions across B.C.



The BCER's [All Hazards Map](#) enables users to identify energy resource activity infrastructure in British Columbia that are within a specified distance from a fire point, perimeter or user defined location.

# Multi-year Aerial Leak Survey of Decommissioned Wells

In 2017, the BCER conducted a pilot study to assess the effectiveness of new aerial survey technology in detecting leaks from decommissioned wells. Following the pilot study, the BCER implemented an annual program of surveying decommissioned wells in northeast British Columbia to improve understanding of the likelihood of abandoned well leaks and the long-term risk of methane leaks at decommissioned well sites.

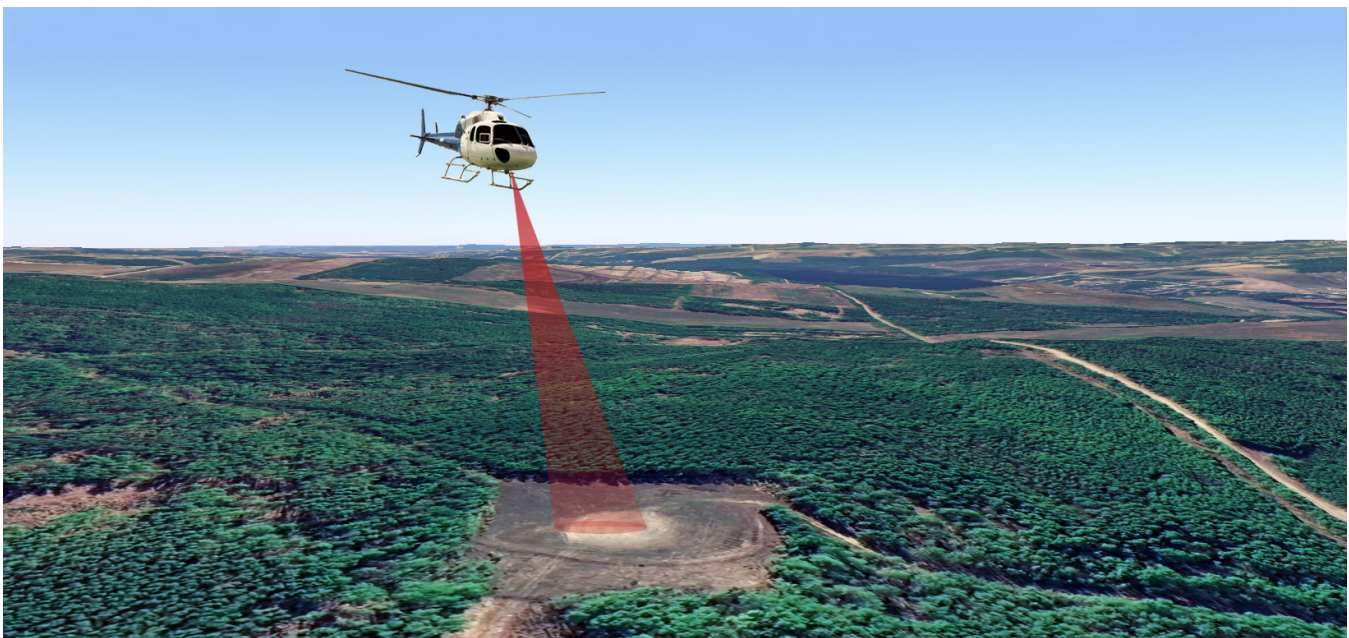
This annual initiative aligns with two of the BCER's strategic areas of focus:

Restoration, Stewardship & Cumulative Effects and Operational Effectiveness & Innovation.

Through this work, the BCER continues to explore emerging technologies and utilize the latest science to effectively manage energy resource activities, including well integrity oversight. The multi-year aerial leak survey program allows the BCER to obtain a representative sampling of decommissioned wells while embracing new, innovative technologies for detecting abandoned

well leaks in remote and hard to reach locations and working to protect the public and the environment. The findings help us to evaluate decommissioning practices and determine whether further regulatory safeguards are necessary to ensure long-term well integrity. The BCER sees the benefits of utilizing this valuable technology in upcoming programs.

Please find the report on our website here: [Multi-year Aerial Leak Survey of Decommissioned Wells](#)



The aerial survey method, pictured above, allows easy access to sites in very difficult and inaccessible terrain.

# Seismic Oversight: How Does That Happen?

In December 2023, Geoscience BC issued a news release titled “[Extended Agreement Secures Ongoing Seismicity Monitoring and Reporting.](#)” You may have asked yourself “What does that even mean?” Well, the answer goes way back to 2010. At that time, seismic events were detected in the Horn River Basin north of Fort Nelson. The BC Energy Regulator (BCER), known as the BC Oil & Gas Commission at the time, linked the seismicity to hydraulic fracturing and findings from its investigation revealed seismic sensor coverage in northeast B.C. was inadequate for monitoring energy resources activities. Thus, 2012 the [BC Seismic Research Consortium](#) (BCSC) was formed to bridge the discovered oversight gap.

The BCSC was formed via split funding between Geoscience BC and the BC Oil & Gas Research Innovation Society with a mandate to increase the density of seismic sensor coverage in northeast B.C., provide subject matter expertise in understanding and identifying earthquakes and producing annual reports on the BCSC’s findings. The BCSC has been running smoothly since its inception in 2012 and the work of this group has spawned several partnerships that have increased the seismic sensor density from two stations to over 40 stations currently operating in northeast B.C.

The recent extension ensures seismic monitoring will continue into the foreseeable future and all sensors will continue to stream data into the public domain.

A vital aspect of the BCSC is all data collected from their sensors is streamed openly and stored permanently, so it may be used by anyone,



Redeployment of seismic monitoring station MONT1 in Parkland, B.C.

including researchers and permit holders, free of charge. The access to data has directly resulted in [technical articles](#) and [research papers](#).

Furthermore, the BCSC provides the backbone infrastructure for regulatory oversight of northeast B.C. and allows the BCER to monitor seismicity in real-time and make timely regulatory decisions based on the open, public data. All seismic events recorded and processed by the BCSC can be found on the [BCER seismicity webpage](#). This webpage provides timely information on seismic events and displays active fracturing and disposal operations, to ensure stakeholders are aware of activities in their region.

# Canada's first LNG export facility preparing to start early operations in Kitimat, B.C.

LNG Canada is preparing for early operations for the country's first large scale LNG export facility. The BC Energy Regulator is the provincial regulator for the project and issued an LNG Facility Permit in 2015, following provincial approval by the B.C. Environmental Assessment Office. Construction started in January 2020 and has been ongoing into 2024. Over the course of 2024, LNG Canada plans a staged startup, commissioning different parts of the facility as the year progresses. The first overseas shipment of LNG is anticipated in 2025.

Prior to the startup of operations, LNG Canada must satisfy all applicable codes and standards, provincial regulations and permit conditions through the BCER's Leave to Operate process. Required as part of the BCER's LNG Facility Regulation, this process requires review and approval by the BCER to ensure all inspections and tests are complete. For more information on how the BCER regulates LNG Canada, see the LNG Canada Fact Sheet [here](#).

Coastal GasLink's (CGL) pipeline will supply the facility with natural gas from northeast B.C. Construction on the pipeline was completed in November 2023. Prior to flowing gas through the pipeline, the BCER's Leave to Open requirements are designed to ensure it is built according to provincial regulations, permit conditions and applicable standards and codes and all technical information submitted is accurate and complete.

Construction has also commenced on other LNG-related projects in southern B.C. FortisBC started construction on the Eagle Mountain Pipeline near Squamish, B.C., which will supply natural gas to Woodfibre LNG for conversion into LNG and shipment overseas. Work on the pipeline commenced in late 2023 on a tunnel beneath the ecologically-important [Skwelwil'em Squamish Estuary Wildlife Management Area](#) to avoid ground disturbance. At the Woodfibre LNG site – an industrial site formerly used as a pulp mill – the company started early works in late 2023, which include clearing and grading activities. Construction on the LNG facility itself is anticipated to start later in 2024.

## What exactly is LNG?

LNG is natural gas cooled to  $-162^{\circ}\text{C}$ . It is an odourless, colourless, non-toxic and non-corrosive liquid made up mostly of methane, with small quantities of ethane, propane and butane. When cooled to a liquid, natural gas can be stored and transported economically.

Once condensed, LNG is about  $1/600^{\text{th}}$  the volume of natural gas. Because it takes up a fraction of the space, LNG can be loaded into containers designed specifically to safely house it during storage and transport.

## A new, nationally significant pipeline for Canadian energy resources begins operations.

LNG projects aren't the only major projects reaching major milestones. The Trans Mountain Expansion Pipeline (TMEP) in April completed their golden weld, marking the completion of construction on the actual pipeline and entered commercial service on May 1, 2024. The original Trans Mountain Pipeline, which has been in operation for over 70 years, carried up to 300,000 barrels per day of crude oil and refined products from Alberta to B.C. TMEP increases the capacity to a total of 890,000 barrels per day.

Even though the Canada Energy Regulator is the primary regulator for the project, the BCER issued 247 permits related to the project. These permits were for things like changes in and about a stream, lay down areas and over 1,200 water crossings. In the first full month of operation, 20 tankers were loaded with oil from the newly expanded pipeline and shipped from Vancouver.

The BCER's Major Projects [web page](#) includes information on all large-scale projects under BCER regulation, including project information and issued permits.

## Major Projects WebMap



The [BCER's Major Projects WebMap](#) lists all major projects and provides summary project information, access to approved project permits, as well as a map displaying the general route or locations of major projects in B.C. regulated by the BCER.

## Roaming Air Monitoring (RAM) Update

In preparation for the upcoming commissioning of the LNG Canada facility in Kitimat, the BCER has deployed its Roaming Air Monitor (RAM) van to the Kitimat Valley. The RAM is capable of continuously monitoring air quality, even while moving! In advance of the deployment, the RAM was outfitted with additional analyzers, allowing it to measure a broader suite of air contaminants and maximize the information gathered during this deployment. Locations for routine monitoring will be determined by the BCER and informed by the feedback received during the air discharge permit application review and monitoring plan consultations. Where possible, the RAM will be deployed to monitor during non-routine conditions such as [flaring](#) events at LNG Canada. Summary reports of the data measured by the RAM will be published on our website and distributed as needed.

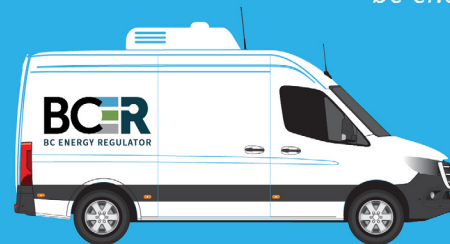
Questions or concerns about energy resource activities in your area?



Call our 24-hour emergency line:

**1-877-500-2237 (BCER)**

[bc-er.ca](http://bc-er.ca)



**DID YOU KNOW?** The BCER's mobile Roaming Air Monitor (RAM) contains specialized equipment to monitor atmospheric conditions.


# 2024 Stakeholder Survey Results



Every year the BCER conducts a survey with stakeholders across northern British Columbia. For the past six years, the focus has been on land owners and local government who live directly in, or adjacent to, areas where oil and gas activity is taking place or is planned to take place. This year we sent 7,591 survey invitations to land owners and local government officials and received 544 responses.

Our survey measures awareness of major oil & gas projects, awareness of the BCER's functions and roles, perceptions of the organization's effectiveness at meeting its mandate and past-year usage and performance of various communication channels.

## This year we learned:

- 
- Awareness of major projects such as the Coastal GasLink and LNG Canada export facility remain high while other projects including the Woodfibre LNG process and export facility and Eagle Mountain Pipeline received lower awareness scores.
  - One third of stakeholders are aware we changed our name to the BC Energy Regulator. Because of our name change, it appears that overall awareness of our responsibilities, initiatives and activities has declined.
  - Stakeholders continue to be most aware of our responsibility to consult with First Nations, enforce compliance with regulations and review applications for energy development in B.C.
  - Stakeholders report a high awareness of our work to reclaim orphan and dormant wells, reduce and prevent the impacts of hydraulic fracturing and their regulation to reduce methane emissions.
  - Confidence in the Regulator's ability to make fair and balanced decisions on projects was marginally lower, with lower scores in the northwest.
  - While stakeholders are less aware of the BCER's communication channels compared to previous years, usage of our channels remain consistent with 2022 and 2023. Our website and social media channels continue to be the most used.

## Your Suggestions:

- ✓ Increase visibility of the BCER and what the organization does.
- ✓ Keep stakeholders up-to-date on the the progress of oil and gas projects and potential impacts.
- ✓ Continue to consult with stakeholders and acknowledge their concerns.
- ✓ Transition to cleaner energy sources to reduce concerns about environmental impacts from oil and gas activity.
- ✓ Hold companies accountable for their actions with increased monitoring and compliance enforcement.
- ✓ Approve more oil and gas development in B.C.

## Join Our Regional Networking Group!

The BCER Regional Networking Group (RNG) connects land owners with the BCER. Group members receive land owner focused news, announcements and invitations to participate in BCER events. We also welcome input on new guidelines, fact sheets and other information useful for land owners.

New members are always welcome!  
Please email [CommunityEngagement@bc-er.ca](mailto:CommunityEngagement@bc-er.ca) to learn more.

The BCER thanks all who took the time to participate in this survey. This information is very useful in helping us know where we are doing well and where there are opportunities to improve. We will analyze the data and use it to inform initiatives throughout the BCER to ensure our continuous commitment to being a responsible, respectful and effective regulator.



# The Community Connector

**BCER**  
BRITISH COLUMBIA ENERGY REGULATOR



Discover how we regulate energy in B.C.