



British Columbia
Ministry of Land, Water and Resource Stewardship

**Agency Report to the
Mackenzie River Basin Board**

**Meeting 74 of the
Mackenzie River Basin Board
December 5, 2022**

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1. Bilateral Water Management Agreements

The *Mackenzie River Basin Transboundary Waters Master Agreement* provides for neighbouring jurisdictions to negotiate Bilateral Water Management Agreements (BWMAs) to address shared surface water quantity, quality and groundwater. Under the Master Agreement, British Columbia is required to negotiate three such agreements with the governments of the Northwest Territories, Yukon and Alberta.

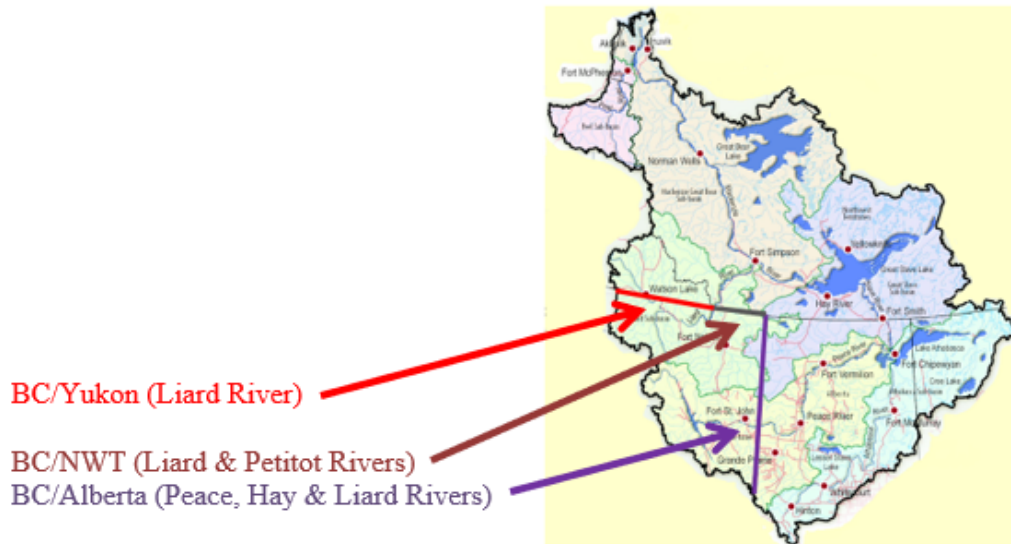


Figure 1: Three transboundary water management agreements in British Columbia.

British Columbia – Northwest Territories

British Columbia and the Northwest Territories [signed their BWMA](#) in October 2015. The British Columbia – Northwest Territories (NWT) BWMA applies to all transboundary waters shared between British Columbia and the Northwest Territories in the Mackenzie River Basin, primarily the Liard River basin. On August 31, 2017, the British Columbia government approved implementation of the B.C./NWT BWMA through an Order in Council.

In 2022, BC and NWT completed an [Information and Implementation Report](#) for the 2019-2021 period.

British Columbia – Yukon

British Columbia and the Yukon [signed their BWMA](#) on March 30, 2017. On August 31, 2017, the British Columbia government approved implementation of the B.C. – Yukon BWMA through an Order in Council. This BWMA applies to all transboundary waters shared between British Columbia and Yukon in the Mackenzie River Basin, primarily the Liard River basin. Transboundary waters shared between the jurisdictions outside the Mackenzie River Basin, such as the headwaters of the Yukon River, are not included in the BWMA.

In 2022, BC and YT completed an [Annual Implementation Report](#) for the 2021 period.

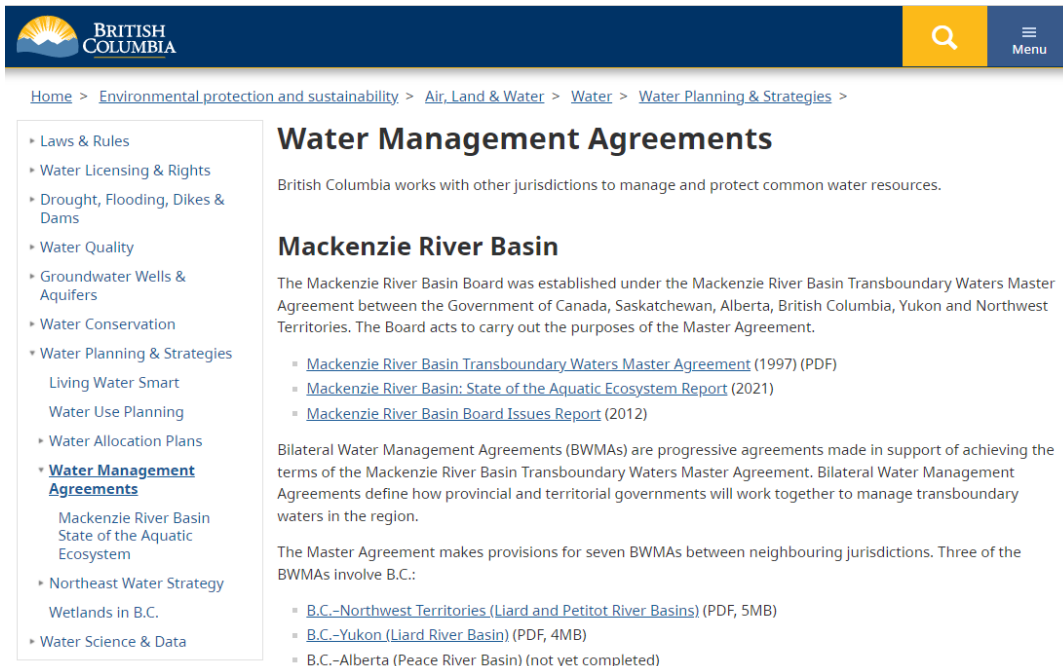
A Learning Plan for the Liard River Basin

Both BWMA are guided by a Risk Informed Management Approach in which water bodies are classified based on risk. In 2021, the B.C – NWT Bilateral Management Committee classified the entire Liard River as Class 2 for water quality. Class 2 water bodies are at moderate risk of adverse changes and, therefore, require a learning plan. These plans are intended to better understand the historical, current and potential future of water quality, quantity, and health of the overall aquatic ecosystem, including in the context of the values of the waters long held by Indigenous peoples and local communities in the Liard basin. In May 2022, both the B.C. – Northwest Territories and B.C. – Yukon Bilateral Management Committees agreed to focus efforts on collaborative development of a learning plan for the Liard River Basin during 2022/23.

British Columbia – Alberta

Subject to government approval to proceed, the parties will re-engage on the British Columbia – Alberta BWMA. This BWMA will apply to all transboundary waters shared between British Columbia and Alberta in the Mackenzie River Basin, with a significant focus on the Peace River. While the BWMA has not been signed, communications between B.C. and Alberta water teams remain positive and valuable. Regular information exchanges and updates have been held in virtual meeting format since February 2021, and the two jurisdictions remain in contact about transboundary water priorities.

B.C. posts updates on the implementation of agreements to its [Water Management Agreements](#) website pages:



The screenshot shows the website's navigation bar with the British Columbia logo, a search icon, and a menu icon. The breadcrumb trail reads: Home > Environmental protection and sustainability > Air, Land & Water > Water > Water Planning & Strategies >. A left-hand sidebar lists various water-related topics, with 'Water Management Agreements' highlighted. The main content area features the title 'Water Management Agreements' and a sub-header 'Mackenzie River Basin'. Below this, there is a list of links to reports and agreements, including the Mackenzie River Basin Transboundary Waters Master Agreement (1997), the State of the Aquatic Ecosystem Report (2021), and the Mackenzie River Basin Board Issues Report (2012). A section titled 'Bilateral Water Management Agreements (BWMA)' explains their purpose and lists three BWMA involving B.C.: B.C.–Northwest Territories (Liard and Petitot River Basins), B.C.–Yukon (Liard River Basin), and B.C.–Alberta (Peace River Basin).

Figure 2: Landing page for the water management agreements in British Columbia.



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2. Water-Related Legislation / Policy / Regulations / Planning

Formation of the new Ministry of Land, Water and Resource Stewardship

In April 2022, the B.C. government announced a restructuring of its natural resource ministries and the formation of a new Ministry of Land, Water and Resource Stewardship (LWRS). The current Minister for LWRS is Honourable Josie Osborne, [whose mandate includes](#) putting people first and addressing the needs of British Columbians; lasting and meaningful reconciliation with Indigenous peoples, making progress on equity and anti-racism and implementing a [Gender-Based Analysis Plus](#) lens, fighting climate change through supporting the implementation of the [CleanBC climate action plan](#), and supporting British Columbians with a strong, sustainable economy that works for everyone. Lasting and meaningful reconciliation with Indigenous peoples is an ongoing process and a shared responsibility that is central to LWRS's mandate. Government looks forward to advancing government-to-government relationships with First Nations and working together to develop a path forward to build a co-managed land and resource management regime that will ensure natural resources are managed effectively now and in the future.

LWRS also has the mandate to provide provincial leadership on water policy, science and strategies. This includes the co-development and coordination of a Watershed Security Strategy and Fund (the "Strategy") with First Nations to ensure our water and watersheds are respected and valued, leading a Source-to-Tap Strategy to ensure clean drinking water for all British Columbians, and initiate a watershed planning program using the tools provided in the *Water Sustainability Act*, such as Water Objectives and Water Sustainability Plans. To support this new mandate, the LWRS Water Protection and Sustainability Branch has expanded to include a new team led by the Director of Water Sustainability.

Water Sustainability Act Implementation Continues

The Province is committed to the successful implementation of the 2016 [Water Sustainability Act](#) (WSA) which remains a key legislative driver for continuous improvement in water stewardship in B.C. Multiple milestones were achieved in 2022, such as the passing of the March 1st, 2022 deadline for transitioning existing use groundwater users into the water licensing system. Thousands of groundwater licence applications were submitted before the end of the March 1st deadline and government is now reviewing the submissions.

Several operational policy and guidance documents were completed in 2022, including updates to guidance on making changes in and about streams, and water use for mineral exploration and placer mining. WSA priorities for 2023 will continue to focus on supporting decision makers on implementing the legislation and developing policy and guidance related to WSA provisions which were higher level enabling provisions requiring more detailed policy and process to implement (e.g. WSA Objectives, water sustainability plans and governance).

Perhaps most pertinent to the Mackenzie River Basin Board, B.C.'s North area water staff supported the provincial outreach program, and also directly mailed or phoned agricultural, industrial and commercial businesses believed to require a licence. These efforts resulted in a large number of additional applications which staff are currently assessing. Efforts are also underway to notify any groundwater users who may not have applied for a licence by the deadline of their licence requirements.

In the Fort Nelson region, water staff sampled available private groundwater wells and surface waters. Combined with [Provincial Groundwater Observation Well Network](#) results, the data will enhance our understanding of the local aquifers.

Several reports have been received of wells in the north area being drilled without required oversight, and of well construction not meeting regulated standards. Well inspections have been completed across the north to assess whether well construction is meeting Groundwater Protection Regulation construction standards. Follow up with drillers and professionals informing them of their construction, supervision, and documentation has occurred. In several cases enforcement has been escalated with one well ordered closed and several tickets issued by Natural Resource Officers. This year we also published a flowing well advisory in Fort St. James area.

For more information about the WSA, its regulations, and water policy and guidance visit the [Water Sustainability Act](#), the [WSA public engagement and blog](#) and [Water Licensing and Rights](#) webpages.

Watershed Security Strategy and Fund

Developing a [Watershed Security Strategy](#) and associated Fund (Strategy and Fund) is a mandate letter commitment for the Minister of Land, Water and resource Stewardship with support from the Minister of Environment and Climate Change Strategy. Reconciliation and collaboration with Indigenous peoples is central to this work. Government is working with Indigenous partners to jointly build an enduring engagement and collaboration process needed to co-develop the Strategy and Fund. This includes the formation of the B.C.-First Nations Water Table, which is a shared space for dialogue and solutions.

Between January and March 2022, LWRS held a broad engagement with the public and a wide breadth of stakeholders. Throughout the development process, LWRS continues to meet with local and federal governments and key members of the agriculture, forestry, industry, and environmental sectors. An intentions paper will be released in Winter 2022/23 for a next round of engagement. Key policy directions that the Strategy will explore may include governance, climate change, ecosystems, drinking water, community and economic stability, and education and knowledge building.

Watershed Security Funding

Through Budget 2022, the B.C. Provincial Government invested \$30M to continue safeguarding B.C.'s watersheds and help mitigate the impacts of a changing climate on community health, and support water security and the economy.

The Province granted \$15 million to Watersheds BC to fund Indigenous-led and co-led watershed security projects. Watersheds BC will play a similar, though more limited role, as they did with Indigenous project proponents for the Healthy Watersheds Initiative (HWI – update in section 6 below). The remaining \$15 million was granted to BC Wildlife Federation (referenced above), Ducks Unlimited, Living Lakes Canada, Redd Fish Restoration, Investment Agriculture Foundation/Farmland Advantage, Rivershed Society.

These organizations were selected because their work builds on the good work started under the HWI. Additionally, they have a number of other collaborations with Indigenous and non-Indigenous communities and they work across a number of watershed security issues, from water monitoring, to restoration, to infrastructure management.

2022 Drought Response

2022 was a unique drought year for much of British Columbia. Though BC is prone to experiencing drought conditions, it is uncommon to see stretches of minimal precipitation extending from July through to the end of October. The delayed freshet helped buffer the impacts of drought, but limited precipitation and late arrival of fall rains resulted in record low stream flows for some rivers. By mid-October the Lower Mainland, Sunshine Coast, East and West Vancouver Island, Fort Nelson, Eastern Pacific Range, Peace and Kettle regions all reached [drought level 5](#).

The majority of water licences issued under the *Water Sustainability Act* for agricultural irrigation purposes have a clause that only allows producers to irrigate between April 1 and Sept 30. Due to prolonged dry conditions some producers continued to irrigate through October. The province issued communications to water licence holders in drought prone watersheds providing education around license terms, water conservation, updates to the drought levels, and voluntary water reductions as the drought conditions escalated.

On October 17th the Sunshine Coast Regional District, District of Sechelt and the shíshálh Nation declared a State of Local Emergency (SOLE) due to the risk of depleting their water supply system. In addition to water conservation regulations already in place, the order affects several large non-essential commercial uses of water, including: swimming pools, breweries, cideries and distilleries; business that bottle water; non-medical cannabis production; and businesses that involve the transport, processing, cleaning, installation or repair of concrete, cement, asphalt, gravel, or aggregate.

Early November brought heavy rainfall to the coast and southern interior, which helped reduce precipitation deficits. Subsequently, much of the province lowered their drought levels. However, cooler temperatures have meant snow in the mountains and interior, which has delayed drought relief and may result in drought into freeze-up. Such challenges are relevant to the Mackenzie River basin in B.C. and may increase in frequency and severity over time.

B.C. Climate Preparedness and Adaptation Strategy

Throughout the province people are experiencing the effects of climate change: from increasing wildfires, flooding and heatwaves to longer summer droughts and changes to ecosystems. Faced with these significant challenges, vital work is underway across the BC Public Service to build a climate resilient B.C.

On June 20, the Climate Action Secretariat released the [Climate Preparedness and Adaptation Strategy](#) (CPAS). CPAS outlines actions to:

- Strengthen our foundations for success
- Build safe and healthy communities
- Foster resilient species and ecosystems
- Advance a climate ready economy and resilient infrastructure

The strategy was developed together by 14 ministries, with extensive input from the public, Indigenous Peoples, local governments and organizations throughout B.C.

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3. Science, Monitoring and Information

Groundwater Science Program

B.C.'s Groundwater Science Program continuously improves the level of scientific knowledge on provincial groundwater, aquifers and the interactions between surface water and groundwater in order to support the sustainable management of our shared water resources and water-related values. Science and research are often conducted collaboratively with leading experts, stakeholders, and, increasingly in partnership with local communities and Indigenous groups, which facilitates a more transparent and inclusive growth in our knowledge of water. These activities support the implementation of the *Water Sustainability Act* and [Groundwater Protection Regulation](#).

The following key projects represent some of the groundwater science work underway in 2022/23:

1. Groundwater Monitoring Supporting Authorizations Pilot – Averill Creek Watershed
2. Impact of cumulative groundwater withdrawal on surface water and groundwater interaction in Stoney Creek Watershed
3. Surficial Geology Mapping to Support Groundwater Management
4. Setting Groundwater Allocation Extraction Limits and Improving the Understanding of Hydraulic Connectivity in BC

Multi-year groundwater projects initiated in previous years that are also funded in 22/23:

1. Surface Water Exchange Dynamics in Low-Gradient and Tidally Influenced Streams in the Lower Fraser Valley
2. Assessment of Groundwater-Surface Water Interactions on the Vaseux Creek Alluvial Fan, Oliver, BC
3. Aquifer Summary updates and data maintenance of the GWELLS application
4. South Area Aquifer Mapping
5. North Area Aquifer Mapping

Water Quality Guidelines and Objectives

Pursuant to the *Environmental Management Act*, B.C.'s [water quality guidelines \(WQGs\)](#) provide provincial benchmarks for fresh and marine water quality, which are used to assess and manage the health and sustainability of B.C.'s aquatic resources. Water quality guidelines are established for the protection of aquatic life, wildlife, agriculture, drinking water sources and recreation.

Water quality guidelines currently under development in B.C. include Nickel, Polycyclic Aromatic Hydrocarbons, Conductivity, Arsenic, and 6PPD-Quinone.

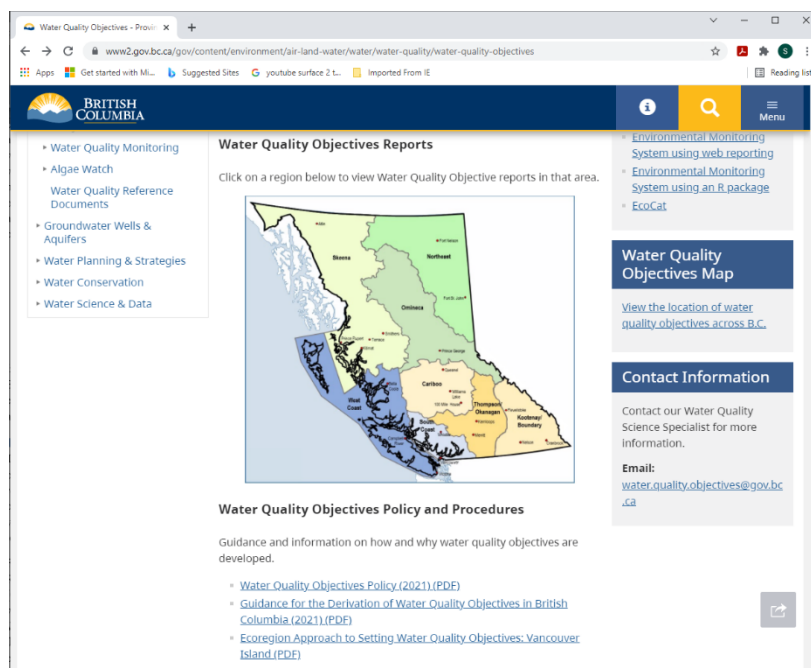


Figure 3. Webpage for the Water Quality Objectives Reports.

Also pursuant to the *Environmental Management Act*, [Water Quality Objectives \(WQOs\)](#) provide approved policy direction to guide the balance between human use, values and healthy aquatic environments by guiding statutory decisions that may impact the quality of a specific waterbody. WQOs are established on a priority basis for freshwater, estuarine and marine waterbodies of regional, provincial, inter-provincial, and international significance. They are used to inform resource management decisions, identify which values should be addressed based on local concerns, promote water stewardship, and support long-term planning in communities across B.C. WQOs are numbers or statements representing low-risk conditions to provide protection for a specific waterbody and its associated water values and uses. These include:

- Drinking water sources;
- Aquatic life and its habitat;
- Wildlife and its habitat;
- Agriculture (livestock watering and irrigation);
- Recreational use and aesthetics; and
- Traditional, cultural, and social uses.

In northeast B.C., the ministries of Environment and Climate Change Strategy and Land, Water and Resource Stewardship continue to work collaboratively with Treaty 8 First Nations (West Moberly First Nation, Saulteau First Nation, and McLeod Lake Indian Band) to develop WQOs for the Murray River watershed in response to the cumulative contributions of impacts on water

quality and Indigenous water values. All existing WQO reports (and WQGs) are available on B.C.'s [Water Quality](#) website.

The Northeast Regional Strategic Environmental Assessment

The Northeast Regional Strategic Environmental Assessment (RSEA) is a collaborative approach between seven Treaty 8 First Nations and B.C. to assess the cumulative effects of natural resource development activities on the ability to exercise Treaty 8 rights. The RSEA initiative came to conclusion March 31, 2022, providing current conditions reports and management recommendations to all governments involved based on the assessment of several key values (water, old growth, moose, environmental livelihoods, and peaceful enjoyment) important to the exercise of Treaty 8 rights.

Following last year's work on completing a Cumulative Watershed Disturbance Model, the RSEA Water Working Group completed an Interim Water Current Condition Report (CCR) and participated in drafting management recommendations related to water alongside others in the Project Team. Endorsement of the CCRs is being sought with the support of the Treaty 8 Nations signatory to RSEA by the end of the calendar year.

Pilot Collaborative Water Monitoring Program Underway in Northeast B.C.

Following the [scientific review of hydraulic fracturing](#) in B.C. in 2019, a [Pilot Collaborative Water Monitoring Program](#) was initiated in Northeast B.C., primarily funded by Geoscience BC and involves a collaboration between the Province, Shell Canada Ltd., Matrix Solutions, and six of the Treaty 8 First Nations in B.C. The program is establishing five sites for co-located monitoring of water quantity, water quality, benthic invertebrates, groundwater and climate. The data gathered will provide a well-rounded picture of water for one watershed in an otherwise data-sparse region. Partner First Nations are helping to identify the site locations and perform monitoring. For one or two of the sites, there is interest in employing a “two-eyed seeing” approach for monitoring, enabling a cross-over in braided streams of knowing between Indigenous Knowledge and Western science approaches.

Tracking Algae Blooms in B.C. Lakes: “Algae Watch”

In 2021, the Province launched [Algae Watch](#) website to track harmful algae bloom information throughout the province. Public can access the website to learn about harmful and non-harmful algae blooms and can use the online submission form to share photos and information on the location and extent of algae blooms in their communities. This citizen science program will help the Province track and understand these events throughout B.C. All submitted information is reviewed and shared with the public through an online map which was released at the end of 2021.

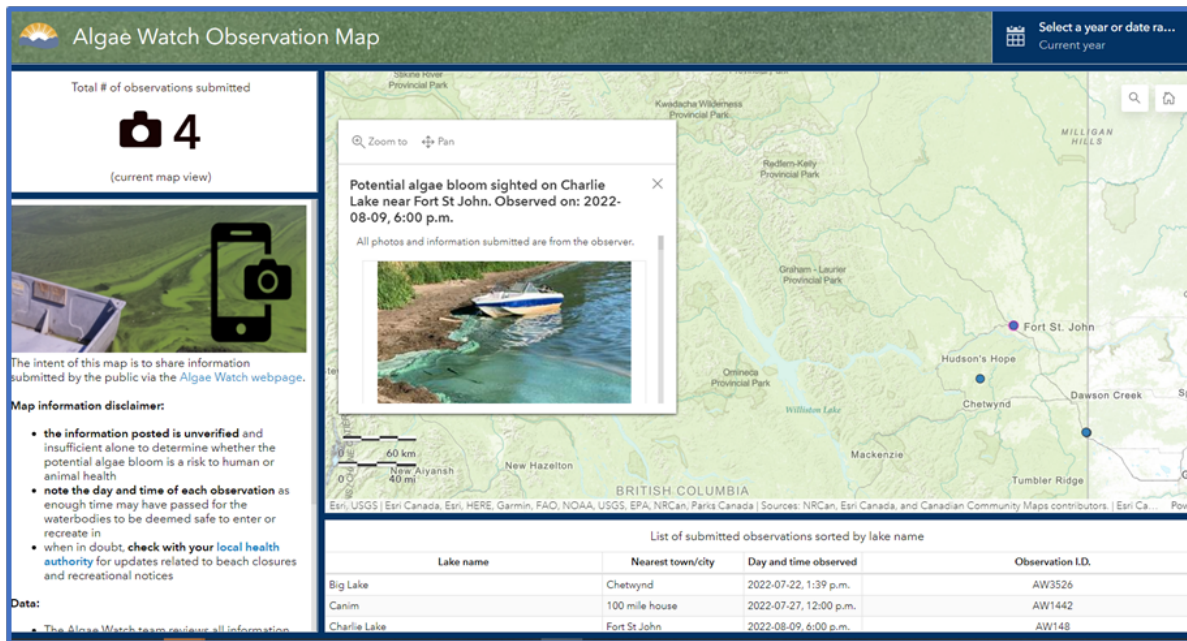


Figure 4: An Algae Watch observation map and Charlie Lake submission from 2022.

Canada-BC Water Quality Monitoring Program

The [Canada-BC Water Quality Monitoring Program](#) was established under an agreement in 1985 as a partnership between the Environment and Climate Change Canada (ECCC) and the B.C. Ministry of Environment and Climate Change Strategy. The goal of the program is to provide inter-jurisdictional coordination and integration of water quality monitoring on over 49 river and stream sites across BC in a cost-shared manner, including three stations in the Mackenzie River basin. Interested members of the public can click on individual stations to download data and to review water quality status and trends.

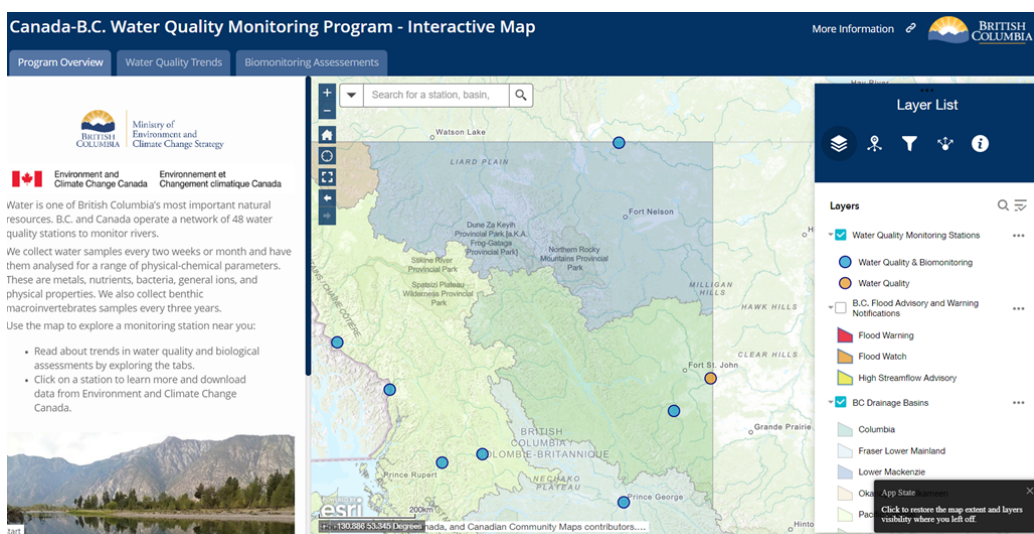


Figure 5: Canada-B.C. Water Quality Monitoring Program Interactive Map.

B.C. Lake Monitoring Network (BCLMN)

The [B.C. Lake Monitoring Network](#) monitors 56 key lakes across B.C. and was formally established in 2018 when it became managed at a provincial scale by dedicated program staff. The transition from regional to provincial scale management has allowed for standardization of monitoring and reporting approach and associated improvement to data quality. Lakes are sampled by Ministry staff bi-annually (spring and late-summer) to assess status and trends, and evaluate lake water quality data in relation to ecosystem change including watershed stressors and climate change.

Canadian Aquatic Biomonitoring Network in BC

The Province continues to work closely with Environment and Climate Change Canada (ECCC) to promote the nationally standardized Canadian Aquatic Biomonitoring Network (CABIN) program across B.C. CABIN uses benthic macroinvertebrates as indicators of aquatic ecosystem health. CABIN uses data from a wide range of reference sites (i.e., minimally affected by human activities) to build predictive models that can be used to evaluate the condition of test sites (i.e., where there are concerns about the aquatic ecosystem). The differences between the macroinvertebrate communities at the test site and the “healthy” reference sites provides an indication of the extent of effects to aquatic biota.

There are two CABIN models available to monitor and assess aquatic ecosystem health within the B.C. portion of the Mackenzie River Basin (i.e., Liard and Peace Basins). In 2022, the Ministry of Environment and Climate Change Strategy partnered with three different Indigenous groups to collect reference site data to maintain these models, including the Fort Nelson First Nation, Kaska Dena, and Tahltan Nation.

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4. Major Projects

In B.C., major projects are assessed for potential environmental, social, economic, health and cultural effects by the Environmental Assessment Office (EAO). In 2018, the system the B.C. Environmental Assessment Office uses to report on and provide information on major projects was updated: the [EPIC Portal](#) provides searchable information on Environmental Assessment projects, an overview of the environmental assessment process, and an interactive map that displays the geographic locations of projects.



Figure 6: The EPIC Portal landing page.

The following tables summarize the major projects in EPIC that fall under the Project Types of Energy-Petroleum and Natural Gas, Energy-Electricity, Industrial, Mines, Water Management, and Waste Disposal, that are in the Pre-EA, Pre-Application, and Application Review phases. There is one project in the Pre-EA phase. There are five projects in the Pre-Application phase. One project, the Sukunka Coal Mine Project, remains under review. There are no major projects under the Evaluation phase.

Pre-Environmental Assessment Act

Title	Category and Location	Phase	Comments
Stronsay Lead/Zinc	Mines; Mineral Mines Northeast of Fort Ware	Pre-EA Act Approval; June 1995	An open-pit mine operation.

Pre-Application and Early Engagement

Title	Category and Location	Phase	Comments
Pacific Northern Gas Looping Project	Energy-Petroleum and Natural Gas; Transmission Lines Summit Lake to Kitimat	Pre-Application; Scoping	The Pacific Northern Gas Looping Project would supply natural gas, via a 525 km long pipeline, from Summit Lake to proposed liquefied natural gas (LNG) export facilities in Kitimat, BC. It would have an initial capacity of 600 million standard cubic feet per day.

Kutcho	Mines; Mineral Mines 100 km East of Dease Lake, B.C.	Pre-Application; Scoping	An underground copper-zinc mine with a production capacity of approximately 3,500 tonnes of ore per day, yielding an annual average of 33 million pounds of copper and 46 million pounds of zinc over a mine life of up to 14 years.
Aley Mine	Mines; Mineral Mines 140 km N of Mackenzie, B.C.	Pre-Application; Scoping	Proposed 10,000 tonne per day open pit niobium mine with a 25 year mine life.
Carbon Creek Coal Mine Project	Mining Approximately 40 km west of Hudson's Hope, B.C.	Scoping	Cardero Coal Ltd. proposes to develop a new open-pit surface and underground metallurgical coal mine with an average annual production rate of 2.9 million metric tonnes of clean coal.
Gething Coal	Mines; Coal Mines 25 km Northwest of Hudson's Hope, B.C.	Pre-Application; Scoping	Proposed new underground coal mine with an onsite coal preparation plant. The production rate is 2 million tonnes per year with a mine life estimated at 40 years.
Frontier Project	Energy-Petroleum and Natural Gas South to Southwest of Fort St. John, B.C.	Early Engagement	Enbridge proposes to construct a natural gas liquids straddle plant, 130-170 kilometre (km) pipeline, and associated infrastructure in northeastern B.C. The straddle plant and initiating pump station are located approximately 36 km west of Chetwynd, and the pipeline is proposed to span from the straddle plant to Taylor.
Wonowon Landfill	Waste Disposal 9 km southeast of Wonowon, B.C.	Pre-Application; Scoping	Secure Energy services Inc. proposes to construct and operate the Wonowon Landfill Project, which is anticipated to handle approximately 200,000 tonnes of waste annually over a 25-75 year lifespan, dependent on disposal services demand.
Arctos Anthracite	Mines; Coal Mines 160 km Northeast of Stewart, B.C.	Pre-Application; Scoping	The proposed Project would involve developing a new open pit coal mine in north-western BC located about 90 km southeast of Iskut. With a production capacity of 8,200 tonnes per day of clean coal, and a mine footprint of about 4000 hectares, the mine would produce about 3 million tones of coal for about 25 years.
Taylor Wind	Energy-Electricity	Pre-Application; Process Planning	Taylor Wind Project would be located on private land in the Peace River Region approximately 10 km south of the District of Taylor. The proposed project would have a nominal power production capacity of up to 400MW.
Red Willow Wind	Energy-Electricity	Pre-Application; Process Planning	Red Willow Wind Limited Partnership is proposing to construct and operate a 200 MW wind energy facility in the Peace River Region of B.C. The project is located southeast of the District of Tumbler Ridge and within the traditional territory of Treaty 8 First Nations.
Sundance Wind	Energy-Electricity	Pre-Application; Process Planning	The Sundance Wind Project would be located in the Peace River Region approximately 20 km north of Tumbler Ridge and would have a nominal power production capacity of up to 250 MW.

Application Review (Pre-Application)

Title	Category and Location	Phase	Comments
Sukunka Coal Mine	Mines; Coal Mines Near Chetwynd, B.C.	Application Review	Glencore (Proponent) proposes to develop and operate a surface mining operation and coal handling and processing plant to produce hard coking coal for export to overseas steel manufacturers. The Project will produce 3 million tonnes per year of saleable coal over a mine life of 20 years.

There are 44 projects in the Post-Decision phases of Pre-Construction, Construction, Operation, Care and Maintenance, Complete, and Substantial Start phases. These projects include the Site C Clean Energy electricity power plant which is in the construction phase (more information below); the Mt. Milligan Coper-Gold Mine which is in operation; and the Roman Coal Mine, which is currently in care and maintenance. One project, the Kemess South Mine, is in decommissioning.

Important Related Links:

- B.C. [Environmental Assessment Office](#)
- [Frequently asked questions](#)

B.C. Hydro Site “C” Clean Energy Project

Work has continued on B.C.’s third dam and hydroelectric generating station on the Peace River in the northeast of the province. Construction started on July 27, 2015 and is anticipated to be in service for 2024. A major project milestone was accomplished in March 2022 with the second and final 500 kilovolt, 75 kilometer transmission line completed and energized. With this milestone, the work to connect the new Site C substation to the BC Hydro grid is complete. Once the Site C project begins to generate electricity, these transmission lines will help deliver clean energy to the rest of the province.

In July, 2022, the Province of B.C., BC Hydro, Canada and West Moberly First Nations negotiated a [partial settlement](#) related to the Site C project. The settlement will provide West Moberly First Nations with, among other benefits, financial benefits, contracting opportunities, the transfer of provincial Crown lands, and jointly developed recommendations for land management measures over Crown lands.



Figure 7: Approach channel of Site C, September 2022.

More information about the [Site C project is available on the project page.](#)



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5. Events, Conferences and Seminars

As with the previous year, in response to the COVID-19 pandemic, many conferences, events and seminars this past year did not go forward. A few transitioned their mode of delivery to virtual. Two events are highlighted below from this year.

2022 B.C. Groundwater Association Convention (BCGWA)

On April 8 and 9, 2022, the BCGWA held its annual Convention. The BCGWA's mission is to provide professional and technical leadership in the advancement of the groundwater industry and in the protection, promotion, and responsible development of groundwater resources. Hosting the convention aligned with their mission to foster and promote education, standards, research and techniques that improve methods of well construction, materials and services.

On Day 1, talks included technical presentations on several different topics, such as source protection planning, decommissioning a Flowing Artesian Well, WSA and the Groundwater Protection Regulation highlights and delivery of a driller's course. Day 2 of the convention was focused on a GWELLS demonstration, a presentation on hydraulic connection and stream depletion from well pumping, and a panel discussion on the labour crisis that the groundwater industry is currently facing. Five staff from two ministries of the B.C. provincial government took part in the convention, including hosting a booth at the Convention to enable industry and other participants to have discussions about groundwater initiatives and resources.

B.C. Chapter of the International Association of Hydrogeologists Symposium

On October 21, 2022, the BC Chapter of the International Association of Hydrogeologists organized a one-day symposium for professional hydrogeologists in BC. The approximately 75 attendees came from government, private sector and academia. Topics included indigenous perspectives on water, linkages between surface and groundwater resources, geothermal resources and environmental sustainability. Attendees from the provincial government presented and led engagement sessions on the provincial Water Security Strategy which is currently under development and expected to launch in fall 2023.

MRBB Water Quality Task Team

Directly related to the work of the Mackenzie River Basin Board, B.C. continues to participate actively in the SOAER committee work (all continuing to take place virtually) and on the Water Quality Task Team (WQTT). In the past year, the WQTT completed a comprehensive review of statistical methods used by MRBB jurisdictions for water quality trend analysis. The outcomes for this work are recommendations on standard approaches for data management and analysis, with the goal of improved cross-jurisdictional coordination.

6. Other

Healthy Watersheds Initiative – COVID-19 Stimulus Funding

In Fall 2020, the B.C. Provincial Government identified \$27M in stimulus funding for watershed-related projects across B.C. as part of the B.C. Economic Recovery Plan. This funding is being administered by the Real Estate Foundation of B.C. under the [Healthy Watersheds Initiative](#).

A total of 61 projects have been implemented under the HWI, supporting more than 800 jobs. Many of these projects are led by or undertaken in partnership with Indigenous communities. An Indigenous Leaders Advisory Circle has been established to consider questions, advise, and comment on the practices and learning of HWI people and partners. Most HWI projects are expected to wrap up in 2022.

The projects span the Province, and one falls within the Mackenzie River Basin: The Wetlands Workforce project. The B.C. Wildlife Federation's [Wetlands Workforce](#) project is a collaboration with conservation organizations and First Nations that will deploy work-pods across British Columbia throughout 2021. Work-pods have been working to restore, stabilize, and monitor B.C.'s wetlands to improve wetland inventories, management and decision making. Several work-pods have been deployed in the Mackenzie River Basin. The project as a whole is supporting over 100 jobs province-wide and will provide training to workers in Wetlands Ecosystem Enhancement Protocol and Wetland Inventory.

Treaty 8 Nations and B.C. Move Forward on Cumulative Impacts

In June 2021, the B.C. Supreme Court ruled that the Province, through authorizing or otherwise allowing activities in Blueberry River First Nations' Claim Area, has led to a breach of the treaty commitment and infringement of Blueberry River's treaty rights. The Province and Blueberry River have been in negotiations since summer 2021 in effort to respond to the fourth declaration issued by the court, to negotiate timely, enforceable mechanisms that address the impact of the cumulative effects of development and protect Blueberry River's treaty rights.

Water is a value component defined as part of the RSEA work progressed between the Province and seven Treaty 8 Nations, which included Blueberry River. Water management and use as it relates to treaty rights is a topic of negotiation between the Province and Blueberry River. Should an agreement be reached between the Province and Blueberry River, a component on water management is anticipated and can be reported on further in next year's report.

Legislation Recognizes Indigenous Rights in B.C.

Continuing the Province's commitments to advance reconciliation and adopt and implement the UN Declaration on the Rights of Indigenous Peoples, B.C. passed new legislation to recognize Indigenous human rights on November 26, 2019. The *Declaration on the Rights of Indigenous Peoples Act* ("Declaration Act") is the foundational framework for reconciliation in B.C. The



legislation sets out a process to align B.C.'s laws with the UN Declaration, and requires the development of an action plan to achieve the alignment of provincial laws with the UN Declaration, providing transparency and accountability to the process. Regular reporting to the Legislature is required to monitor progress. The new legislation also provides a framework for decision-making between Indigenous governments and the Province on matters that affect their citizens. More information on the Declaration Act is available. The 2021-2022 Annual report is available on the [Annual Reporting webpage](#).

Other Initiatives Contact:

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