

# Land Owner's Information Guide

for Oil and Gas Activities in British Columbia

November 2021



# Inquiry Flowchart

Do you have questions or concerns about...

**A proposed activity?**



Do you have concerns or interests that you wish to document?



Fill out a [Written Submission Form](#) and forward it to us at [OGC.WrittenSubmissions@bcogc.ca](mailto:OGC.WrittenSubmissions@bcogc.ca)

**An existing activity?**



Are you reporting a concern such as noise, dust, odour or otherwise?

YES



Call our 24-hour number at **(250) 794-5200**

NO →

**Would you like information about...**



General oil and gas activity processes?



Visit us at [bcogc.ca](http://bcogc.ca) for land owner and rights holder resources. Topics include:

[air quality](#)  
[seismicity](#)  
[water](#)  
[legislation](#)  
and more...

If you need help navigating our website, please contact the Community Relations group online at [bcogc.ca/contact](http://bcogc.ca/contact) or call (250) 794-5200.



Specific permits or documents?



Access our online [Data Centre](#) to view applications in progress and approved applications.

If you need assistance, contact us using one of these methods:

[Information Request Form](#)

**Write to us at**  
BC Oil and Gas Commission  
Bag 2, Fort St. John, B.C.  
V1J 2B0

**Visit us at** our Fort St. John office at 6534 Airport Road, Monday to Friday 8:30 a.m. to noon, or 1:00 p.m. to 4:30 p.m.



Mission

We provide British Columbia with regulatory excellence in responsible energy resource development by:



- Protecting public safety.



- Safeguarding the environment, and



- Respecting those who are affected.

Values

**Transparency** is our commitment to be open and provide clear information on decisions, operations and actions.

**Innovation** is our commitment to learn, adapt, act and grow.

**Integrity** is our commitment to the principles of fairness, trust and accountability.

**Respect** is our commitment to listen, accept and value diverse perspectives.

**Responsiveness** is our commitment to listening and timely and meaningful action.

# Land Owner's Information Guide

The Land Owner's Information Guide for Oil and Gas Activities in British Columbia describes petroleum, natural gas, and geothermal exploration, development, and production with respect to rights and interests surrounding proposed and permitted oil and gas activities on or near private or Crown land. Growth of the oil and gas sector has resulted in broader community consultation requirements, safety standards, environmental protection, and operational transparency.

This guide explains the life cycle of oil and gas activities, from what to expect during pre-activity application requirements, through the construction of access roads, well sites, facilities and pipelines, to final site restoration. It will familiarize you with consultation and notification processes and introduce topics you may wish to discuss with an oil and gas applicant during initial land surface lease negotiations, or through ongoing communications with an operator during subsequent oil and gas activities. An [Oil and Gas Glossary](#) is available on the Commission website providing definitions for common oil and gas terminology.

If you have any feedback or suggestions to improve future editions of this guide, or would like to receive a printed copy of any links referenced within, please contact the Commission at either of these locations:

6534 Airport Road  
Fort St. John, B.C. V1J 4M6  
Tel: 250-794-5200

3 1445 102 Avenue  
Dawson Creek, B.C. V1G 2E1  
Tel: 250-795-2140

## To obtain a copy of this guide:

Download a copy from [www.bcogc.ca](http://www.bcogc.ca).

Call 250-794-5200 to request a copy, or contact us [online](#).

Email [Stakeholder@bcogc.ca](mailto:Stakeholder@bcogc.ca) to request a copy.

In person at the Dawson Creek or Fort St. John office locations (addresses provided to the left).

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# Role of the BC Oil and Gas Commission

As a provincial Crown agency, we protect public safety and safeguard the environment through the sound regulation of oil, gas and aspects of geothermal activities in B.C. while balancing a broad range of environmental, economic and social considerations.

We regulate resource activity through the [Oil and Gas Activities Act \(OGAA\)](#), the [Petroleum and Natural Gas \(PNG\) Act](#), and other associated laws related to heritage conservation, roads, land and water use, forestry, and other natural resources.

Through combined authority and working with partner agencies, we regulate activities on Crown land, private land, and the Agricultural Land Reserve. When oil, gas, or geothermal permits are granted, we are responsible for ensuring industry compliance with provincial legislation from initial exploration to final reclamation.

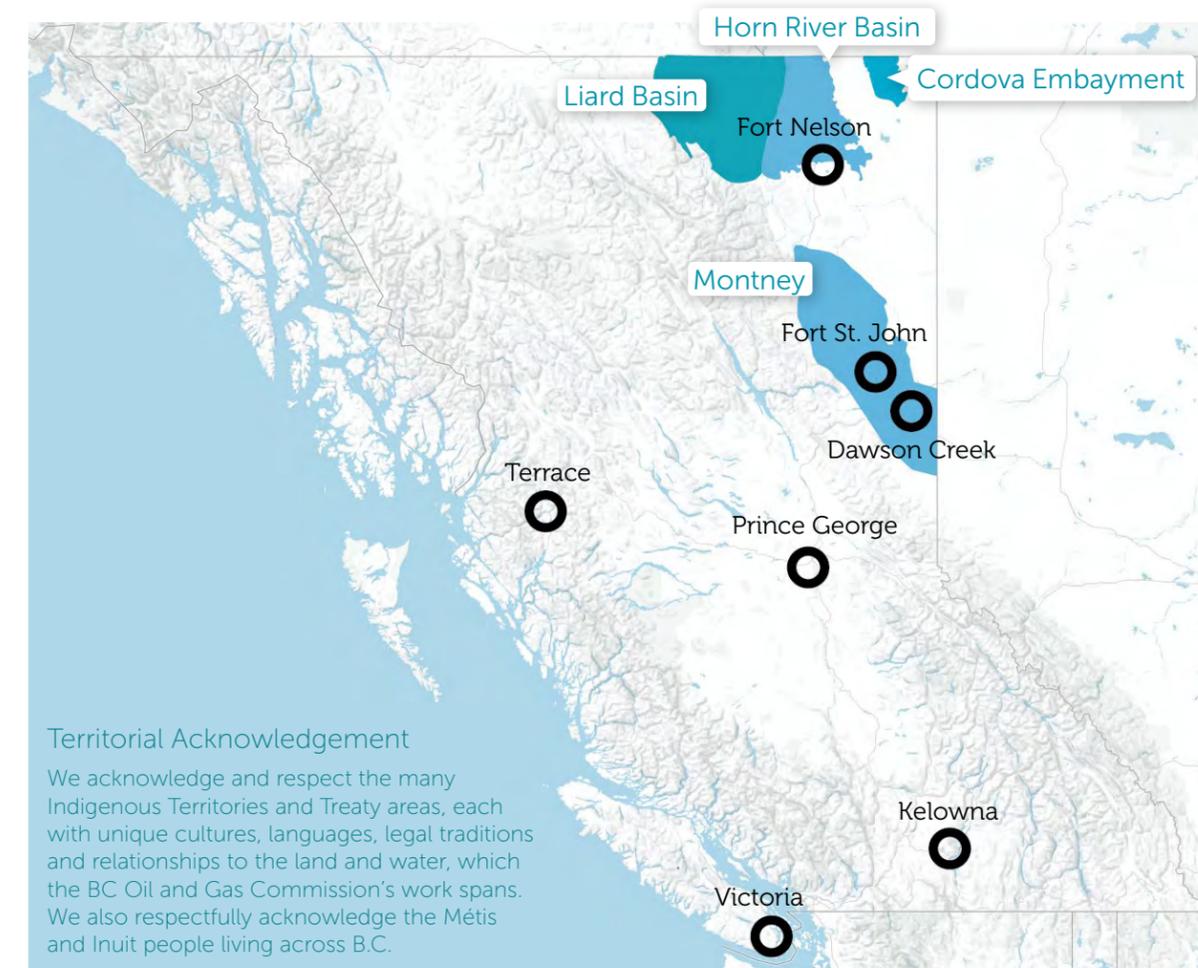
As more resources have been discovered, techniques for accessing them have advanced, environmental awareness has increased, and stakeholders have let us know they are interested in providing more input.

During our review and decision-making processes, we work closely with [land owners](#), [right holders](#), and [Indigenous communities](#).

The Commission currently has over 280 employees operating out of seven locations: Fort Nelson, Fort St. John, Dawson Creek, Terrace, Prince George, Kelowna and Victoria. The largest number of employees are in the Fort St. John office.



Commission Office Locations Throughout B.C.



### Territorial Acknowledgement

We acknowledge and respect the many Indigenous Territories and Treaty areas, each with unique cultures, languages, legal traditions and relationships to the land and water, which the BC Oil and Gas Commission's work spans. We also respectfully acknowledge the Métis and Inuit people living across B.C.

Our Dawson Creek office hosts a Resource Centre where land owners, industry and the general public are welcome to learn about the history of the oil and gas industry, environmental remediation programs, current operating requirements, and safety initiatives.

# SECTION 1 Land Use in British Columbia

## Private Land

In British Columbia, you are considered a land owner if you are registered with the [BC Land Title and Survey Authority](#) (LTSA) as owner of the land surface (or purchaser under an agreement for sale) or if land has been issued to you by the Crown under the [Land Act](#). This title means you own the land surface, have the right to use or work the property, and have rights to the soil, sand or other materials on the land. Water, however, does not fall into this category and is considered a Crown resource even on private property (see [page 16](#)). Historical land title and survey records relating to Crown land and private property are managed by the LTSA and can be viewed on their [website](#). Most well site locations are surveyed with the plans registered in the LTSA office.

The [BC Assessment website](#) provides more information on how well sites are assessed and the process followed to remove a site from an assessment once a well site has been reclaimed and the Commission has issued the operator a Certificate of Restoration (CoR).

## Crown Land

Crown land is public land or land belonging to the provincial government that has not been granted or transferred to another party for their use. If a person or company is interested in using Crown land, they must submit an application to the Province for permission under the Land Act. When the government grants use of land, it is referred to as tenure. Tenures can be granted for more than just land: it can be the right to use resources such as timber (under the [Forest Act](#)), minerals (under the [Mineral Tenure Act](#)) or water (under the [Water Sustainability Act](#)).

The government may grant use of the land to a number of parties for different purposes. Guide outfitting, operating a tree farm, running a registered trap line, or allowing animals to graze are all examples of tenure types that use Crown land and could involve overlap of tenures for different purposes in an area.

Use of the land may be granted through a permit, a lease, a licence of occupation or a statutory right-of-way. More information on the different



rights, obligations and duration of these tenures can be found in the [Practical Guide to Effective Coordination of Resource Tenures](#).

Crown land dispositions do not automatically provide rights, titles or interests to minerals, coal, fossils, geothermal resources, petroleum or natural gas. Anyone who holds land acquired through a tenure still needs to apply to the government for the rights to explore and access subsurface resources.

## Subsurface Petroleum, Natural Gas and Geothermal Rights

Materials such as fossils, minerals, coal, oil, geothermal and petroleum and natural gas are considered to be subsurface rights and are primarily owned by the Crown. A small percentage of subsurface rights issued before 1891 in areas of early settlement are privately owned or held by the federal government. Most land grants issued by

the Province after this date do not include rights to the subsurface.

Companies need to acquire rights from the [Ministry of Energy, Mines and Low Carbon Innovation](#) (EMLI) for petroleum and natural gas (PNG) tenure if they plan to develop oil and gas resources, or geothermal tenure to develop geothermal resources.

When companies are interested in exploring for resources, they request EMLI to post a tenure. EMLI then completes a pre-tenure review of the parcel and the geological subsurface layer to decide if a parcel should be made available for sale (disposition). This early review process helps identify potential environmental and community concerns or possible surface land use conflicts, allowing bidders to plan their activities accordingly. Companies then submit their bids and an EMLI panel reviews all bids received. Once a decision has been made on a parcel and a company has been issued a tenure to explore or develop the

Rights to resources such as fossils, minerals, coal, oil, geothermal, petroleum and natural gas are primarily owned by the Crown.

resource, it has exclusive ownership of the specific subsurface parcel at a set vertical depth and geological formation and for a defined period of time.

The right transferred to a tenure holder to produce PNG in a defined area is issued as a drilling licence while geothermal tenures are available either by a permit or by a lease. PNG and geothermal rights are sold monthly by the Crown at public auction or tender. If you are interested in viewing notices of the sale of PNG tenures, their dates, description of the parcels and associated maps, you can find them on the EMLI website under [Petroleum & Natural Gas Tenure](#). The EMLI website also provides information on [Geothermal Exploration & Sales](#). The Province of British Columbia website provides access to notices for [PNG](#) and [geothermal](#) permit sales and accepted offers.

After issuing a tenure, all concerns regarding the rights of the tenure holder are managed through EMLI along with the collection of rentals and fees. Once a bidder has been granted a tenure, they have the right to explore and produce the resources. However, successful

bidders still need to secure access to the land and submit activity applications to the Commission as described below. It may be several months after they have acquired the tenure before a successful bidder applies to the Commission for the appropriate permits.

## Land Access

### Surface Lease Agreements

A company planning to apply for an oil and gas activity on private land must first come to an agreement with the land owner regarding use of the land. Companies often hire a land agent to explain the proposed project to a land owner and to work out the terms of an agreement, known as a surface lease agreement.

Companies are only responsible for arranging an agreement with those listed on the land title. If a land owner rents or leases to someone else, who is considered to be an occupant, and that agreement is not registered against the land title, the occupant cannot negotiate or sign a land use agreement on the land owner's behalf.

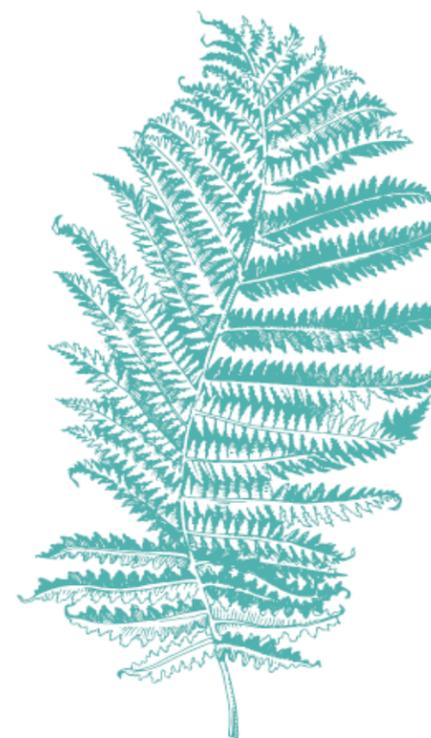
During the negotiation of a surface lease agreement, land owners have the opportunity to outline the terms of entry onto their land, including consideration of both current and future agricultural operations.

As a land owner, you are encouraged to discuss the following with the company or land agent:

- Where access to the site will be located.
- What will be done to reduce impact on farm or ranch operations, including impact to livestock, crops, buildings, fences or other structures on the property.
- How weeds and surface water will be managed.
- How requirements for pipeline crossings will be carried out, including depth of soil cover.
- Soil protection and how revegetation during land restoration will be managed.
- Existing water sources.
- Future land use plans.
- Compensation for loss or damage.

We recommend land owners who have less experience with lease or industry terminology or negotiation practices receive guidance from others with previous experience, such as neighbours, lawyers, regional district representatives, the [Farmers Information Service](#) and the [Surface Rights Board of British Columbia](#) (SRB). More details on the function of the SRB are provided on the following pages.

If the company is not able to reach an agreement with the land owner for entering the land, the company has the



option to gain legal access to the land by applying for:

- A right of entry order through the SRB if it is a flowline.
- Expropriation if it is a pipeline.

Once surface lease agreements are negotiated, companies must complete a formal engagement process with land owners and rights holders who may be affected by the activity. The [Requirements for Consultation and Notification Regulation](#) outlines how companies are to complete engagement before applying for an oil, gas or geothermal permit. The Consultation and Notification (C&N)

process is separate from the negotiation of a surface lease agreement and is intended to encourage communication between the company and those affected before an application is submitted. Additional detail on the C&N process is provided in [Section 2](#) of this guide.

The activity can only begin on private land once the Commission has completed a thorough review and a permit or authorization has been issued. Unless the land owner consents in writing that the activity may begin sooner, the company must wait a minimum of 15 days from the Commission's authorization date before entering private land.

**Before starting an \*oil and gas activity on private land, a company must ensure the following are in place:**

1. Subsurface PNG tenure.
2. Oil and gas activity permits from the Commission.
3. Land surface access by way of:
  - a land owner agreement,
  - a SRB Right of Entry Order, or
  - through land expropriation.

\*A full definition of 'oil and gas activity' is included in Section 2 of this guide under [Consultation and Notification](#).

## Surface Rights Board

[The Surface Rights Board](#) (SRB) is an independent agency under EMLI with the responsibility of helping land owners and companies come to solutions about compensation and how the land will be accessed. If a land owner is not able to agree to terms with a company about compensation or access to their land, they should contact the [SRB](#).

The SRB is available to mediate and settle disputes outside of court and has the authority to determine compensation or issue an order for the company to have right of entry under sections 159 and 162 of the [Petroleum and Natural Gas \(PNG\) Act](#).

Although the Commission is not involved in surface lease negotiations, the Commission and the SRB work together to streamline services and address concerns.

## Agricultural Land Reserve

The Agricultural Land Reserve (ALR) is made up of zones within British Columbia where agriculture is recognized as the priority and farming is encouraged.

[The Agricultural Land Commission](#) (ALC) is the provincial body responsible for preserving agricultural land through legislation called the [Agricultural Land Commission Act](#) (ALC Act). Use of the land for non-agricultural purposes, such as oil and gas development, is allowed with regulatory requirements in place. When the land is no longer needed for an oil or gas activity, the land surface must be reclaimed to the condition it was found before development began.

A [Delegation Agreement](#) between the ALC and the Commission allows the Commission to make decisions on certain oil and gas activities on ALR lands that are not for agricultural use within the [Peace River Regional District](#) (PRRD) and the [Northern Rockies Regional Municipality](#) (NRRM).



If a land owner is not able to agree to terms with a company about compensation or accessing their land, they should contact the SRB.

The Delegation Agreement explains which agency holds responsibility for reviewing applications and granting permissions on ALR lands. It also sets out whether an oil and gas activity application is exempt from requiring an ALC Act application or whether it requires permission from the Commission. If a proposed activity is within the ALR but outside the PRRD or NRRM boundaries, the application must be filed with the ALC for decision and the activity permits reviewed for approval by the Commission.

Before the development of an oil and gas activity begins within the ALR, a site assessment must be completed. This assessment, referred to as a Schedule A, must be submitted to the Commission with the application and is used to plan how activities will be managed in a way that minimizes agricultural impacts. It also documents starting conditions to be used as a comparison at the time of planning reclamation.

When a pipeline has been installed or a well has been decommissioned, the Commission

requires a company to submit a report, referred to as a Schedule B, to document how the surface lease has been reclaimed. Under the Delegation Agreement, Schedule A and B reporting is required on both Crown and private land in the ALR and must be done by a qualified specialist.

More information on [Schedule A and Schedule B reports](#) is included in the [Land Restoration](#) section of this Guide.



# Water Use and Changes to Streams



The use of water is an essential component in many oil and gas operations including hydraulic fracturing, drilling, washing machinery, dust control, hydrostatic testing and creating ice roads.

Much of the surface water and flow of groundwater in British Columbia is owned by the Crown on behalf of the residents of the province, regardless of who owns the land surface.

Permission to use surface water from lakes, streams, dugouts and water wells for oil and gas activities must be obtained through either a short-term water use approval, issued for no more than 24 months, or a longer-term water licence, issued for activities taking more than 24 months to complete. Activities requiring longer-term water licences can include drilling and completion of wells, road maintenance, winter access roads, or pipelines requiring long-term water infrastructure. Some licences may be issued up to 20 years or more.

The authority to grant the use of surface water for these activities is assigned to the Commission through the [Water Sustainability Act](#) (WSA) and [OGAA](#). A permit is also required from the Commission to make 'changes in and about a stream'. These changes could

include the construction, maintenance and removal of a watercourse crossing and crossing structures, a stream diversion, protection from stream bank erosion, removal of debris, or the management of beaver dams.

## Water Rights and Notification Requirements

A riparian owner is someone who owns private land along the bank of a natural stream or lake including rivers, creeks, springs, ravines, and swamps. The Commission requires companies to notify riparian owners who may be affected by the construction and operation of infrastructure that transports water, since these individuals might have concerns about potential impacts from proposed activities.

Nearby land owners or rights holders (water licence or water use approval holders) outside of a riparian zone might also be affected if a new water authorization is granted. Despite not being riparian owners, they may have concerns regarding water use, construction or maintenance of a pipeline route, or transportation of water through or near their property. If there is the possibility a proposed water authorization (or conveyance of water) may affect them, the company applying for water use or changes to a stream is required to provide the potentially affected rights holders with proper notification as set out in [section 13](#) of the WSA.

If a riparian owner, land owner or rights holder receives notification of an application and they believe it could affect their use of water or land, the Commission encourages them to contact the company to discuss and resolve their concerns. They also have the option to provide their concerns to the Commission in writing. The Commission reviews all

**Stream:** Under the WSA, a stream is a natural watercourse, including a natural glacier course, or a natural body of water and can include lakes, ponds, rivers, creeks, springs, ravines, gulches, wetlands or glaciers, but do not include aquifers.

**Riparian Zones:** Transition areas that surround water bodies in the watershed and connect the water with the land.

**Erosion:** In a stream, the process by which soil and rock are moved due to water flow, then transported and deposited in a different location.

**Deposition:** When a stream deposits sediment or materials it is carrying. Streams have the power to carry sediment, but the force of the stream determines how much it carries or deposits.

**Proximal:** If the Commission determines a proposed water use authorization may cause erosion, deposition, or other issues nearby or downstream from the withdrawal site, the land is considered 'proximal' and potentially affected rights holders are entitled to object to the water use application.

information provided by potentially affected rights holders and takes the concerns into consideration before deciding on an application.

When submitting an application to the Commission, companies applying for water authorizations must include a summary of their engagement with potentially affected riparian owners, land owners and rights holders, along with any outstanding concerns. If the authorization is approved, the Commission may include conditions the company must fulfill as the permitted activity is carried out.

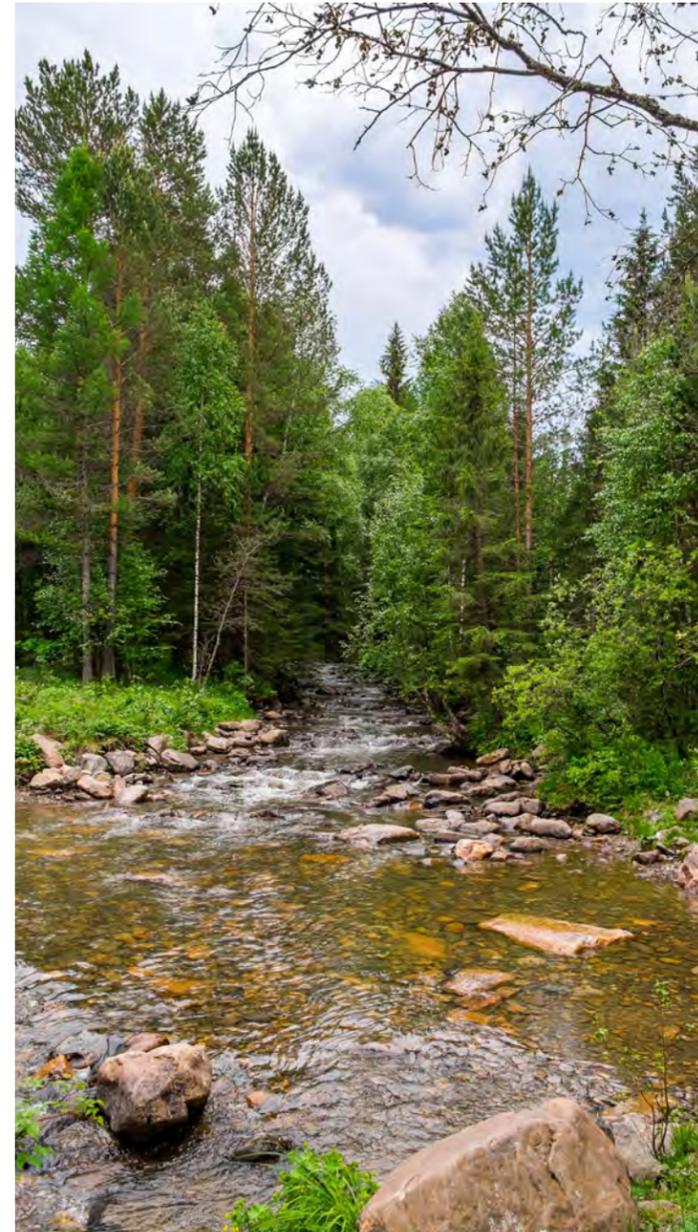
The graphic on page 19 provides examples of water use and water rights in or near riparian zones. The graphic does not depict all scenarios or changes to streams, so land owners and rights holders are encouraged to contact the Commission with questions specific to their unique situation.

Separate from obtaining water authorizations, companies are required to secure land access to install water infrastructure for the diversion, use or storage of water. To access private property, they must work out an agreement with the land owner. If they are not able to reach an agreement with the land owner for accessing the land, companies have the option to gain legal access to the land by applying for:

- A right of entry order through the SRB for permits acquired under OGAA.
- Expropriation for authorizations acquired under the WSA.

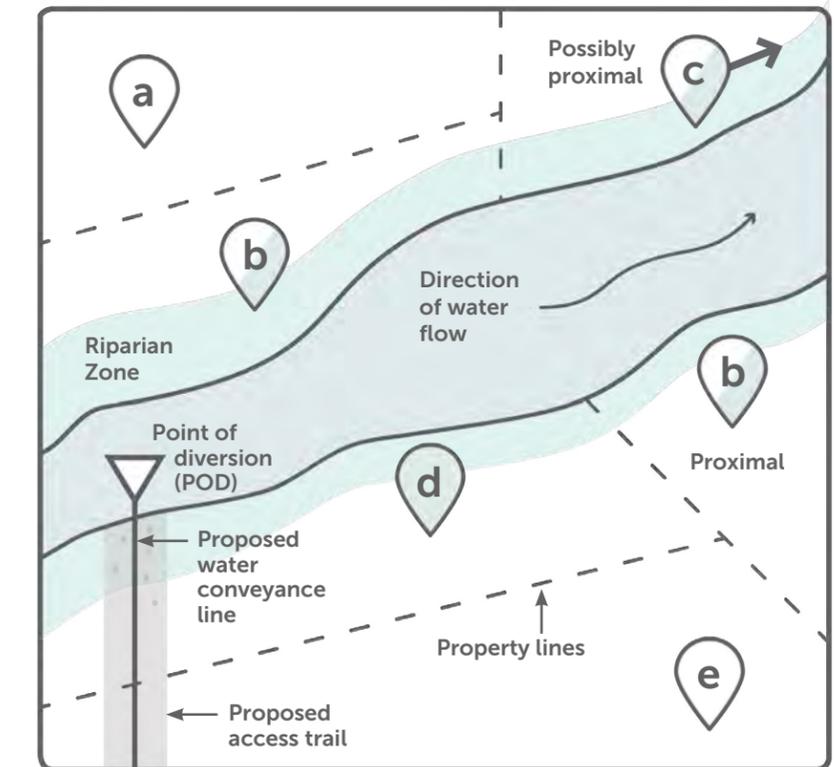
Under the WSA, rights holders include applicants for water use permits, those with water licences or short-term water use authorizations, or riparian owners.

Section 22 of the WSA helps explain how water use purposes are ranked from highest to lowest, and how rights under one authorization may take precedence over another.



## Rights Holders and Riparian Zones

- a** This property is not in contact with the riparian zone, so objections regarding access trails and conveyance of water do not apply.
- b** If a water manager determines a water authorization has the potential to affect the stream (e.g. erosion or otherwise), the applicant must engage with the owner of this property. If the owner has concerns with the application, they may object to the proposed works.
- c** Property owners located downstream are considered for engagement on a case-by-case basis. If a water manager determines their land is 'proximal' (potentially impacted by the proposed activity), the applicant must engage with the owner. If the owner has concerns with the application, or has water rights they believe may be impacted, they may object to the proposed works.
- d** This owner has rights to matters involving their property (e.g. conveyance of water across their land). The applicant must engage with this property owner to address their rights and concerns. If a land access agreement is not reached, land access may be sought by way of expropriation ([section 32](#), WSA).
- e** An applicant must engage with this property owner for consent to construct an access trail and convey water across their land. If an access agreement is not reached, access may be sought by way of expropriation ([section 32](#), WSA). Like example 'a', this property is not in contact with the riparian zone, so erosion and deposition do not apply. However, if this land owner has water use rights, they can object to an application if they believe the authorization could affect their rights.



Applies to section 9 and 10 approvals under the WSA.

- Affected riparian zone
- Potentially affected riparian zone
- Non-riparian zone

If a rights holder objects to proposed works and their concerns are not addressed, the decision maker determines if the objection warrants a hearing ([section 13](#), WSA).

# SECTION 2 Life Cycles - Wells and Pipelines

## Water Authorization Appeals

As a rights holder, riparian or land owner, you have the option to appeal a decision on a water licence or water use approval if you believe it affects your rights associated with the stream in question.



You have 30 days to appeal a decision on a water licence or water use approval.

You have 30 days from the time you have been notified of the approval to submit your written appeal to the Environmental Appeal Board (EAB). The EAB may issue a decision or call a hearing.

Section 105 of the WSA outlines the appeal process, and information on the EAB is available online at [www.eab.gov.bc.ca](http://www.eab.gov.bc.ca).

## Water Withdrawal Reporting

It is mandatory for companies with Commission water authorizations to report their water withdrawal data on a quarterly basis. This allows the Commission to monitor and track how much water is being used and the location from where it is being withdrawn. By collecting water use data and considering environmental flow needs, the Commission is well-equipped to monitor drought conditions, make decisions on water applications and restrict water withdrawals when necessary to protect the health of aquatic ecosystems.

The Commission's website provides access to the following Geographic Information System (GIS)-based water data tools that provide guidance on water availability and support the decision-making process for water use approvals and licences:

- The [Northeast Water Tool](#) (NEWT)
- The [Northwest Water Tool](#) (NWWT)
- The [Omineca Water Tool](#) (OWT)



The [Water Portal](#) is a map-based water information tool designed to provide public access to water-related data and information in northeast B.C.

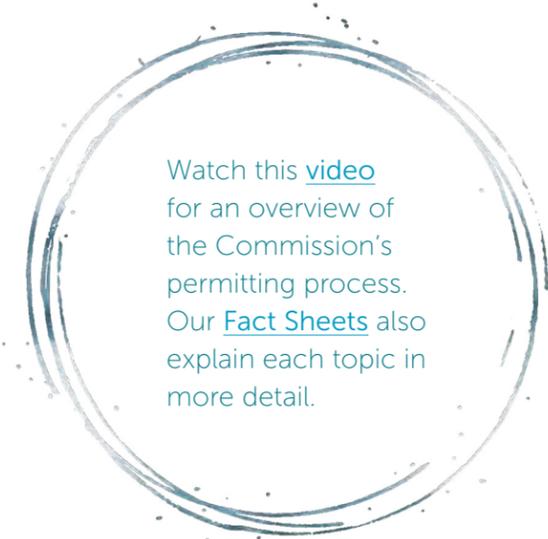
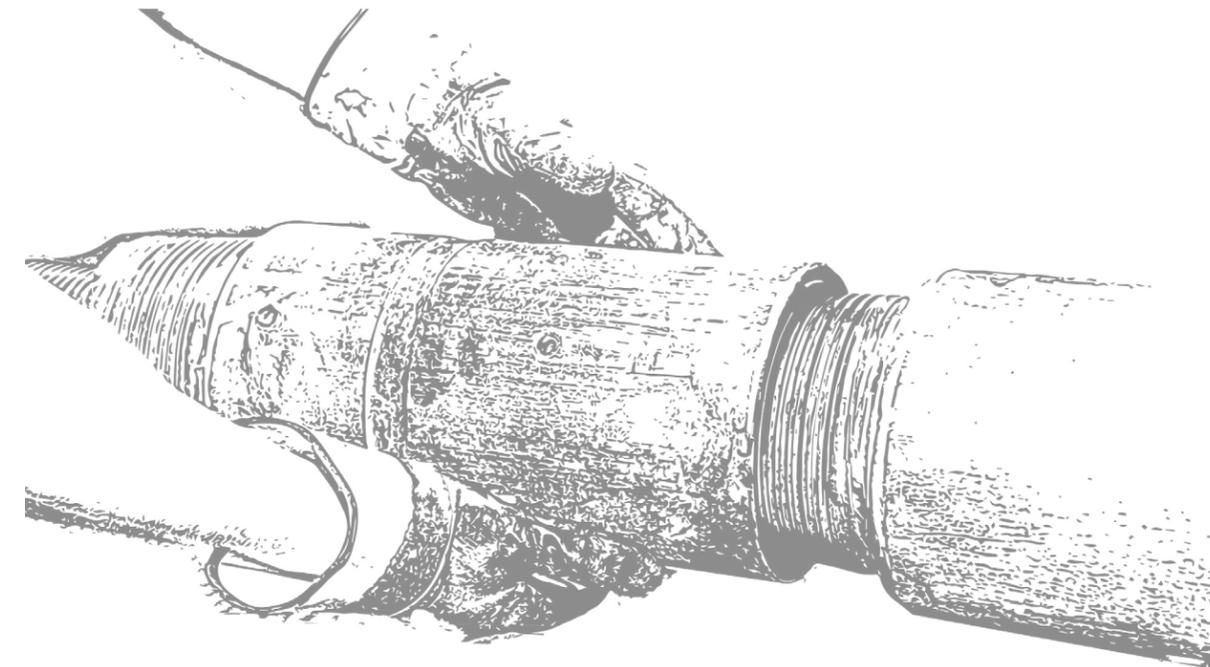
Before a company can begin developing a natural resource such as oil, gas or geothermal, they must first acquire a subsurface tenure right from EMLI to have access to the resource.

If they successfully acquire tenure, the company must then conduct a site assessment, followed by the required engagement process with land owners or rights holders who may be affected by the proposed activity.

Once these steps have been completed, the company can submit the appropriate

applications to the Commission for permits to explore and produce the subsurface resource.

The following pages show the typical life cycle of wells and pipelines from the planning stages through construction and operation to final restoration.

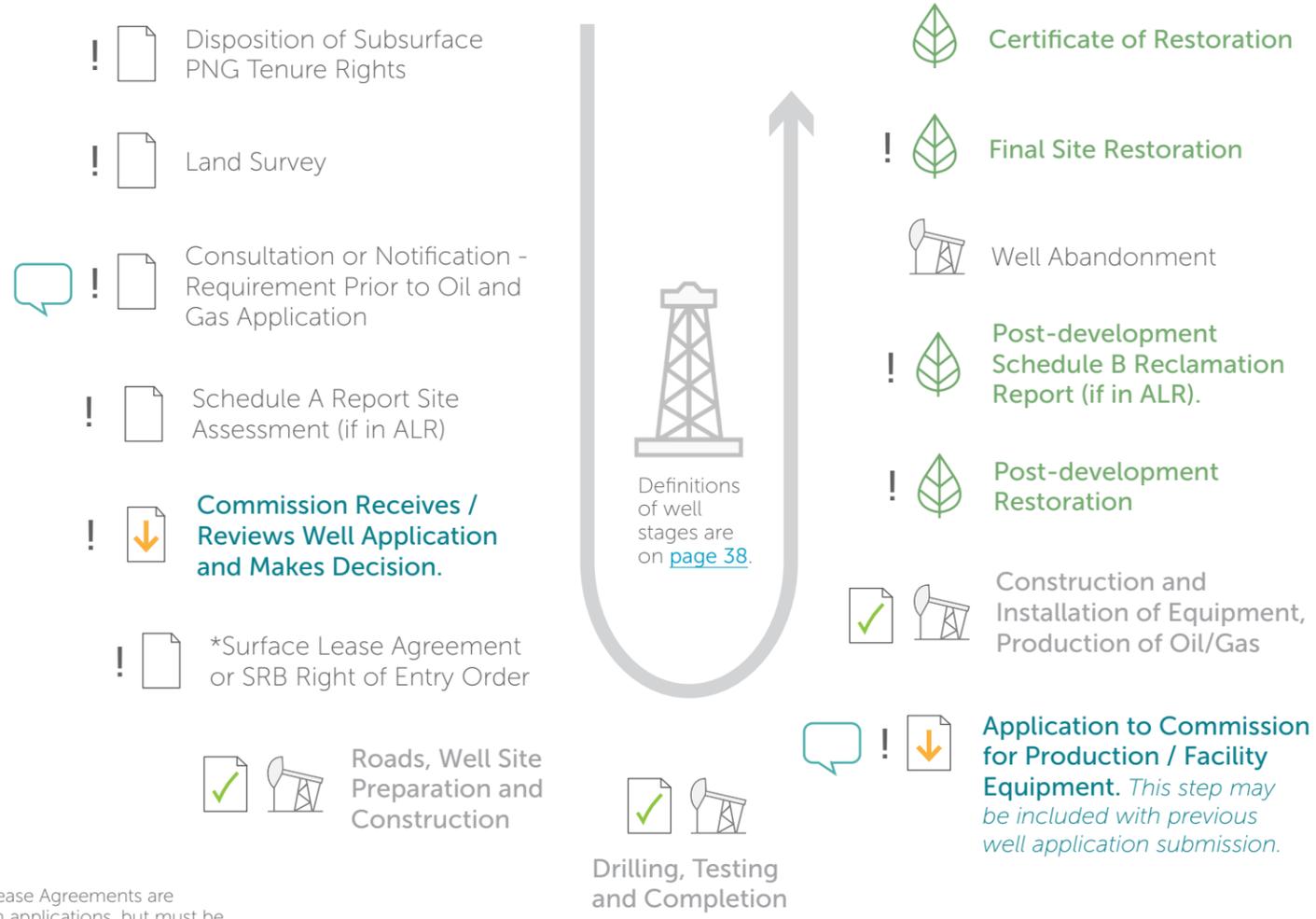


# Life Cycle of a Well in B.C.

Click each stage to view the associated topic within this Guide.

## LEGEND

- Pre-application Activity
- Application Submission**
- Oil and Gas Activity
- Restoration
- Consultation or Notification Required
- Requirement
- Requires Permit



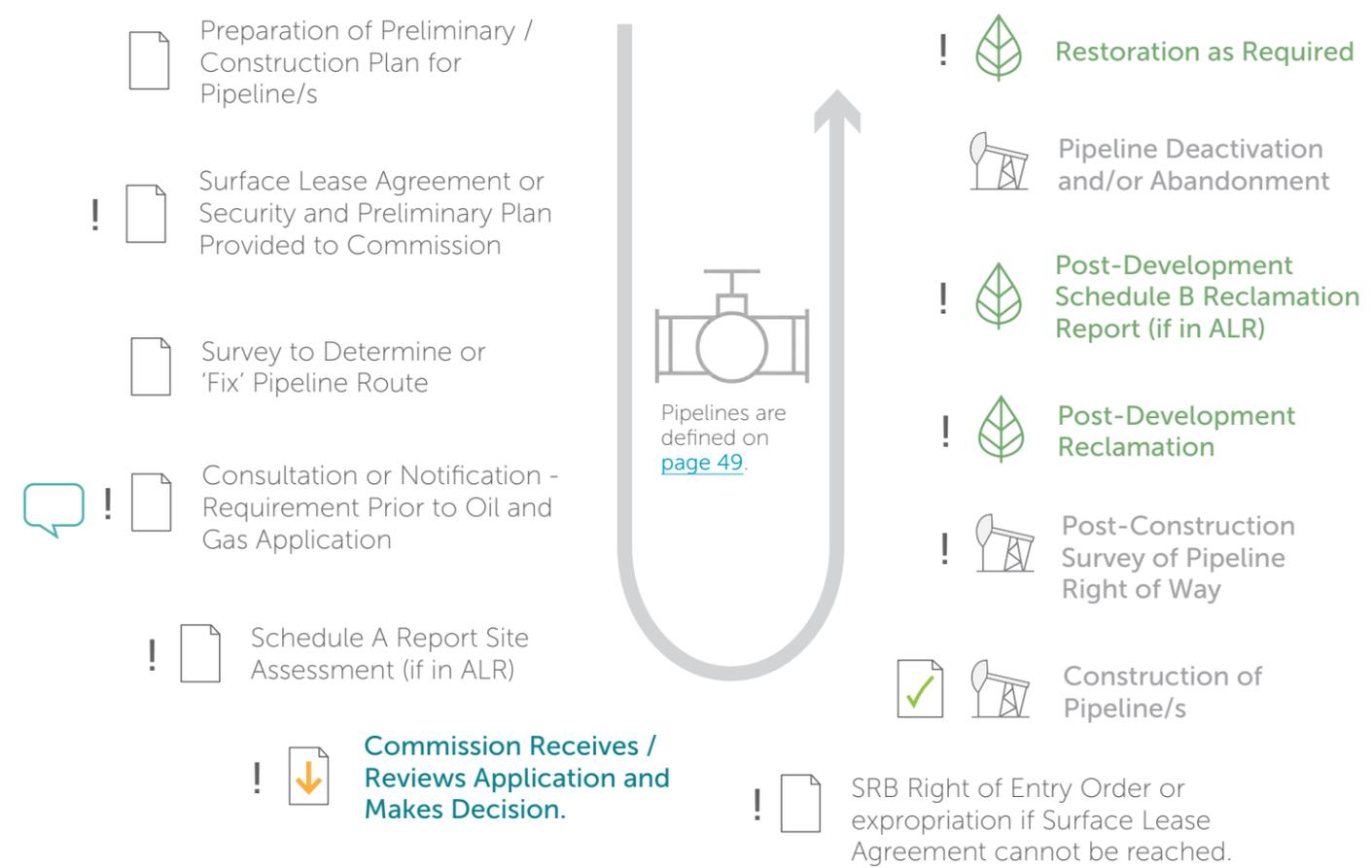
\*SRB Right of Entry Orders and Surface Lease Agreements are independent of Commission decisions on applications, but must be established prior to a permit holder entering a land owner's property.

# Life Cycle of a Pipeline in B.C.

Click each stage to view the associated topic within this Guide.

## LEGEND

- Pre-application Activity
- Application Submission**
- Oil and Gas Activity
- Restoration
- Consultation or Notification Required
- Requirement
- Requires Permit



# Pre-Application Activities



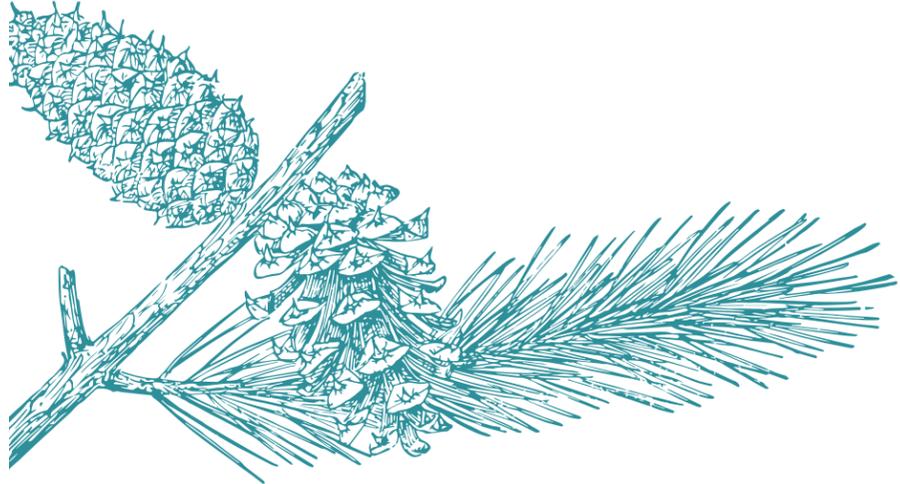
Before entering into a surface lease agreement with a company, land owners should discuss land use and value of private property. This may include how soil is handled and stored, natural drainage patterns, revegetation plans when the activity is complete and goals of final site restoration.

## Land Surveys

Land surveyors plan, direct and carry out surveys to establish the location of real property boundaries, contours and other natural or human-made features. They also prepare and maintain cross-sectional drawings, construction plans, records, and other documents.

### Requirements and Permissions for Accessing Private Land

- A surveyor requires permission from a land owner to access their property before geophysical exploration (seismic) projects can proceed. Details of geophysical exploration are provided in [Section 3](#) of this guide.
- For surveys to determine a proposed pipeline route, a land surveyor is not required to obtain land owner permission. They may secure land access by submitting a Preliminary Plan and security to the Commission. The surveyor must also provide the land owner with a minimum two days' notice prior to entry. The Notice before Entry must include the contact information of the operator, a copy of the Preliminary Plan, and a description of the planned activities.
- For most other oil and gas activities, land owner permission or a SRB Right of Entry Order is required prior to commencing a land survey.



The [Land Surveyors Act](#) (section 59.1) allows practicing land surveyors registered with the [Association of British Columbia Land Surveyors](#) to access private land. The intent of this provision is to enable land surveyors access to survey control monuments or land parcels not adjacent to roads or other public lands. Land owners are entitled to ask for identification that proves a surveyor is registered with the Association of British Columbia Land Surveyors.

## Site Assessments

A company must carry out a site assessment before beginning construction on oil, gas or geothermal projects. The assessment is used to determine the characteristics of the landscape, how the land is currently being used and how the land will be used after construction. The assessment helps plan the location of

The Commission encourages all land surveyors and oil and gas companies to contact land owners prior to survey work, and to give due consideration to the concerns and needs of the land owner. It is also a professional responsibility for all land surveyors to advise land owners of their need to pass over private lands.

activities to reduce the impact to agricultural land and acts as a record of the starting conditions to compare against when the site is being restored.

When a company plans to operate on private land within the ALR, they must submit a Schedule A report with their application as well as the site assessment results. The Schedule A report is an assessment of the site before development begins and is used to meet restoration requirements once development on the site is complete. It is described further in the Land Restoration section on [page 56](#) of this guide.

If your property is not within the ALR, a Schedule A is not required. However, we do encourage land owners to have similar discussions with the company about land values at the time of negotiating the surface lease agreement. Having this type of agreement in place is an excellent reference during construction and operation, and is helpful in achieving site restoration goals.



A Heritage Conservation Management Fact Sheet is available on the Commission website.

### Archaeological Surveys

A company applying for an oil, gas or geothermal activity permit, they must complete with the [Heritage Conservation Act](#) (HCA). The HCA protects archaeological sites from damage whether they are located on private or Crown land.

Companies are required to have a professional archaeologist complete an [Archaeological Information Form](#) (AIF), which states if there are any possible areas of archaeological potential within the proposed development area. If archaeological potential is identified, the archaeologist may recommend an [Archaeological Impact Assessment](#) be completed. If archaeological sites are found, the company must reduce or prevent impact on the site. Management strategies must be approved by Commission archaeology staff.

## Consultation and Notification (C&N)

Before a company submits an application to the Commission for an oil, gas or geothermal activity permit, they must complete a formalized engagement process, allowing anyone who might be affected by the activity to express their concerns. The types of activities considered to be oil and gas activities are explained in further detail in [Section 3](#) of this guide and are defined in [OGAA](#) to mean any one of the following:

- Geophysical (seismic) exploration.
- Exploration for and development of petroleum, natural gas or both.
- Production, gathering, processing, storage or disposal of petroleum, natural gas or both.
- Operation or use of a storage reservoir.
- Construction or operation of a pipeline.
- Construction or operation of a manufacturing plant designed to convert natural gas into other organic compounds.
- Construction or operation of a petroleum refinery.
- Construction, use or operation of a prescribed road.
- Activities prescribed by regulation.

A company will initiate engagement either through an invitation to consult or a letter of notification, depending on how directly affected a land owner or rights holder might be. The [Requirements for Consultation and Notification Regulation](#) (RCNR) outlines how these factors are considered and the measured distance used to decide who will receive consultation and who will receive notification depending on the type of activity application.



### Consultation

Consultation includes the exchange of information between a company and those most directly affected,

generally within the closest proximity to the proposed activity. This is referred to as the consultation distance. The company initiates this by sending land owners and rights holders an invitation to consult. This includes the company's contact information, a description of the project, timelines and the nature and extent of anticipated light, noise, dust, traffic and odours that will be caused by the proposed activities along with any measures that will be taken to reduce these quality of life impacts.

The invitation to consult should clearly explain how land owners and rights holders can bring their concerns forward to either the Commission or to the company. An invitation to consult will advise land owners or rights holders they have 30 days to respond to the company explaining how they will be negatively affected and how the activity could be modified to reduce the affect. The letter will also outline the option to request a meeting with the company to discuss concerns.

## Notification

A company is required to send a letter of notification to land owners or rights holders who are not within the closest proximity but may still experience impacts as a result of the activity. This is referred to as the notification distance. A letter of notification will include the company's contact information, a description of the

project and the order in which activities will take place. It will also advise you as a land owner or rights holder that you have 30 days to respond to the company with your concerns and reasons why the activity should be modified to reduce impact.

If you have sent a response in writing to the company within 30 days of receiving the letter of consultation or notification, they are required to provide a written reply. Based on the matters you brought forward, their reply should address your concerns and describe how they will conduct their work to ensure impacts are reduced.



### Written Submission to the Commission

You may also send your concerns to the Commission through the [Written Submission Form](#) available on our website, or by mail to one of the Commission offices listed below.

Written submissions can be sent by email to:  
[OGC.WrittenSubmissions@bcogc.ca](mailto:OGC.WrittenSubmissions@bcogc.ca)

OR

by mail to one of the following Commission offices:

BC Oil and Gas Commission OGC Bag 2 Fort St. John, B.C. V1J 2B0	BC Oil and Gas Commission #3, 1445 – 102nd Ave Dawson Creek, B.C. V1G 2E1
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Land owners and rights holders are not limited to the 30 day time frame when writing to the Commission. Your concerns, as well as those of anyone living outside the consultation or notification zones, can be submitted to the Commission at any time up to the point the Commission makes a decision on an application. When concerns are sent to the Commission as a written submission, the Commission will forward copies to the company. This leaves no obligation for a written reply from the company. However, your written submission will be considered by the Commission prior to decision.

The Commission encourages positive dialogue between companies, land owners and rights holders who have received consultation or notification packages. The Commission's Landowner Liaisons are available to answer questions on how to effectively fill out the [Written Submission Form](#) and to provide information and guidance for more effective discussions with oil and gas companies.

Chapter 6 of the [Oil and Gas Activity Application Manual](#) includes more details on consultation and notification (C&N) distances, timelines, and what is required of a company when providing a letter of notification or an invitation to consult.



Documenting Concerns	Sent by	Recipient
Written Response (to a letter of notification).	Land owner or Rights holder	Company
Written Reply (Required of the company when Written Response received within 30 days).	Company	Land owner or Rights holder
Written Submission (up to the point of application decision).	Land owner or Rights holder	BC Oil and Gas Commission

Note: The same document can be both a written response and a written submission if it is addressed and sent to both the company and the Commission.

## Application Review and Decision

All written submissions and written interactions between the company and land owners and rights holders are to be included when the company submits its application to the Commission. Based on the review of this information the Commission may:

- refuse to issue a permit,
- require the company to complete more thorough engagement on outstanding concerns,
- request the company revise the application,
- request the company develop a plan to alleviate the concerns, or
- add conditions if a permit is to be granted.

If an application is approved, the Commission will notify the land owner of the land where the activity is taking place.

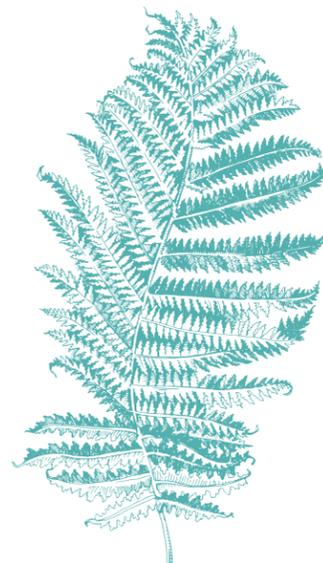
The company must wait 15 days from the date of the approval before starting construction, unless you give your written consent, as the land owner, to waive the 15 day wait period.



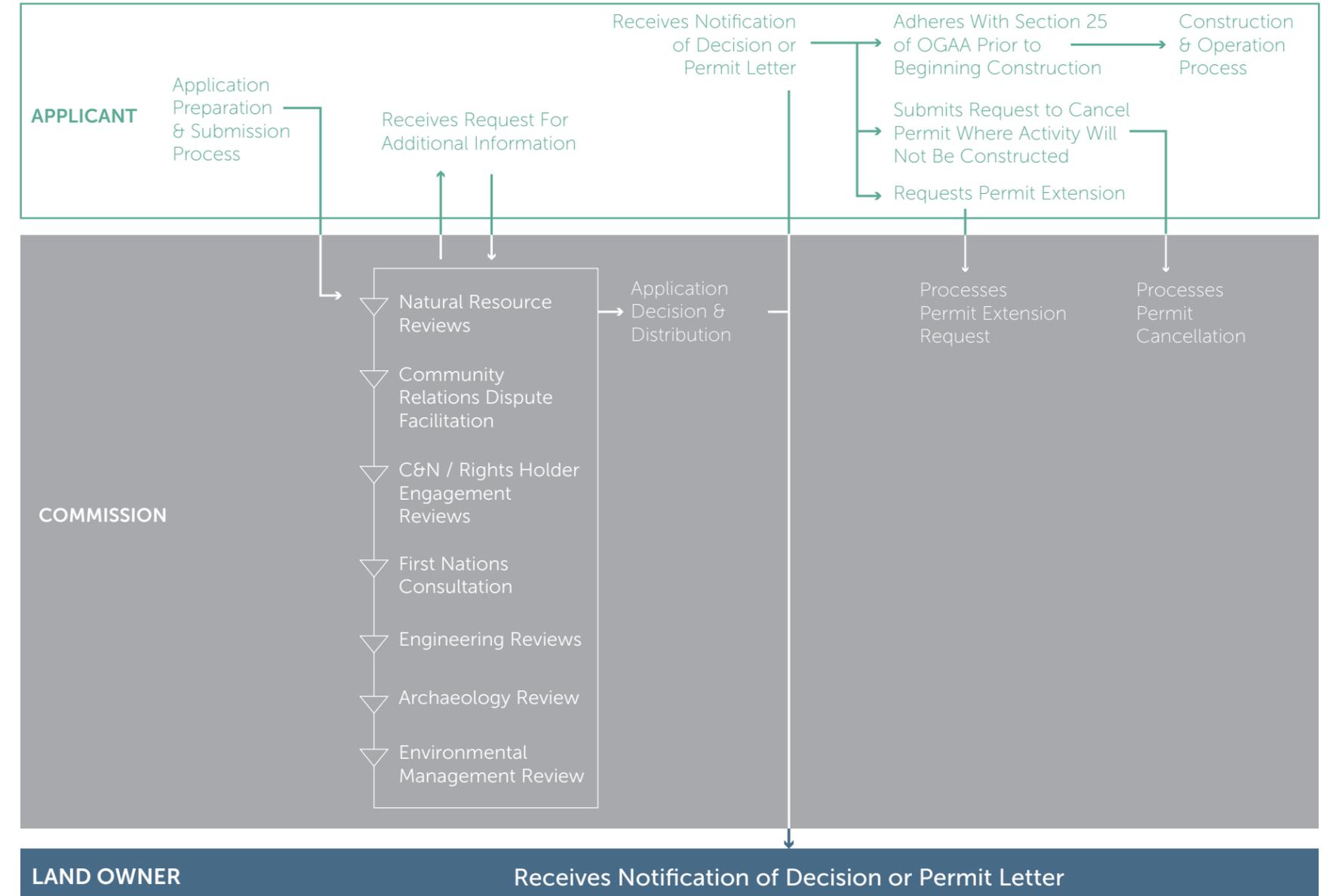
When you are notified a permit has been issued for an activity on your land, the Commission must also inform you of your option to appeal the permit decision. [Section 72](#) of OGAA stipulates the land owner has 15 days from the date of permit approval to file an appeal regarding the Commission's permit decision with the [Oil and Gas Appeal Tribunal \(OGAT\)](#). For more information about filing an appeal, please see the OGAT [website](#).

The process chart on the following page shows the major steps in the Commission's application review and decision process. A [webinar](#) hosted by the Commission is also available providing a general overview of the application review process.

If you are interested in the status of current applications, including those approved or in-process, the Commission's [Data Centre](#) provides access to a variety of online reports.



## Application Review and Decision Process



# SECTION 3 Oil and Gas Activities

## Geophysical Exploration

Geophysical exploration, also referred to as seismic testing or seismic surveying, is done from the land surface and is used to determine the existence of minerals, hydrocarbons, reservoirs and other subsurface hydrocarbon formations. It also interprets the nature, size and location of formations. Preparing an area for seismic testing may be the first stage of oil and gas exploration that results in a visual difference to the land surface.

To carry out geophysical exploration, it may be necessary to remove trees or modify the vegetation in an area referred to as a seismic line. Seismic lines may include a company's access trails and equipment staging areas needed to complete the work. Low impact seismic (LIS) techniques are used to minimize disturbance to ground cover. Techniques used include:

- Creating narrower cutlines by hand rather than using heavy equipment.
- Creating meandering seismic lines to eliminate continuous lines of sight.
- Using mechanical cutting systems that mulch the line, allowing for quicker revegetation.

When conducting geophysical exploration, seismic energy waves (also known as shock waves) are generated by an energy source and travel below the ground. These energy waves are created at or near the surface of the land using explosive and non-explosive methods. When explosive testing methods are employed, shot holes are drilled into the ground (6 to 20 metres deep, 3 to 4 inches in diameter) to house low level explosive charges. These are detonated to create seismic energy waves.

The most common non-explosive method of seismic testing is called vibroseis. A specially equipped vibroseis truck installed with heavy metal plates vibrates the land surface. The waves pass through different types and densities of rock and are reflected back to the surface where they are measured and recorded. The measurement of the waves provide information about the subsurface structures they pass through and are interpreted to determine the presence or absence of oil and gas contained in underground rock formations.



Meandering low impact seismic line that has been mulched and drilled.

Before conducting geophysical activities on private land, companies must come to an agreement with the land owner regarding entry on or use of the land. Despite holding a permit approval, the company is not authorized to conduct geophysical activities unless the land owner has provided written consent.

If a land owner agrees to geophysical activities on their land, they should ensure the company provides them with project specifics that are fully explained in a detailed agreement. They should also note that geophysical exploration cleanup is best completed under non-frozen conditions. It is in the land owners' best interests to allow entry for re-inspection during the spring or summer for best post-activity cleanup results.

Seismic testing methods must be employed in accordance with the [Geophysical Exploration Regulation](#). Additional information can be found in [Chapter 4 of the Oil and Gas Activity Application Manual](#).

## Oil and Gas Roads

The construction or modification of roads is often required to access, clear, or prepare for oil and gas activities. Suitable roads are necessary to facilitate safe oil and gas exploration and development, transport project and infrastructure supplies, and enable production to commence.

[The Oil and Gas Road Regulation](#) (OGRR), under OGAA, outlines that companies intending to construct, modify or maintain a road to gain access to their oil and gas site must apply to the Commission for a road permit. A permit is required even if the road is considered temporary.

Since the construction and maintenance of prescribed roads are considered oil and gas activities, companies are required to complete C&N (see [page 27](#)) and an agreement must be negotiated with the land owner for use of the land, or an entry order must be granted to the company by the [SRB](#).



A full definition of an oil and gas road can be found in section 4.5 of the [Oil and Gas Activity Application Manual](#).

The standards for the construction, maintenance, and deactivation of a prescribed road are regulated through OGRR. Additional conditions may be included in the road permit and may be further outlined in a surface lease agreement if one is negotiated with the land owner.

[Section 4](#) of OGRR stipulates affected land owners are entitled to a minimum of 72 hours' notice prior to construction of an oil and gas road.

If a land owner has questions about a road on or near their property, or questions surrounding a proposal to construct or modify a road, they are encouraged to contact a Commission Landowner Liaison for assistance. Clarification can be provided regarding road construction or modifications, road use rules and regulations, maintenance conditions, and deactivation.

The use of public roads by oil and gas companies does not fall under the Commission's authority. Concerns about oil and gas use of public roads should be referred to the [Ministry of Transportation and Infrastructure](#).

Roads on private land not intended to access the site of an oil and gas activity and not included in an application for an activity are not reviewed or regulated by the Commission. Negotiations or agreements for these types of roads are the responsibility of the individual proposing the road, and the affected land owner.

## Well Sites - Drilling, Testing and Completion

Once a company has received approval to begin, they may clear and prepare the site location for well operations. A precisely marked pilot hole, determined by survey crews, is dug and becomes the starting point for the drilling process. After the pilot hole is established, rig equipment is brought to the site and assembled.

A [3D video animation](#) of the assembly and operation of a drilling rig is available online and at the Dawson Creek Resource Centre.

Once drilled to the desired depth, tests are conducted on the characteristics of the well to determine if it is capable of producing oil or gas. If it is determined to be capable of producing to satisfy the economic need, it may be completed and prepared for production. The company may also choose to suspend or abandon the well at this stage. Well suspension and abandonment are described on [page 40](#) and [42](#). Completion of a well involves removing the drilling components from

the wellbore, inserting steel casing to reinforce the wellbore, and cementing the casing in place. Production tubing is then inserted, allowing for a continuous bore from the production zone to the wellhead. These steps support the wellbore, protect the casing from wear, tear and corrosion,

and protect the well stream from outside contaminants. This also protects fresh water reservoirs from any oil or gas being produced. The wellbore is then perforated using explosive charges, creating openings and connecting it to the reservoir, allowing oil or gas to flow up the well.



A cross-section of protective steel well casing cemented into a wellbore - on display in the Commission's Dawson Creek Resource Centre.

Well operation can mean the drilling, completing, recompleting, intervening, re-entering, workover, suspending or abandoning of a well.

Casing in oil and gas wells refers to steel pipe installed to support the sides of the well. A company must ensure casing is designed so it will not fail if subjected to the maximum loads and service conditions that can reasonably be anticipated during the expected service life of the well. Casing requirements are outlined in [section 18](#) of the Drilling and Production Regulation under OGAA.

In order to maximize the extraction of underground resources, a process called [hydraulic fracturing](#) may be used. During this process, fluids are pumped down the wellbore at high pressure and enter the openings created when the wellbore was perforated, enlarging the existing fractures. This process stimulates the flow of hydrocarbons by allowing oil or natural gas to move more freely from the rock pores, through the fractures into the wellbore and up to the surface.

More information on water use, water volumes and the fluid ingredients used in hydraulic fracturing may be found online at [www.FracFocus.ca](http://www.FracFocus.ca) and in the Commission's [quarterly water reports](#).

Past drilling of conventional reservoirs was constrained and only allowed for the drilling of a single, vertical wellbore. This limited access to the reservoir, did not allow for optimum extraction of the resources, and increased surface land use due to the need for developing additional sites. Advancements in drilling and completion technologies, including hydraulic fracturing, have made the development of shale and [unconventional](#) reservoirs

technically, operationally, and economically viable. Horizontal and directional drilling methods make it possible to drill in different directions from a single location, access greater lengths of the reservoir and improve production. While the placement of several wells on a single well pad will increase the size of the pad, it eliminates many of the pipelines and access roads required to connect multiple well sites.

A primary well is the first well on a well site. Subsequent wells are additional wells on a multi-well site.



If a well is completed, surface facilities are installed to allow for safe production and for the products from the well to be transported for distribution and sale. What is considered to be a facility may include emergency shut-down valves, equipment that measures the gas produced at a well, or systems that separate gas from water that might be present in the formation. Facilities are described on [page 43](#).

The [Drilling and Production Regulation](#) provides information on well classifications, spacing and permits, and outlines what is expected of companies to ensure safe drilling operations and well integrity, regular equipment testing, proper safety signage, and overall site maintenance.

Key Terms	Definitions
<b>Active well</b>	One that is producing oil and gas and has a viable operator.
<b>Well servicing or workovers</b>	The maintenance, repair or stimulation of an existing production well for the purpose of restoring, prolonging or enhancing well productivity.
<b>Inactive well</b>	One that has not been active for 12 consecutive months, but has not yet been abandoned. Special sour or acid gas disposal wells not active for six consecutive months are also considered inactive.
<b>Suspended well</b>	One that has been suspended (the wellbore is isolated) in a manner that ensures the ongoing integrity of the well and allows for future use, such as injection or re-completion.
<b>Dormant site</b>	Wells and their associated operating areas which for five or more years have not met a certain threshold of activity.
<b>Abandoned well</b>	One that has been permanently plugged and its wellhead removed.
<b>Orphan site</b>	A Commission designation given to wells and associated operating areas when the operator is insolvent or can't be located.
<b>Reclaimed site</b>	One that has been satisfactorily restored to its original state and may be eligible for a <a href="#">Certificate of Restoration</a> , certifying it has met all necessary requirements.

## Disposal of Drilling Fluids

Fluids utilized in oil and gas development may include fluids used for drilling, hydraulic fracturing, or water that is produced from the geological formation itself.

Drilling fluids, also known as drilling muds, are used to lubricate and cool the drill bit, carry drill cuttings to the surface, and control subsurface well pressure. Drilling fluids vary in composition and may include water, special types of clays, chemical additives, and other materials and are usually stored in an impermeable sump, tank or reservoir.

There may be circumstances when drilling fluids can be disposed of over land in accordance with the [Oil and Gas Waste Regulation](#) under the [Environmental Management Act](#). This type of disposal is only allowed for certain types of fluid deemed safe for this method of disposal and requires the permission of the land owner (hydraulic fracturing fluids and [produced water](#) cannot be disposed of in this manner). It is recommended land owners discuss waste disposal methods with companies during surface lease negotiations. Drilling waste containment

and disposal methods are described in the [Drilling Waste Management Chapter](#) of the Commission's Oil and Gas Handbook.

Another option for safe disposal of fluids is underground injection into a geological formation deemed suitable by the Commission. Disposal is not permitted in an aquifer containing water usable for domestic or agricultural purposes, or in zones that may pose a risk of contamination to such water aquifers.

The Drilling and Production Regulation stipulates the following must not create public health problems, contaminate water supplies, pollute land, or pass into water bodies frequented by fish or wildlife:

- Formation water.
- Oil.
- Drilling or completion fluid.
- Waste.
- Chemical substances or waste from a well, tank or other facility.



## Well Suspension

A well must be suspended if it has been declared inactive. The [Drilling and Production Regulation](#) defines an inactive well as one that has not been abandoned ([page 42](#)), but has not been active for 12 consecutive months. Other wells classified as special sour or acid gas disposal that have not been active for six consecutive months are also termed inactive.

All wells must be suspended within 60 days of reaching inactive status.



This must be done in a way that ensures the ongoing integrity of the well while it is temporarily out of service.

Chapter 9 of the [Oil and Gas Activity Operations Manual](#) provides guidance on well completion, maintenance and abandonment activities.

## Dormant Sites

A well site is considered [dormant](#) if it does not meet a threshold of activity for five consecutive years, or is not used for injection, disposal, or does not produce for at least 720 hours a year. Other activities meeting the threshold can include a drilling event, or the completion of a production zone, as described in the Commission's [Dormant Sites Program Manual](#).

Under the Commission's [Comprehensive Liability Management Plan](#), companies are held accountable for returning these inactive sites to a pre-activity state in a timely fashion. This was enabled through recent legislative changes to the [Dormancy and Shutdown Regulation](#), allowing the Commission to implement hard timelines for restoration and impose requirements for:

- Decommissioning
- Site Assessment
- Remediation
- Reclamation



[Section 3 \(1\)\(b\)](#) of the Dormancy and Shutdown Regulation allows permit holders to provide written notice to the Commission if they have a dormant well. If the Commission agrees on the status, the well is classified as Type A, B or C based on the date it is declared dormant. Dormancy and decommissioning timelines are listed below.

If a site has multiple wells on a single pad and one well meets the threshold for activity, then the site is not considered dormant.

Additionally, a site may be deemed a priority and be subject to faster timelines for closure activities. These priority sites are expedited based on such factors as the age

of the site, public safety considerations, social and agricultural values, cultural and environmental values of local Indigenous nations, and the capacity of the permit holder.

If all wells on a pad have met the threshold for being deemed dormant, a company may apply to the Commission for an exclusion from having their site, or a portion of their site, declared dormant. However, there is a narrow and definite set of circumstances in which exclusions are considered, and the company must prove their site (or portion of the operating area used to service an active facility or well) will become non-dormant within a reasonable period.



More than 7,000 Type A dormant sites are scheduled to be fully restored by Dec. 31, 2036. Restoration of Type B and Type C dormant sites will occur alongside the restoration of Type A sites.

## Dormancy and Decommissioning Timelines

**Priority Sites:** classified on a case-by-case basis, usually with faster closure timelines than Type A, B, and C.

**Type A Sites:** Dormant as of Dec. 31, 2018.

**Type B Sites:** Become dormant between Jan. 1, 2019 and Dec. 31, 2023.

**Type C Sites:** Dormant after January 1, 2024.

## The Restoration Process

**Restoration** refers to the process of remediation and reclamation. **Remediation** is the removal of contamination and cleanup of a site. **Reclamation** involves cleanup of the surface - the redistribution of the subsoil and topsoil, with the site re-graded and contoured to match its surroundings. Ecologically suitable species are planted and the site is brought back to its pre-disturbance state. Restoration is described in more detail on [page 56](#).

## Well Abandonment

Abandonment is the permanent closing or plugging of a drilled well in order to remove it from service. This may occur if a well has been depleted or is no longer able to produce hydrocarbons. The wellbore is permanently plugged with cement in a way that isolates the geological layers, confining oil, gas and water in the formation they were found. This prevents fluids from one zone migrating through the wellbore to another zone.

Typically, a series of cement plugs are set in the wellbore and tested at each stage to confirm hydraulic isolation. A wellbore is considered hydraulically isolated when its casing has been cemented. This isolates the geological layers and contains fluids to the formation through which the well was drilled. It also isolates the fluids from the wellbore.

## Flaring

Flaring is the process of burning waste gas that cannot be processed or sold. It is done through a vertical stack and is primarily used for short-term operations such as well drilling, well completions and maintenance at wells, pipelines and facilities.

Flaring is an important safety measure. It disposes of gas during emergencies such as power failures or maintenance shutdowns. Further information on flaring and how the Commission monitors air quality can be found in the [Flaring and Air Quality fact sheet](#).



In 2019 the Commission announced new regulations to reduce methane emissions from oil and gas operations, supported by the Commission's Fugitive Emissions Management Guideline. These measures help to meet or exceed federal and provincial reduction targets.

Provincial regulations support natural gas conservation practices and the Commission continues to work with companies to reduce flaring and eliminate it where possible. The [Flaring and Venting Reduction Guideline](#) provides regulatory guidance for flaring, incinerating and venting at all well sites, facilities and pipelines. Flaring requirements are regulated through the [Oil and Gas Waste Regulation](#) and through [part 7](#) of the Drilling and Production Regulation.

## Facilities

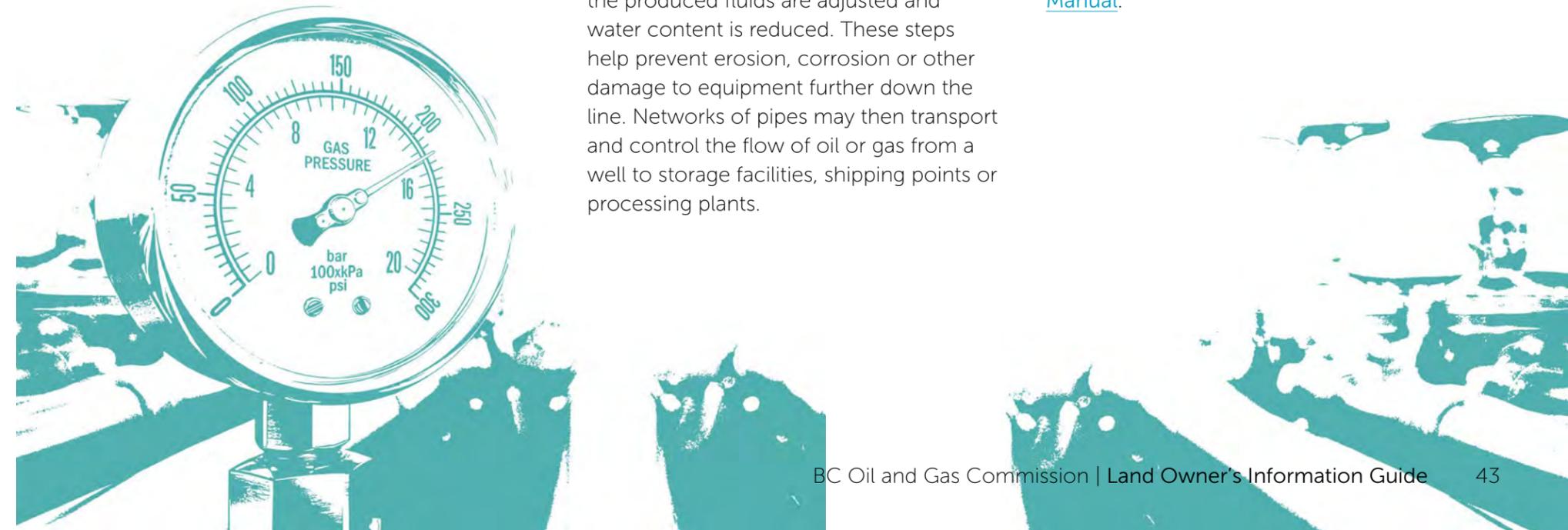
After a well or multiple wells have been successfully completed, operational equipment needs to be constructed on the site. Facility equipment such as pumps, vessels, piping, tanks and emergency shut-down valves are used to collect and process the fluids brought to the surface. Facility equipment used for the production, processing or transportation of oil or natural gas can include a collection

of compressors, drilling rigs, oil pumps, processing plants, or batteries. Facilities at a well site may remain on site for the life of the well.

Facility equipment can be used for the testing and measuring of produced gas, as well as the initial stages of treatment, processing and possible storage or disposal of fluids. Particulates are removed, temperature and pressure of the produced fluids are adjusted and water content is reduced. These steps help prevent erosion, corrosion or other damage to equipment further down the line. Networks of pipes may then transport and control the flow of oil or gas from a well to storage facilities, shipping points or processing plants.

Before activity can begin on a facility, whether it is within an existing right-of-way, over Crown land, or on private land, companies must meet all C&N requirements and submit a completed facility application to secure a facility permit.

More information about facility types and activities may be found in Chapter 4 of the [Oil and Gas Activity Application Manual](#).



## Pipelines and Rights of Way

Pipelines used to transport petroleum or natural gas, solids, water and other substances to destinations such as refineries or processing plants include both surface and underground lines.

A pipeline permit gives the company permission to construct, operate and maintain a pipeline. A company must meet regulatory requirements under OGAA regarding notification, safety, damage prevention and restoration requirements.

If a company plans to install a pipeline across private property, they may enter a surface agreement with the land owner for use of a corridor through the property.

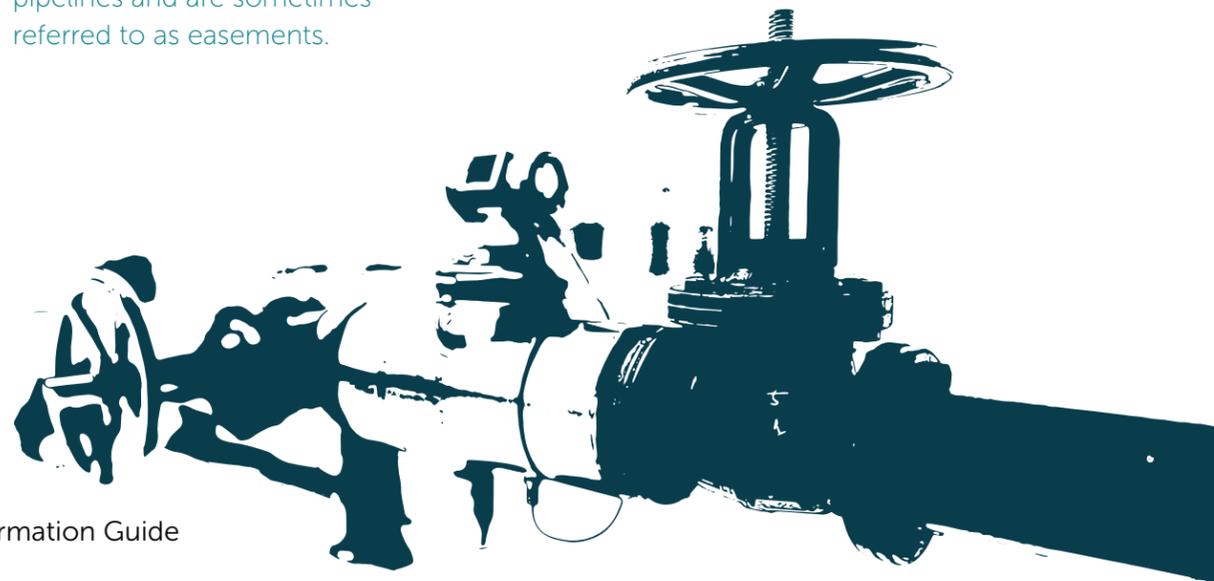
During surface agreement discussions, the company and the land owner can determine the best location for the pipeline right-of-way (RoW) where the pipeline(s) could be constructed.

The corridor agreed to would be identified in the application and, if approved, would be the permitted pipeline RoW. If the company is not able to negotiate with the land owner, the company may gain land access through a SRB order, or through the expropriation process as described in the Land Access portion in [Section 1](#) of this guide.

A pipeline RoW is a strip of land containing one or more pipelines and are sometimes referred to as easements.

While a company may acquire the right to access and use a corridor on private land for the construction, operation and maintenance of a pipeline, ownership of the land remains with the land owner.

A [post-construction plan](#) must be submitted to the Commission within 60 days of completing the pipeline construction where new land has been cleared or disturbed, showing the location of the pipeline and all associated oil and gas activities.



## Call Before You Dig

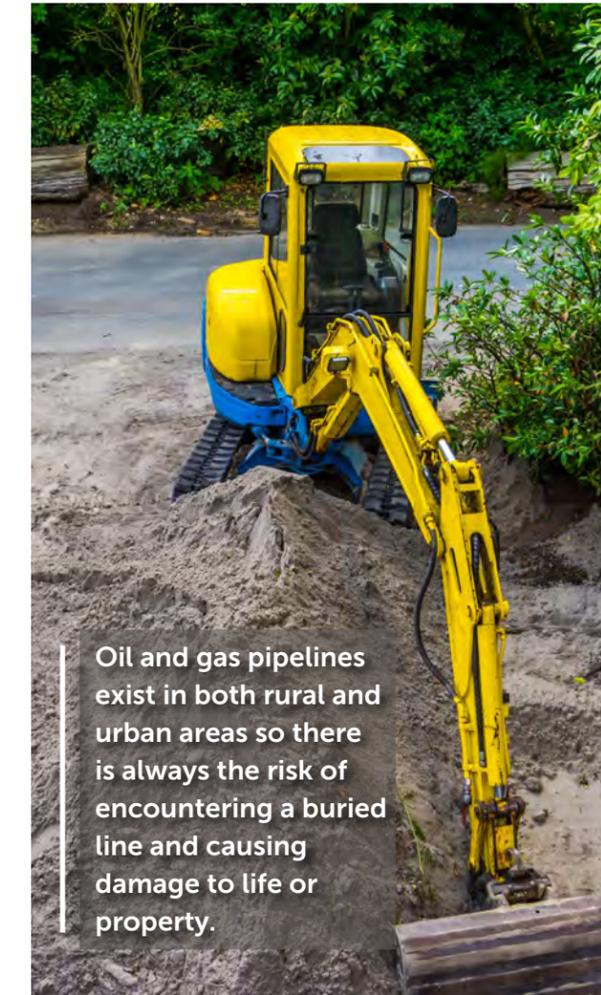
If a land owner wishes to begin a project that involves digging, they must contact [BC 1 Call](#) (Call Before You Dig) before beginning any ground activities within 30 metres of a pipeline. BC 1 Call will assist in confirming the exact location of any underground pipelines, as well as cables, telecommunication, or sewage lines.



**CALL 1-800-474-6886**

BC 1 Call connects land owners with pipeline owners who can confirm if there is a pipeline(s) within 30 metres of a proposed activity, and if so, establish if the pipeline(s) is at least 10 metres away.

**This is a FREE service.**



**Oil and gas pipelines exist in both rural and urban areas so there is always the risk of encountering a buried line and causing damage to life or property.**

Since pipelines are not necessarily located in the centre of a RoW, the RoW should not be used to determine the location of a pipeline. Working outside of a RoW also does not guarantee a safe buffer from a pipeline.

If BC 1 Call confirms an underground pipeline is nearby, and the company operating the pipeline confirms it is within 10 metres of where digging is planned, the company may agree in writing to the land owner's excavating activity and provide instructions to follow before proceeding.

The Commission also has the option to issue an order under [section 76](#) of OGAA to approve a ground activity within 30 metres of an underground pipeline. All conditions in a written permission or order must be followed.

The pipeline crossing image on [page 46](#) compares ground disturbance depths with cultivation depths - important considerations when planning to dig.

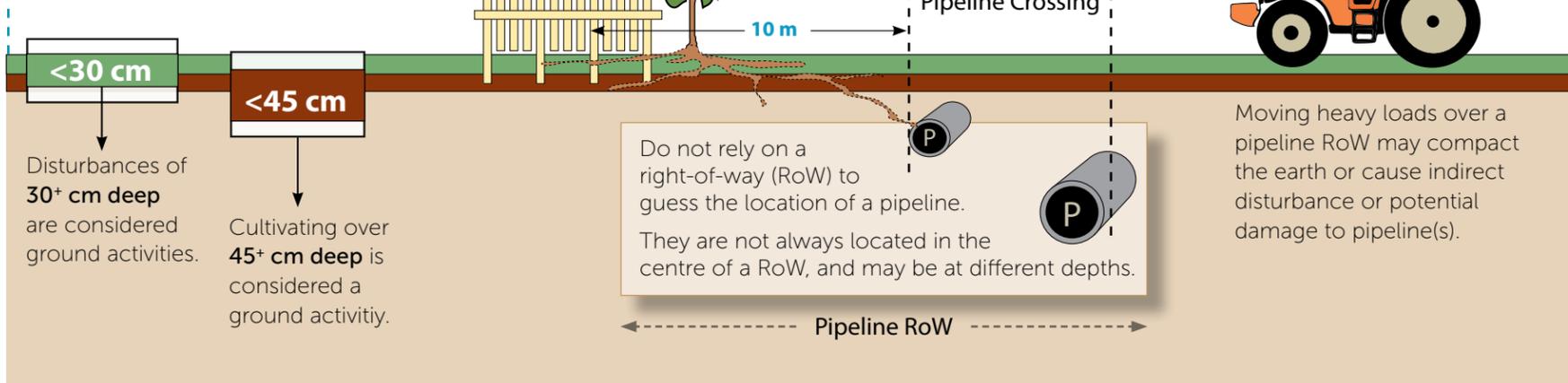
Ground activities are tasks that disturb the earth (such as excavation), but do not include cultivation less than 45 cm deep, or disturbances less than 30 cm deep. If you are cultivating under 45 cm or performing a ground disturbance under 30 cm, there is no need to call BC 1 Call.

The use of heavy equipment should also be considered; moving heavy loads over a pipeline RoW may compact the earth or cause indirect disturbance or potential damage to pipeline(s). For this reason, a minimum cover of 0.8 metres (80 centimetres) has been set for pipelines under agricultural land.

A pipeline crossing [flyer](#) for land owners is available on the Commission website, providing BC 1 Call and [Emergency Management BC](#) (EMBC) contact information. Land owners are strongly encouraged to contact BC 1 Call prior to beginning any ground activities on their land.

### CONTACT BC 1 CALL within 30 m of pipeline/s

You may think you're a safe depth and distance from pipelines when digging holes for fence posts or planting trees, but you may be close enough to cause serious damage. Contact BC 1 Call before you dig.



Go to [bc1c.ca](http://bc1c.ca) 7/24/365, or call 1-800-474-6886 Monday to Friday (excluding holidays).

## Pipeline Deactivation

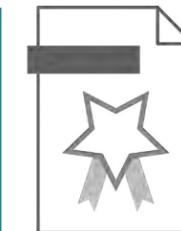
If a pipeline, or segment of pipeline, has not transported fluids for 18 consecutive months, the pipeline operator must either submit a plan to the Commission for resuming transportation of fluids, or they must deactivate the pipeline. If they choose to deactivate the pipeline, they must submit a [Notice of Intent](#) (NOI) to the Commission reporting the operational change, as stipulated in the [Pipeline Regulation](#) under OGAA.

When deactivating piping, a company cleans and/or purges the pipeline to ensure no mobile materials remain. The pipeline is then isolated or disconnected from any source of gas or liquid, and the company actively maintains the integrity of the pipeline during the deactivation period.

The company will also record and outline their plan for maintaining the integrity of the pipe during the deactivation period. These steps are taken in order to prevent or minimize any adverse effects during

deactivation, and to prevent issues if the pipeline is returned to active service in future.

If the company decides to reactivate the pipeline, they must implement required methods that demonstrate the pipe is suitable for its intended purpose, and must follow the requirements and safety standards of Canadian Standards Association Z662 ([CSA Z662](#)).



CSA Z662 is the Canadian national standard guiding the design, construction, operation and maintenance of oil and gas industry pipeline systems.

## Pipeline Abandonment

When a pipeline, or portion of a pipeline is abandoned, it means it has been permanently removed from service and will not be maintained to return to service at a later date.

Abandoned pipelines are not necessarily removed. Leaving a pipeline in place may be the preferred option in situations where digging and removal would cause more disruption to the land than safely deactivating and capping the pipeline. They can be left in place safely if abandoned according to CSA Z662.

In order to abandon a pipeline (or segment of a pipeline) and leave it in place, the company must separate it from any piping that remains in service. The company is also required to clean, purge, depressurize, and effectively seal the pipe. Unutilized surface installations related to the pipeline (pipeline risers, valves, etc.) must be cut and removed

to the depth of the pipeline. The affected surface area must be restored.

Immediately following completed fieldwork, companies must submit a NOI to the Commission. The NOI must include a detailed scope of work, a drawing showing the portions of the pipeline abandoned in place, and details concerning landowner awareness of the project.

Upon review and acceptance of the NOI, the Commission addresses the pipeline permit as required, removing permissions from any portions approved for abandonment, and ensures the original permit reflects any pipeline segments remaining active. Records are maintained on all piping abandoned in-place, including location, length, and burial depth.

The pipeline must remain registered with BC 1 Call and above ground markers may be left in place. The company remains liable for any

environmental impacts of the pipeline remaining in the ground. For pipelines removed in their entirety, registration with BC 1 Call is not required and the company is responsible for restoring the land.

**Section 40 of OGAA:**  
If a pipeline permit is declared spent, cancelled, or expired the Commission ensures the company holding the permit (or former permit holder) complies with regulatory requirements to address restoration and safety concerns.

When abandoning a pipeline or segment of pipeline, a company may provide the land owner the opportunity to request removal of the easement from their title. The company may also forward the request to the [BC Land Title and Survey Authority](#) (LTSA) to make the removal of the easement easier for the land owner.

Land owners may prefer to confirm specifics of deactivation, abandonment and easement removal in advance. This would happen during discussions about the easement or during surface lease negotiations. This can provide



both the land owner and the company with a mutually understood process for notification, easement removal, and the LTSA notification.

If there are pipeline issues after an easement is removed from the title, the company may have to re-enter the property, requiring permission from the land owner. For inspection purposes, a land owner may consider allowing the easement to remain indefinitely.

The [Pipelines in British Columbia fact sheet](#) provides helpful information on the different oil and gas products carried in pipelines, the pipeline integrity programs that are in force, and what to do if you suspect a gas leak.

[Pipeline Performance Summaries](#) published annually by the Commission also provide helpful definitions and statistics on incident frequency, response and enforcement actions.

## Key Terms

### Pipeline

### Abandoned

### Deactivated

### Operating

## Definitions

Pipelines regulated by the Commission are defined in OGAA (except in section 9) as piping through which any of the following is conveyed or transported:

- Petroleum or natural gas
- Water produced in relation to the production of petroleum or natural gas or conveyed to or from a facility for disposal into a pool or storage reservoir.
- Solids
- Substances prescribed under section 133(2)(v) of the PNG Act.
- Other prescribed substances.

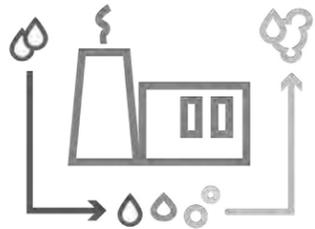
Pipelines removed from service and not maintained for a later return to service.

Pipelines removed from service but maintained for a later return to service.

Pipelines actively used for the transport of fluids related to oil and gas operations, and piping that has been suspended from services for less than 18 months but not formally deactivated.

## Geothermal

British Columbia is situated on the Pacific Ocean 'Ring of Fire', an area identified as having substantial geothermal energy potential. Volcanic activity in the Pacific basin means deep underground water aquifers are heated by magma rising from the earth's core.



In the simplest terms, geothermal means 'heat from the earth'.

To capture geothermal energy, wells are drilled into the hot reservoirs and the water (and sometimes steam) is pumped to the surface where the heat is extracted and used to produce electricity. The first exploration wells in B.C. seeking high

temperature reservoirs were drilled in 1974. By the fall of 2020, 127 exploration wells had been drilled.

Before the Commission considers an application to drill a geothermal well, the applicant must first gain geothermal subsurface tenure through a competitive bidding process managed by the [Ministry of Energy, Mines and Low Carbon Innovation](#) (EMLI).

Geothermal tenures are available either by permit, giving the right to explore a specific area for one year and the option to renew; or by a lease, which is issued only after a geothermal well is drilled and a development plan is created.

The Commission regulates other activities related to geothermal activities (e.g. permits to access the land, harvest trees) through delegations from the [Ministry of Forests, Lands, Natural Resource Operations and Rural Development](#).

The [Geothermal Operations Regulation](#) under the [Geothermal Resources Act](#) (GRA) outlines how the Commission manages these wells, including the activities required to produce geothermal energy:

- Well positioning and spacing;
- Notification requirements;
- Safety requirements;
- Protection from hazards, tools, casing, wellhead, surface and subsurface equipment requirements; and
- Data and monitoring requirements.

More information on how geothermal facilities and pipelines used for geothermal purposes are regulated can be found on the Commission [website](#).

## Associated Oil and Gas Activities

Other activities required to support and carry out OGAA activities discussed in previous pages are referred to as Associated Oil and Gas Activities (AOGA). The AOGAs are authorized through the [PNG Act](#) or [Land Act](#) and are not regulated under OGAA.

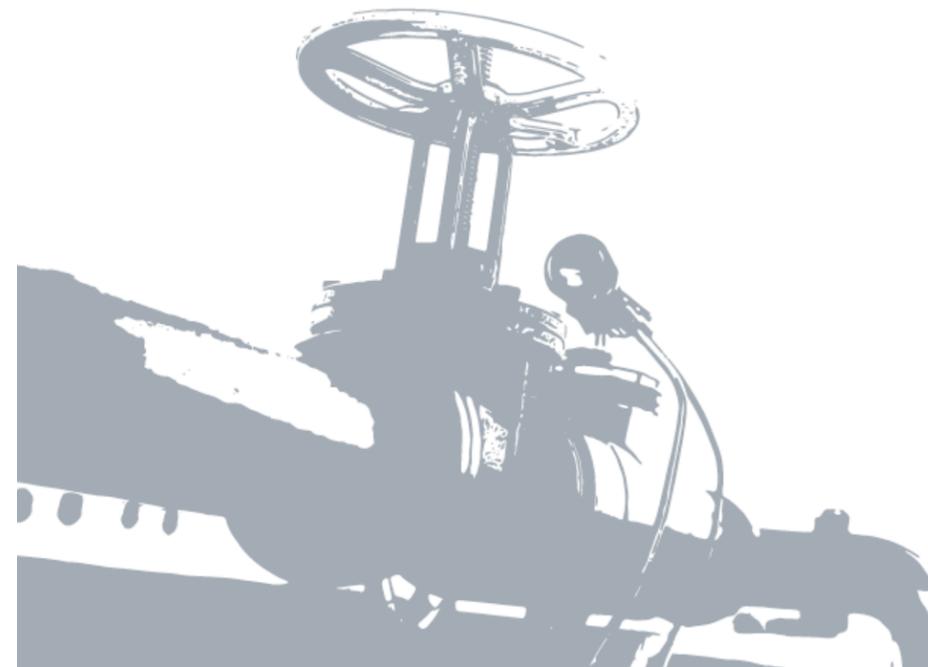
An AOGA is not authorized unless the company holds or has applied for a permit for the oil and gas activity related to the AOGA. Where AOGA are proposed on private land, companies must negotiate access to the land with the land owner or gain access through a SRB order.

In the case of a pipeline right-of-way that does not provide for entry to an AOGA area, the SRB may issue a right of entry order if they decide access to the land is necessary to carry out the activity. If located within the ALR, the Commission assesses if it meets requirements under the ALC Act.

AOGA types can include:

- Access
- Above ground fresh water lines
- Aggregate/borrow pits
- Airstrips
- Campsites
- Helipads or airstrips
- Sumps
- Fresh water storage sites
- Powerlines
- Storage areas
- Investigative Use

More examples and information on AOGAs may be found in Chapter 4 of the [Oil and Gas Activity Application Manual](#).



# SECTION 4 Non Payment of Rent

A land owner may encounter an issue regarding payment of rent or compensation with an oil and gas company. It is important to note this may not indicate bankruptcy. In order to pursue compensation or rent that has not been paid, land owners may consider any of the following options:



The land owner should first contact the permit holder directly to solve issues regarding outstanding rental payments for the surface lease on their land.



The land owner may consider conducting a [Bankruptcy and Insolvency Records Search](#)\* to determine if a permit holder is involved in bankruptcy or insolvency proceedings.

\*The Government of Canada charges a minimal fee for this service.



If a land owner is uncertain about the status of a permit holder, they may [contact](#) the Commission or refer to the [Orphan Site Management](#) web page for a list of orphan sites.



The land owner may wish to contact a lawyer for legal advice regarding available options.



The land owner may apply to the [SRB](#) who may issue a Payment Order and could terminate or suspend the permit holder's right of entry on their land.

If right of entry is suspended, the permit holder must continue to pay rent and/or compensation and immediately suspend all oil and gas related activities on their land.

If an oil or gas site does not meet regulatory requirements, the Commission may take action.



## Control of Activities

If an oil or gas site does not meet regulatory requirements and there is a risk to public safety or the environment, the Commission may take action, including suspending, cancelling, or taking control of the oil or gas site. The Commission may also exercise these powers if a site is designated as an 'orphan', as discussed on the following page.

If a company is unable to meet their obligations to lenders, a Receiver may be appointed by the courts. The company's assets would be assigned for the Receiver to undertake bankruptcy proceedings. During these proceedings, the Receiver Manager would be responsible for the operations of the company and can be contacted by land owners regarding operational questions or concerns. Land owners may also submit a claim to the Receiver for rental payments.

Once receivership proceedings are complete, the Receiver would be discharged by the courts and sold sites may be transferred to a new company, who would be responsible for all ongoing lease payments. Unsold sites may be designated as orphans with compensation and restoration matters managed by the Commission.

# Orphan Sites

## Sites Designated As Orphans

When a company holding permits for a well, pipeline or facility cannot be located or has become insolvent, the Commission may designate the site as an [orphan](#).

The Commission's first priority is to ensure steps are taken to safeguard orphan sites. Under OGAA, the Commission is entrusted with protecting the safety of the public and environment through all steps necessary to manage and ultimately [restore orphan sites](#).



A [Managing Orphan Sites webinar](#) hosted by the Commission is available online.

## Restoration and Compensation

The [Orphan Site Reclamation Fund](#) is a levy on oil and gas producers that is used for the restoration of orphan sites. In addition to covering restoration costs, land owners can be compensated from the fund for loss of land use as a result of the failure by a company to restore the land surface to standards required by regulation.

[Section 29](#) of the Oil and Gas Activities Act General Regulation (under OGAA) outlines the information required of a land owner when submitting an application to the Commission for compensation on a site that has been designated as an orphan.

If a land owner has initiated a claim for compensation with the [SRB](#), the Commission will collaborate with the SRB regarding documentation and information already submitted.

A land owner who has not previously applied for compensation may apply directly to the Commission for overdue rental payments on a site designated as an orphan. The Commission's [Land Owners and Compensation web page](#) provides further guidance on application processes, whether a land owner has applied previously to the SRB or is applying for compensation for the first time.

## How the Commission Works With Land Owners

Land owners have certain rights to use and work their land. If there is an orphan site located on their property, they are not responsible for managing or maintaining it. If any concerns arise regarding a site on their property, such as erosion and weed control issues, they should contact the Commission at [Liability.Management@bcogc.ca](mailto:Liability.Management@bcogc.ca).

[Section 57](#) of OGAA grants the Commission appropriate permissions to access orphan sites and initiate and complete any necessary safety or restorative work.

The Commission will maintain contact with land owners as work is carried out, during future inspections undertaken to establish the ongoing safety of the site, and to address any maintenance needs if they arise.



The Commission's goal is to carry out the required restoration in a manner that respects and recognizes the needs of land owners and their property, while making certain it meets its mandated responsibilities.



# Land Restoration

When a company no longer intends to carry out oil and gas activity on a site, they must restore it as soon as it is feasible. The objective is to restore soil stability, productivity and vegetation to what existed prior to development. The steps companies must take to meet the decommissioning, abandonment and restoration requirements are explained in the [Oil and Gas Activity: Site Restoration Fact Sheet](#).

The ALR consists of both Crown and private land. Before the development of an oil and gas activity begins within the ALR, a site assessment must be completed. This assessment, referred to as a Schedule A, must be submitted to the Commission with the application and is used to plan how activities will be managed in a way that minimizes agricultural impacts. It documents starting conditions of soil, topography and vegetation to be used as a comparison at the time of planning reclamation and helps plan how to address erosion during operations.

The Schedule A also allows for recommendations for topsoil salvage and storage during construction and the development of a preliminary reclamation plan.

When a site is no longer required for an oil and gas activity and surface restoration work is complete, a [Schedule B](#) report is used on ALR lands to assess if the site has been appropriately reclaimed.

Since companies are responsible for reclaiming the land, they choose who will do the work. If the land owner has expressed interest, the company may

Soil standards, topography, and vegetation of surface leases and pipelines are all taken into consideration when determining if a site has been restored to an equivalent pre-development condition.

consider the land owner to do the reclamation work. The company ultimately is responsible to ensure the reclamation passes the Schedule B inspection, which is done by a qualified specialist. Soil standards, topography, and vegetation of surface leases and pipelines are all taken into consideration when determining if a site has been restored to an equivalent pre-development condition.



Within the ALR, restoration of sites no longer required for oil and gas activities and submission of Schedule B reports is required within 24 months. Pipelines must be reclaimed within 24 months of the end of construction. All other activities must be reclaimed 24 months from the date the site is no longer used.

A time-lapse [video](#) is available online showing the various stages involved in reclaiming a site.

The company must submit a copy of the Schedule B report to the Commission before a CoR can be issued.

A copy of both the Schedule A and B must be made available to the land owner. Guidelines for Schedule A and B reports are available in the Commission's [Delegation Agreement](#) with the ALC.

Land owners outside the ALR are encouraged to determine reclamation and revegetation plans with companies during surface lease negotiations. There may be needs, which are specific and unique to their property, that fall outside regulated requirements.

## Certificate of Restoration

When a permit for a well site, test hole, or production facility has been cancelled or terminated, the company may apply for a Certificate of Restoration (CoR). A CoR certifies an abandoned well site or facility has been properly restored in compliance with regulatory requirements based on the information known to the Commission at the time of certification.

In order for a company to obtain a CoR, all equipment must be removed from the site and all land affected by any oil and gas activities must be restored. Surface lease agreements are to remain in effect until all remedial work is complete and a CoR is issued.

The Commission's [Remediation, Reclamation and Restoration web page](#) provides further information on CoRs and site restoration requirements.



The length of time necessary to monitor restored sites varies by situation. The CoR process is based on a minimum one full growing season following re-vegetation. When oil and gas developments are located on land within the ALR, complete reclamation of the site back to a productive agricultural state is required before a CoR is issued.

Restored operating areas should be assessed early the following growing season to ensure the land is stable, no subsistence or slumping has taken place, and the desired species are growing vigorously. Any soil stability, vegetation productivity, or [noxious weed](#) issues should be addressed immediately.

The [Contaminated Sites Regulation](#) under the [Environmental Management Act](#) provides helpful definitions related to remediation plans and contaminated sites, and the Commission's [Dormant Sites web page](#) provides information on the Commission's [Comprehensive Liability Management Plan](#), remediation and restoration timelines and the liabilities of companies.

### Liability for Remediation

The CoR provides assurance to stakeholders that, at the time of CoR issuance, the site was restored in accordance with current standards and requirements and all known contaminants or hazards were addressed. A CoR that has been issued does not absolve companies of future liabilities associated with the impacts operations may have had on a site prior to restoration. If issues come to light and additional restoration work is needed after a CoR has been issued, the company remains responsible for the remediation work and costs.



## SECTION 5 Emergency Planning Zones

### Emergency Preparedness

While companies are required to have a robust [Integrity Management Program](#) (IMP) and maintain rigorous standards for the safe operation of their equipment, they must also be prepared in the unlikely event an incident occurs.

[Emergency Response](#) Plans (ERPs) must be developed by companies for every oil or gas operation the Commission regulates. These plans include criteria for assessing emergency situations and procedures for the company to mobilize response personnel in the event of an incident. ERPs must be submitted and implemented before drilling begins at a well site, before a pipeline is opened for service and before a facility goes into production.

Emergency Planning Zones (EPZs) are established around the site of an activity and identify residents or other members of the public who could be at risk if an incident occurs. As part of developing each response plan, companies gather information from residents, tenure holders and others identified within the EPZ, and include contact information or specific concerns.

Once a plan has been developed, companies are required to test their plans through an annual emergency exercise which the Commission routinely audits to verify competencies and capacities suitable for the operation.

The [Emergency Preparedness Fact Sheet](#) provides emergency response and safety information and the [Commission's roles and responsibilities during incidents](#).



# Concerns and Complaints

## Pre-Permit Concerns

Land owners and applicants are strongly encouraged to discuss all aspects of proposed activities prior to negotiating an agreement and prior to the submission of an oil and gas application. If a land owner finds any part of the consultation and notification process or any oil and gas activity and its potential effects on quality of life unclear, they may contact Community Relations staff at the Commission who are able to assist with their concerns, and explain the application process, as well as what to expect post-decision.



Contact the Commission's Community Relations staff at <https://www.bcogc.ca/contact/>.

## Post-Permit Concerns

If a land owner experiences issues with an oil and gas activity already underway, they should first contact the company to report the issue.

Depending on the nature of the complaint, a Commission Compliance and Enforcement Officer may conduct a site inspection or place a call to the company. Concerns of a more urgent nature, such as odours, can be reported to the Commission's Duty Emergency Officer by calling 250-794-5200. If necessary, the Commission will issue remedial or stop-work orders when oil and gas activities are considered to be in contravention of the law.

The Commission's [Compliance and Enforcement web page](#) provides information on inspections and enforcement actions undertaken by Commission staff.

**Complaints may be registered by phone, mail, or in person to either of these Commission locations:**

### FORT ST. JOHN OFFICE

6534 Airport Road  
**Ph: 250-794-5200**  
**24 hours a day, 7 days a week**

#### Mailing address

BC Oil & Gas Commission  
OGC Bag 2  
Fort St. John, B.C.  
V1J 2B0

### DAWSON CREEK OFFICE

#3, 1445 - 102nd Ave  
Ph: 250-795-2140

#### Mailing address

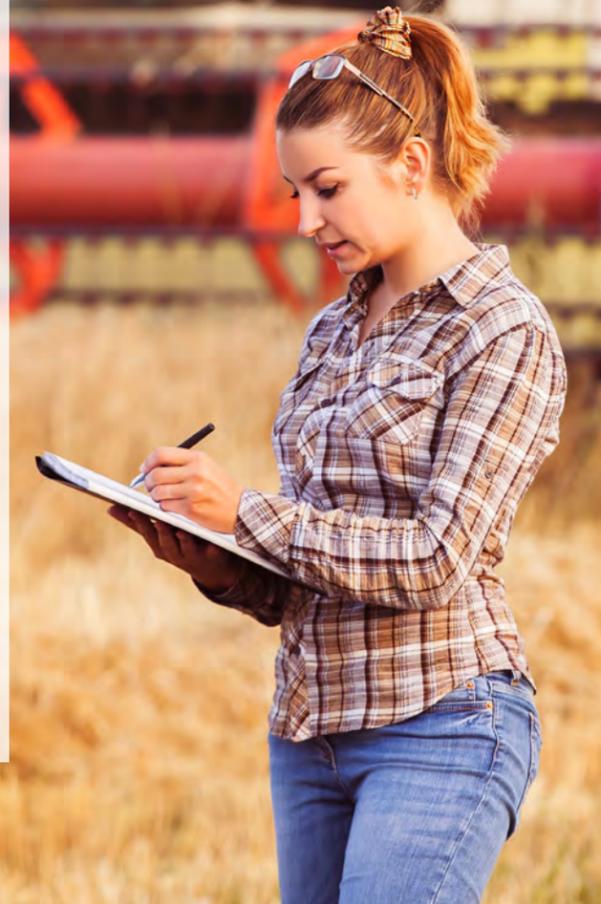
BC Oil & Gas Commission  
#3, 1445 - 102nd Ave  
Dawson Creek, B.C.  
V1G 2E1

If the issue is beyond the scope of compliance and enforcement (the land owner and company are not communicating effectively), the Commission's mediation service may be able to help resolve differences. This service also provides an additional level of post-permit support in cases where land owners and industry are not able to agree on remedies for operational complaints and site restoration. It is a confidential process with an experienced in-house Commission mediator to bridge the gap between existing services for stakeholders during the permitting process and managing differences through the life cycle of energy resource development activities.

To learn more about this mediation service, email [mediation@bcogc.ca](mailto:mediation@bcogc.ca) or call 250-794-5200.

**When gathering information regarding complaints, it is helpful if the following information is provided:**

- Description of the nature and extent of the problem.
- Date and time the problem was first noticed.
- Location of the issue (town, section, township, range, etc.).
- Possible causes of the problem, if known.
- Name of the permit holder operating in the area, if known.
- Description of any prior contact with the permit holder regarding the problem.
- Complainant contact information (name, telephone number, address).
- Any additional information that may be relevant.





This guide does not take the place of applicable legislation. Readers are encouraged to become familiar with acts and regulations relevant to their situation and to seek clarification from Commission staff when necessary.

The Commission cannot provide legal advice, nor can it mitigate issues or concerns outside of its jurisdiction. If a land owner reports concerns outside of the Commission's mandate, they are transferred to the appropriate agency responsible. This includes WorkSafeBC, the Ministry of Environment and Climate Change Strategy, Fisheries and Oceans Canada, Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Ministry of Transportation and Infrastructure, or the Surface Rights Board.

This guide is a living document and will be updated to ensure it remains a relevant resource for land owners.

An online version with active links is available at [www.bcogc.ca](http://www.bcogc.ca). If you feel this document can be improved, please contact the BC Oil and Gas Commission.



Discover how we regulate energy in B.C.