

## 5. Completing Application Information Details

Application information supports the activity application and may be required depending on the application type and/or location of the oil and gas and associated activity. This chapter provides detailed instructions of the Regulator's requirements for completing information details related to all of the activities included in an application in the AMS.

Each section of this chapter provides an overview of application information section, definitions and requirements to support the activity listed below. Application information detail requirements (and corresponding section number) in this chapter includes:

- 5.1 Administration
- 5.2 Land
- 5.3 Agriculture
- 5.4 Forestry
- 5.5 Archaeology
- 5.6 Stewardship
- 5.7 Maps and plans
- 5.8 Attachments

Consultation and engagement with land owners, rights holders and First Nations are also application information tabs but due to the specifics and importance of the pre-planning requirements, they are detailed in Chapter 6 of this manual.

Application Information specific tabs are visible and available to populate once spatial data is uploaded as required for a new (or amendment) application. Data fields and application requirements are based on the activity being applied for. The validation functionality assists in ensuring all components of the application are completed. The requirements for the activity tabs are detailed in Chapter 4 of this manual. The Application Management System is designed to spatially derive geographic location and coordinates when the spatial data is uploaded during the application creation stage which triggers activity and land information. A globe symbol references data fields that are spatially derived.

## Application Management System Administration Tab

### 5.1

Information relating to the company representatives (and consultants) involved in application development is captured on the administrative tab. Anyone providing information on behalf of an applicant, and who wishes to access the application, must be registered and appropriate security roles assigned in the Regulator's corporate registry in order to be selected in AMS. For more information on this registration process, see Chapter 2 of this manual.

If the applicant company provides the representative with application security roles within the Regulator's corporate registry, the representative is able to view applications for which they have been included as a representative, and contribute application data or information.

- Contact information is mandatory for the following representative types: an archaeology contact, if the application contains an archaeological component,
- an engineering contact, if the application contains an engineering component, and
- a registered forest professional contact, if the application falls within a timber harvesting land base and new cut is required.

These contacts are identified as the individuals who provided information under their professional reliance within the application and will receive an e-mail notification and an attached report relevant to the information provided upon submission of an application to the Regulator.

### Please Note:

This manual is written as a whole and available to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

# Chapter 5.2

## Completing Application Information Details: Oil and Gas Land Use

### Land Tab

#### 5.2

The Application Management System includes an application-level land tab to capture land information for an entire application (including land for each activity in the application). Each activity also has an associated land tab, to capture land information specific to each activity at the activity-level; which then populates into the application-level land tab. The Regulator uses this information to support various reviews carried out on an application, and to support tenuring of Crown land area, where required.

#### **Please Note:**

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## Agriculture Land Reserve Information Tab

### 5.3

Submission of an application for an oil and gas or associated activity within identified agricultural reserve lands must include additional application deliverables specific to agricultural land. The required ALR deliverables vary based on the planned activity.

The agricultural land reserve tab requires specific application information details. This section includes an overview of the agricultural land reserve, guidance regarding agricultural land reserve planning and design, details related to agricultural land reserve specific application requirements and detailed instructions for completing the data fields within the agricultural land reserve tab.

#### **Please Note:**

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

#### **Please Note:**

The [Oil and Gas Activities Act](#) defines both oil and gas activity and related activities. The Regulator uses the term “associated oil and gas activities” in Section 4.6 of this manual to refer to some related activities associated with primary oil and gas activities. The ALC-OGC Delegation Agreement and other guidance documents use the term “ancillary activities” to define associated oil and gas activities and ancillary activities.

### 5.3.1 Agricultural Land Use Defined

The Agricultural Land Reserve (ALR) is a provincial zone in which agriculture is recognized as the priority use. ALR is a designation of land under the [Agricultural Land Commission Act](#) (ALC Act). The purpose of the ALR is to preserve agricultural land; its boundaries are based on the agricultural capability of the soil, not on the current use or ownership of the land.

#### ALC-OGC Delegation Agreement

The Agricultural Land Commission (ALC) is the B.C. provincial agency responsible for the administration of the ALR. The ALC and the Regulator have signed a delegation agreement designed to further the one window regulatory approach for the oil and gas sector in British Columbia.

The ALC-OGC Delegation Agreement (Delegation Agreement) delegates limited authorities to the Regulator under the Agricultural Land Commission Act (ALC Act) to authorize non-farm use of agricultural lands for oil and gas activities within the Northern Rockies and Peace River Regional Districts. The Delegation Agreement also exempts some oil and gas activities and ancillary activities from the requirement of an application for permission for non-farm use of ALR lands, where the prescribed criteria are met.

Before beginning the application submission in the Application Management System, determine if the proposed development is exempt from ALC application for non-farm use under the Delegation Agreement.

**Please Note:**

The Delegation Agreement does not apply to proposed developments related to pipeline projects regulated by the Canadian Energy Regulator; therefore, no ALR Schedule A report or Appendix II Rationale Statement is required for these types of activities.

The Delegation Agreement applies only within Northeast BC. Applicants submitting applications outside of Northeast BC that impact ALR lands must acquire ALC approval prior to the Regulator adjudicating on the associated oil and gas or related activity application.

## **Determining Exemption from ALC Act Application Requirements**

Appendix I of the Delegation Agreement describes categories of oil and gas activities and ancillary activities requiring applications under the ALC Act, or exempt from this requirement. Applicants should use this table in determining if a proposed development is exempt from requirements related to an application under the ALC Act. For reference, proposed developments exempt from application under the ALC Act for non-farm use, and those requirements related to an application under the ALC Act, are listed below (numbering corresponds to Appendix I of Delegation Agreement).

- 1) Oil and gas activity and ancillary activity sites (other than items 4 and 6) for which, on a section basis or equivalent, the combined total area occupied by existing and proposed activities is  $\leq 20.0$  hectares.
- 3) Pipelines or electric power lines that are buried, power lines that are immediately adjacent to access roads.
- 5) Conversion of an existing oil and gas activity site to an oil and gas activity or ancillary activity site that is listed in (i) – (v) below, for which no new land is required.
  - i. Facilities (including gas processing plants) that handle product from more than one facility or well site.
  - ii. Camps.
  - iii. Sumps.
  - iv. Borrow/aggregate extraction sites.
  - v. Produced-water / fresh water storage sites.

**Please Note:**

Non-farm uses that are exempt from the requirements of an application under the ALC Act for permission for non-farm use are subject to the conditions for reporting and reclamation set out in Section 4.3 of the Delegation Agreement. The applicant is still required to submit a Schedule A report and include an Appendix II Rationale in the ALR tab.

As per Appendix I of the Delegation Agreement, the following require an application to the Regulator, under the ALC Act for non-farm use permission:

- Item 2) Oil and gas activity and ancillary activity sites (other than items 3 and 5) for which, on a section basis or equivalent, the combined total area occupied by existing and proposed activities is > 20.0 hectares.
- Item 4) Electric power line that is not immediately adjacent to access roads.
- Item 5) Conversion or expansion of an existing oil and gas activity or ancillary activity, or a new oil and gas activity or ancillary activity that is listed in 5 (i) – (v), for which new land is required and the total project (lease) area is >3.0 hectares.
- Item 6) Oil and gas waste storage, treatment, and/or disposal facility that is operated by a person who is not a producer, or a conversion or expansion of such a site for which new land is required.

**Applications under ALC Act for Non-Farm Use**

If the proposed activity requires an application under the ALC Act, the applicant is required to attach further deliverables to the agriculture tab (no separate application is necessary). These include referrals and responses from pertinent local governments (Peace River Regional District and/or Northern Rockies Regional Municipality), and the Ministry of Agriculture, in addition to a Schedule A Report and Appendix II Rationale. Upon receipt of the application and prior to making a decision under the ALC Act, the Regulator considers input from local governments and the Ministry of Agriculture referrals and also the Schedule A and Appendix II Rationale. This review is carried out concurrently with the review of the entire application.

To determine the category of oil and gas activities or ancillary activities using Appendix I, applicants may need to complete area calculations to determine, on a section basis or equivalent, the combined total area occupied by existing and proposed oil and gas activities.

Refer to page 12 of the Delegation Agreement for more information regarding area calculations.

All existing and proposed oil and gas activities and associated activities should be included in calculations of combined total area, except:

- Pipelines (if underground), including temporary workspace required for construction purposes reclaimed at the same time as the pipeline right-of-way.
- Single riser site that is directly related to the operation of a pipeline and is less than or equal to 0.1 ha.
- Electric power lines with single-pole structures.
- Seismic lines (including cut lines made by hand or machine in the course of geophysical exploration) and temporary use sites for geophysical exploration (including camps) where the seismic lines and sites are immediately reclaimed following the completion of the geophysical exploration, if such reclamation is required by permit or by OGAA.
- Temporary winter access that is constructed in frozen conditions where no roadbed development is required, and
- Temporary use sites for ancillary activities (for example, log decking sites, workspaces, campsites, geotechnical investigation areas, storage sites, etc.) where:
  1. The site is only used during the construction phase of an oil and gas activity, and will be immediately reclaimed following the completion of the construction phase of the oil and gas activity.
  2. No surface soil stripping or significant compaction or rutting (as compared to adjacent site) is reasonably expected to occur, and if such things do occur, the disturbed area is immediately reclaimed; and
  3. The site is available for farm use after the construction phase of the oil and gas activity has been completed.
- Areas for which a Schedule B report declaring reclamation as completed has been accepted by the BCER.



## 5.3.2 Agriculture Requirements for Various Application Types

### New OGAA Applications

Required ALR application deliverables, including additional deliverables for an ALC Act Application for Non-Farm Use (where required), must be submitted on the agriculture tab in the Application Management System. Where OGAA activity applications include AOGA activities, ALR deliverables must include consideration of these areas.

### New Applications for Associated Oil and Gas Activities on Crown Land

For AOGA applications, related to OGAA activity; but submitted as a single activity application, required ALR application deliverables, including additional deliverables for an ALC Act Application for Non-Farm Use (where required), must be submitted on the agriculture tab.

### ALR Assessment for Associated Oil and Gas Activity Sites on Private Land

Where a proponent plans to use private land within the ALR for the purpose of an AOGA and if an application is being made separately from an OGAA application, an Agriculture Assessment application ('ALR Assessment' application type) is created in the Application Management System. When submitting this application, required deliverables are limited to spatial and agriculture related details. ALR application deliverables are similar to those for new OGAA applications. The use of the agriculture assessment application type is considered an exception. The recommended standard process is to include AOGA on private land with an OGAA activity application.

**Please Note:**

For AOGA sites on private land, the Regulator does not grant permission to carry out the activities (e.g. construct a borrow pit), but may grant permission for non-farm use of ALR land or acknowledge that the AOGA is exempt from an ALC Act Application for Non-Farm Use.

**Amendments**

When submitting an amendment application associated with an OGAA permit, associated oil and gas activity, applicants must submit amended ALR application deliverables, including amendments to ALC Act authorizations (where applicable).

### 5.3.3 Agricultural Land Reserve Information Requirements

This section outlines requirements for agricultural land reserve information. Requirements are dependent on the characteristics of each application and are outlined in full details below including a description, details of additional information and requirements. In most cases, the details are input into the agricultural land reserve tab, but may require the upload of an attachment to support the details including:

- Appendix II rationale statement.
- Schedule A report.
- Referrals from Ministry of Agriculture and local government.

Attachments must meet specific size and file formatting restrictions in order to be uploaded correctly as defined in Section 5.8 of this manual.

**Appendix II Rationale Statement**

When planning oil and gas activities on ALR lands, applicants are expected to minimize disturbance to ALR land and agricultural operations by limiting the extent of disturbance to what is necessary to safely and appropriately conduct the activity. Appendix II of the Delegation Agreement provides a hierarchy of land types where oil and gas activities should be located to minimize impact on

agricultural operations. Ultimately, minimizing impact on agricultural operations is achieved by determining the optimal combination of total area disturbed and location of the activity in relation to current and planned agricultural operations and agricultural capability of the land.

In making an application to the Regulator for permission to carry out an oil and gas activity on ALR land, applicants must submit an Appendix II Rationale statement. This statement should clearly identify how the design and location of the proposed oil and gas activity addresses the guidelines set out in Appendix II of the Delegation Agreement.

#### **Please Note:**

The Appendix II Rationale textbox in the ALR tab is character limited. It may be necessary to upload the rationale as an attachment in order to clearly demonstrate how the guidelines set out in Appendix II of the Delegation Agreement have been met.

#### **Schedule A Report**

Schedule A Reports are required for all activities located on ALR lands, with the exceptions listed in Schedule A of the Delegation Agreement. A Schedule A Report is intended to outline and record the predevelopment assessments and conservation planning carried out by the project proponent with respect to ALR lands. These reports must be prepared and signed by both a Professional Agrologist in accordance with the Professional Governance Act and the applicant, and are intended to include the following information:

- Area assessment: to link with Appendix II guidelines and document current land resource and agricultural use in the area of the application to aid in planning the activity location in a manner that minimizes agricultural impacts.
- Predevelopment site assessment: to document baseline site information for soil management and reclamation planning.
- Recommendations for soil conservation: based on an analysis of planned developments using the baseline site assessment.
- Reclamation planning.

For most applications, all items listed above are required. However, if the proposed oil and gas activity and/or ancillary activity is located entirely on an existing site, a subset of this information may be required. Schedule A, Table 1 of the Delegation Agreement provides detailed instructions to use in preparing a Schedule A report and report requirements.

Please note: As of September 1, 2022 all Schedule A reports must be prepared and signed by a Professional Agologist registered with the BCIA.

## **Area Assessment**

An area assessment aids in planning the location of oil and gas activities to minimize the impact on agricultural lands by associating the activity planning guidelines set out in Appendix II of the Delegation Agreement and documenting current land resource and agricultural use in the area. The area assessment consists of a 1:20,000 scale or larger recent air photo or satellite imagery base showing the surface land use and on which the following features are plotted:

- Agricultural capability units.
- Agricultural use, residences, and farm buildings.
- Existing oil and gas activities and ancillary activities.
- Linear features, including roads and pipelines.
- Quarter section boundary lines, land ownership information and farm units.
- Surface water features and other significant terrain features that may limit development.
- Location of the proposed activities.

For more information regarding area assessments, refer to the Delegation Agreement. An example area assessment is shown in Figures 5-A and 5-B.

#### **Please Note:**

For applications on private land where the land owner will not grant surface access for the purposes associated with the preparation of a Schedule A Report, the minimum application deliverables are an area assessment and an Appendix II Rationale. The Regulator will consider this material when making a statutory decision on the proposed activity, and will require the applicant to submit a completed Schedule A after gaining surface access to the land. In these cases, disturbance to the land will not be allowed until after the Regulator has reviewed the completed Schedule A Report.



Figure 5-A: Area Assessment Example

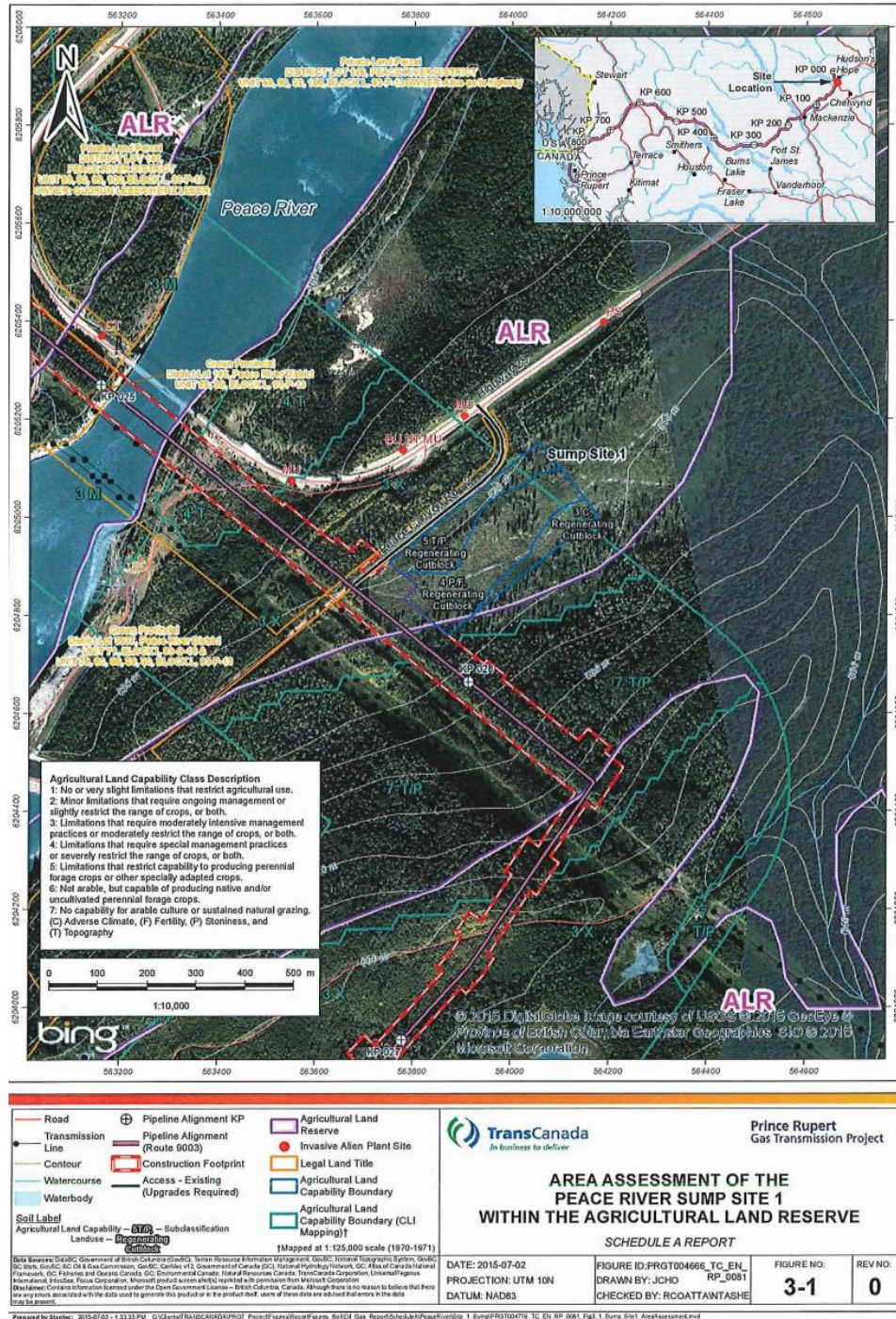
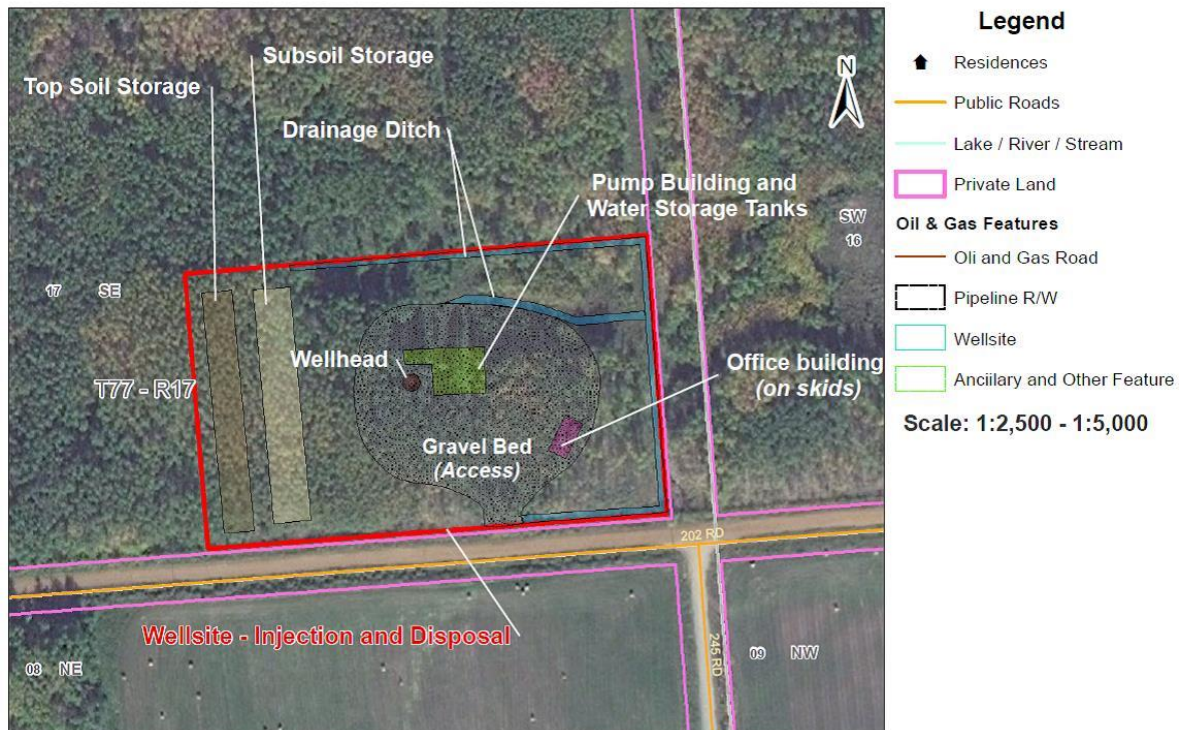


Figure 5-B: Area Assessment Example



## Site Assessment

A site assessment documents the site information for soil management and reclamation planning and at a minimum must include:

- Site information.
- Site description.
- A description of sampling procedures used to carry out the soil assessment.
- Soil assessment.
- Invasive plants information (if the site assessment is conducted during the growing season).
- Maps.

For a more detailed description of information required in a site assessment and required sampling procedures, refer to pages 18-20 of the [Delegation Agreement](#).



## Recommendations for Soil Conservation

The site assessment should include any site specific measures for the construction and production phases that are recommended to achieve effective and efficient restoration as required under the Schedule B of the Delegation Agreement, including measures relating to:

- Topsoil stripping depths and storage.
- Preventing or controlling erosion and compaction.
- Surface water management.

## Reclamation Plan

The reclamation plan provides a brief description of how the site will be restored once it is no longer required for the oil and gas activity. The reclamation plan must include:

- Post oil and gas activity land-use objective.
- Soil handling.
- Re-vegetation.

Specific reclamation criteria for lands within the ALR are found in the site reclamation requirements as part of the Schedule B section in the [Delegation Agreement](#).

In cases where developments are planned on private land, a Schedule A report must be filed with the surface land owner and with the Regulator.

## Please Note:

Please note: Landowners are directly affected by proposed developments and they must be consulted about construction methods and reclamation plans when preparing the Schedule A Report. For further information please see the [Delegation Agreement Q&A](#) and page 16 of the Delegation Agreement.



## Referrals to Ministry of Agriculture and Relevant Local Government

In preparation of an application that is not exempt from an application under the ALC Act, applicants are required to engage and gather comments from the B.C. Ministry of Agriculture and the relevant local government (Northern Rockies Regional Municipality or Peace River Regional District, depending on the location of the proposed non-farm use).

To carry out this engagement, applicants must provide the Ministry of Agriculture and the relevant local government with a referral package and cover letter. Applicants must then allow 21 days for response prior to submitting their application to the Regulator. Copies of any responses received by the applicant, and copies of the referral cover letter, must be attached to the application submitted to the Regulator on the agriculture tab. Applicants may submit their application to the Regulator prior to the elapse of 21 days referral time line, with written approval from an Authorization Director, providing that the full referral package will be submitted after the 21-day referral period.

Contents of the referral package must include:

- Referral package cover letter.
- Copy of the ALC application printout of the ALR Assessment Details tab in AMS.
- Schedule A report and Appendix II rationale.

Referral cover letters must include:

- Applicant company name and contact info.
- Statement that the referral is being sent to satisfy the requirements of the Delegation Agreement.
- A short description of the proposed project.
- Statement describing why an ALC application to the Regulator is required.
- A statement indicating a 21 day response period.

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### 5.3| Completing Application Details: Agricultural Land Reserve

- Instructions on how to submit a response or request further information.
- Statement indicating that responses may be submitted to the applicant of the proposed activity or directly to the Regulator. Responses to the Regulator are emailed to [ALR.Referrals@bc-er.ca](mailto:ALR.Referrals@bc-er.ca).

If a concerned response from the Ministry of Agriculture or relevant local government is received during the 21 day response period, applicants are encouraged to further engage the responding party and attempt to resolve issues or concerns raised. The Regulator may further engage these parties during application review.

A [Local Government ALC Referral Letter Template](#) can be found on the Regulator's website.

# Chapter 5.4

## Completing Application Information Details: Forestry

### Forestry Information Tab

#### 5.4

Submission of an application for an oil and gas or associated activity may include additional application deliverables specific to forestry, if new cut is required.

The forestry tab requires specific application information details. This section includes an overview of forestry information, guidance and details related to forestry specific application requirements and detailed instructions for completing the data fields within the forestry tab.

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### 5.4.1 Forestry Information Defined

The Regulator issues cutting permits to facilitate the cutting of timber required as part of the construction of proposed oil and gas or associated activities on Crown land. Cutting permits are issued under a Master Licence to Cut (MLTC), and stumpage is payable according to the applicable (interior or coast) appraisal manual.

## 5.4.2 Forestry Information Requirements

The Application Management System requires input of information to inform a decision to issue an authorization for a cutting permit for applications where new cut is required on Crown land.

Authorizations for cutting permits can be applied for and issued with the permission or authorization to carry out the primary or associated activity by populating the Forestry Tab within the OGAA or CER application. Alternatively, applicants may choose to submit a separate Forest Act Application.

The Forest Act application can be used in scenarios where a new cutting permit or changes to an existing cutting permit (with no modifications to the existing permissioned area) is required. Some additional scenarios where only changes to the Forestry authorization may be needed include: transfers; expired cutting permit(s); expired Master Licence(s) to Cut and where new cut is required only over MoTI areas.

The Regulator does not issue cutting permits for activities on:

- Timber Reserves on private land

In these areas, cutting permits must be issued by the Ministry of Forests through the land owner. When preparing applications for submission to the Regulator in these areas, applicants should not include these areas in new cut area calculations.

### Harvesting within Woodlots & other Area Based tenures:

Upon engagement, if the Woodlot holder, or other Area Based Tenure Holders is not interested in the cutting and removing of timber on the site of the proposed oil and gas activity, and with the tenure holder's consent, a CP associated with the proponents MLTC may be issued.

If area over a woodlot is required with the cutting permit in an application, the

proponent must include this area as new cut in the application. To avoid delays in the review of the application, the proponent should include correspondence regarding the woodlot holders consent with the application.

If an agreement cannot be reached between the two parties, the oil and gas proponent should inform the BCER prior to, or upon application. Once the BCER is satisfied that an agreement is not achievable, they can submit a request to the appropriate DM requesting that the identified area be deleted from the Woodlot or other Area Based Forest Tenure.

### Activity Area Overlapping Ministry of Transportation and Infrastructure Right-of-way

The Regulator issues cutting permits for any new Crown land disturbance within Ministry of Transportation and Infrastructure (MoTI) unconstructed road allowances and/or MoTI rights of way. Both unconstructed and constructed road allowances and/or MoTI rights of way must be clearly marked in the body of the construction plan and included as a separate area item in the construction plan area table. The Regulator will not issue land tenure over MOTI right-of-way. The area within the road allowance must be reflected in spatial data submitted for the application as per the Spatial Data Submission Standards manual.

#### Please Note:

The submission of an MOTI polygon in AMS is mandatory when an applicant requires new cut within the MOTI right-of-way. If the application does not require new cut within an MOTI right-of-way, it is not mandatory to include the MOTI polygon.

#### Please Note:

If the proposed activity enters or affects a MOTI right-of-way, consent to carry out the approved activities must be obtained from MOTI before the project begins.

## Amendments

When submitting an amendment application associated with an existing approval, submit amended forestry details where applicable.

Reduction to permitted area of cut does not require an amendment application as this will be addressed through the post construction process.

### 5.4.3 Forestry: Additional Considerations

#### Stumpage

The Ministry of Forests posts appraisal manuals for the interior and coast outlining the process for determining stumpage payable on cutting permits issued for oil and gas development.

Area based stumpage rates are applied to new Crown land areas disturbed for oil and gas activities and related activities as defined in the Oil and Gas Activities Act or authorizations for investigative purposes issued under the Land Act.

The Interior Appraisal Manual Table 6-8 shows the districts where area based stumpage rates apply along with the reserve stumpage rate for cutting authorities with less than 10 hectares of area. For these permits, as-cleared information reported by the permit holder on the post-construction plan or geophysical final plan submission is forwarded to the Ministry of Forests.

Cutting authorities with 10 hectares or more area must use the stumpage rate prescribed in Table 6-3 in the Interior Appraisal Manual.

Refer to the Ministry's [Timber Pricing](#) page for more information and guidance.

#### Stumpage Waste Assessment

Operators cutting Crown timber are required, regardless of utilization, to report and pay the province for the timber. According to the specifications detailed in the Master Licence to Cut, exempted merchantable fibre, outside the Forest Districts described in Section 6.6 of the [Interior Forest Appraisal Manual](#), must have a waste survey completed and ensure stumpage is billed accordingly.

## **Forest Health**

Fibre waste left onsite must be managed to minimize fire and pest risks and must be disposed of at the end of the clearing phase or at the end of the summer fire season, whichever comes first.

## **Post Construction Information**

As a condition of the MLTC, permit holders submit as-cleared information within 60 days of clearing. As-cleared information is submitted to the Regulator as part of the post-construction plan submission requirement. The Regulator forwards as-cleared information to the Ministry of Forests for stumpage billing.

## **Fibre Utilization**

Permit holders are encouraged to utilize merchantable timber harvested during the construction phase of the oil and gas activity lifecycle. For example, timber may be utilized on-site (e.g corduroy, rails, etc.), as coarse woody debris in nearby restoration operations, or be made available to potentially interested third parties. Prior to wasting harvested timber, permit holders should notify potentially interested parties of the size, species, volume and location of available timber. Potentially interested parties may include, but are not limited to, mill operators, forest licensees and local First Nations.

# Chapter 5.5

## Completing Application Information Details: Archaeology

### Archaeology Information Tab

#### 5.5

Submission into the Regulator's Application Management System (AMS) for an oil and gas or associated activity must include application deliverables specific to archaeology as discussed in this section. The required archaeology deliverables vary based on the planned activity. The information entered into the archaeology tab of AMS is to be entered by, or obtained from a permitted professional archaeologist.

#### **Please Note:**

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

### 5.5.1 Professional Reliance and Results Based Archaeology Review

The professional reliance and results based review process at the Regulator was established in 2004 and is designed to support the following objectives:

- Increase the efficiency and effectiveness of the review process.
- Ensure compliance with applicable legislations (Oil and Gas Activities Act (OGAA) and Heritage Conservation Act (HCA)).
- Support clients in the fulfilment of their permit obligations.
- Manage archaeology resources by balancing and considering all land values.

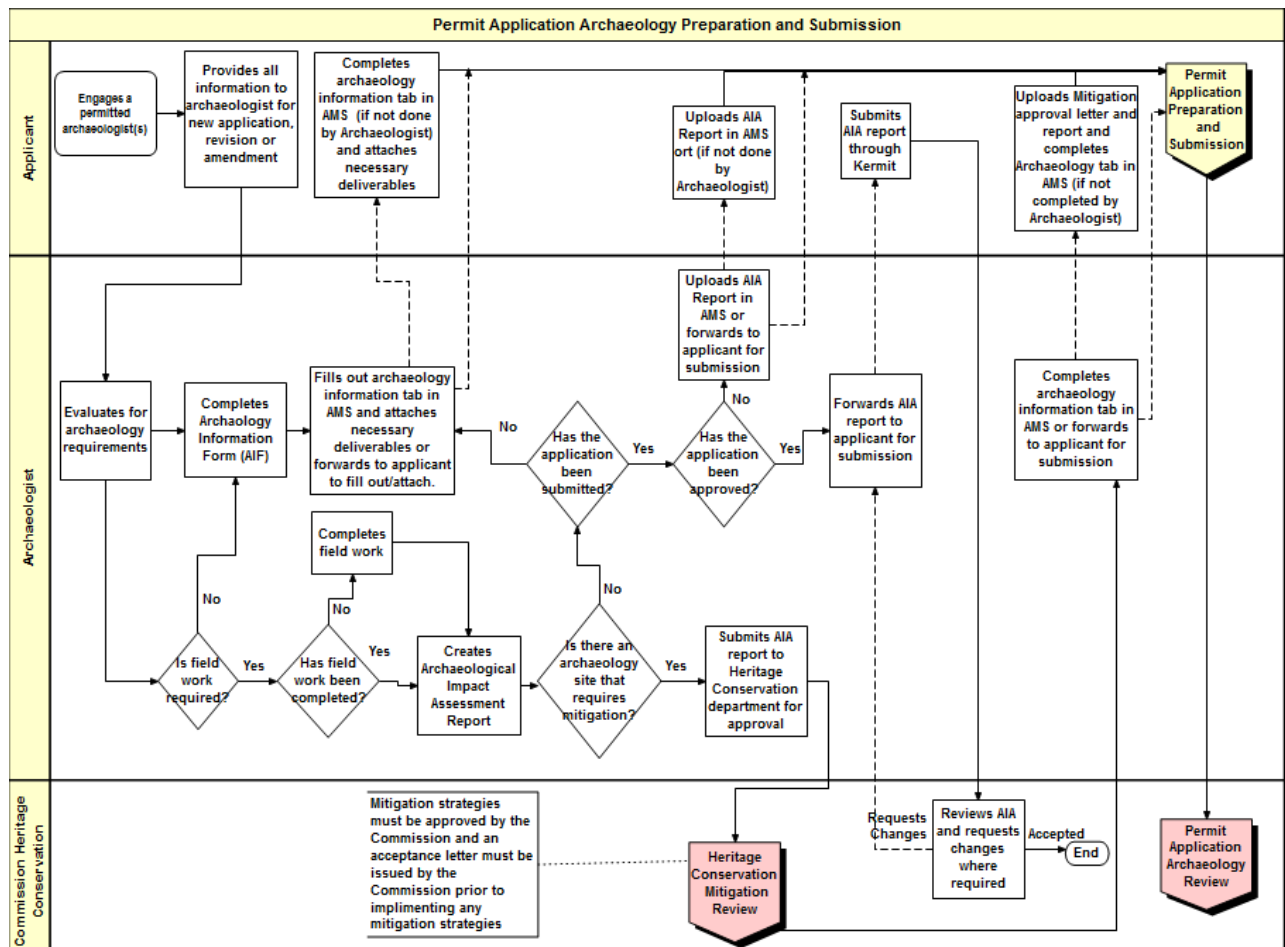


- Guide, evaluate and provide recommendations to improve the effectiveness of client's management systems as they apply to archaeological resources through the Archaeology Audit Program (AAP).

The Regulator's archaeology unit has three main streams of business:

- Application screening and review of archaeology components.
- Business conducted on behalf of the Archaeology Branch of MOF.
- Archaeology Audit Program.

**Figure 5-D Preparation and Submission of Archaeology Requirements**



## Important Preparation and Submission Factors

1. If the archaeology tab is displayed in an application, a permitted archaeologist must be listed on the administrative tab. A professional reliance email notification will be sent to the archaeologist listed on the administrative tab upon submission of the application.
2. A permitted archaeologist must review each application area to evaluate the potential for impacts to archaeological values and identify what, if any, additional work may be required. The Regulator expects applicants to:
  - Engage a reputable archaeology company employing professionals eligible to hold a permit to work in the application area under Section 14 of the [Heritage Conservation Act](#) and specific to the application area.
3. The permitted archaeologist completes the Archaeology Information Form (AIF) designed for AMS and the appropriate data fields within the archaeology tab. An AIF designed for AMS can be found on the Regulator's [website](#) and should be used for all applications when new disturbances are anticipated within an application area. Only applications submitted as an "Administrative Change" do not require an AIF. Administrative Change is defined below, under "Other reference terms".

Ideally, the information on the AIF will be entered into AMS by the applicant's permitted archaeologist and the form submitted to the applicant for confirmation of project information and upload. In instances where the applicant has not granted permissions for their archaeologist to access AMS, either the applicant or their agent will complete the archaeology tab.

Either the oil and gas applicant, their agent or their archaeologist must upload the completed and signed AIF into AMS. The uploaded document should be placed under "Other Archaeology Document."

### Please Note:

The AIF is an auditable document and must include the appropriate HCA Section 14 permit number and the permit holders signature.

4. The submitted information (both within AMS and on the archaeology information forms) are reviewed by the Regulator archaeology staff for accuracy and appropriateness.
5. Archaeology reports resulting from a field investigation (Archaeological Impact Assessment (AIA) or Preliminary Field Reconnaissance (PFR)) may be submitted at numerous points during the application (or pre-application) process, depending on the timing of the field assessment. However, all reports must be uploaded by the applicant or oil and gas activity permit holder as soon as they are received from the archaeologist and preferably at the time of application. Reports must be uploaded under the Archaeology Report dropdown option. For post-permit issuance uploads of archaeology reports, see point 7.

- Reports with no recovery of an archaeology site during an impact assessment:

If no archaeological resources are found during a field assessment the AIA or PFR report must be uploaded as soon as possible, but no later than 60 days after the project construction has been completed. Inclusion of a completed archaeological impact assessment report greatly facilitates a number of reviews during the application process, including the Regulator's archaeology review and the First Nations consultation processes.

- Reports finding an archaeology site during an impact assessment:

If an archaeology site has been found within a proposed development area, an AIA report detailing the field work is due immediately. Construction work must not proceed near the area of concern until the report is approved by the Regulator. The following steps must be followed when archaeological resources are encountered during an archaeological impact assessment:

- i. The permitted archaeology consultant responsible for the field assessment must discuss mitigation strategies with the oil and gas applicant and present the results of the assessment and proposed mitigation strategies within the context of a draft AIA

report.

- ii. The report is submitted to the Regulator for approval of all mitigation strategies pertaining to the new archaeology site. Submissions must be made via [Arch.Submissions@bc-er.ca](mailto:Arch.Submissions@bc-er.ca) for review and approval.
- iii. Once the report has been reviewed, the Regulator provides formal notification to the applicant and the archaeologist regarding approval or decline of the report and recommendations within.
- iv. Once an approval letter is received from Regulator archaeology staff, the applicant must upload the report and approval letter into AMS.

The mitigation review and approval procedures discussed above are currently in place and have been established over the past decade; they have proved to be the most efficient manner to approach site recoveries and facilitate communication among Regulator staff, clients and archaeologists. The only change to the process associated with the implementation of AMS is the required upload of the approval letter.

Since the implementation of AMS in July 2016, the Regulator has observed that the most accurate application submissions for archaeology information are those where the archaeologist has access to and enters the information into the archaeology tab in AMS. Granting the permitted archaeologist application security role permissions greatly reduces the need to move applications into revision.

- 6. Archaeology site alteration permits are reserved for unique scenarios where a project cannot avoid disturbing an archaeology site. The applicant or oil and gas activity permit holder must apply to the Regulator for a permit issued under Section 12 of the Heritage Conservation Act specific to the activity that will be carried out. These permits are applied for independent of AMS and an upload of the permit application into the system is not required at the time of development application submission. However, if prepared upload all documents pertaining to

the Section 12 permit application under “Other Archaeology Document”.

7. To upload an archaeology report post permit issuance, open Kermit External and select the ‘Post Permit Actions’ tab. Under the heading ‘Permits’, click ‘Find Permits’ and enter the AD# or Legacy BCER File#. Press search. Click on the AD# and click the ‘Attachments’ tab. Under the heading ‘Post Approval Attachments’ click on ‘upload.’ An upload prompt will appear, click +Add files and select the file for upload, select document type ‘Archaeological Assessment Report.’ Click ‘start upload.’ Press save.
8. All documents relating to the archaeology component of applications must be retained by oil and gas applicants and are subject to review by Regulator staff during formal or informal audit processes. These records include application information, assessment information and communication documents between the client and the archaeologist.

**Please Note:**

Full processes and expectations for the annual audit of archaeology management systems are outlined in the Regulator’s Archaeology Audit Program Procedure Manual and available online [here](#).

## 5.5.2 Guiding Legislation and Regulations

Applicants are responsible and accountable for ensuring that planning and development activities comply with the [Heritage Conservation Act](#) (HCA), Oil and Gas Activities Act (OGAA) and all supporting Regulator policies and conditions of permit. The Regulator’s archaeology application requirements are based on HCA and OGAA and the Regulator endeavors to ensure applicants remain within these legislative and policy requirements. Special conditions for archaeology may be added to development permits for clients to facilitate the protection of archaeological resources.

All archaeological sites are protected under the HCA. This protection is not affected by an error or omission in the Provincial Heritage Register or by failure to register property in the Provincial Heritage Register. The Heritage Conservation Act protects all archaeological sites whether on private or public lands. Under Sections 13 (1) and (2) of the HCA:

- Archaeological sites are protected against any damage. This protection applies to all sites, regardless of whether they are located on Crown or private lands.

Under Section 36 of the Heritage Conservation Act:

- Anyone found to be in contravention of Section 13 (1) or (2) is liable for a fine or imprisonment.

## **Heritage Conservation Act Site Alteration Permit, Section 12**

Under OGAA a specified enactment with provision for Section 12 of the HCA:

- Section 8 (1) authorizes the Regulator, instead of the Archaeology Branch of MOF, to issue site alteration permits to oil and gas clients when an archaeology site cannot be practically avoided.

This authority is for oil and gas developments within the entire province of B.C. but does not include projects subject to Canadian Energy Regulator (CER) review and approval.

## **Heritage Conservation Act Inspection Permits, Section 14**

The Archaeology Branch of Ministry of Forests issues permits under Section 14 of the HCA, RSBC 1996, c. 187 to all qualified archaeologists who want to conduct archaeological field investigations in the province of B.C. (i.e. those who want to conduct AIA work). The responsibilities relating to these permits are outlined in the application and terms and conditions of the permit.

For archaeologists working in northeast B.C. the Regulator monitors and ensures compliance by archaeologists with the terms and conditions of these permits through report reviews and field visits. A Protocol Agreement between the Oil and Gas Regulator and the Archaeology Branch guides the review of work conducted under an inspection permit. Any breach of permit or deficiency in work is reported to the

Archaeology Branch and may affect future permit eligibility.

Clients hiring archaeologists to conduct assessments on proposed development areas must be familiar with the terms and conditions of the HCA Section 14 inspection permits and sign the permit to acknowledge understanding of the commitment and approach by the archaeologist. Clients should understand that the permit holder must work according to and fulfil the obligations set out within each permit.

### 5.5.3 Supporting Information

#### **Conducting an Archaeological Impact Assessment (AIA)**

Archaeological field work involving survey and sampling (ground truthing and testing) is typically referred to as an Archaeological Impact Assessment (AIA). An AIA is conducted prior to any on-the-ground development activities. An AIA where no testing has been conducted may be referred to as a preliminary field reconnaissance or PFR. The results of an AIA or PFR are detailed in a written report.

An AIA (field testing and verification) may be completed at any time before or during the application and review period or after a permit has been issued. However, all archaeology field work must be completed prior to any ground altering activities.

#### **Compliance as it Relates to a Professional Reliance and Results Based Regulatory Review**

Compliance with the requirements of the Heritage Conservation Act (HCA), , Regulator policies, guidelines or associated legislation and conditions of permit must be adhered to. If a company is found by the Regulator to be in non-compliance with any requirements, the company may be excluded from the expedited archaeology review stream until all issues have been resolved. During this period the client must ensure all archaeological requirements are met and reports are submitted to the Regulator before the archaeology component of the application review will be completed. In other words, development permit will not be issued until all reporting is submitted and approved by Regulator archaeology staff, which could result in significant delays.

These sanctions do not exclude the client from further penalties, which may be imposed by the Regulator or the Province of British Columbia under Section 36 of the HCA.

## 5.5.4 List of Supporting Materials

### Types of reports

**Archaeological Overview Assessment (AOA):** An AOA is largely a desktop review of available literature including reports, ethnographic studies, site inventory records and physiographic mapping. The resultant report describes the subject area's potential for containing archaeological resources and may provide recommendations if appropriate.

### Archaeology Impact Assessment (AIA):

An AIA refers to archaeological field work conducted prior to any on-the-ground development activities. Subsurface shovel testing of areas deemed to have archaeological potential may be conducted to identify archaeological sites within the proposed project area. An AIA where no testing has been conducted may be referred to as a preliminary field reconnaissance or PFR.

### Archaeology Impact Assessment Report (AIA report):

The results of an AIA are detailed in an AIA report.

### Preliminary Field Reconnaissance (PFR):

PFR refers to a field inspection that establishes if a subject area contains archaeological potential. Most often, if a PFR is conducted and the application area is found to contain archaeological potential, the attending archaeology company will perform a full AIA to save time and money for their client.

An archaeologist may also downgrade an AIA to a PFR if the intended AIA area proves to have no archaeological potential. The results of the field inspection would be detailed in an AIA or PFR report.



**Preliminary Field Reconnaissance Report (PFR report):**

The results of PFR are detailed in a PFR report.

**Other reference terms****Administrative Change:**

For the purposes of the archaeology review, an Administrative Change refers to a modification that has no new land-based disturbance activities. Examples of administrative changes are a transfer of road tenure, document corrections, amendment applications with no ground disturbance or clearing activities anticipated and reduction of application area. In the case of a reduced application area, the new smaller applied for area must be contained within the original applied for area. If the reduced area is because of archaeology concerns, an AIF must accompany the revised, amended or new submission. Any revision to components that involve an increase in size, change in shape or position, is **not** considered an administrative change.

**Archaeological Potential:**

Archaeological potential refers to the possibility that archaeological resources may be present within a defined area. Potential is determined through examination of sets of variable criteria that change according to geographic location and geophysical characteristics.

**Archaeology Audit Program (AAP):**

The Regulator conducts audits of oil and gas clients' archaeology management systems. The audit supports a professional reliance and results based regulatory review of the archaeology portions of applications.

**Archaeology Branch:**

The Archaeology Branch of MOF is responsible for distributing archaeological information regarding the management of archaeological resources in British Columbia. In terms of provincial oil and gas projects, the Branch is authorized to issue permits to archaeologists under section 14(2) of the Heritage Conservation Act (HCA).

**Borden Number:**

The Borden Numbering system is a naming convention created by Charles Borden for archaeology sites found in Canada. A unique set of letters and digits are assigned to every new archaeology site as they are recorded in the provincial data base. Based on the geographic location of a site, letters are assigned from a map index and have the following format structure: AaBb-0001. The number after the hyphen indicates the order in which the site was found within a particular Borden Block. For example, the first site found in block AaBb would be assigned AaBb-0001, the second AaBb-0002 etc.

**Heritage Conservation Act (HCA):**

The HCA is the legislation that protects heritage property in British Columbia. Under Sections 13(1) and (2) of the HCA, archaeology sites are protected against any damage. This protection applies to all sites, regardless of whether they are located on Crown or private lands. Under Section 36, Offence and penalty, anyone found to be in contravention of Section 13 (1) or (2) is liable for a fine and/or imprisonment. This protection is not affected by an error or omission in the Provincial Heritage Register or by failure to register property in the Provincial Heritage Register.

**Permitted Archaeologist:**

An experienced archaeologist who holds a permit under Section 14 of the HCA. For the purpose of conducting archaeological impact assessments. Clients are expected to engage an archaeologist with a valid permit within the area of application for all review and recommendations.

**Professional Reliance and Results Based**

This approach to application review for archaeology was introduced to facilitate the processing of applications without delaying entire applications for archaeology requirements. The professional reliance review process for archaeology at the

Regulator is based on the assumption that oil and gas clients contract permitted archaeologists to provide recommendations that are then passed on to the Regulator. Although the onus for protecting archaeological resources is placed on the applicants, the Regulator's archaeology unit provides support for both individual application processing and entire archaeology resource management systems.

The Regulator's expedited review allows applications to be processed prior to the completion of archaeological assessments or submission of reports for those assessments. Exceptions and expectations for this advantage may be modified based on situation or performance.

Associated with a professional reliance and results based approach is the Regulator's Archaeology Audit Program (AAP) (see definition for AAP).

**Protocol Agreement with the Archaeology Branch of MOF:**

Under a Protocol Agreement with the Archaeology Branch, the Regulator guides and reviews the work carried out by archaeologists in northeastern British Columbia. The Regulator's jurisdiction is currently restricted to the Fort Nelson, Peace and Mackenzie Forest districts.

**Remote Access to Archaeological Data (RAAD):**

RAAD is a web interface that is used to access archaeological site data and is maintained by the Archaeology Branch of MOF. All recorded archaeological sites within the province of British Columbia are entered into this database. Access to this information is subject to authorization granted by the Archaeology Branch and is limited to government agencies with land or resource management responsibilities, first nation governments, and professional consulting archaeologists. Site information contained within RAAD can be provided to clients, agents etc. by the Archaeology Branch, upon request. Coordinates of sites provided by RAAD should be verified using site maps and location descriptions available via RAAD or from the Archaeology Branch.

**Site Alteration Permits, HCA Section 12:**

A permit may be issued under Section 12 of the HCA if impact to an archaeological site cannot be practically avoided. These permits allow applicants to alter a known

archaeological site within the confines of special terms and conditions outlined in the permit.

Under OGAA a **specified enactment** with provision for section 12 of the HCA, authorizes the Regulator to issue site alteration permits to oil and gas clients when an archaeology site cannot be practically avoided. This authority is for the entire province of B.C. for oil and gas developments and the Regulator's authority is in place of the Archaeology Branch's. The Regulator's powers do not include projects that are subject to Canadian Energy Regulator (CER) review and approval as CER projects are specifically excluded from this provision.

All archaeology forms and documents are found on the Regulator's archaeology manuals, guidelines and forms page at <http://www.bc-er.ca/industry-zone/documentation/Archaeology>

# Chapter 5.6 Completing Application Information Details: Environmental Stewardship

## Environmental Stewardship

### 5.6

Submission of an application for an oil and gas or associated activity must include additional application deliverables specific to environmental stewardship. The required stewardship deliverables vary based on the planned activity.

The stewardship tab requires specific application information details. This section includes a brief overview of stewardship, guidance regarding stewardship planning and design, details related to stewardship information requirements and detailed instructions for completing the data fields within the stewardship tab.

The Regulator's [Environmental Protection and Management Guideline](#) (EPMG) provides specific guidance for applicants and should be thoroughly reviewed in addition to this section of the manual.

#### **Please Note:**

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

## 5.6.1 Environmental Stewardship Planning & Design

Companies must adhere to the [Environmental Protection and Management Regulation](#) (EPMR) of the [Oil and Gas Activities Act](#) (OGAA) in order to conduct oil and gas activities. Section 25(1) of OGAA states:

- The Regulator may issue a permit if, after considering government's environmental objectives, the applicant meets the requirements of those objectives.

The Environmental Protection and Management Regulation (EPMR) establishes the regulatory requirements for stewardship of environmental values and features in the course of carrying out oil and gas activities. The EPMR applies to oil and gas activities on Crown land but does not apply to subsurface aspects of oil and gas activities nor private land.

The EPMG provides guidance for applicants and permit holders in meeting the requirements of the Environmental Protection and Management Regulation.

Applicants and permit holders must plan oil and gas activities to avoid and/or minimize impacts to environmental values, mitigate impact where no realistic opportunity exists to avoid, and/or restore the impacted area to its pre-development state. General protection and management approaches must continue during the operational stages so adequate management controls are in place and monitor operations to identify further opportunities to reduce environmental impacts.

### Government Environmental Objectives

Government's environmental objectives requiring management and protection are identified in the EPMR and further explained in the EMPG and includes:

- Water supply well.
- Riparian reserve zones.

- Wildlife and wildlife habitat areas:
  - Ungulate winter range.
  - High priority wildlife.
  - Wildlife tree retention areas.
  - Wildlife habitat features.
- Old growth management areas.
- Fisheries sensitive watersheds.
- Resource features.
- Cultural heritage resources.

Applicants should provide all relevant information with the application so the Regulator may make an informed decision while maintaining the values identified as Government environmental objectives. The consideration of a material adverse effect or change to an environmental value, whether material or adverse, is considered based on all available information.

## **Area-based Analysis to Guide Planning and Design**

The Regulator's Area-based Analysis (ABA) approach should be utilized when planning for oil and gas activity. ABA approach helps to minimize cumulative impacts on the landscape, reduce the footprint of activities, and shorten restoration / reclamation timeframes on specific resource values.

The Regulator gathers and analyzes existing information and data on development activities in identified areas. Specific resource values such as old forest and riparian reserve zones wildlife areas and old growth management areas are made available at the [area-based analysis information page](#) on the Regulator's website. Applicants should review the information when planning the location of oil and gas activities including:

- Spatial datasets showing the location of enhanced management and regulatory policy areas for use in development planning.
- Current area-based conditions in the development planning area.
- Area-based analysis frequently asked questions.

Projects should be planned to minimize disturbance where possible. For example:

- Use existing disturbance, unless doing so would result in a greater disturbance, greater safety risk, significant operational difficulty and/or negative environmental impacts.
- Consider low impact seismic techniques such as wireless technology and meandering lines.
- Use common access and shared corridors.
- Consider using winter access in old forest and riparian reserve zones.
- Leverage use of directional drilling and multiwell pads to minimize disturbance.
- Implement strategies to expedite reclamation.

During the development planning process applicants should review existing disturbance on the landscape and coordinate where possible to minimize impact on the resource values identified in the area-based analysis.

If an activity proposed in Northeast British Columbia is impacting an ABA enhanced management or regulatory policy area, an ABA specific mitigation plan prepared by a Qualified Professional must be attached to the application. Guidance on completing mitigation requirements is available in the Regulator's [Supplementary Information for Area-based Analysis](#) document.

## 5.6.2 Environmental Protection and Management Requirements

Part 3 of the EPMR prescribes operational requirements applicants must consider and applications must adhere to in relation to:

- Water quality (for operating areas and adjacent areas).
- Aquifers.



- Crossings of streams, wetlands and lakes.
- Deleterious materials into streams, wetlands or lakes (oil and gas activities must not result in any deleterious material deposited).
- Operations within wetlands.
- Natural range barriers.
- Invasive plants.
- Forest health.
- Soil conservation.
- Seismic lines.
- Restoration of operating areas.

Applications must meet these operating requirements. If an applicant requires an exemption on the application according to the provisions of Part 3, an exemption request must be included in the permit application submission to the Regulator.

### 5.6.3 Application Requirements Specific to Environmental Stewardship

#### **Environmental Features Established by Order**

The EPMR (Part 4, Division 2) identifies and establishes environmental features defined through legislative acts and provincial ministerial orders.

The majority of the features are spatially identified. Where an activity is planned within a spatially identified environmental feature area, the Application Management System automatically indicates the intersecting or overlapping features.

While some features established in Section 25 of the EPMR are not spatially identified, all features must be identified during activity planning and included on the activity application construction plan.

Some Part 4, Division 2 features are not formally identified by order; however, applicants should consult the EPMG as some features are established through other mechanisms for planning and operations, when known to the applicant or encountered in the field. Examples include wildlife habitat features and Old Grown Management Areas (OGMA).

If activities are planned to intersect features identified in EPMR Part 4, Division 2, a rationale and mitigation plan prepared by a Qualified Professional must be included as part of the permit application.

### **Areas Established by BCER**

The Regulator has identified environmental features and established these areas as requiring specific application guidance. They include:

- Peace Island Park area is identified as a sensitive area, having high public use and recreation value. For all applications, the Regulator encourages industry to avoid operations in this area. While applications in Peace Island Park are accepted, they are subject to an enhanced review and engagement process.
- Pink Mountain Borrow Pit is identified as an emergency source of water for fire suppression for the town of Pink Mountain. For all applications, the Regulator encourages industry to avoid operations in this area.
- Lynx Creek Boat Launch is identified as an area with recreational value built and maintained by the District of Hudson's Hope. For all applications, the Regulator encourages industry to avoid operations in this area. While applications in the Lynx Creek Boat Launch area are accepted, they are subject to an enhanced review and engagement process.
- Twidwell Bend is identified as an area with public use and recreational value. While applications in Twidwell Bend are accepted, they are subject to an enhanced review and engagement process.

- Wonowon Borrow Pit is identified as an emergency source of water for fire suppression for the town of Wonowon. For all applications, the Regulator encourages industry to avoid operations in this area.
- Aitken Creek Gas Storage Reservoir area is subject to a special project order under OGAA. Well applications in this area which are identified as having planned drilling near or through this gas storage reservoir are subject to an enhanced review. Special permit conditions may be attached to well approvals in this area to protect the integrity of the gas storage reservoir.

Applications in areas established by the Regulator must be submitted with a mitigation plan prepared by a Qualified Professional indicating the strategy for protection of the values identified for the area. Applicants may provide a short explanation in the rationale text box; however, the attached mitigation plans must be prepared and signed by a Qualified Professional.

## **Identifying Water Works, Water Supply Wells and Aquifers**

- Water works and water supply wells: identify all known waterworks and water supply wells within 100 metres of the proposed operating area (excluding geophysical operations) as part of the activity application construction plan. Known waterworks information is obtained from the [BC Geographic Warehouse](#) (BCGW). For private land, waterworks location information is obtained from land owners.
- Aquifers and groundwater recharge areas: Applicants must identify in permit applications all known aquifers potentially impacted by the activity, regardless of the distance from the proposed operating area.

Where water works or water supply wells are within 100 metres of a proposed development, a mitigation plan prepared by a Qualified Professional must be included in the corresponding permit application to the Regulator.

## Activities Intersecting with Resource Management Zones

B.C. Land or Coastal Marine Plans provide increased assurance of, and form the foundation for, balanced solutions meeting economic, environmental, social and cultural needs throughout the province. The plans inform both government decision makers and persons seeking natural resource development opportunities.

Proposed oil and gas activities should be reviewed before application in the context of any applicable Land or Coastal Marine Plan. Projects should conform to the objectives established for the plan management zone in which the project is proposed.

Where projects fall within special management zones or the equivalent, applicants are expected to provide a rationale and mitigation plan prepared by a Qualified Professional detailing:

- Why the activity must occur within the special management zone or equivalent.
- What planning and/or operational measures (present and future) are being taken to mitigate impacts to the values identified for the zone.
- What planning and/or operational measures (present and future) are being proposed to mitigate impacts to the values identified for the zone.

Applicants may provide a short explanation in the rationale text box; however, the attached mitigation plans must be prepared and signed by a Qualified Professional.

## Activities Intersecting Parks, Protected Areas or Ecological Reserves

Oil and gas activity is not generally allowed within parks, protected areas or ecological reserves. However, there are extenuating circumstances where the Regulator may consider applications for activities proposed within these areas.

Before submitting an application for activity within a park, protected area or ecological reserve, applicants should contact the Regulator.

If oil and gas activities cannot adhere to the guidance and recommendations, then justification and a mitigation plan prepared by a Qualified Professional is required. The justification should detail why it is necessary to operate within the park, protected area or ecological reserve, and the mitigation measures that will be implemented to minimize impacts. Park Use Permits issued by the [BC Ministry of Environment](#) and must also be attached to the permit application.

## 5.6.4 Regulatory Exemptions

Exemptions occur where applicants and/or permit holders are pursuing approval for non-compliance with the regulation. If an exemption is requested from regulatory requirements, an exemption must be prepared at the time of application and include:

- Specific regulatory provision requiring an exemption.
- Rationale for exemption (explanation of why an exemption is required).
- Proposed plan prepared by a Qualified Professional showing mitigation strategies to reduce impacts.

If exemptions are approved prior to the application, this approval must be attached to the application.

The Regulator may exempt oil and gas operators from one or more of the environmental protection and management requirements for a specific operating area or an adjacent area. The exemption request must demonstrate that it is not reasonably practicable for the activity to comply with the requirement, and must be reviewed and approved by the Regulator.

## 5.6.5 Guidance Variations

If oil and gas activities cannot adhere to the Regulator's guidance recommendations, a rationale must be included in the permit application, along with specifics of the guidelines not followed, an explanation of why they cannot be followed, proposed plan and mitigation strategies. This rationale and mitigation must be prepared by a Qualified Professional

## 5.6.6 Mitigation Plan Requirements

Mitigation plans outline how potential adverse impacts to a feature, species or value are to be avoided or minimized. This section provides guidance to prepare and submit a mitigation plan as part of a permit application.

Mitigation plans must be completed by the applicant and a Qualified Professional, hired by the applicant. The Qualified Professional must have an appropriate background relevant to the species, feature or value being addressed in the mitigation plan. The mitigation plan relies on a professional reliance model, whereby the professional presents and upholds the appropriate mitigation and the applicant upholds the terms of the mitigation plan as part of the permit.

### Mitigation Hierarchy

In planning oil and gas activities, environmental values should be avoided, minimized, mitigated and/or restored (in that order). The mitigation hierarchy must be followed and a rationale for moving through the order hierarchy must be provided. Strategies should describe the science that supports the effectiveness of the types of mitigation measures being proposed and the validity and reliability of that science. This should include a description of any potential barriers to the mitigation measures being implemented including logistical uncertainty. The mitigation hierarchy is further detailed as:

- Avoidance means to fully avert any potential impact on one or more environmental values resulting from a project or activity. The first priority in mitigation planning is to avoid the impacts to the environmental values

and associated components occurring within the footprint area of influence for the duration of the proposed project or activity.

### Please Note:

If the value cannot be avoided, the proponent must demonstrate the alternative options explored in the location planning stages for the project or activity.

- Minimization means to partially avoid or reduce the level of impacts on one or more environmental values resulting from a project or activity. Minimize is the second level in the mitigation hierarchy, and should be considered only when measures to fully avoid impacts on environmental values and associated components have been duly exhausted, or where avoidance is not practicable given the situation.
- Mitigation includes measures aimed at lessening impacts on environmental components, after steps have been taken to avoid and minimize potential impacts. Measures should consider the same parameters as minimization techniques (above), and should also identify the desired end condition, and how the proposed mitigations will meet those desired end conditions.
- Restoration includes measures carried out within the footprint of the oil and gas activity and would be over and above any restoration requirements under Section 19 of the EPMR. Restoration must attempt to counterbalance or compensate any losses due to impacts on ecological systems. On-site restoration measures should include a description of the future site condition and planning for the future state relative to the current condition. The plan should include time frames to achieve future site condition targets.

A rationale should describe how the various steps in the mitigation hierarchy were considered and why it was considered reasonable to move to the next step in the hierarchy. Moving through the hierarchy may be more of an iterative process and not completely linear, but the intent is to document the rationale and thinking.

## Multiple Environmental Values

Government's environmental objectives include water, riparian reserve zones, wildlife and wildlife habitat areas, old growth management areas, fisheries sensitive watersheds, resource features and cultural heritage resources.

Where multiple environmental values are identified, a mitigation hierarchy rationale and plan must be provided for each value.

## Mitigation Plan Requirements

All mitigation plans must include the following key components:

- Value identification. Identify the species, feature or value potentially impacted by the proposed activity.
- Rationale for the oil and gas activity to operate in a location or in a timeframe that cannot be avoided. When the operations impact a species or value and the location or timing of project cannot be moved, an explanation of why activities are unavoidable and a rationale for not being able to avoid impacting the value must be presented in the plan.
- Site specific information as it directly relates to the project. Include photos and any information to justify the activity.
- Operational modifications and strategies to minimize, mitigate and restore impact to the species, feature or valued identified should be explained. Include an explanation of how the modifications are expected to minimize impacts or reduce risk.
- Project monitoring plan to outline how the effectiveness of the proposed operational modifications are measured, monitored and reported. Include specific benchmarks for measuring and monitoring and contingency plans for alternative planning needs and reporting timelines and responsibilities.

Include any other information including data, information sources, and other relevant information to support the mitigation plan and assist the Regulator in



rendering a decision on the application. Missing components or information not applicable to the specific mitigation plan must be explained and justification for the omission provided within the plan. Indicate component and provide an explanation of why it is not applicable, within the plan. Mitigation plans with missing or incomplete components from the list above will be deemed incomplete and will not be accepted by the Regulator.

All plans must be prepared and signed by a Qualified Professional relevant to the environmental component(s) addressed in the mitigation plan. The Qualified Professional must make a clear determination as to how the proposed mitigation strategy will minimise impacts to the environmental component(s) addressed and provide recommendations of additional monitoring activities that should be implemented to ensure the objectives of the mitigation strategy are met.

# Chapter 5.7 Completing Application Information Details: Maps and Plans

## Maps and Plans Information Tab

### 5.7

Maps and plans support activity applications and the requirements differ depending on the oil and gas and/or associated activity selected as well as the technical and engineering information provided.

Applications should have one map for the entire application, not individual sets of maps per activity within the application.

Applications must include mapping illustrating in detail the location and extent of planned activities, as required. Required mapping information includes the following.

- Construction plans – this is a mandatory requirement for most applications
- 1:20,000 and 1:250,000 plans
- Diversion plan for short term water use applications
- CIAS Sketch plan - Mandatory for all stand alone CIAS applications and technical only amendments that include CIAS. Where CIAS is included in new multi-activity applications or land amendments for OGAA or CER, the CIAS activity may be shown on the construction plan and the CIAS Sketch plan is optional
- Individual Ownership Plan (IOP) for activity on private land.

### Please Note:

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

All construction plans and maps should include the following information, as applicable for the application:

1) Title Block information:

- Applicant company name.
- Project name, if applicable.
- BCGS mapsheet.
- Legal description of the project.
- Date plan prepared (yyyy/mm/dd).
- Scale.
- Version number (i.e.: revision #1, amendment #1).
- Survey company name, address and phone number.
- Sheet numbers (e.g., sheet 1 of 2).
- Survey company job number.
- Survey company drawing number.
- Table of crossings.
- Crossing number.
- Drawing number.
- Approved by and checked by name.
- Project manager.
- Notes.
- Revision information (number, completed by and date of revision).

2) Area block to summarize the following in the legend:

- Total area of Crown
- Total area of private land
- Total area within MoTI rights-of-way.
  - 1. Total area of new cut within MoTI rights of way
- Total area of new cut within any woodlot required to be included with the cutting authorization

- Total area of new Crown land disturbance (excluding the areas of MoTI and woodlot, if broken out separately in the tables)
  - Area of existing Crown land disturbed.
- 3) Scale bar placed above the title block where it will not interfere with the drafted areas.
- 4) Body of the plan should include, as applicable:
- Surveyed Crown land (District Lot Numbers; NTS; DLS legal descriptions, etc., including theoretically surveyed Crown land posted, but not titled), as applicable.
  - Unsurveyed Crown land, if applicable
  - Private land should indicate the owner name, parcel identifier number (PID no.), title number and the areas of disturbance
  - North arrow.
  - Construction corridors and activities within the corridor, the oil and gas activity (e.g. pipeline or well), deck sites, workspaces, brush pushouts, or any other associated oil and gas activities required must be indicated on the construction plan and listed in the plan area tables, etc.. The construction corridor should be indicated on the construction plan, using dashed lines and mark "Construction Corridor". The area table on the construction plan should reference the total area (in hectares) encompassed by the construction corridor; this area will be reflected in the spatial data within the total application areas. See [Figure 3-C](#) for an example.
  - UTM coordinates for the activity; including from and to locations or beginning and end UTM coordinates for all linear proposed projects.
  - Activity specific information (such as disturbance measurements in meters or kilometers), if applicable.

## 5.7.1 Map Detail

This section provides detailed instructions of the Regulator's requirements for maps and plans.

BCGS Map sheet(s) refer to all BC Geographic Series map sheets (BCGS) and must include all areas affected by the proposed activity. Hand sketches are not acceptable as map attachments. In addition to the mapping information listed in section 5.7, maps and plans requirements include:

1) 1:20,000 Maps:

- Project area along with brief description of all proposed areas e.g. "Proposed 10x30m Workspace (new cut)".
- Permitted projects in the area (existing wellsites, pipelines, sumps, associated oil and gas activities or ancillaries).
- All roads including temporary access roads.
- Seismic/Trails.
- Cut blocks and woodlots.
- Contours.
- Trappers, Guides and Range Tenures.
- Water features (including labels).

2) 1:250,000 Access map:

- Access to project
- Access description text box marking out KM to project showing all route changes

3) Diversion map (at appropriate scale) mandatory for all short-term water use water applications to illustrate in detail the location and extent of planned activities. The map should include the following:

- Include access to each point of diversion (POD).
- Show existing tenures impacted. (e.g. Rights Holders as per WSA, tenured water source dugouts)
- Water features.

4) CIAS Sketch Plan (at appropriate scale) to illustrate in detail the location and extent of the changes in and about a stream activity.

## 5.7.2 Construction Plans

Construction plans inform the Regulator about the company's plans for constructing the proposed works, including details about the location and size, associated oil and gas activity sites and other details of the project's development. Applicants must include construction plans with applications. See Figure 5-F for an example of a table of information.

This section provides instructions on the requirements for all construction plans plus additional information required for specific authorizations including facilities, pipelines, wells, roads and water.

**Figure 5-F Sample of Construction Plan Title Block Information**

<b>PROPOSED PIPELINE R/W AREAS REQ'D =</b> _____ Total Area of Private Land (if applicable) _____ Area of New CL		<b>CONSTRUCTION PLAN</b> SCALE 1:"***" 																																							
PIPELINE COORDINATES NAD 83 UTM: STATION 0+***      STATION 0+*** N <sub>1</sub> = XXXXXX±      N <sub>2</sub> = XXXXXX± E <sub>1</sub> = XXXXXX±      E <sub>2</sub> = XXXXXX±		<b>NOTES:</b> The location of underground facilities marked (and depth if applicable) are approximate only. Line locations are subject to errors and distortions from a variety of sources. Before excavating, with machinery, within 5m of the crossing area, facilities involved must be exposed by hand digging or hydrovac. See applicable legislation and company policies. Clients and/or Contractors are responsible to perform BC-ONE-CALL services (1-800-474-4888) prior to construction. Setback Lines shown thus: .....		<b>TABLE OF CROSSINGS</b> <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>																																					
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## 5.7.3 Construction Plan Basic Requirements

In addition to the requirements listed in section 5.7, construction plans must include:

- 1) Label on plan indicating:
  - Dimensions and area of Crown land.
  - Dimensions and area of linear segments, if applicable.
  - Location of Agricultural Land Reserve (ALR), if applicable.

- NTS and/or DLS coordinates (units, block, and group).
- Chainages.
- Deflections.
- Crossing numbers, if any, to correspond to the table of crossings.
- Vegetation changes (brush/tree types).
- Dimensions and area of associated oil and gas activity sites (decking sites, temporary workspaces, etc.), if applicable.
- Cut blocks, range tenures, guide outfitter areas, Indian reserves, coal tenures and all other areas of special interest.

2) Plan diagram to indicate:

- Dimensions and area of Crown land (including any associated oil and gas activity sites).
- Dimensions and area of linear segments, if applicable.
- Location of Agricultural Land Reserve (ALR), if applicable.
- Woodlot area clearly marked.
- Cut blocks, range tenures, guide outfitter areas, Indian reserves, coal tenures and all other areas of special interest should be indicated and labelled on plan.
- NTS coordinates (units, block, group); chainages; deflections; crossing numbers, if any, to correspond to the table of crossings; vegetation changes (brush/tree types) and a North arrow.
- ABA enhanced management and regulatory policy areas for all ABA values.

3) Plan diagram to indicate and classify waterbodies within 100 metres of a proposed oil and gas activity or Crown land application (i.e. campsite, storage site, borrow pit, etc.).

4) Stream crossings are required for all stream and waterbody crossings required to carry out oil and gas activity and identified in the application (Section 11 of the Water Sustainability Act). The crossing number must match the crossing identified in the construction plan. UTM Coordinates (NAD 83 CSRS) must be identified and the name of the stream or waterbody. The crossing number, UTM coordinates and the name of the stream or waterbody must also be identified in the Crossing Table.

### Additional Construction Plan Requirements: Facilities

Construction plans for facility applications must include all roads, right-of-ways, public utilities, easements, road allowances and places of public concourse located within 60 metres of storage tanks and production equipment, and/or within 80 metres of flare stacks and incinerators. The plan must also show drainages and the proximity to the lease, adjacent surface improvements and surveyed polygons of facilities.

### Additional Construction Plan Requirements: Pipelines

Construction plans for pipelines should identify well authorization numbers. Applicants should also indicated previously assessed construction corridors for activity permitted under separate AD #'s.

Construction plans must indicate the constructed and unconstructed MoTI road allowance within the body of the plan and ensure the area table has road allowances separated from the pipeline right-of-way and/or associated oil and gas activity areas. The construction plan area table must clearly indicate the new cut and existing area for road allowances.

Indicate the total hectares of (total area of Crown or private land) what is included on the construction plan, including the right-of-way and any workspaces, pushouts, deck sites, shoofly's, etc.

Indicate pipeline coordinates in NAD 83 UTM CSRS, for example:

- Station 0 + 000 Northing & Easting.
- Station 1 + 123 Northing & Easting.
- Lateral from Station 0 + 035 Northing & Easting.
- Lateral to Station 0 + 456 Northing & Easting.

### Additional Construction Plan Requirements: Roads

Construction plans should include a detailed table of road segments. Road segments must not include more than one land type. For example, a road including a portion on Crown land, a portion within an MoTI road allowance and a



portion on private land would include three segments, with the to and from locations starting at the intersection of the land types. Road segment tables should include:

- Segment land type status (e.g. Crown land, private land, road allowance, woodlot tenure).
- Segment legal description: from and to locations.
- Segment NAD 83 UTM coordinates northing / easting: from and to locations.
- Segment length.
- Maximum segment width.
- Segment area (hectares), broken down by new or existing disturbance.

### **Additional Construction Plan Requirements: Amendments**

Construction plans submitted with amendment applications should show all the changes for the proposed activity.

- Revised construction plans should include a detailed table of amended areas.
- Within body of the revised plan, highlight the amended areas and include a text box with a description of areas amended.

### **Additional Construction Plan Requirements: Wells**

If horizontally drilled wells are selected on the application, both the heel and the bottom-hole location must be provided on the construction plan. If a sump is being applied for with the application, it must also be shown on the construction plan.

## Mapping Requirements Specific to Geophysical Programs

In addition to the mapping requirements for all projects, proposed geophysical projects require the following mapping:

- 1) 1:20,000 Map (or appropriate scale):
  - 2D project maps require UTM (NAD 83 CSRS) or latitude and longitude coordinates at the start and end of each line.
  - 3D project maps require UTM (NAD 83 CSRS) or latitude and longitude coordinates at the corners of the project area.
  - Forestry cutblocks (colour coded to status) and any other overlapping tenure.
  - Mechanical creek crossings.
  - Approximate number of push outs to be constructed; total to be confirmed on the final plan.
  - If heli-assisted operations are proposed, amount and size of helipads must be indicated on the legend; total to be confirmed on final plan.
  - Include staging areas and campsites (if required for less than 100 days).
- 2) 1:250,000 Access Map (this can be inset into the above map or on a separate map):
  - Access to the project highlighted in yellow.
  - Project outline.
  - Trapper boundaries and numbers.

### 5.7.4 Emergency Planning Zone Mapping Requirements

The Emergency Planning Zone (EPZ) map must show details about public facilities and residences (seasonal or otherwise) within the EPZ and the Emergency Awareness Zone, and should match the boundary of the emergency awareness zone. Map sheets scale should be 1:20,000 and should not be larger

than 76 x 122 cm (30 x 48 inches). Inserts to show necessary detail should be used as needed.

The map must show:

- The EPZ (default to the greater of either drilling radius or completion radius for wells).
- The Emergency Awareness Zone (twice the EPZ radius).
- Public or private facilities such as schools, churches, community halls, hospitals, campgrounds.
- Residences and urban centers within the zones.
- Location of trap lines or other tenures (guide outfitter areas, grazing leases, etc).
- Well, facility and/or pipeline location.
- Trails, roads, numbered and named highways, railroads, airports, rivers and lakes.
- All industrial activity sites.
- Known egress issues.
- Other information relevant to an emergency.

# Chapter 5.8 Completing Application Information Details: Attachments

## Application Attachment Information Tab

### 5.8

Attachments uploaded within the Application Management System support activity applications and are required depending on the oil and gas and associated activity selected and the technical and engineering information provided. This section provides detailed instructions of requirements for uploading attachments.

Each activity and application information section in this manual provides specific instructions for attachment requirements. The Attachment tab in AMS allows applicants to view all attachments uploaded within the activity tabs. It is organized by activity and applicants are able to see what was uploaded for each section and what is still required. Applicants may view attachments and/or upload new attachments using this tab while the application is still in the creation stage.

Some attachments are conditional, meaning they must be uploaded on a specific activity or application page and will display under the Attachments tab, categorized by the activity or application tabs.

In some cases, attachments must follow specific formats. For example consultation and notification line lists must use the line list spreadsheet template. Unless otherwise indicated, the Regulator recommends either Word, Excel, jpg or pdf format. File sizes are limited to 50mb.