BRITISH COLUMBIA ENERGY REGULATOR

Supplementary Information for Area-based Analysis

November 2023

Version 1.4

About the Regulator

The BC Energy Regulator (Regulator or BCER) is the single-window regulatory agency with responsibilities for regulating oil and gas activities in British Columbia, including exploration, development, pipeline transportation and reclamation.

The Regulator's core roles include reviewing and assessing applications for industry activity, consulting with First Nations, ensuring industry complies with provincial legislation and cooperating with partner agencies. The public interest is protected by ensuring public safety, protecting the environment, conserving petroleum resources and ensuring equitable participation in production.

Vision, Mission and Values

Vision

A resilient energy future where B.C.'s energy resource activities are safe, environmentally leading and socially responsible.

Mission

We regulate the life cycle of energy resource activities in B.C., from site planning to restoration, ensuring activities are undertaken in a manner that:

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well-being

Values

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

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

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.

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

Additional Guidance

As with all Regulator documents, this document does not take the place of applicable legislation. Readers are encouraged to become familiar with the acts and regulations and seek direction from Regulator staff for clarification.

The Regulator publishes both application and operations manuals and guides. The application manual provides guidance to applicants in preparing and applying for permits and the regulatory requirements in the planning and application stages. The operation manual details the reporting, compliance and regulatory obligations of the permit holder. Regulator manuals focus on requirements and processes associated with the Regulator's legislative authorities. Some activities may require additional requirements and approvals from other regulators or create obligations under other statutes. It is the applicant and permit holder's responsibility to know and uphold all legal obligations and responsibilities. For example, Federal Fisheries Act, Transportation Act, Highway Act, Workers Compensation Act and Wildlife Act.

Throughout the document there are references to guides, forms, tables and definitions to assist in creating and submitting all required information. Additional resources include:

- Glossary and acronym listing on the Regulator website.
- Documentation and guidelines on the Regulator website.
- Frequently asked questions on the Regulator website.
- Advisories, bulletins, reports and directives on the Regulator website.
- Regulations and Acts listed on the Regulator website.

In addition, this document may reference some application types and forms to be submitted outside of the Application Management System but made available on the Regulator's website. Application types and forms include:

- Heritage Conservation Act, Section 12
- Road use permits
- Water licences
- Master licence to cut
- Certificate of restoration
- Waste discharge permit
- Experimental scheme application
- Permit extension application

Table of Revisions

The Regulator is committed to the continuous improvement of its documentation. The table below summarizes revisions to the Supplementary Information for Area-based Analysis document. Revisions are posted to the documentation section of the Regulator's website at the beginning of every month and are effective one month after posting, unless otherwise noted. For more information about the Regulator's monthly revisions, and for details of this month's revisions, please visit the Documentation section of the Regulator's website.

Stakeholders who would like to provide input or feedback on BCER documentation may send comments to ServiceDesk@bc-er.ca.

Posted Date	Effective Date	Chapter	Summary of Revision(s)
July 13, 2015	September 14, 2015	All	This is a new document outlining the Regulator's expectations regarding oil and gas activities within Area-based Analysis zones and the requirement on the applicant to supply an Area-based Analysis mitigation plan.
July 27,2017	September 1, 2017	2, 4	Update of document to include 2017 upgrade to ABA for Wildlife Designated Areas.
June 1, 2018	June 1, 2018	5	Updated to include a new Chapter for ABA OGMA. For more information refer to INDB 2018-12 on the Regulator's website.
Nov.28, 2023	Nov.28, 2023	Various	Replace BCOGC with BCER; OGAA with ERAA; new logos, references and associations

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Preface

About

The Supplementary Information for Area-based Analysis document is intended as a reference for applicants planning to conduct an oil and gas activity and the Regulator's expectations when in an Area-based Analysis (ABA) zone. This document was developed to help oil and gas applicants and survey companies understand the requirements of Area-based Analysis. This document outlines the considerations, development planning, practices, application procedures and desired outcomes related to Area-based Analysis.

For further guidance, users are encouraged to review the ABA FAQs and material on the Regulator's website.

Manual Structure

This Manual is organized into eight parts:

- Chapter 1: Area-based Analysis Overview
- Chapter 2: Permit Considerations and Planning
- Chapter 3: Desired Outcomes and Expectations
- Chapter 4: Specific Guidance for ABA Wildlife
- Chapter 5: Specific Guidance for ABA OGMA
- Chapter 6: Application Requirements
- Chapter 7: Exemptions
- Appendix A: Definitions

Manual Scope

Area-based Analysis currently applies to Crown land and fits within the results-oriented/professional-reliance framework of the Energy Resource Activities Act (ERAA). ERAA and its associated regulations specify the requirements that must be followed in applying for and conducting oil and gas activities. It is the responsibility of the applicant and their qualified professionals (see Appendix A: Definitions) to identify and apply the best technique, method or management practice to meet the requirement.

Additional Guidance

This document has been prepared to provide general guidance for Area-based Analysis. Where circumstances or scenarios arise that are not covered by the document, contact the appropriate Regulator staff for clarification and assistance.

Additional guidance is available in the Area-based Analysis section of the Regulator's website.

Compliance and Enforcement

This document does not replace legislation or affect legislative requirements. All permit holders are ultimately responsible for ensuring they understand and meet all requirements of ERAA, regulations and their permits. Should a person not comply with ERAA, the Regulator may take compliance and enforcement actions. For more information regarding the Regulator's Compliance and Enforcement processes, please refer to the Compliance and Enforcement Manual.

Chapter 1: Area-based Analysis Overview

The Area-based Analysis (ABA) approach was developed by the Regulator as a framework for managing the environmental and cultural impacts of oil and gas development in Northeast British Columbia (NEBC). The approach integrates strategic direction from statutes, regulations and existing land-use plans with identified environmental and cultural values into a framework for assessing oil and gas activity.

To support the Province of British Columbia's cumulative effects defined as "changes to environmental, social and economic values caused by the combined effect of present, past and reasonably foreseeable future actions or events on the land base", the Regulator uses the ABA process during the application planning and review process.

Considering effects on only a project or sector-specific basis can allow unintended impacts to accumulate over time. ABA incorporates key principles embodied in cumulative effects assessment methodology, and will be used as part of the Regulator's application review process. ABA will be used to assess the impact of proposed oil and gas activities considering the combined effects of all development activity.

Area-based Analysis is based on a defined set of values related to environmental and cultural values. The criteria used to identify the initial set of values are based on the following criteria:

- The values are explicit in current legal or policy objectives.
- The data must be available to measure current conditions.
- The condition of a value is affected by multiple industries that are regulated by multiple agencies.
- The data must be available to the public and able to be mapped.

ABA currently supports four environmental values; ABA Riparian Reserves, ABA Old Forest, ABA Wildlife, and ABA OGAM.

The ABA framework evaluates cumulative impacts on the landscape using ecological assessment units (such as Water Management Basins or Natural Disturbance Units). Where development has reached or exceeded pre-defined levels of development within an ecological assessment unit the area is assigned an ABA status of "Enhanced Management" or "Regulatory Policy".

All applications for oil and gas activity within NEBC requiring new land will be assessed using ABA. The Regulator's Statutory Decision Makers (SDM) will use ABA in their evaluation of applications to gauge the potential impact of applications on defined ABA Values.

Using ABA, a Regulator SDM can assess the impact of proposed oil and gas activities on ecological, cultural and social values in the context of all other development activities. Broad landscape impacts on specific resource values can be considered when looking at specific applications or activities, rather than just the localized effects of one permit.

Chapter 2: Permit Considerations & Planning

The overall desired outcome of the Area-based Analysis (ABA) approach is to avoid disturbance to ABA values. Where disturbance is necessary, desired outcomes include:

- Minimal new clearing within the areas defined for the value.
- New clearing positioned close to existing access.
- Limited ground and vegetation disturbance.
- Rapid ecological recovery or reduced time for reforestation and restoration to commence.
- No parallel roads within logical access corridors.
- Minimal number of linear features on the landscape.
- Effective use of existing clearings.

In applying the Area-based Analysis approach to a permitting decision, the Regulator's decision makers will consider if a proposed oil and gas activity impacts an ABA Value Dataset with the ABA status "Enhanced Management" and "Regulatory Policy". Applicants are expected to use the ABA Datasets for ABA Values in their planning activities to avoid or minimize any additional disturbance to these values.

2.1 Planning

To support ABA, the Regulator gathers and analyzes existing information and data on development activities in identified areas. Details about this process can be found at Area-Based Analysis Data and process documentation available on the Regulator's website

When planning an oil and gas activity, applicants are expected to review the following information to determine the current ABA area and status for each ABA Value (such as Old Forest, Wildlife and Riparian):

- ABA Shapefiles showing the location and status of enhanced management and regulatory policy areas.

- The online ABA Status Reports to determine the current ABA status for each ABA Value

The goal of the Area-based Analysis is to maintain conditions in the bottom bar of Figure: 2.1, where applications are subject to routine reviews and operating procedures. When the

enhanced management trigger has been reached and the current condition of the value is determined to be in the middle (yellow) bar, the permitting process is subject to additional review and additional operating procedures may be required.

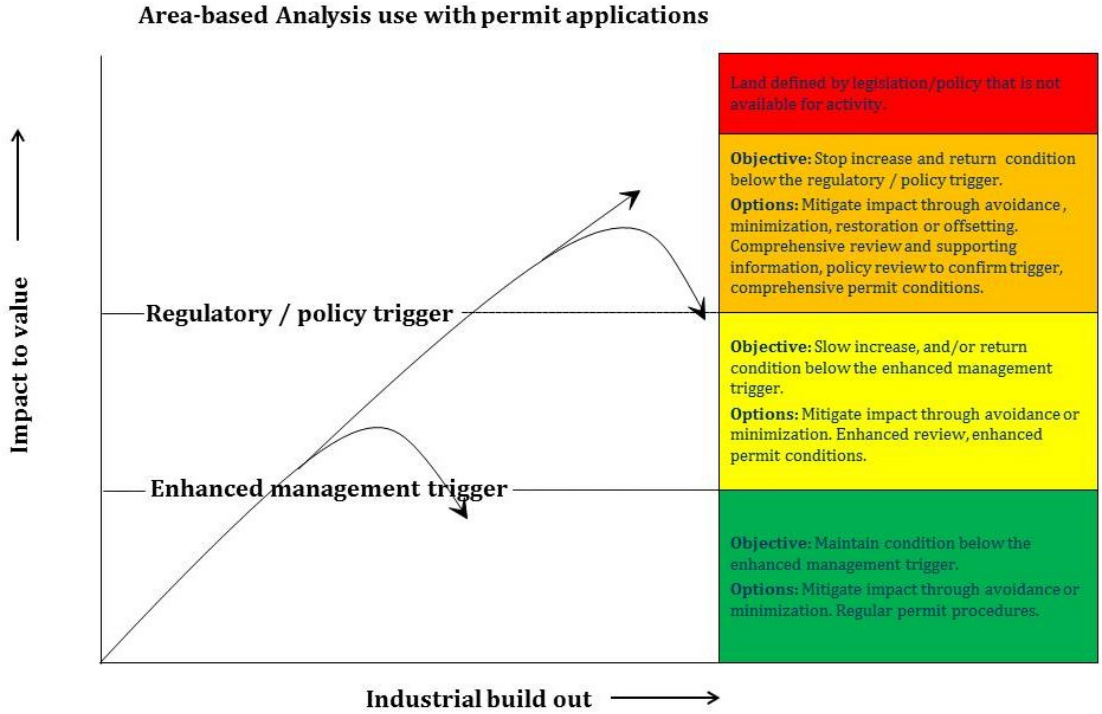

Figure: 2.1 – Area-based Analysis Diagram

2.2 Application Review

The ABA review process determines if a proposed activity will impact an ABA Value, and whether the ABA Status for that area is "Normal," "Enhanced Management" or "Regulatory Policy". The ABA Status is a dynamic value that changes over time based on the combined industrial disturbance and the incremental impact of the proposed oil and gas activity.

2.3 The Mitigation Hierarchy

When the ABA status that is "Enhanced Management" or "Regulatory Policy" the Ministry of Environment and Climate Change Strategy's Environmental Mitigation Hierarchy must be followed to minimize disturbance to the ABA values. Rationale for moving through the hierarchy must be provided by the applicant. General guidance for Mitigation Planning and requirements for a Mitigation Plan can we found in Appendix B of the Environmental Protection and Management Guideline.

2.4 General Guidance for Enhanced Management and Regulatory Policy

Areas that are Regulatory Policy have been identified as having a significant level of disturbance at a landscape level. These areas are considered to be a high risk of cumulative disturbance from all sectors of industrial activity. Avoidance of these areas is expected when planning oil and gas activities. Applications for activity in these areas must be supported by a comprehensive Mitigation Strategy explaining why the area cannot be avoided, and measures that will be taken to minimize and mitigate impacts to the area (as per the Mitigation Hierarchy).

Areas that are Enhanced Management have been identified as having a high level of disturbance at a landscape level. These areas are considered to be at risk of cumulative disturbance. These areas should be avoided wherever possible when planning oil and gas activities. Only activities with no locational flexibility, or no alternate routing, should be considered within these areas. Applications for activity in these areas must be supported by a Mitigation Strategy explaining why development is unavoidable in these areas and measures that will be taken to minimize and mitigate any impacts.

Chapter 3: Desired Outcomes & Expectations

The following matrix summarizes the desired outcomes and expectations of industry in Areas that are identified as "Enhanced Management" or "Regulatory Policy" for different oil and gas activities:

3.1 Well Pads and Facilities

Desired Outcomes	**What industry is expected to consider during their oil and gas activity planning phase**
No new disturbance within Old Forest and Riparian Reserve Zones. When disturbance is necessary: • Minimal new clearing in Old Forest and Riparian Reserve Zones. • Well pads positioned close to existing access. • Limited ground and vegetation disturbance. • Rapid ecological recovery or reduced time for restoration to commence.	Avoid Old Forest and Riparian Reserve Zones. Maximize, the use of existing or adjacent disturbance (well pads, rights-of-way, seismic lines) before any new disturbance is created unless doing so results in a greater disturbance, greater safety risk and/or negative environmental impacts. Clearing requirements (hectares) will be fitting for the permitted activity. More clearing will be permitted for multi-well pads and development wells than exploration (wildcat and outpost) wells. Well pads should be designed to minimize footprint and conform to topography through the use of rounded corners and irregular boundaries.Operators will minimize the amount of cumulative clearing by contacting other companies operating in the area to coordinate common infrastructure. Interim reclamation is utilized as appropriate.

3.2 Roads

Desired Outcomes	What industry is expected to consider during their oil and gas activity planning phase
No new disturbance within Old Forest and Riparian Reserve Zones. When disturbance is necessary: • Minimal new clearing (RoW) in Old Forest and Riparian Reserve Zones. • Limited ground and vegetation disturbance. • Rapid ecological recovery or reduced time for restoration to commence. • No parallel roads within logical access corridors. • Minimal number of linear features on the landscape. • Coordinated access with other applicants and/or sectors.	Avoid Old Forest and Riparian Reserve Zones. Maximize, the use of existing or adjacent disturbance (well pads, rights-of-way, seismic lines) before any new disturbance is created unless doing so results in a greater disturbance, greater safety risk and/or negative environmental impacts. Work with other companies on sharing access and right of ways. Ensure the proposed road class for a new linear route will not be greater than the road class of the route from which it originated. Design road and road networks to minimize the number of water crossings, total footprint, and new clearing. Design ROW to a width sufficiently narrow for safe travel, while addressing environmental concerns. Site specific cuts, fills and widening may be required to accommodate bends and slopes. In both Old Forest and Riparian Reserve Zones minimize clearing widths within the right-of-ways and minimize running surfaces. Approach and cross streams perpendicular to the water course where banks are low and the stream reach is straight and well defined.

3.3 Geophysical Activities

Desired Outcomes	What industry is expected to consider during their oil and gas activity planning phase
No new disturbance within Old Forest and Riparian Reserve Zones. When disturbance is necessary: • Minimal new clearing (RoW) in Old Forest and Riparian Reserve Zones. • Limited ground and vegetation disturbance. • Rapid ecological recovery or reduced time for restoration to commence. • Minimal number of linear features on the landscape. • Minimal number of water crossings.	Avoid Old Forest and Riparian Reserve Zones. Minimize new disturbance through the use of low and minimal impact seismic techniques and appropriate timing windows. Design geophysical programs to minimize the number of water crossing (using dead-ends), use existing disturbance* and demonstrate low/minimal impact seismic techniques (as described by industry standards). *Avoid additional disturbance to naturally regenerated historical wide bladed CAT lines when using existing disturbance. Promote natural regeneration and ecological recovery through access control, managing the mulch layer, strategic tree felling/bending and spreading coarse woody debris. Minimize line of sight (using doglegs, screens and meandering avoidance) to limit negative predator-prey impacts. Promote natural regeneration by limiting disturbance to soil, vegetation and duff layer. Controll access to encourage natural regeneration. Implement activities in a manner that reduces ground disturbance, protects root and duff layers, and creates micro-climates suitable for regeneration/revegetation.

3.4 Pipelines

Desired Outcomes	What industry is expected to consider during their oil and gas activity planning phase
No new disturbance within Old Forest and Riparian Reserve Zones. When disturbance is necessary; • Minimal new clearing (RoW) in Old Forest and Riparian Reserve Zones. • Limited ground and vegetation disturbance. • Rapid ecological recovery or reduced time for restoration to commence. • Minimal number of linear features on the landscape. • Minimal number of water crossings. • Coordinated pipeline corridors with other applicants, and use of existing road and pipeline corridors.	Use existing, unoccupied, disturbances for new pipelines. Route pipeline right of way to avoid senstive areas Minimizing the clearing within the right-of-way and the area needed for trenching and the working side within old forest or riparian reserve zones. Promoting natural regeneration by limiting disturbance to soil, vegetation and duff layer. Implement activities in a manner to manage that reduces ground disturbance, protects root and duff layers, and creates micro-climates suitable for regeneration/revegetation. Introduce slight bends in the right of way to interupt long line of sight impacts. At crossings minimize disturbance to stream bed material and banks. Maintain vegetation on stream banks wherever possible. Scehdule construction when the ground is frozen the minimize disturbance. Implement erosion control measures in advance of activity. Consider trenchless water crossing techniques Consider installing spare pipelines to prevent the need for future in-stream activity. Approach stream crossing perpendicular to the water course where banks are low and stream reach is straight and well defined.

3.5 Ancillary Activities and Temporary Workspaces

Desired Outcomes	What industry is expected to consider during their oil and gas activity planning phase
No new disturbance within Old Forest and Riparian Reserve Zones. When disturbance is necessary; • Minimal new clearing (RoW) in Old Forest and Riparian Reserve Zones. • Limited ground and vegetation disturbance. • Rapid ecological recovery or reduced time for restoration to commence. • Effective use of existing clearings.	Avoid Old Forest and Riparian Reserve Zones. Maximize the use of existing or adjacent disturbance outside of old forest and riparian reserve zones. Place ancillary sites and temporary workspaces (e.g. dug-out, plant sites, sumps, camp sites, equipment lay down areas) outside Old Forest and Riparian Reserve Zones. Promoting natural regeneration by limiting disturbance to soil, vegetation and duff layer. Implement activities in a manner to manage that reduces ground disturbance, protects root and duff layers, and creates micro-climates suitable for regeneration/revegetation. Controlling access upon completion of activities and during inactive periods to encourage natural regeneration.

Chapter 4:
Specific Guidance for ABA Wildlife

All applications requiring new land are required to consider ABA Wildlife in the development planning and application submission process. ABA Wildlife considers the intactness of Ungulate Winter Range (UWR) and Wildlife Habitat Areas (WHA) and risk ranks areas as ABA Status Normal, Enhanced Management and Regulatory Policy.

All applications impacting UWR and WHA must adhere to the Planning and Operational Measures (POMs) defined in the Environmental Protection and Management Guideline (EPMG) and online Environmental Information Management System (EIMS). This guidance provides specific information regarding key habitat features, wildlife objectives, operational and planning measures. Applications in areas identified as Enhanced Management or Regulatory Policy will receive additional consideration.

As per section 2.4 of this document (General Guidance for Enhanced Management and Regulatory Policy), only activities with no locational flexibility or alternate routing will be considered within Enhanced Management and Regulatory Policy areas. Every effort should be made to avoid impacts to these areas when planning oil and gas activities.

Applications impacting enhanced management and regulatory policy areas require a Mitigation Strategy. Mitigation Strategies must be prepared in accordance with Appendix B, (Mitigation Planning), of the EPMG. Applicants should apply the planning and operational measures, listed in the Environmental Information Management System, and consider the legal orders and General Wildlife Measures for site specific constraints and wildlife objectives associated with Wildlife Habitat Areas and Ungulate Winter Range.

UWR exceptions exist where the general wildlife measures, and designation objectives, allow for greater flexibility than the ABA Status would typically allow. Exceptions can be found online in the Environmental Information Management System.

ABA Status information and exceptions for all designated areas can be found online at:

- ABA Status Reports
- Environmental Information Management System

Chapter 5:
Specific Guidance for ABA OGMA

Old Growth Management Areas (OGMA) were established by the Ministry of Forests (MOF) to conserve biodiversity by retaining old forest values and attributes across the landscape over time. OGMA aim to retain forest structure; including vertical and horizontal complexity, diversity, light gaps, dead and downed woody debris; and provide habitat, dens and cover for rare, threatened and endangered species. OGMA are intended to be permanent and remain largely undisturbed for extended periods of time.

In 2014, 79 OGMA were legally established under ERAA in Dawson Creek. As such, OGMA have been added to ABA to manage for cumulative disturbance and ensure that development remains below the Managed Development Allowance (MDA) established by MOF. MDA allows for 10% disturbance in OGMA that are less than 100ha, and 5%, or 10ha (whichever is greater) in OGMA that are greater than 100ha.

By policy, the Regulator considers all OGMA in the decision making process. However, this consideration is discretionary for those OGMA that are only established under FRPA. Legal designation under FRPA and ERAA can be found in BCGW and in ABA Status Reports.

Activities proposed in OGMA where ABA Status is normal will be processed as routine applications. Guidance for routine applications can be found in the OGMA Planning and Operational Measures in the EPMG. Applications that exceed the MDA will be reported as Regulatory Policy in ABA.

The Regulator will escalate consideration in Regulatory Policy OGMA to ensure, no further development is permitted unless the applicant can demonstrate in a Mitigation Strategy that; (a)the area is below the MDA threshold, or (b) that development will not have an impact on old seral stage representation in the OGMA.

Applications impacting both ERAA and FRPA regulatory policy OGMA require a Mitigation Strategy. Mitigation Strategies must be prepared in accordance with Appendix B of the EPMG. In addition to site-specific measures to avoid, minimize and mitigate impacts to OGMA the report should include an assessment of forest cover that will be impacted by proposed development (listing the hectares and seral stage of any proposed cut), and include a program to re-establish forest trajectory upon completion of activity.

OGMA will supersede ABA Old Forest consideration for old growth retention in the Dawson Creek Timber Supply Area.

ABA Status information can be found online at: ABA Status Reports.

Chapter 6: Application Requirements

During the development planning process applicants are expected to review existing disturbance on the landscape and coordinate where possible to minimize impact on the ABA values. If an activity proposed in Northeast British Columbia (NEBC) will impact an ABA enhanced management or regulatory policy area, a mitigation plan that includes ABA specific requirements must be attached to the application.

6.1 Application Requirements

Effective September 1, 2015, all applications received by the Regulator must demonstrate how Area-based Analysis (ABA) has been considered in the design and planning process for all oil and gas activities.

Applicants are expected to determine if their proposed activity is in either the "Enhanced Management" or "Regulatory Policy" ABA Status Areas by downloading the shapefiles for each ABA Value from the Area-based Analysis section of the Regulator's website.

These datasets include all ABA status areas, including "Normal," "Enhanced Management" and "Regulatory Policy". Applicants should filter or symbolize the dataset to identify those areas that require consideration ("Enhanced Management" and "Regulatory Policy" areas).

To ensure applicants have the most current information available, the Regulator recommends that applicants regularly download the most current datasets as the ABA status will change over time. ABA status areas "Enhanced Management" or "Regulatory Policy" should be used for planning purposes. Area-based Analysis Enhanced Management or Regulatory Policy Areas should be considered in addition to all other environmental constraints (such as Parks and Protected Areas and Wildlife Habitat Areas).

Applicants are expected to notify the Regulator if a proposed development will impact an ABA "Enhanced Management" or "Regulatory Policy" area in the Application Management System (AMS) under the Stewardship Details dialog. Please note that AMS will auto-populate the value to indicate if ABA "Enhanced Management" or "Regulatory Policy" areas are impacted. When there is an impact applicants are expected to upload a mitigation strategy. Please note that ABA does not apply on Private Land.

6.2 Mitigation Strategy

Where a proposed development impacts an "Enhanced Management" or "Regulatory Policy" area the applicant is expected to provide a Mitigation Strategy justifying why the incursion is unavoidable and outlining measures that will be taken to minimize and

mitigate the impact. The mitigation strategy is a concise document and should be delivered with the application. Guidance for drafting a mitigation stratgey specific to ABA is outlined in Appendix B: Mitigation Planning, of the EPMG.

6.3 Construction Plans

The applicant is also advised to include ABA "Enhanced Management" and "Regulatory Policy" areas on Construction Plans as an area of special interest in addition to cutblocks, range tenures, guide outfitter area and indian reserves (For additional Information see Details: Maps and Plans, section 5.7 Oil and Gas Activity Appication Manual).

Chapter 7: Exemptions

7.1 Exemptions by the Regulator

The Regulator may exempt a person or a class of persons, e.g., all permit holders in a given area, from one or more of the environmental protection and management requirements for an operating area or an adjacent area if satisfied that, in the circumstances, it is not reasonably practicable for the person to comply with the requirement. Exemption requests must be formally submitted to the Regulator, to be reviewed and approved by the Executive Director, Permit Adjudication or Vice President, Applications.

7.2 Deviations

Exemptions differ from deviations, in the context of the Environmental Protection and Management Regulation (EPMR) and this guideline. Exemptions occur where permit holders are pursuing approval to be exempt from a specific regulation, as described above. A deviation is issued in reference to guidance, such as timing windows. Deviations to guidance are requested as part of a mitigation strategy, whereby the applicant and/or their qualified professional present acceptable mitigation strategies demonstrating how the proposed work will not negatively impact the environmental value.

For further information regarding deviations, see the Deviation to Timing Windows section of the Environmental Management and Protection Guideline.

Appendix A: Definitions

Area-based Analysis Definitions

Area-based Analysis (ABA)	Area-based Analysis (ABA) is an application review process developed by the BC Energy Regulator that provides a simplified and transparent framework to assess and manage oil and gas development related to environmental and cultural values. That assessment of current condition includes the impact of other sectors and natural disturbance, so it also measures cumulative effects of industrial development on the landscape, and provides to decision makers the incremental impact of the proposed activity.
ABA Status	ABA Status is an assignment of the level of risk stemming from the cumulative disturbance impact to ABA Values. ABA Status can be "Normal," "Enhanced Management" or "Regulatory Policy". "Enhanced Management" or "Regulatory Policy" identifies areas that are at higher risk from cumulative impacts.
ABA Values	ABA Values are environmental, ecological and cultural values against which cumulative impacts are measured. The values currently include Old Forest and Riparian Reserves Zones. Future values will include High Priority Wildlife, Ground Water, Air Quality, Water Quality, Agriculture Land, Private land values & Culture Heritage Resources.
ABA Value Datasets	These are spatial datasets delineated by ABA to map the spatial extent of each ABA Value.
Cumulative Effects	Cumulative environmental effects can be defined changes to environmental, social and economic values caused by the combined effect of present, past and reasonably foreseeable future actions or events on the land base.
Disturbance	ABA refers to disturbance as a measurement the anthropogenic Surface Land Use on the landscape. Disturbance is calculated as a percentage of land disturbed. From an ABA perspective this can be the percentage of Riparian Reserve Zone impacted by Surface Land

	Use, or the percentage of Old Forest in relation to the Forest Land Base.
Ecological Assessment Units	An Ecological Assessment Unit is an ecological management area that is defined for all values, based upon ecological characteristics and is at a scale that is relevant to the value. ABA uses Ecological Assessment Units as the area within which disturbance is measured.
Geophysical Activity	Geophysical activity refers to field activity and disturbance related to the capture of geophysical data for subsurface geological studies. In the context of NEBC this refers to 2D and 3D seismic surveys conducted for petroleum exploration purposes. Geophysical activity is characterised by linear seismic cutlines on the landscape.
Intactness	Intactness is a measurement of land that is not impacted by Surface Land Use and is expressed as a percentage of the ecological assessment unit.
Natural Disturbance Unit (NDU)	An NDU is a unit of land that is delineated based upon landscape disturbance patterns and regional ecological successional dynamics. NDU are based upon location, climate, vegetation, and natural disturbance dynamics. In NEBC these areas include Boreal Plains, Northern Boreal Mountains, Omineca, Wet Mountains, Wet Trench and Boreal Foothills.
Oil and gas activity	Oil and gas activity as defined in Section 1(2) of ERAA.
Old Forest	Old Forest is an ABA Value. Old Forest simply represents forest stands that are old. The classification of Old Forest is based upon stand type and age. Old Forest polygons are created from the Vegetation Resource Inventory.
OGMA (Old Growth Management Area)	An area that contains, or is managed to replace specific structural old-growth attributes, and is mapped and treated as a special management area.

Riparian Reserve Zone	A riparian reserve zone is the interface between a water feature (river, stream, wetland and/or lake) and the adjacent land, as defined in sections 22, 23 and 24 of the EPMR.
Surface Land Use	Surface Land Use (SLU) is a general term used to describe any anthropogenic land disturbance with a lasting impact on the landscape. This includes forestry, industry and infrastructure disturbances such as mining, pipelines, well sites, recreational areas, windfarms and roads. Surface Land Use is divided in four classes for ABA: Oil & Gas, Non-Oil & Gas, geophysical and cutblocks.
Water Management Basin	Water Management Basins are drainage basins (river basin/catchment areas) delineated by the BCER for the purpose of managing water resources. In general terms a drainage basin is an area from which all precipitation flows to a single stream or set of streams. The boundary between drainage basins is a drainage divide: all the precipitation on opposite sides of a drainage divide will flow into different drainage basins.
Wetland	A wetland is any area that holds water either temporarily or permanently. In ABA a wetland is defined using the EPMR wetland classes as defined in (s)23.