



Offsite Environmental Mitigations Guideline

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About the Regulator

The BC Energy Regulator (Regulator) is the single-window regulatory agency with responsibilities for regulating energy resource activities in British Columbia, including exploration, development, pipeline transportation and reclamation. The purpose of the Regulator is to regulate energy resource activities in a manner that protects public safety and the environment, supports reconciliation with Indigenous peoples and the transition to low-carbon energy, conserves energy resources and fosters a sound economy and social well-being.



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.

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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:



Protects public safety and the environment



Supports reconciliation with Indigenous peoples and the transition to low-carbon energy



Conserves energy resources



Fosters a sound economy and social 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.

Manual Revisions

The Regulator is committed to the continuous improvement of its documentation. Revisions to the documentation are highlighted in this section and are posted to the [Energy Professionals](#) section of the Regulator’s website. Stakeholders are invited to provide input or feedback on Regulator documentation to servicedesk@bc-er.ca or submit feedback using the [feedback form](#).

Version Number	Posted Date	Effective Date	Chapter	Summary of Revision(s)
1.0	July 23, 2024	July 22, 2024	All	This is a new document; users are encouraged to review in full.

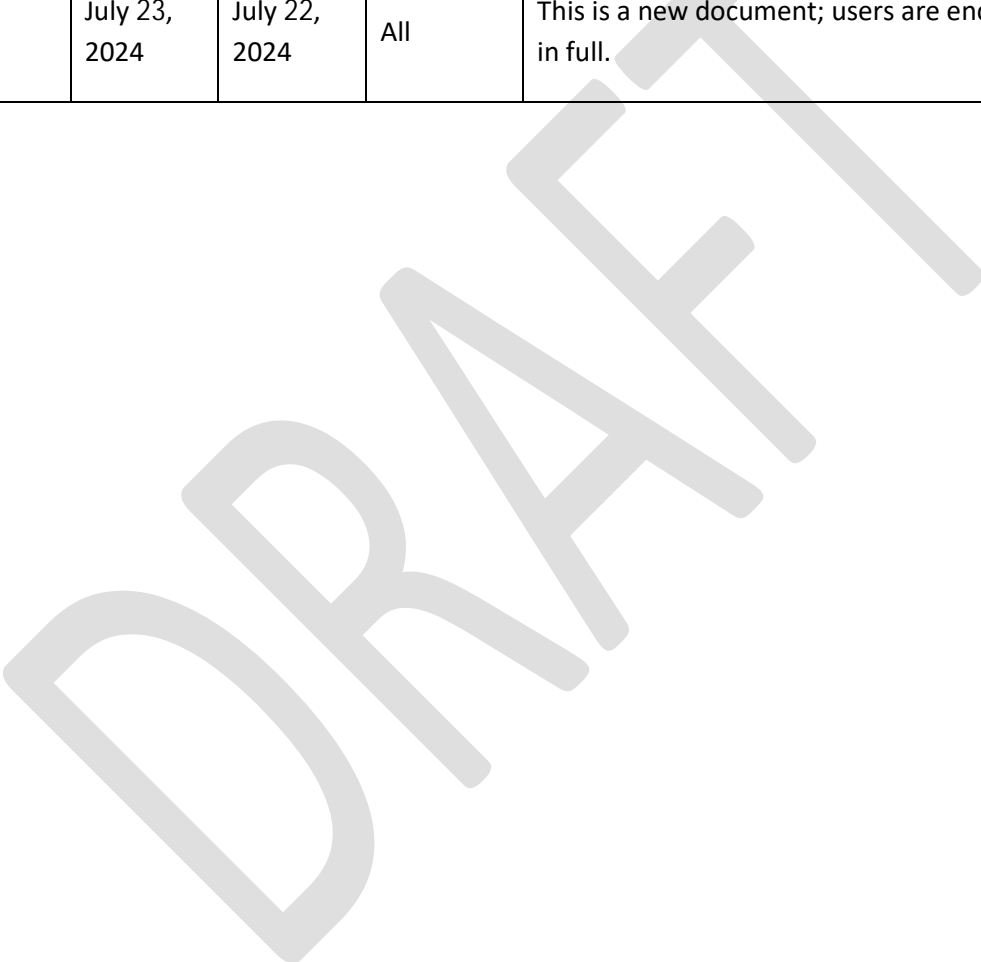


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Additional Guidance

As with all Regulator guides, 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.

Preface

About

The Offsite Environmental Mitigations Guideline is a reference document for energy resource activity applicants and permit holders. The guideline assists energy resource companies and those potentially affected by energy resource activities to understand the requirements for offsite environmental mitigations. This guideline does not take the place of the applicable legislation. It outlines the minimum requirements for offsite environmental mitigations.

The guideline has been prepared to be as comprehensive as possible; however, it is not all encompassing and may not cover all situations. Where circumstances or scenarios arise that are not covered by this guideline, contact Regulator staff for clarification and assistance.

This document will continue to be updated to support the spirit and intent of government's commitment to moving towards broader cumulative effects management that balances responsible resource development with the practice of treaty rights and environmental values.

Guideline Scope

This guideline is limited in scope to the Regulator's application processes, and the authorities and requirements established within *Energy Resource Activities Act* (ERAA), or specified enactments established thereunder. Carrying out energy resource related activities may require additional approvals from other regulators or create obligations under other statutes. It is the permit holder's responsibility to know and uphold all their legal obligations.

Offsets are a mitigation technique that is anticipated to grow in use in the northeast of British Columbia, specific land use plans identify designated areas where offsets may be triggered.

Compliance and Enforcement

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

Chapter 1 Offsite Environmental Mitigations

1.1 Offsite Environmental Mitigations Requirements

Applications for energy resource activities are expected to demonstrate consideration of potential impacts to environmental values, provide rationale for site selection and design, and outline mitigation measures necessary to protect the environment. When activities are proposed within an Energy Resource Management Area established by Order under the ERAA, proponents may also propose offsets in the form of “offsite environmental mitigation activities” within the corresponding established Mitigation Area.

Landscape-level plans may require offsetting when careful siting, design, and on-site mitigation measures are not expected to alleviate potential adverse impacts to specific environmental values. In such cases, the development application (for example Category 3 in the HV1-C Gundy Complex Plan) must propose a compensatory restoration and/or enhancement plan to offset the residual adverse impact from the proposed activity.

Offsite environmental mitigations provide proponents with an opportunity that would not otherwise be acceptable to propose energy resource activities that require incursions into identified areas or values as defined by an approved landscape-level plan and is within an Energy Resource Management Area or cause unavoidable impacts to environmental values not otherwise addressed by plan specific mitigation. The Regulator will consider offsite environmental mitigations only after all options to avoid, reduce and mitigate impacts have been duly and carefully considered.

A proposed compensatory restoration plan must be submitted with the application in the form of an “Offsite Environmental Mitigations Plan” (see Chapter 2). This plan must demonstrate how a negative impact is counterbalanced by the benefits of the measures implemented to offset when residual impact is expected despite avoidance, minimizing, or on-site restoration measures. This may include conventional restoration-style projects, such as compensating for an incursion into a riparian buffer by restoring off-site riparian habitat at a ratio that accounts for time lags and restoration effectiveness. Other options for offsetting, such as soil restoration efforts, will also be considered. Financial offsets will not be considered.

Proponents seeking to carry out activities that will require offsetting are encouraged to discuss offset opportunities, including candidate restoration areas and proposed ideas, through pre-engagement with Nations.

1.2 Offsite Environmental Mitigation Considerations

The suite of activities considered as potential offsets includes, but is not limited to:

- Restoration activities on legacy disturbances that do not have a regulatory restoration obligation (e.g. such as historic seismic lines; improvement of stream crossings on permitted roads).
- Ecological restoration projects in partnership with one or more First Nation.

To determine suitability of an offsetting activity, applicants are expected to consider:

- Offset proximity to potential impact: consideration should be given to maximizing the benefit of the offset relative to the impact and, depending on the specific circumstances, may be more appropriate either closer or further from the location of the development footprint being considered.
- Offset projects may not need to be “in kind” with the potential impact: if opportunities to positively impact the ecosystem exist that support other values or overall ecosystem health, these could also be evaluated and considered.
- Any relevant landscape-level plan: may also provide guidance and direction on prioritization of locations and activity types.
- Additional restoration work on sites which have received a Certificate of Restoration but may not meet current restoration standards or First Nation objectives for the area (e.g., as described in the [Ecologically Suitable Species Guideline](#)) and thus may represent an opportunity for additional ecological restoration.

Offsets are environmental in nature and linked to a specific development project. Offsets are not obligatory restoration required under the Dormancy and Shutdown Regulation, the Environmental Protection and Management Regulation, or the Blueberry River First Nation Implementation Agreement Regulation (e.g., Disturbance Fees).

A compensatory habitat offsetting ratio must be identified by a qualified environmental professional (QEP) based on site-specific conditions and magnitude of impact. A ratio of 4:1 or equivalent (by area or impact) is the recommended base level that may result in a neutral level of offset.

Chapter 2 Applying for Offsite Environmental Mitigations

Applications for energy resources activities are made through the Regulator’s Application Management System (AMS). When offsetting is included as part of an application, the associated activities tab must be completed for the “Offsite Environmental Mitigations” and an Offsite Environmental Mitigation Plan must be uploaded. The spatial data must include and reference the associated activity type (AS_TYPE) for Offset (OSET). Applicants must also ensure they are using the most recent version of the Requirements for Consultation and Notification Regulation (RCNR) or Rights Holder Engagement Line List. Please refer to the [Oil and Gas Activities Application Manual](#) for further information on submitting an application.

2.1 Offsite Environmental Mitigation Plans

The Offsite Environmental Mitigation plan format and requirements are similar to the mitigation plan requirements outlined in the [Environmental Protection and Management Guideline](#) but with additional requirements specific to offsetting. Landscape-level plans may use different terminology; for example, the HV1-C Gundy Complex Plan refers to the Offsite Environmental Mitigation Plan as an “Impact Offsetting Plan.”

This guideline is based in part on BC Ministry of Environment and Climate Change Strategy's Policy for Mitigating Impacts on Environmental Values, 2014. ERAA operates in a model of professional reliance, whereby the professional must present and uphold the appropriate mitigation. Offsite Environmental Mitigation plans must be completed by a QEP, who is an individual registered as a professional under the *Professional Governance Act*. The Regulator expects the QEP to provide clear explanation of how the offsite environmental mitigation is counterbalancing the residual impact of the development to impacted values and will be commensurate to the magnitude of impact.

2.2 Offsite Environmental Mitigation Plan Requirements

Proponents seeking to implement offsite environmental mitigations are encouraged to discuss candidate restoration sites and proposed ideas through early pre-engagement with Nations.

The Offsite Environmental Mitigation Plan must be comprised of the following information requirements. If the minimum information requirements have not been appropriately addressed, additional information will be requested, and the application will not be processed until the documents are completed to the satisfaction of the Regulator. The minimum requirements include:

- 1. Project Overview:** Provide a detailed description of the planned energy resource activity. This should also include reference to other application deliverables (e.g., Assessment Report and Environmental Management Plans).
- 2. Description of the Project Effects:** Provide planning and operational strategies that will be incorporated in the activity lifecycle to minimize any potential impacts to the identified values. Provide these operational modifications and mitigation commitments in the context of the Mitigation Hierarchy and rationale for moving through to each step:

Avoidance: List the measures that will be taken to avoid impacts to the identified values. Where avoidance is not practicable, the applicant must include an explanation as to why a potential impact is unavoidable.

Minimize: List planning and operational strategies that will be incorporated in the activity lifecycle to minimize any potential impacts to the identified values. Describe how these measures reduce risk and minimize potential impacts.

Mitigate: List specific measurable mitigation measures and actions that will be undertaken by the operator to reduce any potential adverse or residual impacts. Relevant environmental management plans should be referenced. These measures may include erosion control, least-risk timing windows, onsite environmental monitoring during construction, use of matting, use of minimal-disturbance equipment, line-of-sight

management, access control, retention of vegetation, re-establishment of security cover or habitat features. In addition, the plan should include post construction effectiveness monitoring.

Restore: List site specific commitments to expedite the restoration of the site upon completion of construction. Relevant environmental management plans should be referenced.

Offset: Where a residual impact is identified identify the geographic extent of the residual impact.

3. **Offsetting Components**: Describe the offsetting site location, potential access route, and activities that will be undertaken to implement the offset.

Offsetting Site Location: Provide description of legal location (e.g., parcel identifier [PID]) of proposed offset activity location and rationale for the selected site(s). This section should also describe the access routes, and requirements to access the offsetting site.

Offsetting Activities: Provide a description how the offset will be implemented for each component/phase. This section should include reference to construction phasing, drawings and/or planting plans, as appropriate.

4. **Offsetting Site Assessment**: To document the current conditions of the offsetting site, the BCER recommends that the site assessment is completed in snow-free conditions to obtain reliable information regarding pre-construction conditions. The presence of snow can limit the ability for a meaningful assessment to take place. For example, snow may hamper an assessor's ability to confirm the presence/absence of species, habitat areas, natural drainage courses and stream characteristics, among others. When assessments must be completed in snow covered conditions, it is to be at the discretion of the QEP. Rationale for the timing and references to any relevant management plans must be noted in the proposed mitigation measures. The assessment at a minimum must include:

Offsetting Site Description: To document current land use in the vicinity of the proposed offsetting activity and provide planning. The area assessment consists of a 1:20,000 scale or larger recent air photo, satellite imagery base, or better, showing the surface land use and on which the following features are plotted:

- Government's Environmental Objectives" (GEOs) (refer to the Environmental Protection Management Regulation Part 2 Division 1 Governments Environmental Objectives).
- Ecological and cultural values outlined in applicable landscape-level plan.
- Surface water features and other significant terrain features that may limit development.
- Linear features, including roads and pipelines.
- Existing energy resource activities and ancillary activities.
- Location of the proposed activities.

Methodology: An overview of site assessment methodology and sampling procedures utilized to gather site information. This methodology should include figures, photographs, and field logs.

Environmental Values: The proximity of the offsetting site to known environmental and cultural values identified in applicable landscape-level plan, including known occurrences of cultural, ecological and wildlife habitat features. This includes proximate known occurrences of species or ecosystems at risk, known ecological, or wildlife habitat.

Landscape form and function: Describe the biogeoclimatic ecosystem classification (BEC) zone, slope, aspect, site stability, drainage patterns, and coarse woody material presence.

Vegetation: Describe the vegetation community composition – overstory and understory, woody species density, noxious/invasive plants.

Wildlife and Human Use: Based on signs from site – tracks, burrows, nests, camera traps, and based on information received in pre-engagement.

Waterbodies: Streams, wetlands, lakes (riparian classification).

5. **Rationale and Determination of Impact Offsetting Required:** Determine the magnitude of the residual impact and the scale of offsetting required to counterbalance the residual impact. This is to be at the recommendation of the QEP.

Residual Impact: Include discussion of the magnitude (the total area of residual impact in relation to the value), and the methods used to determine residual impact.

Rationale: Provide rationale for offset site selection, type of offset activity and proposed compensatory habitat offset ratios.

Explanation of Counterbalance: The report must provide an explanation as to how the residual impact has been counterbalanced by the offsite environmental mitigation implemented and a discussion of how the balance was quantified. Include a QEP signed statement that the residual impact has been counter balanced.

6. **Monitoring and Reporting:** The report must provide a description of the monitoring methods, criteria and indicators that will be used to determine success and reporting structure. If the implementation of the plan requires access to lands, water sources or waterbodies which the proponent doesn't have the required approvals/authorizations to access, a description of the steps proposed to be undertaken to obtain any additional approvals and/or authorization is required for future access.

Monitoring Methods: Describe the methods that will be used for monitoring and the proposed reporting methods for monitoring reports. Monitoring and reporting of measures to offset should be undertaken for a period of time sufficient to allow for:

- biological or physical changes to be reflected in the data collected,
- possible adjustments to the monitoring to better estimate the biological function, and
- the restored, enhanced or created habitat to reach full ecological functionality.

Success Criteria: Outline of key indicators that will be monitored and how successful implementation of the activity is measured. The success criteria must also include contingency measures, and associated monitoring measures that will be implemented if deficiencies are detected.

Timelines: Provide timeline for activity completion, ongoing monitoring and successful implementation of the offset. Monitoring should be designed with enough time to confirm that the measures to offset have been effective in counterbalancing the residual impact and may identify the need for contingency measures should deficiencies be found.

- 7. Summary of Offset Commitments:** Clear and concise summary of the offset commitments. Appendix B provides a template of the summary which must be provided.

Chapter 3 Carrying Out Offsite Environmental Mitigations

Proponents are responsible for implementing offsetting plans and monitoring their effectiveness, as well as for reporting on implementation and the results of monitoring.

3.1 Reporting

Permit holders are expected to carry out the monitoring and reporting described in the Offsite Environmental Mitigation Plan (see 2.2 above) and maintain records. These reports should provide details of measures to mitigate changes, corrective actions or contingency measures that were followed if measures to mitigate or offset did not function as described. The monitoring and reports will be made available to the Regulator upon request, subject to future audit. In addition, the Regulator may specify additional reporting requirements and frequency in permit conditions. Once the QEP determines that the Offsite Environmental Mitigation Plan meets the specified criteria, a final report must be submitted via email to the Regulator. The final report should be emailed to the sensitiveplanningareas@bc-er.ca.

3.2 Changes to Offsite Environmental Mitigation Plans

The Regulator recognizes that unforeseen circumstances may arise when implementing offset plans. While applicants are encouraged to build contingency into their Offsite Environmental Mitigation Plan, should changes to the finalized plan be required after approval the Regulator should be notified via the sensitiveplanningareas@bc-er.ca prior to implementing the changes. Some changes to the Offsite Environmental Mitigation Plan may require a permit amendment (for example change to location and/or key offsetting components) while others (for example substituting an ecologically suitable species) may be limited to a notification prepared by a QEP.

Appendix A Definitions

Ecological values: means streams and associated riparian areas, forest values, wetlands, mineral licks and/or connectivity corridors that are identified as being important for assuring the integrity and well-being of ecological systems over time.

Energy resource management area: means the area identified under Ministerial Order within which an activity may trigger an offsetting requirement.

Mitigation area: means the area identified under Ministerial Order within which the offset (offsite environmental mitigation) may be located; this may not be the same as the associated energy resource management area.

Mitigation hierarchy: means the order of priority for selection of mitigation measures. As defined in the Policy for Mitigating Impacts to Environmental Values ([Environmental Mitigation Policy](#)).

Mitigation measure: means a tangible conservation action taken to avoid, minimize, restore on-site, or offset impacts on environmental values and associated components, resulting from a project or activity. As defined in the Policy for Mitigating Impacts to Environmental Values ([Environmental Mitigation Policy](#)).

Mitigation plan: means the proponent's commitment to mitigation and monitoring including the specific measures that will be carried out. As defined in the Policy for Mitigating Impacts to Environmental Values ([Environmental Mitigation Policy](#)).

Offset: means to counteract, or make up for, an impact on an environmental component that cannot be adequately addressed through other mitigation measures in the hierarchy; in ERAA, the reference to "off-site environmental mitigation activities" as a related activity is referring to offsets. This definition is not inclusive of financial offsets.

Old Forest: means pursuant to RSEA, Old Forest includes stands greater than 140 years old.

Qualified Environmental Professional (QEP): means an individual who:

- Is registered in British Columbia with a professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization; and;
- Has suitable education, training, experience, accreditation, and knowledge, which may be relied on to provide advice within their area of expertise.

Residual impact before offset: means an impact that adversely affects one or more environmental components, and remains, or is predicted to remain, after efforts to "minimize" and/or "restore on-site". as defined in the Policy for Mitigating Impacts to Environmental Values ([Environmental Mitigation Policy](#)).

Riparian Reserve Zone (RRZ): means a zone established by Government to protect fish, wildlife habitat, biodiversity value and water values. Refer to HV1-C Gundy Complex Plan, section 7.8.1, table 2 for minimum expected widths for RRZ.

Regional Strategic Environmental Assessment (RSEA): means the RSEA, undertaken through the Environmental Stewardship Initiative (ESI) and which is currently leading various cumulative effects projects in the Northeast region. RSEA is a collaboration between seven Treaty 8 Nations and the Province of BC.

Appendix B Example Table of the Offsite Environmental Mitigation Commitments

The following table provides a template highlighting three examples to provide the summary of offset commitments (described in Chapter 2.2(7)).

Environmental Value	Measure for Avoidance	Measures Planned for Minimization	Measures Planned for Mitigation	Measures Planned for Restoration	Area of Residual Impact	Proposed Offsite Environmental Mitigation (Offset)	Assessment of Offsite Environmental Mitigation comments
Riparian Reserve Zone	Explain what planning measures were taken to avoid the value.	Explain what planning measures were taken to minimize the impacts to value.	Detail specific mitigation commitments. ex; HDD crossings of riparian zone.	Detail specific restoration requirements. E.g., Revegetating a lay down following construction.	Impacts to 0.06 ha of riparian reserve zone	Detail the offsite mitigation actions. E.g., restoration of riparian reserve zones at legacy crossings within the Mitigation Area	Statement from the QEP on how they believe the Offsite Environmental Mitigation will counterbalance the remaining impact.
Old Forest	Explain what planning measures were taken to avoid the value.	Explain what planning measures were taken to minimize impacts to the value.	Detail specific mitigation commitments E.g., HDD Crossing of the Old Forest Polygon.	Detail specific restoration requirements. E.g., supplemental planting to increase buffer and decrease edge effect near Old Growth Stands adjacent to cleared area.	Impacts to 0.96 ha of old forest	Detail the offsite mitigation actions. E.g., restoration project in partnership with neighboring First Nation, detailing objectives of the project and specific activities. These points may be supplemented with more detail in an appendix.	Statement from the QEP on how they believe the Offsite Environmental Mitigation will counterbalance the remaining impact.
Wildlife Habitat Areas (WHA)	Explain what planning measures were taken	Explain what planning measures were taken	Detail specific mitigation commitments. E.g., Performing	Detail specific restoration commitments. E.g., Fisher denning boxes	N/A	N/A	N/A

Environmental Value	Measure for Avoidance	Measures Planned for Minimization	Measures Planned for Mitigation	Measures Planned for Restoration	Area of Residual Impact	Proposed Offsite Environmental Mitigation (Offset)	Assessment of Offsite Environmental Mitigation comments
	to avoid the value.	to minimize impacts to the value.	works within the least risk timing window for the species the WHA is designated for	installed on trees 250m or more outside of the activity site and within suitable habitat type			