Overview

BC Environmental Mitigation Policy

Boreal Caribou

Continuing work
PURPOSE: Decision-support tool

- support timely, informed, and transparent decisions
- improve the quality, transparency, and consistency of information to support decisions
EMP – the basics

POLICY:
All feasible measures are considered at one level of the mitigation hierarchy before moving to the next level – avoid, minimize, restore on-site, offset

Documented in a mitigation plan

PROCEDURES: guidance, principles
EMP – legal implications

The EMP does not convey legal authority

- It supports existing legislation or legal requirement
- Any activities must be carried out in accordance with the relevant legislation, conditions of the approval document, and/or other legal requirements
EMP Application – when? how?

• New or existing authorizations, where statutory decision required
• Decision as to which, where, what amount and types of mitigation will be needed rests with the statutory decision-maker
• Responsibility for mitigation rests with proponent
Legislative Framework

Enabling natural resource statutes and their subordinate regulations

- Mines Act
- Oil and Gas Activities Act
- Land Act
- Forest Act [pertinent FRPA sections]
- Water Sustainability Act
- Transportation Act
- Environmental Assessment Act
- Environmental Management Act
Offset

• Definition:

  • Offset – (v) to counteract, or make up for, an impact on an environmental component that cannot be adequately addressed through other mitigation measures in the hierarchy
Offsets - Principles

• **Last resort** in mitigation hierarchy.

• Offset measures deliver tangible, measurable **on-the-ground outcomes** to make up for impacts to an environmental value; conservation measure is **linked** to the predicted impact.

• Measures are **additive /incremental** to activities planned or underway.
Offsets - Principles

- **Like-for-like** and on-site or in-proximity measures are considered first.
- **Responsibility** for offsets rests with the proponent.
- Offset measures are **secured for duration** of the impact.
- **Residual impact before offset** should be clearly defined to allow assessment of risk and to determine the **ecological equivalency** of the residual impact.
Offsets - Conservation mechanisms

Onsite
- Restoration above regulation standard
- Habitat creation

Offsite
- Restoration off-site
- Land Securement
  - Land acquisition; relinquishment of tenure; land lease; Land Act Reserves, notations of interest; Rezoning and transfer of development rights
- Conservation covenants
- Population management measures
Financial Offsets –
When is an in-lieu payment appropriate?

• Effects to be mitigated require actions that proponent is not authorized to carry out (e.g. population management)

• Multi-proponents in the area affecting the same value (requires larger scale mitigation that is reasonable for a single proponent to undertake)

• Most offset agreements involve a combination of proponent-conducted offsets and in-lieu payments
Use of a Financial Trust

- Must ensure the payments are guaranteed to go towards the intended measures
- Most trusts have little to no control by government or accountability to government
- The in-lieu payment arrangement must be legal under the *Financial Administration Act*
The EMP - Key take-away points

• Endorsed by the Natural Resource Board for implementation across the NR sector

• Guidance for mitigation planning; a decision support tool: apply the mitigation hierarchy, link mitigation to the impact

• No new legal requirements; supports existing legislation; not no-net-loss policy

• Voluntary for proponents

• Evolving
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2003 - Canada classifies as threatened
2008 - BC classifies as threatened
2011 - BC approves the Boreal Caribou Implementation Plan (BCIP)

• Goals
  Decrease the rate of population decline
  Reduce risk of extirpation

• Objectives
  Protect Habitat to provide future recovery opportunities
  Recruit capable habitat through restoration
  Minimize the size of industrial footprint
  Reduce predators and suppress wildfire
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2012 – Canada published the Boreal Caribou recovery strategy (SARA)
2011 to 2016 – BCIP implementation, research and effectiveness monitoring

BCIP
- Established habitat management areas in forestry and oil and gas regulations
- Established operating practices for oil and gas
- Established Resource Review Areas
- Research and effectiveness monitoring program

Research and effectiveness monitoring results
- Improved understanding of population and habitat distribution
- Improved understanding of the drivers of population decline
- Improved understanding of effective restoration techniques
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Area captured in proposed Boreal Caribou Management Regime

Core – 2,564,798 has.
Range – 4,805,603 has.
Total – 4,805,603 has.
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Improved understanding of the factors resulting in declining populations

Diagram showing relationships between factors such as Proportion of early seral habitat, Prey Density, Wolf Density, Adult Mortality, Lambda, Linear Feature Density, Wolf Efficiency, and Recruitment.
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2013 – 2016 actual counts (minimum)

2013 - 952
2014 - 723
2015 - 678
2016 - 728
BC is revising the Boreal Caribou Implementation Plan

Proposed New Goals guiding plan revisions

• Maintain a positive habitat trend across the boreal caribou range
  — Habitat condition monitoring
• Stabilize and achieve self-sustaining populations across the boreal caribou range.
  — Lambda
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Habitat Condition

- Most of the habitat areas are not consistent with the definition of critical habitat in the Federal Boreal Caribou Recovery Strategy (65% criteria)
- Current habitat is not in a condition to support self sustaining populations without continuous management intervention
- Propose to manage both early seral and linear features to maintain a positive habitat trend
  - Anthropogenic creation of early seral and linear features
  - Recognize industrial Land use patterns
    - Oil and gas – linear features
    - Forestry – early seral
    - Change in level of industrial land use over time
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Maintain a Positive Habitat Trend

- Proposed management of linear features (oil and gas development)
  Require a net decrease in the density of linear features within core habitats by applying habitat offsets (4:1) for future development impacts across range habitats. Offsetting will only be conducted in the core habitats and will result in a positive habitat trend over time

- Proposed management of early seral (forestry development)
  Establish an early seral forestry objective of initially <6% across each Boreal Caribou range
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Process of developing the offsetting ratio

- Recommendation of the BCIP technical drafting team
- Technical drafting team comprised of professional and technical staff involved in caribou management, environmental mitigation policy development, and species management planning
- Need a concrete number in the plan for management purposes, certainty, fairness, efficiency, transparency
- No existing standard method to calculate a ratio, but there is existing practice
- Propose an interim number in the plan and seek feedback. If a good rationale exists for an alternative it will be considered
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Considerations in setting an offsetting ratio

• Maintain opportunities for oil and gas development
  • Existing tenures
  • Cost implications
• Offsetting will be implemented with other management actions that will have a positive impact to caribou and their habitat
  • Management of early seral
  • Management of other drivers of decline
  • Proposing other additional restoration
  • Existing regulatory requirements
  • IOPs (mitigation hierarchy)
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Considerations in setting an offsetting ratio

- **Uncertainty**
  - Pace of development and resulting rate of habitat condition improvement
  - Time lag
  - Restoration failures
  - Effectiveness of restoration techniques
  - Impaired versus removed habitat
  - Magnitude of effect on predator effectiveness
  - Amount of restoration in addition to offsetting
  - Functional versus ecological restoration

- **Practice**
  - Most past practice based on an equivalency goal
  - Most practice based on large projects with long TATs
  - Adaptive management and ability to adjust ratio
  - Range restoration plans
  - PNCP
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Requiring Offsetting

• Regulatory approach provides certainty, fairness, consistency and efficiency.
• Changes to OGAA under consideration
  — Off-site restoration an oil and gas activity
  — Requirements for the Regulator
  — Requirements for the applicant
  — Requirements for the permittee
• Guidance to OGC, applicant and permittee
• Range restoration plans
Continuing Work – Boreal Caribou

Revise the BCIP
- Public review and comment on a draft revised BCIP

Continuing research on the drivers of decline

Restoration
- Plan - Range restoration planning
- Do – Conduct restoration
- Monitor – Range restoration monitoring
- Adapt – Adjust plans/actions

Regulatory, operational policy, guidance
Continuing Work - EMP

• Development of an “in-lieu offset calculator”
• Guidance for government to accept in-lieu offset payments
• Identify best options for governance of in-lieu offset payments
• Expand EMP to specifically address aquatic /wetland application
• How BC will maintain /secure an offset for the duration of the impact
Thank You

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